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Exhibit No. _____
Worldwide Court
Reporters, Inc.

**UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF LOUISIANA**

**United States
v.
BP Exploration & Production, Inc., et al
Civil Action No. 10-4536**

Penalty Phase

EXPERT RESPONSE REPORT

of

FREDRIC L. QUIVIK, PhD.



12 September 2014

HIGHLY CONFIDENTIAL

Quivik Expert Response Report—BPXP

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Appendix A: Documents Considered

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I. SUMMARY OF OPINIONS

To the extent that Professor Daines claims that only BP Exploration and Production Inc. (BPXP) directed and managed BP's operations in the Gulf of Mexico, including the Macondo well, he is incorrect. BP documents and testimony of BP officials and workers show that the BP group also directed and managed BP's operations in the Gulf of Mexico, including the Macondo well.¹

II. GENERAL REMARKS

A. Personal Background/Qualifications

I am Fredric L. Quivik, professor of history at Michigan Technological University and a consulting industrial historian. I prepared an Expert Report in this matter for the U.S. Department of Justice in August 2014. At the same time, experts for the defendants prepared and submitted Expert Reports. The report of Robert Daines touches upon topics about which I offered expert opinions in my August 2014 report. This Expert Response Report is written to address certain of his opinions. Since I submitted my Expert Report in August, there have been no changes or additions to my resume, which I attached to that report.

B. Compensation

I am still being compensated by the U.S. Department of Justice as an expert witness in the case *U.S., et al, v. BP Exploration & Production Inc., et al*, at the rate of \$190.00/hr. for pre-trial consulting and at the rate of \$380.00/hr. for depositions and trial testimony.

C. Materials Considered and Methods Used

The materials I have considered in preparing this Expert Response Report include documents I previously studied relative to the BP group, including BP p.l.c., BPXP, and associated corporations and individuals. In addition, I considered documents that Prof. Daines cited in his report. Specific references upon which I based my findings are cited in the footnotes of the report.

¹ BP p.l.c. refers to its entire global enterprise as BP, BP group, or the group, which is defined as BP p.l.c. and its subsidiaries, including its U.S. subsidiaries; see BP, Annual Report and Form 20-F for 2010, p. 3 (Trex-06033).

III. COMPLETE STATEMENT OF OPINIONS AND THE REASONS AND BASES THEREFOR

This Expert Response Report focuses on certain statements made and opinions expressed primarily in Section VI of Robert Daines' Expert Report. In light of the opinions expressed by Professor Daines, there are three points I will stress in this Expert Response Report. They concern: 1) the distinction between corporate governance of BP's subsidiaries and management of BP's operations; 2) the recognition of that distinction in BP's corporate governance scheme; and 3) the role of officials of the BP group, who had no BPXP hat or had little awareness of their BPXP hat, in managing BP's operations in the Gulf of Mexico, including at the Macondo well, and in managing BP's response to the *Deepwater Horizon* disaster. In this Report, I use the terms "BP" or the "BP group" to refer generally to BP p.l.c. and its subsidiaries. Where it is relevant, I refer to a specific corporate entity (e.g., BP p.l.c., BPXP, BP America Production Company, etc.) by name.

A. Distinction between Corporate Governance and Management of Operations

Most of Prof. Daines' Expert Report concerns corporate governance.² Daines writes little, however, and about the extent to which BP managed operations in the Gulf of Mexico, and in particular the extent to which BP managed operations at the Macondo well; he writes little about BP's management of the response to the Macondo disaster; and he writes little about the extent to which BPXP managed those operations. Daines' opinions about management of operations are limited to parts B and C of section VI and part B of section VII.³

In part B of section VI, Daines focuses on management decisions concerning the investment of BP's financial resources in BP operations, and he quotes from a BP document, "Corporate Structure and Financing Process Guidance." He notes that the BP group is organized and governed through a system of delegated authority and that authority to commit the group to investments is exercised by a manager of the relevant segment or function through a Finance Memorandum (FM). (I wrote extensively about BP's organizational structure of segments and functions in my Expert Report.) He then states that some BP group managers have authority to commit group resources, but that authority does not trump the delegated legal authority of the legal entity's (BP subsidiary's) directors and officers.⁴ BP's process is more complex than Daines' summary suggests. It is important, in understanding BP's management of operations, to look more closely at the guidance provided in "Corporate Structure and Financing Process Guidance," especially for financing transactions.

² My expert opinions and reports, on the other hand, focus on operations, and especially management of operations, not on corporate governance.

³ Expert Report of Robert Daines dated 15 August 2014, pp 30-33, 36-37.

⁴ Daines Report, 30-32.

