EXHIBIT E

ICC Arbitration No. 19869/MCP/DDA

In the matter of an arbitration under the Rules of Arbitration of the International Chamber of Commerce in force as from 1 January 2012 between:

The Ministry of Oil and Minerals of the Republic of Yemen (on its own behalf and/or for and on behalf of the Republic of Yemen) (Republic of Yemen)

Claimant

and

1. Canadian Nexen Petroleum Yemen (Republic of Yemen)
2. Consolidated Contractors (Oil & Gas) Company S.A.L. (Republic of Lebanon)
3. Occidental Peninsula, LLC (United States of America)
4. Occidental Peninsula II, INC (Federation of Saint Kitts and Nevis)

Respondents

Partial Award on Respondents' Threshold Legal Defences

TABLE OF CONTENTS

TABLE OF ABBREVIATIONS

Answer to the Request for Arbitration and Counterclaim dated 21 January 2014	Answer
Masila Block 14	Block 14
The Ministry of Oil and Minerals of the Republic of Yemen	Claimant
Counter-Memorial on the applicable substantive law dated 28 July 2015	CMASL
Central Processing Facility	CPF
Factual Exhibit(s) of Claimant-[number]	Exhibit(s) C-[#]
Factual Exhibit(s) of Respondents-[number]	Exhibit(s) R-[#]
Legal Exhibit(s) of Claimant-[number]	Exhibit(s) CL-[#]
Legal Exhibit(s) of Respondents-[number]	Exhibit(s) RL-[#]
Expert Report(s)	EXR(s)
Footnote	fn
Pound Sterling	GBP
ICC International Court of Arbitration	ICC Court
Rules of Arbitration of the International Chamber of Commerce in force as from 1 January 2012	ICC Rules
Secretariat of the ICC International Court of Arbitration	ICC Secretariat
Secretary General of the ICC International Court of Arbitration	ICC Secretary General
Memorial for Procedural Hearing dated 8 May 2015	MPH
Memorial on the applicable substantive law dated 7 July 2015	MASL
Memorial on Procedural Issues dated 22 May 2015	MPI
Main Oil Line	MOL
Parent company of Respondent 1	Nexen Inc.
Page[s]	p[p].
Paragraph[s]	para[s].
Petroleum Exploration Department	PED
Petroleum Exploration and Production Authority	PEPA
Petroleum Exploration and Production Board	PEPB
Post-Hearing Brief(s) dated 30 June 2016	PHB(s)

Procedural Order[number]	PO[#]
Procedural hearing held on 9 June 2015	Procedural hearing
Agreement for Petroleum Exploration and Production dated 15 September 1986	PSA
First Amendment Agreement to Petroleum Exploration and Production Agreement for Masila Block 14	PSA Amendment
Reply to the Request for Arbitration and Response to Counterclaim of 21 February 2014	Reply
Canadian Nexen Petroleum Yemen, Consolidated Contractors (Oil & Gas) Company S.A.L., Occidental Peninsula, LLC and Occidental Peninsula II, Inc.	Respondents
Request for Arbitration of 23 November 2013	Request
Settlement Agreement of 10 March 1996	Settlement Agreement
Standstill Agreement of 22 March 2013	Standstill Agreement
Statement of Claim dated 17 November 2014	SoC
Statement of Defence and Counterclaim dated 13 March 2015	SoDC
Statement of Defence on Threshold Legal Defences dated 23 November 2015	SoDTLD
Statement of Reply on Threshold Legal Defences dated 4 March 2016	SoRTLD
Statement of Rejoinder on Threshold Legal Defences dated 15 April 2016	SoRjTLD
Hearing on Respondents' preliminary legal defences held on 16 to 19 May 2016	TLD hearing
Terms of Reference	ToR
UNIDROIT Principles of International Commercial Contracts of 2010	UNIDROIT Principles
US Dollars	US$
Witness Statement(s)	WS(s)

CHAPTER I. THE PARTIES AND THEIR LEGAL REPRESENTATION

1. The Ministry of Oil and Minerals of the Republic of Yemen (on its own behalf and/or for and on behalf of the Republic of Yemen) ("Claimant") is the relevant contracting authority of the Yemeni Government in charge of the natural resources of the Republic of Yemen. Claimant has its registered office at Zubairi Street, PO Box 81, Sana'a, Republic of Yemen.

2. Claimant has authorized CLYDE & CO LLP to represent it in this arbitration.[1] Claimant has been assisted and represented in this arbitration by Mr. Benjamin Knowles, Ms. Darcy Beamer-Downie, Ms. Milena Szuniewicz-Wenzel and Mr. Khaled Moyeed, CLYDE & CO LLP, St. Botolph Building, 138 Houndsditch, London EC3A 7AR, United Kingdom and by Ms. Rebecca Sabben-Clare QC, 7KBW BARRISTERS, 7 King's Bench Walk, Temple, London EC4Y 7DS, United Kingdom.

3. Canadian Nexen Petroleum Yemen ("Respondent 1") is a general partnership incorporated and existing under the laws of the Republic of Yemen. Respondent 1 has its registered office at PO Box 19010, 24 Johar Street, Sana'a, Republic of Yemen.

4. Consolidated Contractors (Oil & Gas) Company S.A.L. ("Respondent 2") is a company incorporated and existing under the laws of the Republic of Lebanon. Respondent 2 has its registered office at Bir Hassan, Nicolas Sursock Street, Sabbagh & Khoury Building, 1st Floor, PO Box 11-2254 Riad El Solh, Beirut 1107 2100, Republic of Lebanon.

5. Occidental Peninsula, LLC ("Respondent 3") is a company incorporated and existing under the laws of the State of California. Respondent 3 has its registered office at 10889 Wiltshire Boulevard, Los Angeles, California 90024, United States of America.

6. Occidental Peninsula II, Inc ("Respondent 4") is a company incorporated and existing under the laws of the Federation of Saint Kitts and Nevis. Respondent 4 forms part of Morning Star Holdings Limited, whose address is PO Box 556, Main Street, Charlestown, Nevis, Federation of Saint Kitts and Nevis.

7. Respondents 1-4 have authorized THREE CROWNS LLP of 1 King Street, London EC2V 8AU, United Kingdom and FRESHFIELDS BRUCKHAUS DERINGER LLP of 65 Fleet Street, London EC4Y 1HS, United Kingdom to represent them in this arbitration.[2] Respondents 1-4 have been assisted and represented in this arbitration by Mr. Constantine Partasides, Mr. Geoff Watt and Ms. Penny Martin, THREE CROWNS LLP, 1 King Street, London EC2V 8AU, United

[1] Power of Attorney dated 7 November 2013.
[2] Powers of Attorney dated 28 May, 29 May and 9 June 2014.

Kingdom and by Mr. Reza Mohtashami and Mr. Oliver Spackman, FRESHFIELDS BRUCKHAUS DERINGER LLP, 65 Fleet Street, London EC4Y 1HS, United Kingdom.

8. Respondents 1-4 are hereinafter collectively referred to as "Respondents," though it was Respondent 1 that was primarily involved in the performance of the contract between the Parties.

9. Claimant and Respondents are hereinafter individually referred to as "a Party" and collectively as "the Parties," except as otherwise specifically stated.

CHAPTER II. THE ARBITRAL TRIBUNAL

10. Claimant has nominated as arbitrator Mr. William Laurence Craig. Mr. Craig's address is at ORRICK RAMBAUD MARTEL, 31 Avenue Pierre 1er de Serbie, 75782 Cedex 16, Paris, France. The Secretary General of the ICC International Court of Arbitration ("ICC Secretary General") confirmed Mr. Craig's nomination in accordance with Article 13(2) of the Rules of Arbitration of the International Chamber of Commerce in force as from 1 January 2012 ("ICC Rules") on 28 January 2014.

11. Respondents have nominated as arbitrator Professor Michael Pryles. Professor Pryles's address is Suite 304, 521 Toorak Road, Toorak, Victoria 3142, Australia. The ICC Secretary General confirmed Professor Pryles's nomination in accordance with Article 13(2) of the ICC Rules on 28 January 2014.

12. Pursuant to Article 12(5) of the ICC Rules, the co-arbitrators jointly nominated Professor Bernard Hanotiau as President of the Arbitral Tribunal. Professor Hanotiau's address is at HANOTIAU & VAN DEN BERG, IT Tower Avenue Louise, 480 – Box 9, B-1050 Brussels, Belgium. The ICC Secretary General confirmed Professor Hanotiau's nomination in accordance with Article 13(2) of the ICC Rules on 2 May 2014.

13. With the consent of the Parties expressed at the case management conference of 19 June 2014, the Arbitral Tribunal has appointed Mr. Panagiotis Chalkias, an associate in the President's law firm, as administrative secretary to the Arbitral Tribunal.

CHAPTER III. THE PSA, THE ARBITRATION AGREEMENT AND APPLICABLE SUBSTANTIVE LAW

14. The present dispute arises out of and in connection with an Agreement for Petroleum Exploration and Production dated 15 September 1986 ("the PSA"), which was concluded between the Yemen "Ministry of Energy and Minerals,"[3] on the one hand, and "CanadianOxy Offshore International Ltd." and "Consolidated Contractors International Company S.A.L.," on the other hand (Exhibit C-1). CanadianOxy Offshore International Ltd. and Consolidated Contractors International Company S.A.L. have assigned, whether directly or through other affiliated entities, their rights and obligations under the PSA to Respondents.[4]

15. The PSA relates to petroleum exploration, development and production work in Masila Block 14 ("Block 14"), located in the eastern region of Hadhramout, Republic of Yemen. That block consists of oil wells widely dispersed over 20 producing oilfields covering an area of 1,257 km²,[5] which feed through field pipes that are fitted with hydro-cyclones for water separation to a Central Processing Facility ("CPF"). At the CPF, further oil/water separation takes place before crude oil is pumped through the main oil line ("MOL") to an Export Terminal, which is located near Ash Shihr, a coastal town in Hadhramaut, 138 km far from the CPF. The Export Terminal is about 12 km west of Ash Shihr and 40 km from Al Mukalla, a main sea port and the capital city of the Hadhramaut coastal region. Oil is delivered from the Export Terminal for export via sub-sea pipelines to tankers ported at two Single Point Mooring buoys in the Gulf of Aden.

16. The PSA was ratified by the Committee of the Supreme People's Assembly of the People's Republic of Yemen (otherwise known back then as South Yemen) on 15 March 1987, on which date the Committee issued Law No. 4 of 1987 (Exhibit CL-2). Thus, the "Effective Date" under the PSA was 15 March 1987, as per Article 1.19 and 31 of the same.

17. Under Article 4.4 of the PSA, in the event of "*Commercial Discovery,*" a term defined under Article 1.3 of the PSA as "*a discovery in the Contract Area of an accumulation or accumulations of Petroleum which CONTRACTOR ... decides to be worthy of being developed and exploited,*" the PSA's term was 20 years from the date of declaration of the "*first Commercial Discovery in the Contract Area.*" That was 17 December 1991 (Exhibit C-206) and oil production started in 1993. Despite the Parties' discussions to extend the 20-year term of the PSA, the PSA expired on 17 December 2011.

[3] The facts related to the creation of Claimant are set out hereinbelow in Chapter V.
[4] The facts related to the assignment of the rights and obligations under the PSA to Respondents are set out hereinbelow in Chapter V.
[5] Block 14 initially covered a much greater area, but it was subsequently reduced, through relinquishments, after Respondents declared "Commercial Discovery."

18. The Arbitral Tribunal's jurisdiction stems from Articles 27.1 and 27.2 of the PSA that provide in relevant part as follows:

"

ARTICLE XXVII

DISPUTES AND ARBITRATION

27.1 Any disputes arising between CONTRACTOR and MINISTRY in connection with the present Agreement shall be finally settled by arbitration and any judgment resulting therefrom shall be binding on the parties. ...

27.2 Subject to the relevant rules of International Law:

(a) The arbitration shall be held in Paris, France, and conducted in accordance with the Rules of Conciliation and Arbitration of the International Chamber of Commerce. In the event of no provisions being made in these Rules in certain cases, the arbitrators shall establish their own procedure.

(b) The arbitration shall be initiated by either Party giving notice to the other Party that it elects to refer the dispute to arbitration and that such party (hereinafter referred to as the First Party) has appointed an Arbitrator who shall be identified in said notice. The other Party (hereinafter referred to as the Second Party) shall notify First Party in writing within forty five (45) days identifying the Arbitrator that it has selected.

(c) If the Second Party does not so appoint its Arbitrator, the First Party shall have the right to apply to the Court of Arbitration of the International Chamber of Commerce to appoint a second arbitrator. The two arbitrators shall within thirty (30) days select a third arbitrator, failing which the third arbitrator shall be appointed by the Court of Arbitration of the International Chamber of Commerce at the request of either party.

(d) The third arbitrator must be a citizen of a country other than the PDRY, Canada or Lebanon and a country which has diplomatic relations with the PDRY, Canada and Lebanon and shall have no economic interest in the oil business of the PDRY nor of the signatories hereto.

(e) The parties shall extend to the Arbitration Board all facilities (including access to the Petroleum Operations) for obtaining any information required for the proper determination of the dispute. The absence or default of any party to the

arbitration shall not be permitted to prevent or hinder the arbitration procedure in any or all of its stages.

(f) Pending the decisions or award, the operations or activities which have given rise to the arbitration need not be discounted. In the event the decision or award recognizes that the complaint was justified, provisions may be made therein for such reparation as may be appropriately made in favor of the complainant.

(g) Judgment in the award rendered may be entered in any Court having jurisdiction or application may be made to such Court for a judicial acceptance of the award and an order of enforcement, as the case may be.

(h) The provisions of this Agreement relating to arbitration shall continue in force notwithstanding the termination of this Agreement.