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As Daines notes, the decision of *whether* to make an investment rests with the segment or function (not a subsidiary). Once an appropriate manager has decided to invest in an undertaking, the process then goes to BP's treasury and tax functions, which have the authority in the BP system to develop a Corporate Structure and Financing Note (SFN), which becomes the governing document for the undertaking. As BP's "Corporate Structure and Financing Process Guidance" states it, "the choice of the legal entity through which to make that investment and how to *finance* [emphasis in the original] that investment ('From which BP legal entity will the funds be applied, and in what form?') is reserved for Treasury and Tax, and is governed by the SFN process, as above."⁵

As David Bucknall, the treasurer for the BP group, explained at his recent deposition: "So once -- once the group has made a determination about its wishes in terms of allocating its resources, it's a necessary condition to put the right financing in place and the right structure in place so that the execution can occur as desired through the legal entity structures that we have."⁶ As Mr. Bucknall indicated, if the BP group CFO, Byron Grote, did not support a SFN, the proposal would need to be reworked or it would not go forward.⁷

In my Expert Report, I provided an explanation of this process, from the operations perspective, derived from Dave Rainey's deposition testimony. When Rainey was asked what his job was on April 20, 2010, he responded: "I was vice president of exploration for the Gulf of Mexico." When Rainey was asked what his specific job duties were, he stated:

The scope of the job extended from describing leads and prospects before access. In other words, before we acquired the leases through after acquiring the leases, my teams would mature the prospects, describe the prospects. Then once the prospect was mature, as much work as could be done had been done, we would make the *recommendation* [emphasis added] whether or not to drill the prospect. *That recommendation would be taken to our global exploration forum; and if the exploration forum approved the well, then we would move forward to drill the well* [emphasis added], but my teams had no accountability for the actual operations of the well. I had teams who reported to me on operations, but the operations were carried out under the drilling and completions function.⁸

⁵ BP, "Corporate Structure and Financing Process Guidance" January 2014 (Exhibit 12435, BP-HZN-2179MDL08942142-2158; the quote is at 2143).

⁶ David Bucknall, deposition in re the Deepwater Horizon dated 2 July 2014, p 229.

⁷ Bucknall deposition, 255. Note Bucknall's use of the word "support." That word, in the parlance of the BP group, signifies the "approval" of a person with the delegated authority to make a decision, as I describe on the next page of this Expert Response Report.

⁸ David Rainey, deposition in re the Deepwater Horizon dated 2 June 2011, pp 17-18.

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When he was asked where the global exploration forum was physically located, Rainey testified that the forum was a committee chaired by Mike Daly, the global head of exploration. Exploration managers from around the world made up the rest of the forum. "Exploration managers would bring their recommended prospects to and get challenged by the other exploration VPs."⁹ He stated that the forum was "a peer-review process" that generally met once a quarter, sometimes in London, sometimes in Houston, and sometimes in other parts of the world. I described the functioning of the exploration forum on pp 57-59 and p 80 of my Expert Report.

If the exploration forum agreed to proceed with a project, then the recommendation would go to BP's treasury and tax functions, as described in the SFN process. Having determined which legal entity would undertake the financial transactions for the project, BP treasury and BP tax would identify an appropriate official from the legal entity to approve the financing, in order to document that decisions made by delegated authorities in the segment would be implemented by the legal entity. In a footnote to his description of the process, Daines notes that the FM documenting approval of the request to spend \$139.5 million was "approved" by a BPXP official and "supported" by Andy Inglis, a representative of BP p.l.c. The meanings of "approved" and "supported" in the language of the BP group require further explanation. David Rainey's deposition testimony is a good place to start.

Rainey was questioned about his role in signing two Execute Financial Memoranda (FMs), which gave approval for drilling the Macondo well. The first FM for the Macondo well, with authority to spend \$139.5 million, was signed on September 30, 2009, and it has three signatures: Mike Daly (non-BPXP employee/officer), the single point of accountability (SPA) and head of the upstream segment's exploration function, signed on the "Project SPA" line; Andy Inglis (non-BPXP employee/officer), CEO of the upstream segment, signed on the "Supported by" line; and Rainey, v.p. of BPXP, signed on the "Approved by" line. The second FM for the Macondo well, with authority to assigned ten percent of the Macondo project to MOEX in exchange for ten percent of MOEX's Gouda lease block and payment of \$1.92 million, was signed on November 9, 2009, and it also has three signature lines: Jay Thorseth, exploration manager in the GoM exploration organization (reporting to Rainey), signed on the "Project SPA" line; and Dave Rainey signed on the both the "Supported by" line and the "Approved by" line. Rainey explained that he could sign the "Supported by" line for the latter FM because it fell within the financial authority he had been delegated through the segment organizational structure, whereas he could not sign the September FM, because \$139.5 million exceeded his delegated authority. That was a large enough amount that Inglis had to sign it. Rainey's own "Approved by" signature was the legal formality, because he was an officer of the legal entity. Even though Inglis "supported" the larger FM (the consent without which the financial transaction could not go forward), he could not sign the "Approved by" line because he was not an officer of the legal entity through which the financial transaction would be undertaken.¹⁰

⁹ Rainey deposition, 20-22.

¹⁰ David Rainey, deposition in re the Deepwater Horizon dated 3 June 2011, pp 328-331;

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The reasoning behind the various signatures on the two FMs that Rainey described in his deposition comports with the practice outlined in BP's "Corporate Structure and Financing Process Guidance," as quoted by Daines: "Authority to commit to such investments is exercised by a manager in the relevant Segment or Function, who has appropriate delegated authority, through *support* [emphasis added] of a Finance Memorandum (FM)." ¹¹ In other words, for a transaction of the magnitude of the November 2009 FM, Rainey had the delegated authority to support it (i.e., approve it), but a transaction of the magnitude of the September FM required Inglis' support (i.e., approval).

The FMs I just cited are for the development of the Macondo well. Likewise, the FMs for contracting with Transocean for the drilling services of the *Deepwater Horizon* show the same pattern of language I have described for the FMs for the Macondo well. In my Expert Report, I described the contracts with Transocean for the *Marianas* and the *Deepwater Horizon* (pp 65-69). The contracts were signed by appropriate officials of BP America Production Company (BPAPC). Regarding the *Deepwater Horizon*, the original contract for its services had been signed between BPAPC predecessor, Vastar Resources, and Transocean predecessor, B&B Falcon Drilling, in December 1998, when the rig was known simply as RBS-8D. ¹² Extending the term of the contract for the *Deepwater Horizon* would entail a commitment of considerable BP resources, so each contract extension could only have been signed once an FM had been proposed, supported, and approved. The two FMs authorizing expenditure of BP resources for extending the term of the *Deepwater Horizon* contract that I have analyzed each has a line for an officer of BPAPC, and each also has a line for the "support" of the higher-ranking official in the upstream segment, whose approval (support) was necessary for the contract with Transocean to go forward. ¹³

No employees or officers of BPXP are listed as proposing, recommending, supporting, confirming, or approving the contract for the *Deepwater Horizon* rig in the Gulf of Mexico. ¹⁴

Execute Financial Memoranda dated 30 September and 9 November 2009 (BP-HZN-2179MDL00256298-6301 and BP-HZN-2179MDL00256302-6304).

¹¹ BP, "Corporate Structure and Financing Process Guidance" (Exhibit 12435, BP-HZN-2179MDL08942142-2158, at 2142).

¹² *Deepwater Horizon* Drilling Contract between BP America Production Company and Transocean Offshore Deepwater Drilling Inc., contract no. BPM-06-00369, various dates (TREX-51269, TRN-USCG_MMS-00027281-7861, at 7313-7351).

¹³ Financial Memorandum – U.S. Capital Expenditure, GoM, Horizon Rig Contract Extension, signed March/April 2004 (TREX-06316, BP-HZN-2179MDL02378626-8627, at 8627); Finance Memorandum – Long Term Commercial Commitment, BP Exploration & Production Inc. – GoM SPU, Transocean *Deepwater Horizon* Rig Contract, signed November/December 2005 (TREX-06318, BP-HZN-2179MDL02348382-8385, at 8385).

¹⁴ Financial Memorandum – U.S. Capital Expenditure, GoM, Horizon Rig Contract Extension,

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That is in part because BPXP does not secure the services required to conduct BP operations on BPXP assets; that task, as I described in my Expert Report (pp 62-64), is contracted to BPAPC under the general services agreement.

With respect to the request for a one year extension of the Horizon Rig contract, the FM states that "Tax, Finance, Legal, Commercial, FC&A, SCM, and Drilling Head of Discipline have been consulted and *support* [emphasis added] the proposed approach." The FM was signed on the "Proposed by" line by the business unit leader in the Gulf of Mexico Deepwater Developments organization; on the "Supported by" lines by the head of Drillings & Completions in the Gulf and by Andy Inglis, group vice president for the upstream segment; and by a BPAPC officer. No mention is made of BPXP.¹⁵

Similarly, regarding the Long Term Commercial Commitment for the Transocean Deepwater Horizon, the FM states: "Assurance for this FM has been obtained from the Technology Vice President for Drilling as well as from Finance, Tax, Legal, and Control." There is no mention of any support or approval being requested or obtained from BPXP.¹⁶ The copy of the FM I have seen has only two signatures: Andy Inglis, executive vice president and deputy chief executive of the upstream segment, signed the "Recommended by" line; and Tony Hayward, managing director and chief executive of the upstream segment, signed the "Supported by" line. There are also lines to be signed by the business unit leader in the Gulf of Mexico Deepwater Developments organization ("Proposed by" line); and an officer of BPAPC ("Approved by" line). Because the proposed five-year extension would commit BP to such a large expenditure (in excess of \$365 million), the proposal, under BP rules for delegations of authority (Hayward's upper limit, as CEO of the upstream segment, was \$250 million), also needed RCM approval. RCM is Resource Commitments Meeting, a meeting executive management of the BP group, and so the FM for the five-year extension also has a line for the signature of the RCM secretary ("Confirmation of RCM Endorsement" line). The deadline for executing the contract was April 14, 2005, which was prior to the next meeting of the RCM. Therefore, Andy Inglis wrote John Browne, who was still CEO of BP p.l.c., requesting his endorsement of the proposal. Inglis assured Browne that he had consulted other members of the RCM, and they supported the proposal.¹⁷ None of them were officials of BPXP.

signed March/April 2004 (Trex-06316, BP-HZN-2179MDL02378626-8627, at 8627); Finance Memorandum – Long Term Commercial Commitment, BP Exploration & Production Inc. – GoM SPU, Transocean Deepwater Horizon Rig Contract, signed November/December 2005 (Trex-06318, BP-HZN-2179MDL02348382-8385, at 8385).

¹⁵ Financial Memorandum – U.S. Capital Expenditure, GoM, Horizon Rig Contract Extension, signed March/April 2004 (Trex-06316, BP-HZN-2179MDL02378626-8627, at 8627).