(i) The signatories base their relations with respect to this Agreement on the principles of good will and good faith. Taking into account their different nationalities, this Agreement for such arbitration shall be given effect and shall be interpreted and applied in conformity with principles of law common to the PDRY, Canada and Lebanon and in the absence of such common principles then in conformity with the principles of law normally recognized by nations in general, including those which have been applied by International Tribunals."

19. Respondents contend that, on the one hand, the Ministry of Oil and Mineral Resources represented by the Minister of Oil and Mineral Resources and, on the other hand, Canadian Occidental Petroleum Yemen, Consolidated Contractors (Oil and Gas) S.A.L., Occidental Peninsula Inc., Pecten and Canadian Occidental Petroleum Yemen entered into a Settlement Agreement dated 10 March 1996 ("Settlement Agreement"). Claimant disputes this contention and claims that that agreement was never concluded and ratified. Respondents have produced a signed version of that agreement, whereas Claimant has produced an unsigned version thereof (Exhibits R-1 and C-306).

20. Subsequently, the then parties to the PSA entered into a "First Amendment Agreement to Petroleum Exploration and Production Agreement for Masila Block 14" ("PSA Amendment"). Claimant has produced a version of that amendment dated 6 November 1999 (Exhibit C-3), whereas Respondents have produced another version thereof dated 7 October 2002 (Exhibit R-73). In any case, the PSA Amendment did not alter the terms of Article 27.1 and 27.2 of the PSA.

21. On 22 March 2013, the Parties entered into a Standstill Agreement through which they attempted to reach an amicable settlement in relation to claims arising from the performance of the Parties' obligations under the PSA ("the Standstill Agreement," Exhibit C-12).

22. The Arbitral Tribunal's jurisdiction also stems from clause 6.1 of the Standstill Agreement, which reads as follows:

> "*6 **ARBITRATION AGREEMENT IN RELATION TO THE CLAIM***
>
> *6.1 The Parties hereby confirm that, following the termination of the Standstill Period or if the Parties agree that a Claim is not capable of amicable resolution and therefore is removed from the scope of this Agreement in accordance with Clause 2.2 of this Agreement, either of the Parties may refer such Claim to the exclusive jurisdiction of ICC Arbitration in Paris in accordance with Clause 27.2 of the PSA.*
>
> *6.2 For the avoidance of doubt, nothing in this Agreement shall be construed as a variation or amendment of the PSA.*"

23. Regarding the issue of the applicable substantive law, Claimant, on the one hand, contended that the PSA was governed by Yemeni law on the basis of Articles 3.1 and 22.1 of that agreement and Respondents, on the other hand, argued that, pursuant to Article 27.2(i) of the PSA, the PSA was governed by "*principles of law common to PDRY [Republic of Yemen], Canada and Lebanon and in the absence of such common principles then in conformity with the principles of law normally recognized by nations in general, including those which have been applied by International Tribunals.*"

24. By virtue of its Procedural Order No. 3 dated 26 August 2015 ("PO3"), which is incorporated herein by reference, the Arbitral Tribunal decided the following for the reasons set out therein:

> "*Consequently, in accordance with the terms of Article 27.2 (i) of the PSA, the PSA must be interpreted and applied as follows:*
>
> *- First, in conformity with the principles of law common to Yemen, Canada and Lebanon;*
> *- And in the absence of such common principles, in conformity with the principles of law normally recognized by nations in general, including those which have been applied by International Tribunals, which, in the opinion of the Arbitral Tribunal, would include international arbitral tribunals constituted under public or private law;*
> *- It is on the Parties to identify and demonstrate in their submissions to be filed in this arbitration which are the principles of law common to the abovementioned three*

countries or the principles of law normally recognized by nations in general, including those which have been applied by International Tribunals; and
- The Arbitral Tribunal will also take into consideration the principles of good will and good faith."

CHAPTER IV. PROCEDURAL HISTORY

25. On 23 November 2013, Claimant filed a Request for Arbitration ("Request") accompanied by factual exhibits C-1 through C-13 and legal exhibits CL-1 through CL-4. Claimant specified that the place of arbitration is Paris, France and suggested that the arbitration be conducted in English. Claimant further noted that the proper law of the PSA is Yemeni law and that the third arbitrator should not be a national of Yemen, Canada, Lebanon and USA. Finally, Claimant nominated Mr. William Laurence Craig as co-arbitrator.

26. On 25 November 2013, the ICC Secretary General, on behalf of the ICC Secretariat, acknowledged receipt of the Request. He also indicated that the ICC Secretariat would notify the Request to Respondents upon receipt of the ICC filing fee of US$ 3,000.

27. On 4 December 2013, the ICC Secretariat acknowledged receipt of the payment of the filing fee and informed Claimant that it would notify the Request to Respondents. It also specified, *inter alia*, that Claimant was required to pay a provisional advance of US$ 150,000 in order to cover the costs of arbitration until the signing of the Terms of Reference ("ToR"). By separate letter of even date, the ICC Secretariat notified the Request to Respondents noting that, unless otherwise advised by the Parties within 15 days of receipt of its letter, it would understand that Respondents agreed that the 2012 version of the ICC Rules[6] would apply to this arbitration. The ICC Secretariat also invited Respondents to file an Answer to the Request within thirty days of receipt of its letter and to comment on Claimant's suggestion that the present arbitration be conducted in English.

28. On 13 December 2013, the ICC Secretariat notified to the Parties Mr. William Laurence Craig's Statement of Acceptance, Availability, Impartiality and Independence, as well as his *curriculum vitae* and invited them to provide their comments thereon, if any, within 10 days from the day following the receipt of its correspondence.

29. On 19 December 2013, Respondents requested that Mr. William Laurence Craig elaborate more on his disclosure that was included in his Statement of Acceptance, Availability, Impartiality and Independence. On 23 December 2013, the ICC Secretariat invited Mr. William Laurence Craig to reply to Respondents' request by 2 January 2014 and Mr. Craig did so on 30 December 2013.

30. On 2 January 2014, Respondents requested an extension of 14 days for filing their Answer to the Request and indicated that they would nominate their co-arbitrator by 6 January 2014.

[6] At the time of the PSA's conclusion in September 1986, the 1975 ICC Rules were applicable and they did not contain a provision similar to Article 6(1) of the 2012 ICC Rules, pursuant to which the 2012 ICC Rules can be applied to arbitrations initiated on the basis of arbitration agreements concluded prior to the entry into force of those Rules.

31. On 3 January 2014, the ICC Secretariat invited the Parties to comment on Mr. William Laurence Craig's response of 30 December 2013 by 10 January 2014. By separate letter of even date, the ICC Secretariat acknowledged receipt of Respondents' correspondence of 2 January 2014 and granted Respondents' extension request on the condition that they would nominate their co-arbitrator on or before 7 January 2014.

32. On 6 January 2014, Respondents notified the ICC Secretariat of their joint nomination of Professor Michael Pryles as co-arbitrator. By separate letter of even date, Respondents stated that they had no objection to Mr. William Laurence Craig's confirmation as co-arbitrator in this case.

33. On 9 January 2014, the ICC Secretariat acknowledged receipt of Respondents' two recent communications and of Claimant's payment of the provisional advance on costs in the amount of US$ 150,000.

34. On 14 January 2014, the Secretariat notified to the Parties Professor Michael Pryles's Statement of Acceptance, Availability, Impartiality and Independence, as well as his *curriculum vitae*.

35. On 20 January 2014, Respondents filed the Answer to the Request and Counterclaim ("Answer") accompanied by factual exhibits R-1 through R-10. Respondents agreed that the 2012 version of the ICC Rules is applicable and that the seat of arbitration is Paris, France. They also agreed with Claimant's proposal that the arbitration be conducted in English, but disagreed with Claimant's assertion that the applicable substantive law is Yemeni law.

36. On 23 January 2014, the ICC Secretariat acknowledged receipt of Respondents' Answer. It invited Claimant to file its Reply to the Answer within 30 days of receipt of its correspondence. It also noted that it would proceed with the confirmation of the co-arbitrators' nominations and that the Parties were in agreement on the language of the arbitration. The ICC Secretariat further invited Respondents to provide an estimate of the monetary value of their counterclaims by 30 January 2014.

37. On 28 January 2014, the ICC Secretariat informed the Parties that, pursuant to Article 13(2) of the ICC Rules, the ICC Secretary General confirmed Mr. William Laurence Craig and Professor Michael Pryles as co-arbitrators on the same date. It further indicated that it would invite the two co-arbitrators to nominate the President of the Arbitral Tribunal within 30 days following its communication.

38. On 30 January 2014, Respondents informed that the counterclaims they were in a position to quantify were estimated at no less than US$ 15,000,000.

39. On 3 February 2014, the ICC Secretariat noted Respondents' estimate and indicated that the total amount in dispute was at the time US$ 515,000,000.

40. On 19 February 2014, the two co-arbitrators jointly requested an extension until 29 March 2014 to nominate the President of the Arbitral Tribunal. The following day, the Parties agreed with the co-arbitrators' extension request.

41. On 21 February 2014, Claimant filed a Reply and Response to Counterclaim ("Reply") accompanied by factual exhibits C-14 through C-19 and legal exhibit CL-5.

42. On the same date, the ICC Secretariat noted the Parties' agreement with the co-arbitrators' extension request and granted the same.

43. On 26 February 2014, the ICC Secretariat acknowledged receipt of Claimant's Reply. On 28 February 2014, it informed the Parties of the decision of the ICC Court to fix the advance on costs at US$ 650,000, subject to later readjustments.

44. On 27 and 28 March 2014, the co-arbitrators informed the ICC Secretariat of their agreement to nominate Professor Bernard Hanotiau as President of the Arbitral Tribunal.

45. On 7 April 2014, the ICC Secretariat notified to the Parties Professor Bernard Hanotiau's Statement of Acceptance, Availability, Impartiality and Independence, as well as his *curriculum vitae*. As Professor Bernard Hanotiau had made a disclosure, the ICC Secretariat invited the Parties to submit their comments thereon by 14 April 2014.

46. On 5 May 2014 and in the absence of any comments by the Parties, the ICC Secretariat informed the Parties that, pursuant to Article 13(2) of the Rules, the ICC Secretary General confirmed Professor Bernard Hanotiau's nomination as President of the Arbitral Tribunal on 2 May 2014. By separate letter of even date, the ICC Secretariat indicated that it was transmitting the file to the Arbitral Tribunal in accordance with Article 16 of the ICC Rules.

47. On 6 May 2014, the Arbitral Tribunal acknowledged receipt of the file and invited the Parties to submit a summary of their respective positions and claims for relief for inclusion in the ToR by no later than 26 May 2014. The Arbitral Tribunal would circulate thereafter a first draft of the ToR and Procedural Order No. 1 ("PO1") for the Parties' approval and/or comments, following which these documents would be finalized at the case management conference. For efficiency purposes, the Arbitral Tribunal indicated that it would prefer conducting the case management conference by way of telephone conference.

48. On 23 May 2014, the Arbitral Tribunal wrote to the Parties informing them of the purpose of the case management conference and attaching a draft agenda for that meeting.

49. On 26 May 2014, the Parties submitted the summaries of their respective positions and claims for relief for inclusion in the ToR. Respondents also set out their observations on Claimant's request for the appointment by the Arbitral Tribunal of one or more experts pursuant to Article 25(4) of the ICC Rules that was first set out in the Reply. By separate communication of even date, Claimant sought the Arbitral Tribunal's permission to respond to Respondents' letter.

50. On 27 May 2014, the Arbitral Tribunal acknowledged receipt of the Parties' communications and invited Claimant to submit its brief comments on Respondents' letter by 30 May 2014. The Arbitral Tribunal also requested Claimant to confirm its availability for the forthcoming case management conference.

51. On the same date, Claimant stated that it would not be available for the conference call on the dates suggested by the Arbitral Tribunal. Given the complexity of the circumstances, Claimant suggested that the draft ToR and PO1 be finalized by way of email exchanges. Claimant also mentioned that, should Respondents reject this suggestion, it would be available for a conference call after 9 June. The Arbitral Tribunal invited soon thereafter Respondents to comment on Claimant's recent suggestions.

52. On 30 May 2014, Respondents indicated that it would prefer finalizing the ToR and PO1 at the conference call and suggested that that call take place in the week of 16 June 2014. By separate letter of even date, Respondents requested that the Arbitral Tribunal direct Claimant to identify all of its claims in the ToR.

53. On the same date, Claimant submitted its reply to Respondents' letter of 26 May 2014 regarding Claimant's request for the appointment by the Tribunal of one or more experts pursuant to Article 25(4) of the ICC Rules.

54. On 2 June 2014, Respondents wrote to the Arbitral Tribunal, whereby they argued that the Parties' first submissions should be accompanied by all documentary and witness (including expert) evidence upon which they rely. They also suggested that the Parties discuss a process of expert communications or the need for additional experts, following the filing of the Parties' first submissions.

55. On the same date, the Arbitral Tribunal suggested new dates for the case management conference and invited them to agree on one of those dates. It also circulated the first drafts of the ToR and of PO1, as well as a letter regarding the appointment of an administrative secretary that was accompanied by the administrative secretary's *curriculum vitae*, declaration

of independence and impartiality and the ICC Note on the appointment, duties and remuneration of administrative secretaries dated 1 August 2012.

56. On 4 June 2014, the ICC Secretariat confirmed that the Parties had paid their respective shares of the advance on costs fixed by the ICC Court at US$ 650,000.

57. On 5 June 2014, Respondents submitted their comments on the draft ToR and PO1 and indicated that they would try to agree with Claimant on the procedural timetable.

58. On 12 June 2014, Respondents sent to the Arbitral Tribunal a list of participants at the case management conference and submitted their additional comments on the draft ToR. They also confirmed that they had no objection to the appointment of an administrative secretary. On the same date, the Arbitral Tribunal acknowledged receipt of Respondents' latest email and invited Claimant to submit its list of participants at the conference call and to respond to Respondents' initial and subsequent comments on the draft ToR and PO1.