¹⁶ Finance Memorandum – Long Term Commercial Commitment, BP Exploration & Production Inc. – GoM SPU, Transocean Deepwater Horizon Rig Contract, signed November/December 2005 (Trex-06318, BP-HZN-2179MDL02348382-8385, at 8384).

¹⁷ GoM: Deepwater Horizon Drilling Rig Commitment, memorandum to Lord Browne dated

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B. Management of Operations in BP's Scheme of Corporate Governance

Prof. Daines's Expert report is primarily about corporate governance, and he writes little if any about the distinctness between BP's organization for managing its operations and BP's array of parents and subsidiaries. Yet, even BP's policy on "Group Subsidiary Corporate Governance" articulates the separateness of BP's organizational structure for managing operations and BP's set of legal subsidiaries:

The processes governing the management of the Group's business are well documented and controlled through the organizational structure and delegations that run down management lines.

However, the entities through which these businesses are owned are not a simple match with the Group's management structure due to various factors, including local fiscal and legal requirements, tax planning and heritage. Accordingly, it is important that there is a common understanding among those who have an interest in the Corporate Governance of the Group's Subsidiaries.¹⁸

In other words, management of operations follows a different set of delegations from those involving ownership and corporate governance, and there is no clear match between the two. Moreover, only certain persons in the BP group will have an interest in corporate governance of BP's subsidiaries. It is therefore not surprising that most of the individuals involved in managing operations in BP's Gulf of Mexico Strategic Performance Unit (SPU) or business unit, as described below, either did not have a position with BPXP or did not have an awareness of their positions with BPXP. They did not have an interest in corporate governance; that was the responsibility of the BP group's corporate secretary's office, BP legal, BP tax, and BP treasury.

C. The BP Group Has Directed and Managed BP's Operations in the Gulf of Mexico, Including at the Macondo Well

Prof. Daines admits that BPXP's board of directors "does not guide business plans or strategy, set performance objectives for the Gulf of Mexico, oversee capital expenditures, or oversee acquisitions and divestitures." He goes on to say, "I understand that these are ordinary course decisions, and ordinary course decisions are appropriately made by management."¹⁹ The

29 March 2005 (Trex-06318, BP-HZN-2179MDL02348382-8385, at 8382).

¹⁸ BP, "BP Policy, Group Subsidiary Corporate Governance," document issued 1 May 2013, p 4 (BP-HZN-2179MDL08947573-7586, at 7576).

¹⁹ Daines Report, 31-32.

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question is whose management is making these decisions for BPXP's assets in the Gulf of Mexico? The evidence presented in this case shows that there is no BPXP management, other than individuals, designated as BPXP officers, who are authorized to sign documents on BPXP's behalf and otherwise make representations on BPXP's behalf. The evidence shows, however, that these individuals do not view themselves as making management decisions, as BPXP officials, concerning operations involving BPXP assets.

As I indicated in my Expert Report (pp 52-56), and as Daines concedes (p 32), BPXP has no employees.²⁰ Although Daines states that BPXP paid for the time spent by employees of other BP group entities, BPXP has admitted that it cannot show that personnel costs associated with work performed on BPXP assets at the time by a number of key individuals were charged to BPXP. These individuals include Tony Hayward (CEO of BP group for BP p.l.c.), Robert Dudley (CEO of GCRO), Andrew Inglis (CEO of the Exploration & Production segment for BP p.l.c.), Lamar McKay (president and chairman of BP America, Inc.), Douglas Suttles (COO of the Exploration & Production segment for BP p.l.c.), David Rainey (vice president of Exploration for the Gulf of Mexico SPU) and Kevin Lacy (vice president of Drilling & Completions for the Gulf of Mexico SPU).²¹

BP has produced an appointment history for BPXP, showing the names, titles, and terms of service for several dozen individuals who have served as BPXP directors and officers since April 2010.²² Tony Hayward, Andy Inglis, Lamar McKay, Patrick O'Bryan, and Kevin Lacy are not listed as officers of BPXP. Nevertheless, each of them had a significant role in managing BP operations in the Gulf of Mexico, including at the Macondo well, before and/or after the blowout. For instance, Mr. Inglis was the CEO of the global Exploration & Production segment at the time of the disaster.²³ Yet, he was not an employee or officer of BPXP. Rather, he was an employee of BP Corporation North America and an officer of BP p.l.c. Nonetheless, as set forth above and in my Expert Report, Mr. Inglis exercised authority over major financial and investment decisions in the Gulf of Mexico, including at the Macondo well. He also held weekly meetings with his senior executive team and received reports on details of activities occurring

²⁰ BP Exploration & Production Inc.'s First Supplemental Responses to the United States' First Set of Discovery Requests in the Penalty Phase, dated 12 June 2014, answer to request to admit #5, pp. 48-49 (Exhibit 11981).

²¹ BP Exploration & Production Inc.'s First Supplemental Responses to the United States' First Set of Discovery Requests in the Penalty Phase, response to interrogatory #2, dated 12 June 2014, p 25 (Exhibit 11981).

²² BP Exploration & Production Inc., "Appointment History (From 4/20/2010 to the Present)" (Exhibit 11959, BP-HZN-2179MDL07817761).

²³ Expert Report of Fredric L. Quivik dated 15 August 2014, pp 24-25, 30-33, 36, 40-43, 48-50, 60-62, 71, 76-78, 80-81.