59. On 16 June 2014, Claimant sent its comments on the draft ToR and PO1 and on Respondents' proposed changes to the same. Claimant also set out two observations with respect to the procedural timetable that would be discussed at the conference call.

60. On 18 June 2014, Claimant communicated its list of participants at the conference call.

61. On the same date, the Arbitral Tribunal sent to the Parties the conference call agenda, the list of participants, the draft ToR and PO1, containing the latest amendments by the Parties and the Arbitral Tribunal, and the letter regarding the appointment of an administrative secretary. Respondents sent shortly thereafter their proposed procedural timetable and elaborated on certain procedural issues raised by Claimant. Respondents further specified that they would discuss the rest of Claimant's comments on the ToR and PO1 at the conference call, with the exception of Claimant's proposed confidentiality provision, to which they immediately added their own amendments.

62. On 19 June 2014, the Arbitral Tribunal and the Parties held a case management conference, during which the ToR and PO1, the latter also containing the procedural calendar of this arbitration, were finalized to a considerable extent.

63. On 19 and 20 June 2014, Counsel for Claimant and Respondents sent to the Arbitral Tribunal their Powers of Attorney. The Arbitral Tribunal sent to the Parties the amended drafts of the ToR and PO1 on 20 June 2014.

64. On 24 and 25 June 2014, the Parties provided additional comments on the amended drafts of the ToR and PO1.

65. On 25 June 2014, the ICC Secretariat informed the Arbitral Tribunal and the Parties that the ICC Court had extended the time limit for establishing the ToR until 29 August 2014.

66. On 3 July 2014, the Arbitral Tribunal informed the Parties of its availability regarding the procedural hearing that was initially scheduled to discuss the issue of resorting to one or more Tribunal-appointed experts. As explained below, that hearing was subsequently held to address other procedural matters, including document production and Respondents' threshold legal defences ("procedural hearing").

67. On 4 July 2014 and further to the Arbitral Tribunal's last changes to the ToR, making the reference to the 2012 version of the ICC Rules unambiguous, the signing process of the originals of the ToR was completed on 10 July 2014.

68. On 18 July 2014, the ICC Secretariat sent a letter to the Arbitral Tribunal and the Parties informing them that it had transmitted the signed ToR to the ICC Court at its session of 17 July 2014. The ICC Secretariat also requested that it be informed of the date on which it could expect receiving the procedural timetable. Finally, it noted that the Parties had agreed to the appointment of an administrative secretary and invited the Arbitral Tribunal to send the documents pertaining to his appointment. On the same date, the Arbitral Tribunal resent the letter of 2 June 2014 regarding the appointment of an administrative secretary.

69. On 19 August 2014, the Arbitral Tribunal issued PO1, containing the procedural calendar of this arbitration up to the procedural hearing.

70. On 8 September 2014, the ICC Secretariat informed the Arbitral Tribunal and the Parties that the ICC Court had fixed 5 June 2015 as the time limit for issuing the final award in this arbitration.

71. On 17 November 2014, Claimant filed its Statement of Claim ("SoC") accompanied by factual exhibits C-20 through C-212, legal exhibits CL-6 through CL-17, 6 WSs (by Mr. Mohamed Binnabhan, current Minister of Claimant, Mr. Abdulmomen Alaamdi, former IT Manager of Respondents, Mr. Mohammed Al-Mazhani, the Assets and Materials Manager of Claimant, Mr. Hussein Al-Rashid Jamal Alkaff, Vice Minister of Claimant at the time of the PSA's conclusion, Mr. Eng. Nassr Ali Al Humidy, current Chairman of PEPA, and Mr. Ameer Salem Alaidroos, Vice Minister of the Ministry of Foreign Affairs, respectively) and 5 EXRs (by Mr. Jonathan Larkin, Claimant's environmental expert, Mr. Stephen Jewell, Claimant's oil & gas expert, Mr. Richard Sands, Claimant's drilling expert, Mr. David Aron, Claimant's oil & gas expert, and Mr. Mohammed Ali Ahmed Al-Maqtari, Claimant's legal expert, respectively).

72. On 24 February 2015, the Arbitral Tribunal informed the Parties that, due to a conflicting professional commitment of two of its members, the procedural hearing had to be moved to another date. To this end, it suggested alternative dates. On 2 March 2015, the Parties confirmed that they were available to hold the procedural hearing on 9 June 2015. The following day, the Arbitral Tribunal confirmed the date of 9 June 2015.

73. On 10 March 2015, the Arbitral Tribunal sent to the Parties draft Amended PO1, changing the date of the procedural hearing and inserting a two-week deadline regarding the production by the Parties of documents whose production had been ordered by the Arbitral Tribunal. By virtue of separate emails dated 10 and 11 March 2015, the Parties agreed with draft Amended PO1. On 11 March 2015, the Arbitral Tribunal issued Amended PO1.

74. On 13 March 2015, Respondents filed their Statement of Defence and Counterclaim ("SoDC") accompanied by Annex 1, factual exhibits R-11 through R-351, legal exhibits RL-1 through RL-138, 5 WSs (by Mr. Kevin Tracey, Vice-President of the Operations Department of Respondent 1, Mr. Christian Rasmussen, Drilling Engineering Manager of the parent company of Respondent 1, Nexen Inc., Mr. Donald Rettie, Vice-President of Finance of Respondent 1, Mr. Phil Milford, Vice-President and subsequently President of the Operations Department of Respondent 1, and Mr. Brendan O'Connor, Geosciences and Exploration Manager of Nexen Inc., respectively) and 7 EXRs (by Mr. John A. Connor and Mr. Mark P. Hemingway, Respondents' environmental experts, Mr. L. Brun Hilbert, Jr., Respondents' drilling expert, Mr. Stuart Catterall, Respondents' oil & gas expert, Mr. Gerard Lagerberg, Respondents' quantum expert, Mr. Abdulla Luqman, Professor Nayla Comair-Obeid and Mr. Matthew R. Lindsay QC, Respondents' legal experts, respectively).

75. On 25 March 2015, the Parties informed the Arbitral Tribunal that they had agreed to move the filing deadlines for their memorials on the appropriateness, identity and scope of the mission of one or more Tribunal-appointed experts from 7 April to 8 May 2015 and for their *inter partes* document production requests from 27 March to 10 April 2015, which agreement also moved the deadlines of the Arbitral Tribunal's decisions on the Parties' document production requests from 18 May to 1 June 2015 and of the production of documents by the Parties from 1 to 30 June 2015.

76. On 26 March 2015, the Arbitral Tribunal noted the Parties' agreed new deadlines and issued in that respect an updated version of Amended PO1.

77. On 10 April 2015, Claimant filed its *inter partes* document production requests accompanied by factual exhibits C-213 through C-220. On the same date, Respondents filed their *inter partes* document production requests.

78. On 20 April 2015, the ICC Secretariat informed the Parties that the Arbitral Tribunal had informed it of the increase in the amount in dispute and reported that the ICC Court would examine whether to readjust the advance on costs.