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throughout BP's global operations, including problems with the Macondo well in 2010 leading up to the April 20 blowout.²⁴

1. BP Managers Who Were Not BPXP Employees and Did Not View Themselves as Officers of BPXP

As the following paragraphs will show, a number of other key managers were not BPXP employees, objectively, and these individuals, subjectively, did not understand themselves to be BPXP officials. In fact, some did not even know they had BPXP titles.

The BPXP appointment history shows that Laura Folse was made a BPXP vice president in July 2011, and she still holds that title. She had worked for Amoco and, after the merger, for BP from 1982 until she retired in 2007. Prior to her retirement, she held the title technology vice president, but at her recent deposition she could not remember for which BP entity she held that title. After the Macondo blowout in April 2010, she contacted BP to see if she could help; BP asked her to work in a consulting capacity with a firm called Belcan. In June 2011, Folse went back to work at BP as part of the Gulf Coast Restoration Organization (GCRO). She currently receives her paychecks from BP America Production Company (BPAPC), and she could not remember what BP entity issued her paychecks prior to her retirement. At her deposition, when shown the BPXP appointment history, she testified that she had not remembered that she was a BPXP v.p. When asked if she is still a BPXP officer, she replied, "As far as I know, yes, it appears so."²⁵ Clearly Laura Folse did not think of herself as part of BPXP management.

The BPXP appointment history shows that Dave Rainey was a BPXP vice president from June 2005 to May 2011. In my Expert Report (p 38), I cited Dave Rainey's deposition, in which he made no mention of his position as a vice president of BPXP, except in describing his role in signing the FM that gave approval for drilling the Macondo well. He saw his signature on the "Approved by" line as merely a legal formality, while Andy Inglis' signature on the "Supported by" line was the key signature in approving the financing of the project.²⁶ Elsewhere in this Expert Response Report I have described the significance of "Approved by" and "Supported by" in the language of the BP group.

The BPXP appointment history shows that Richard Morrison was a BPXP vice president from January 2010 to October 2013 and that he has been the BPXP president since October

²⁴ Andrew George Inglis, deposition in re the Deepwater Horizon dated 22 July 2011, pp 578-582; Mike Daly to Inglis, e-mails dated 15 March and 6 April 2010 (BP-HZN-2179MDL00005871; TREX-06321, BP-HZN-2179MDL00032979-2981).

²⁵ Laura Folse, deposition in re the Deepwater Horizon dated 16 June 2014, pp 24-27.

²⁶ Rainey deposition, 17-18, 25, 328-331. *See also* Execute Financial Memorandum dated 30 September 2009 (BP-HZN-2179MDL00256298-6301).

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2013. As I described in my Expert Report (pp 38-39), Morrison did not identify with BPXP, and he had little awareness that he had been a BPXP vice president. According to BP's appointment history for BPXP, Morrison was named a vice president of the subsidiary in January 2010, and he served in that position until October 2013, when he became chairman of the BPXP board and president of the corporation. When asked who he meant by "we," during his October 2011 deposition about BP's operations in the Gulf of Mexico, he responded that he meant BP's Gulf of Mexico business.²⁷ In his recent deposition, Morrison was unaware that he had been appointed a v.p. of BPXP in January 2010. When shown the appointment history, he explained it as an administrative matter that would authorize him to sign invoices.²⁸

In his recent deposition, Morrison testified that he knows that he chairs BPXP's board of directors, but he was unaware that he was the president of BPXP. As I described in my Expert Report, even after being shown the BPXP appointment history, Morrison could not grasp his role for BPXP in the capacity of president. He testified that he was the chairman of BPXP and the regional president of BP's Gulf of Mexico operations.²⁹

The BPXP appointment history shows that Neil Shaw was a BPXP vice president from February 2010 to February 2011. The BP-produced history does not show that he was appointed president of BPXP on June 1, 2009, by written consent of the board of directors in lieu of an annual meeting.³⁰ Shaw was the Gulf of Mexico SPU leader from October 2007 to October 2009. As such, he was in charge of BP's business unit and all of its operations in the Gulf, including operations on BPXP's assets. Yet at his deposition Shaw did not identify himself as having been a BPXP official. All of the vice presidents who oversaw facets of operations in the Gulf reported to him, and he in turn reported to Andy Inglis. Shaw testified that while he was the leader of the Gulf of Mexico SPU he believed his payroll employer was "BP." He stated that he did not understand the details of the BP entity or entities that paid BP employees. He did not know what BP entity owned lease block MC252 in the Gulf of Mexico, nor did he know what BP legal entity employed the BP people who planned, designed, or operated the Macondo well.³¹ In other words, as the top BP manager for BP's Gulf of Mexico operations, Shaw, like Morrison, did not know that he had been appointed as President of BPXP, and he did not know BPXP's role in the Gulf, even though he had been appointed a BPXP officer. As outlined above, referring to BP's policy for corporate governance of BP subsidiaries, Shaw did not need to

²⁷ Richard Morrison, deposition in re the Deepwater Horizon dated 18 October 2011, p 82.

²⁸ Richard Morrison, deposition in re the Deepwater Horizon dated 20 June 2014, p 24.

²⁹ Morrison deposition (2014), 25-26.

³⁰ Consent Action of the Board of Directors in Lieu of Annual Meeting, dated 1 June 2009 (BP-HZN-2179MDL09189974-9976).

³¹ Neil Shaw, deposition in re the Deepwater Horizon dated 26 October 2011, pp 19-23, 61-64, 187-189, 203-204.

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understand the legal organization of the BP group; that was the responsibility of the group corporate secretary's office, BP legal, BP tax, and BP treasury.

The BPXP appointment history shows that James Dupree was appointed president and chairman of BPXP in February 2010 and served in that capacity until October 2013. He had become leader of the Gulf of Mexico SPU in late 2009, and he was in that post during the Macondo blowout. At the time of his 2011 deposition, his title was regional president for the Gulf of Mexico, which he noted was not really a promotion but rather a name-change for his position that accompanied BP's reorganization in the Gulf in the wake of the Macondo disaster. When describing the management organization for the Gulf of Mexico, which included assets held by BPXP, he did not mention BPXP as part of the organization, nor did he mention that he was an officer of BPXP. Dupree had earlier experience in the Gulf as well; he took a position as head of BP's business unit for production in 1999, when BP's organizational structure for operations was different. At that time, there were three BP business units in the Gulf, one each for developments, exploration, and production. Again, when describing operations conducted on BPXP's assets, he did not mention any role that BPXP might have had in those operations.³² As with Neil Shaw, Dupree's lack of awareness of BPXP's role in the Gulf is not surprising because, as BP documents make clear, the organization for managing operations, of which Dupree was a key part, was the organization through which his delegation of authority flowed. He did not need to be aware of the legal structure of the BP group, because that was the responsibility of BP tax, BP treasury, etc.

2. BP Managers Who Were Not BPXP Employees and Were Not Officers of BPXP

The above paragraphs describe individuals who manage or managed facets of BP's operations in the Gulf, have BPXP titles, and yet who thought of their management functions deriving from the authority delegated them through the organizational structure of the upstream segment, not through their titles as BPXP officers. There is another side of BP p.l.c.'s management of operations that must be emphasized, and that concerns the operations managed by individuals with no BPXP titles, most notably in the Gulf of Mexico's Drilling & Completions (D&C) organization, which I described in my expert report. Kevin Lacy was vice president for D&C in the Gulf in 2008 and 2009, and he was replaced by Patrick O'Bryan in late 2009. Lacy oversaw the engineers who planned the Macondo well, and he oversaw the well site team in 2009, when the *Marianas* began drilling the well. O'Bryan oversaw the well site team that resumed drilling the well in early 2010, when the *Deepwater Horizon* moved into position, and O'Bryan was in charge of the drilling operation when the Macondo blowout occurred in April. If there was an especially active phase of operations at BPXP's asset known as MC252, certainly it was the period during which the well was being drilled. Both Lacy and O'Bryan oversaw the BP personnel who had responsibility for well control, for example. Yet the BPXP

³² James H. Dupree, deposition in re the Deepwater Horizon dated 16 June 2011, pp 14-16, 39-44, 57-62, 70-74.

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appointment history lists neither Lacy nor O'Bryan as BPXP officers.³³ And in my review of BPXP board minutes, I have seen no evidence that they were ever appointed as officers.

BP has informed the United States that Lacy was employed by BPAPC, but BP has not been able to find evidence that his time was charged to BPXP.³⁴ At his 2011 deposition, Lacy described his employment with BP as being part of the D&C organization, first as head of discipline for D&C in the western hemisphere and then as vice president for D&C in the Gulf of Mexico business unit. He said nothing about working for BPXP. When asked which BP entity paid him, Lacy testified that he believed it was BP America Inc. He also said he believed that BP America was the employer of all the BP workers he supervised in the Gulf of Mexico.³⁵

Lacy's 2008 performance contract and the 2009 form documenting his performance in 2008 both clearly show that, as he was managing BP's Drilling & Completions operations in the Gulf, he was working for BP p.l.c.'s upstream segment, and not for BPXP. Among other metrics for "continuous improvement" listed in his 2008 contract, he was to lead the segment's effort to establish an effective deepwater rig strategy and to lead the segment effort to establish a performance improvement plan for contractor Transocean. Other metrics were described with reference to SPU teams and plans. BPXP was not named or implied in his 2008 contract. Likewise, the form summarizing his 2008 performance identifies Lacy as a group leader in the segment and the SPU, with no mention of any role he might have played in BPXP operations. The heading shows that his title was VP D&C, that he was part of the E&P (upstream) segment, and that he worked in the Gulf of Mexico SPU. Section A of the form lists and describes his achievements in 2008 relative to the objectives, metrics, and milestones outlined in his contract. According to the form, Lacy and his group "delivered all major wells without any significant non productive event until year end." Clearly Lacy was managing BP's drilling operations in the Gulf. An item in the list described the impact of his actions as group leader on the segment; there was no item describing the impact his actions may have had on BPXP. Another item described his leadership in transforming the D&C organization in the Gulf of Mexico so that it achieved improved personal safety, the organization had a record of no incidents involving well control or simultaneous operations (SIMOPS), and it improved the length of time it took to deliver key wells. Part 3 of the form contained the comments of his supervisor, Neil Shaw, who wrote that Lacy had made a significant contribution in centralizing the SPU D&C organization. He was clearly managing BP's drilling operations in the Gulf. Lacy's evaluation form made no mention of contributions he may have made to BPXP operations or evaluations of his

³³ BP Exploration & Production Inc., "Appointment History (From 4/20/2010 to the Present) (Exhibit 11959, BP-HZN-2179MDL07817761).