79. On 30 April 2015, the ICC Secretariat informed the Parties and the Arbitral Tribunal of the ICC Court's decision to increase the advance on costs to US$ 1,160,000. The ICC Secretariat appended to its letter the financial table of this arbitration and the payment requests related to the increase in the advance on costs.

80. On 7 May 2015, Respondents informed that Claimant had recently decided not to proceed with its application for one or more Tribunal-appointed experts. Claimant would instead submit its comments on other procedural matters in its 8 May 2015 submission. In view of that change, the Parties agreed that their forthcoming submissions would no longer be simultaneous and that Respondents would file their response to Claimant's 8 May 2015 submission by 22 May 2015.

81. On 8 May 2015, the Arbitral Tribunal wrote to the Parties to confirm whether the procedural hearing would be maintained or cancelled and to approve the Parties' most recent agreement on the new filing deadlines. By way separate communications, the Parties confirmed that the procedural hearing would take place and that they would address at that hearing their forthcoming submissions on other procedural matters.

82. On the same date, Claimant filed its Memorial for Procedural Hearing ("MPH") accompanied by factual exhibits C-221 through C-225.

83. On 14 May 2015, Respondents confirmed that they would file their response to Claimant's MPH on 22 May 2015. They also provided their initial comments on Claimant's document production arguments and requested the Arbitral Tribunal to postpone its document production decisions until the Parties have had the opportunity to make oral submissions in that respect at the procedural hearing.

84. On 18 May 2015, the Arbitral Tribunal confirmed that it would defer its decisions on the Parties' document production requests until after the procedural hearing. It further invited the Parties to make the necessary arrangements for that hearing and send their lists of participants. On the same date, the Parties filed their joint Redfern Schedule, containing their contested document production requests.

85. On 22 May 2015, Respondents filed their Memorial on Procedural Issues ("MPI") accompanied by amended Annex 1 and factual exhibit R-352.

86. On 29 May 2015, the ICC Secretariat informed the Arbitral Tribunal and the Parties that the ICC Court had decided to extend the time limit for rendering the final award until 31 August 2015 in accordance with Article 30(2) of the ICC Rules.

87. On 2 June 2015, Claimant sent its initial list of participants at the procedural hearing, explaining that that list would be finalized once the travel and visa arrangments for Yemen's government members were confirmed. On the same date, Respondents informed the Arbitral Tribunal of the hearing reservations and listed the documents that the Arbitral Tribunal would need at the procedural hearing. Respondents also sent their list of participants at that hearing.

88. On 3 June 2015, the ICC Secretariat informed the Arbitral Tribunal and the Parties that the increased advance on costs had been fully paid by the Parties in equal shares.

89. The procedural hearing was held in Paris at the ICC Hearing Centre on 9 June 2015 and it was attended by the following persons:

- On behalf of the Arbitral Tribunal: Professor Bernard Hanotiau, President, Mr. William Laurence Craig and Professor Michael Pryles, co-arbitrators, and Mr. Panagiotis Chalkias, administrative secretary to the Arbitral Tribunal;
- On behalf of Claimant: Ms. Rebecca Sabben-Clare QC, Mr. Benjamin Knowles, Ms. Milena Szuniewicz-Wenzel, Ms. Darcy Beamer-Downie, Mr. Khaled Moyeed, Claimant's Counsel, and Dr. Mohammed Ahmed Al-Meklafi, the Minister of Legal Affairs of Yemen;
- On behalf of Respondents: Mr. Constantine Partasides, Mr. Reza Mohtashami, Ms. Penny Martin, Ms. Debra Gerstein, Respondents' Counsel, and Mr. Michael Josephson, Assistant General Counsel, International & Compliance, Nexen Energy ULC, Mr. Ray Symyk, Senior Counsel – Yemen Operations, Nexen Energy ULC, Ms. Marcia Backus, Senior Vice President and General Counsel, Occidental Petroleum Corporation, Ms. Elizabeth Devaney, Assistant General Counsel, Occidental Petroleum Corporation and Mr. Yasser Burgan, Assistant Vice President, Consolidated Contractors Company; and
- Court reporter: Ms. Claire Hill, the Court Reporter Ltd.

90. On 9 June 2015, the court reporter sent to the Arbitral Tribunal the procedural hearing transcript.

91. The Arbitral Tribunal unanimously made the following decisions at the procedural hearing:[7]

[7] Procedural hearing transcript, 9 June 2015, the Chairman, Ms. Sabben-Clare and Mr. Partasides at 130:6 until 138:21 and at 175:22 until 177:6.

- To bifurcate this arbitration and hear Respondents' threshold legal defences first, setting out a new procedural calendar to this end and specifying that the remaining issues in dispute will be dealt with at a second phase of the arbitration;
- To immediately proceed with the document production phase, where the Parties would file narrower document production requests and the Arbitral Tribunal would rule on them by 13 July 2015; and
- To determine the applicable substantive law in a PO, after having received the Parties' relevant submissions.

92. On 10 June 2015, the Arbitral Tribunal sent to the Parties an updated version of Amended PO1, which reflected the Arbitral Tribunal's decisions at the procedural hearing and on which the Parties were invited to comment. On the same date, Claimant agreed with the updated version of Amended PO1 and requested that the filing deadline regarding its amended document production requests be extended by one day. On 11 June 2015, Respondents also agreed with the updated version of Amended PO1 and requested that the same one-day extension be applied to their response to Claimant's amended document production requests.

93. On 12 June 2015, the Arbitral Tribunal issued the updated version of Amended PO1, granting the Parties' one-day extension requests and containing the procedural calendar up to the hearing on Respondents' threshold legal defences ("TLD hearing").

94. On 17 June 2015, Claimant filed its amended document production requests accompanied by a letter and factual exhibits C-226 through C-229. On the same date, Claimant sent a second letter in relation to the scope of the TLD hearing and the use of PowerPoint presentations at any future hearing.

95. On 18 June 2015, the Arbitral Tribunal invited Respondents to confirm whether they were agreeable to the directions sought by Claimant with respect to the use of PowerPoint presentations at any future hearing. On 22 June 2015, Respondents sent their response in that respect.

96. On 24 June 2015, Respondents filed their response to Claimant's amended document production requests accompanied by a letter.

97. On 30 June 2015, Claimant provided its comments on Respondents' letters of 22 and 24 June 2015.

98. On 1 July 2015, the Arbitral Tribunal stated that the period of three London working days for the exchange of PowerPoint presentations was appropriate. As far as document production was concerned, the Arbitral Tribunal stated that the Parties had already set out their positions extensively and that it was counterproductive to reiterate the same arguments that were

presented at the procedural hearing. The Arbitral Tribunal further invited the Parties to work together so as to implement its decisions on the Parties' document production requests and indicated that it would revert to the Parties with those decisions.

99. On 7 July 2015, Claimant filed its Memorial on the applicable substantive law ("MASL") accompanied by factual exhibit C-230 and legal exhibits CL-18 through CL-22.

100. On 13 July 2015, the Arbitral Tribunal issued Procedural Order No. 2 ("PO2"), whereby it decided on the Parties' document production requests.