³⁴ BP Exploration & Production Inc.'s First Supplemental Responses to the United States' First Set of Discovery Requests in the Penalty Phase, response to interrogatory #2, dated 12 June 2014, p 25 (Exhibit 11981).

³⁵ Kevin Lacy, deposition in re the Deepwater Horizon dated 1 June 2011, pp 30-38, 306.

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performance that BPXP and its officials may have given him.³⁶

O'Bryan testified in his deposition that he worked for BP, without specifying a subsidiary that was a payroll entity that employed him. Prior to taking the position of vice president for D&C in the Gulf of Mexico in late 2009, he worked for other BP businesses (as distinct from subsidiaries) and for various functional organizations in the upstream segment. Throughout his deposition, he did not describe himself as working for, or otherwise associated with, BPXP. The only time BPXP was mentioned at his deposition was when an attorney questioning him quoted from a 2011 letter (which I described on p 44 of my Expert Report) from James Dupree to a federal agency concerning commitments BPXP would make to promote safe drilling operations in the Gulf.³⁷

As noted in the Court's ruling in Phase I of this trial, O'Bryan clearly had overall operational charge of drilling operations in the Gulf and at the Macondo well in early 2010; in fact, he was on board the *Deepwater Horizon* for a "leadership visit" on April 20, when the blowout and explosion occurred.³⁸ David Sims, the wells operations manager for exploration and appraisals (E&A) in the D&C organization, accompanied O'Bryan to the rig.³⁹ In his deposition testimony, O'Bryan described his place in the organizational structure. As vice president for D&C at the time of the Macondo blowout, it was O'Bryan's responsibility to "ensure that he had the people, resources, processes in place to deliver [the] Drilling & Completions portion" the business plan. (And that would have been the SPU business plan, because the SPU was a BP business unit, on the one hand, and because BPXP had no business plans, on the other, as I described in my Expert Report, and as Prof. Daines acknowledges in his.) As is the case with Lacy, O'Bryan's 2010 performance contract shows that he was a top manager for the Gulf of Mexico business, which is part of BP p.l.c.'s upstream segment. It makes no reference BPXP. O'Bryan reported to James Dupree, and Dupree performed his performance appraisal.⁴⁰

³⁶ Draft 2008 Performance Contract for Kevin Lacy (TREX-05905H, BP-HZN-2179MDL02368258-8260); Group Leader Performance Summary Form for 2008, for Kevin Lacy, dated January 2009 (TREX-02939, BP-HZN-CEC061703-705).

³⁷ Patrick Leon O'Bryan, deposition in re the Deepwater Horizon dated 14 July 2011, pp 74-75, 920-922, 926, 930, 935.

³⁸ Findings of Fact and Conclusions of Law Phase One Trial dated 4 September 2014, p 73, para. 286 (Rec. No. 13355); O'Bryan deposition, 22-25.

³⁹ Patrick O'Bryan, testimony during the Phase I trial, 17 April 2013, pp 9264-9266, 9272-9292.

⁴⁰ O'Bryan deposition, 58-60, 62; 2010 Performance Contract: Pat O'Bryan, Gulf of Mexico VP D&C (TREX-04238, BP-HZN-2179BDL02423117).

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As I described in my Expert Report (pp 53-54), D&C in the Gulf of Mexico was restructuring its organization at the time of the Macondo blowout. Both before and after the reorganization, O'Bryan had charge of the engineers who had planned the Macondo well and the people who were conducting and managing the drilling operation at the well. Using the organizational charts that BP has produced for D&C, we can follow the D&C chain of operational command from O'Bryan down to the well site leaders, the BP personnel who were actually on the *Deepwater Horizon*. The organizational chart for before the reorganization shows that O'Bryan supervised David Rich, the wells director. Rich in turn supervised Ian Little, the E&A wells operations manager, and Jon Sprague, the drilling engineering manager. Little supervised both John Guide, the wells team leader for the *Deepwater Horizon*, and Sims, who was the E&A engineering team leader, supervising the E&A drilling engineers, including Mark Hafle, who had planned the well. After the reorganization, O'Bryan still supervised Rich, whose title changed to wells manager, and Sprague, whose position as drilling engineering manager moved to the same level in the chart as Rich's position as wells manager. Rich supervised Sims, who replaced Little as the E&A wells operations manager. Sims now had charge of a group of wells team leaders, among them John Guide, who supervised the *Deepwater Horizon* team, including wells site leader Donald Vidrine. On the engineering side, the E&A drilling engineers moved to the drilling engineering group managed by Sprague, rather than being part of the E&A wells operations group, as they had been when they were under Little.⁴¹

Performance assessments for people in the D&C organization show that they were part of the Gulf of Mexico SPU, which in turn is part of the upstream segment. For example, Mark Hafle's 2009 assessment identifies his line manager as David Sims, and it shows that he was part of the deepwater operation in the Gulf of Mexico. Comments in the assessment focus on his role in the E&A drilling engineering team. The performance assessment identifies the completion of the Macondo well planning as one of Hafle's accomplishments during the year. It makes no mention of BPXP.⁴² In a similar vein, Jonathan Sprague's 2009 Annual Individual Objectives form shows that he was part of the Gulf of Mexico SPU and part of the deepwater D&C function. His line manager was Harry Thierens. The manager's comments on the form all focus on Sprague's performance with regard to the SPU's business. There is no mention of BPXP.⁴³