101. On 28 July 2015, Respondents filed their Counter-Memorial on the applicable substantive law ("CMASL") accompanied by legal exhibits RL-138 through RL-149.

102. On 14 August 2015, the ICC Secretariat informed the Arbitral Tribunal and the Parties that the ICC Court had decided to extend the time limit for rendering the final award until 31 August 2016 in accordance with Article 30(2) of the ICC Rules. On the same date, Claimant informed the Arbitral Tribunal that the Parties had agreed to move the deadline for the production of documents pursuant to PO2 from 15 to 17 August 2015. The Arbitral Tribunal noted the Parties' agreement shortly thereafter.

103. On 17 August 2015, Claimant sent to Respondents and the Arbitral Tribunal an updated Redfern Schedule, showing which documents Claimant had produced pursuant to PO2. On the same date, Respondents informed Claimant and the Arbitral Tribunal of their document production pursuant to PO2 and provided further information regarding their own document production requests Nos. 1 and 9.

104. On 18 August 2015, Respondens informed Claimant and the Arbitral Tribunal that they were producing further responsive documents pursuant to PO2 and that they would continue to do so on a rolling basis. Additional communications by Respondents regarding their document production were sent to the Arbitral Tribunal and Claimant on 19, 21 and 25 August 2015. Whereas Claimant reserved its position on Respondents' continuous document production, it stated on 19 August 2015 that it would work together with them on their document production as much as possible.

105. On 26 August 2015, the Arbitral Tribunal issued PO3, whereby it unanimously decided the following with respect to the applicable substantive law:

"*Consequently, in accordance with the terms of Article 27.2 (i) of the PSA, the PSA must be interpreted and applied as follows:*

- First, in conformity with the principles of law common to Yemen, Canada and Lebanon;
- And in the absence of such common principles, in conformity with the principles of law normally recognized by nations in general, including those which have been applied by International Tribunals, which, in the opinion of the Arbitral Tribunal, would include international arbitral tribunals constituted under public or private law;
- It is on the Parties to identify and demonstrate in their submissions to be filed in this arbitration which are the principles of law common to the abovementioned three countries or the principles of law normally recognized by nations in general, including those which have been applied by International Tribunals; and
- The Arbitral Tribunal will also take into consideration the principles of good will and good faith."

106. On 31 October 2015, Claimant informed the Arbitral Tribunal that the Parties had been unable to agree on Claimant's one-month extension request regarding the filing of its Statement of Defence on Threshold Legal Defences ("SoDTLD") that Claimant was expected to file on 30 October 2015. Claimant's extension request was primarily based on the then current political uncertainty and general insecurity in Yemen. Respondents had rejected Claimant's offer of a corresponding extension of time of three weeks for the filing of their Statement of Reply on Threshold Legal Defences ("SoRTLD").

107. On 2 November 2015, Respondents explained why Claimant's extension request should be dismissed. They also specified that if the Arbitral Tribunal felt constrained to offer any extension, that extension should be very limited and should be accompanied by an equivalent extension granted to Respondents for the filing of their SoRTLD. However, they noted that Claimant's Statement of Rejoinder on Threshold Legal Defences ("SoRjTLD") should be filed as originally agreed upon so as to maintain the dates for the TLD hearing.

108. On 3 November 2015, the Arbitral Tribunal decided to partially grant Claimant's extension request, by allowing Claimant to file its SoDTLD on 23 November 2015, instead of 30 October 2015. It also granted Respondents an extension of three weeks to file their SoRTLD, moving the filing date from 12 February 2016 to 4 March 2016, and maintained the filing deadline of 15 April 2016 regarding the SoRjTLD. The Arbitral Tribunal invited the Parties to strictly comply with the above deadlines so as to ensure that the TLD hearing would take place on the dates agreed upon in the updated version of Amended PO1.

109. On 23 November 2015, Claimant filed its SoDTLD accompanied by factual exhibits C-231 through C-332, legal exhibits CL-23 through CL-38 and 3 WSs (the second WS of Mr. Eng. Nassr Ali Al Humidy, the first WS of Mr. Abdulbaset Abdulbagi Wail Al-Huribi, General Manager of the Legal Department of Claimant and the first WS of Mr. Khaled Ahmed

Mubarak Bahumaish, Head of Production Affairs and the acting Deputy to the Chairman of PEPA, respectively).

110. On 3 December 2015, Respondents noted that Claimant chose not to present any rebuttal legal expert evidence with its SoDTLD and invited the Arbitral Tribunal to confirm that Claimant would therefore not be allowed to present any legal expert evidence with its SoRjTLD that is responsive to the legal expert evidence already filed by Respondents.

111. On 4 December 2015, Claimant's response was that it should be allowed to respond with expert legal evidence to any further evidence that Respondents present with their SoRTLD. According to Claimant, there was no need for the Arbitral Tribunal to issue an order on that issue, given that the Parties could deal with the issue of whether rebuttal evidence is within permissible grounds when and if such problem arises. Respondents would be allowed to apply to exclude any rebuttal evidence submitted by Claimant at the time of Claimant's submission of its SoRjTLD.

112. On 7 and 9 December 2015, the Parties exchanged further correspondence with respect to Claimant's decision not to submit any rebuttal legal expert evidence with its SoDTLD. On the one hand, Respondents stated that, for reasons of clarity and certainty, they would prefer that the Arbitral Tribunal's decision be recorded in a brief PO. On the other hand, Claimant contented that, should the Arbitral Tribunal decide to issue an order precluding Claimant from submitting further legal expert evidence, Respondents should also be precluded from submitting any further legal expert reports with their SoRTLD.

113. On 11 December 2015 and for reasons of procedural efficiency, the Arbitral Tribunal issued Procedural Order No. 4 ("PO4"), whereby it decided that Respondents should file with the SoRTLD legal evidence, which may include expert legal testimony, only in rebuttal to Claimant's legal evidence supporting its SoDTLD and that Claimant should file with the SoRjTLD legal evidence, which may include expert legal testimony, only in rebuttal to Respondents' legal evidence supporting their SoRTLD. The Arbitral Tribunal also stressed that the TLD hearing dates would have to be maintained.

114. On 19 February 2016, the Arbitral Tribunal invited the Parties to confirm Mr. William Laurence Craig's tentative reservation at the ICC Hearing Centre in relation to the TLD hearing. The Arbitral Tribunal also stated that it would revert to the Parties on the other hearing arrangements in due time.

115. On 4 March 2016, Respondents filed their SoRTLD accompanied by Annex A named "Schedule of Threshold Legal Defences" ("Annex A"), factual exhibits R-353 through R-468, legal exhibits RL-150 through RL-172 and 1 WS (the second WS of Mr. Kevin Tracy). Respondents also stated that, in the course of preparing that submission, a small number of

additional documents responsive to Claimant's document production requests had been identified and that a hardcopy of these additional documents would be provided to counsel for Claimant together with the hardcopies of their SoRTLD.

116. On 15 April 2016, Claimant filed its SoRjTLD accompanied by factual exhibits C-333 through C-338, legal exhibits CL-39 through CL-61 and 1WS (the third WS of Eng. Nassr Ali Al Humidy).