Similarly, in depositions taken in this matter, workers in the D&C organization recognized the chain of command of which they were a part. David Rich testified that he participated in the performance appraisals of the well site leaders. John Guide, as I described in my Expert Report, demonstrated a good understanding of the D&C organization, testifying that

⁴¹ BP DW D&C Organizational Chart, January 7, 2010, pp 2, 11, 12, 22, 23, 25, 27 (Trex-02516); BP DW D&C Organizational Chart, as of April 2010, pp 2, 7, 8, 15, 18 (Trex-02515).

⁴² Annual Individual Performance Assessment for Mark Hafle for 2009 (Trex-04455, BP-HZN-2179MDL00367260-7267).

⁴³ 2009 Annual Individual Objectives for Jonathan Sprague (Trex-00755, BP-HZN-MBI00193059-3063).

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the reporting channels went through the SPU to the CEO of the upstream segment, Andy Inglis. Sprague knew that, before the 2010 reorganization, he reported to Thierens, who in turn reported to Lacy. Greg Walz testified that, after the 2010 reorganization, Sprague was responsible for his performance review. On the other hand, when questioned about their employer or which legal entity in the BP group “owned” or “managed” operations in the Gulf, they lacked a basic understanding. Rich, for example, thought he was employed by “BP.” Sprague thought it was BP America that owns, runs, and manages the Gulf of Mexico SPU.⁴⁴ None of them mentioned BPXP as being the employer, part of the organizational structure through which they were delegated their authority, or otherwise associated with BP operations in the Gulf.

In its Phase 1 ruling (e.g. paragraphs 263-282), the Court discusses the critical failures of Hafle and Vidrine with respect to the misinterpretation of the negative pressure test at the Macondo well. As the above paragraphs show, Halfe and Vidrine were part of the organizational structure for managing the Gulf of Mexico SPU, but they were not part of an organizational structure for BPXP. The above individuals, including Lacy and O’Bryan, were all part of the Gulf of Mexico SPU organization, which reported to Andy Inglis and the upstream segment. None of them were employees or officers of BPXP.⁴⁵

⁴⁴ David Rich, deposition in re the Deepwater Horizon dated 1 June 2011, pp 118, 383; John Guide, deposition in re the Deepwater Horizon dated 9 May 2011, p120-130; Jonathan Sprague, deposition in re the Deepwater Horizon dated 22 March 2011, pp 35, 41, 43, 437-442, 454; Greg Walz, deposition in re the Deepwater Horizon dated 21 April 2011, p 28.

⁴⁵ O’Bryan deposition, 55-57; BP Exploration & Production Inc., “Appointment History (From 4/20/2010 to the Present) (Exhibit 11959, BP-HZN-2179MDL07817761).

Sources Considered

(In addition to the documents cited in my Round 1 report and this expert report, as well as the consideration materials identified in conjunction with my Round 1 expert report)

Bates, Exhibit, TREX, or Other Description
BP-HZN-2179MDL00005871-BP-HZN-2179MDL00005871
BP-HZN-2179MDL00256297-BP-HZN-2179MDL00256310
BP-HZN-2179MDL00256297-BP-HZN-2179MDL00256310
BP-HZN-2179MDL07816408-BP-HZN-2179MDL07816676
BP-HZN-2179MDL08947573-BP-HZN-2179MDL08947586
BP-HZN-2179MDL09189968-BP-HZN-2179MDL09189969
BP-HZN-2179MDL09189970-BP-HZN-2179MDL09189971
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BP-HZN-2179MDL09248282-BP-HZN-2179MDL09248282
DEFEXP000195-DEFEXP000247
DEFEXP021067-DEFEXP021073
Deposition Exhibit 12435
Deposition Exhibit 11959
Deposition Exhibit 11981
Deposition of Bucknall, David (July 2, 2014)
Deposition of Dupree, James (June 16, 2011)
Deposition of Folse, Laura (June 16, 2014)
Deposition of Guide, John (May 9, 2011)
Deposition of Inglis, Andrew (July 22, 2011)
Deposition of Lacy, Kevin (June 1, 2011)
Deposition of Lacy, Kevin (June 2, 2011)
Deposition of Morrison, Richard (June 20, 2014)
Deposition of Morrison, Richard (Oct. 18, 2011)
Deposition of O'Bryan, Patrick (July 14, 2011)
Deposition of O'Bryan, Patrick (July 15, 2011)
Deposition of Rainey, David (June 2, 2011)
Deposition of Rainey, David (June 3, 2011)
Deposition of Rich, David (June 1, 2011)
Deposition of Shaw, Neil (Oct. 26, 2011)
Deposition of Sprague, Jonathan (Mar. 21, 2011)
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Deposition of Walz, Gregory (Apr. 21, 2011)
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TREX-002516
TREX-002939
TREX-004238
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TREX-005905H
TREX-006033
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TREX-006321
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Trial Transcript, Phase 1 (Apr. 17, 2013 a.m.)
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