117. On 18 April 2016, Respondents, on behalf of the Parties, wrote to the Arbitral Tribunal suggesting that a pre-hearing conference call take place to discuss procedural matters regarding the TLD hearing. Respondents also reserved their right to respond to Claimant's indication that it would re-argue at that conference call what the proper scope of the TLD hearing should be.

118. On 20 April 2016, the Arbitral Tribunal indicated that two of its members were not available for a conference call on the suggested dates. It further sent to the Parties a letter regarding the logistics of the TLD hearing and proposed that the conference call take place, Chairman alone, on another date, to the extent that there would be unresolved matters to address. The Parties were invited to report back on the items set out in the Arbitral Tribunal's letter by 29 April 2016. The Arbitral Tribunal also noted Claimant's position on the scope of the TLD hearing, a position that was contested by Respondents. It further stated that that issue would be determined in due course after the TLD hearing.

119. On 21 April 2016, the Parties suggested holding the pre-hearing conference call on different dates, given that the date proposed by the Arbitral Tribunal is a bank holiday in England. As to the scope of the TLD hearing, Claimant noted that its position in that regard is set out in full in its previous written submissions and that it would further develop it at the TLD hearing. Regarding the hearing items set out in the Arbitral Tribunal's letter of 20 April 2016, Claimant specified that the Parties would attempt to agree on as many of these items as possible. On the same date, the President of the Arbitral Tribunal informed the Parties that he was not available on the most recently suggested dates.

120. On 29 April 2016, Claimant informed the Arbitral Tribunal that the Parties had reached an agreement on the lists of fact and expert witnesses that would be cross-examined at the TLD hearing. Claimant also specified that its two fact witnesses would be coming from Yemen and that they needed to travel to a third country prior to going to Paris to apply for their French entry visas. Claimant requested in this respect that the Arbitral Tribunal prepare a letter to facilitate that process and set out the content of that letter.

121. On the same date and by way of a separate communication, Claimant informed the Arbitral Tribunal about the Parties' agreement on a number of procedural issues for the TLD hearing.

Claimant noted that one issue of disagreement between the Parties was the order of appearance at the TLD hearing of the Parties and their witnesses and specified that the Parties would set out their respective positions on that issue through an exchange of short emails later that evening. Claimant also explained that, in light of the Parties' agreement on most of the issues related to the TLD hearing, the Parties did not consider necessary holding a pre-hearing conference call, though the Parties remained available on the date proposed by the Arbitral Tribunal.

122. On the same date, Respondents noted their surprise with respect to Claimant's request for a visa invitation letter from the Arbitral Tribunal and reserved their rights in that respect, though they did not object to the issuance of that letter. By way of separate correspondence of even date, the Parties set out their positions as to which Party should make its oral opening statements at the TLD hearing first and whose Party's fact witnesses should be called first.

123. On 2 May 2016, the President of the Arbitral Tribunal sent to the Parties the visa invitation letter requested by Claimant.

124. On 3 May 2016, the Arbitral Tribunal agreed with Respondents that they should make their oral opening statements at the TLD hearing first, followed by Claimant's opening statements, and that Respondents' fact witness should be heard first, followed by Claimant's fact witnesses and Respondents' legal expert witnesses. On 4 May 2016, the Arbitral Tribunal issued Procedural Order No. 5 ("PO5"), reproducing the Parties' agreement on the various procedural matters regarding the TLD hearing, as set out in Claimant's correspondence of 29 April 2016, and the Arbitral Tribunal's decision on the order of appearance at that hearing of the Parties and their witnesses, as set out in its correspondence of the previous day.

125. By virtue of separate correspondence sent on 3 and 5 May 2016, the Parties discussed the physical attendance of Claimant's fact witnesses at the TLD hearing and the need to get exit visas from Yemen. Considering that Claimant's fact witnesses physically attended the TLD hearing, the Arbitral Tribunal does not deem it necessary to refer to this issue further.

126. On 9 May 2016, the Parties sent their lists of attendees at the TLD hearing and informed the Arbitral Tribunal that they had been unable to agree on a joint hearing bundle and chronological list of all factual exhibits. By separate email of even date, Respondents sent a link to their hearing bundle and chronological list of all factual exhibits.

127. On 12 May 2016, the Parties exchanged correspondence with respect to Respondents' "decision bundle" that would be distributed to the Arbitral Tribunal at the TLD hearing. Respondents specified that no new evidence was included therein and Claimant explained that, in light of the proximity of the TLD hearing, it was preparing a bundle containing the key extracts from its pleadings, hard copies of the exhibits referred to in its opening statement

presentation and a number of other key documents. On the same date, Claimant sent a link to its hearing bundle and chronological list of all factual exhibits.

128. The TLD hearing was held in Paris at the ICC Hearing Centre on 16 to 19 May 2016 and it was attended by the following persons:[8]

- On behalf of the Arbitral Tribunal: Professor Bernard Hanotiau, President, Mr. William Laurence Craig and Professor Michael Pryles, co-arbitrators, and Mr. Panagiotis Chalkias, administrative secretary to the Arbitral Tribunal;
- On behalf of Claimant: Ms. Rebecca Sabben-Clare QC, Mr. Benjamin Knowles, Ms. Milena Szuniewicz-Wenzel, Ms. Darcy Beamer-Downie, Mr. William Hill, Mr. Enas Al-Shaibi, Claimant's Counsel, Dr. Nehal Naji Ali Al-Awlaqi, Mr. Saif Mohsen Abood Al-Sharif, Mr. Monasser Saleh Mohamed Al-Quaiti, Mr. Abdulla Monasser Saleh Al-Qualiti, Dr. Mohammed Ahmed Ali Al-Mekhlafi, Dr. Saeed Sulaiman Barakat Al-Shamasi, Mr. Abdulbaset Abdulbaqi Wail Al-Huribi, Claimant's representatives, and Mr. Eng. Nassr Ali Al Humidy and Mr. Khaled Ahmed Mubarak Bahumaish, Claimant's witnesses;
- On behalf of Respondents: Mr. Constantine Partasides, Ms. Penny Martin, Mr. Geoff Watt, Mr. Anish Patel and Mr. Oliver Spackman, Respondents' Counsel, Mr. Alan O'Brien, Mr. Michael Josephson, Ms. Marcia Backus, Mr. Gerald Ellis, Ms. Elizabeth Devaney, Mr. Yasser Burgan and Mr. Edgard Marina, Respondents' representatives, and Mr. Kevin Tracy, Dr. Nayla Comair-Obeid, Mr. Ziad Obeid, Mr. Abdulla Luqman, Mr. Mohammed Luqman and Mr. Matthew Lindsay QC, Respondents' witness and legal experts; and
- Court reporters: Ms. Laurie Carlisle and Ms. Diana Burden.

129. The following fact and expert witnesses testified at the TLD hearing:

- On behalf of Claimant: Mr. Nassr Ali Al Humidy and Mr. Khaled Ahmed Mubarak Bahumaish, both being Claimant's fact witnesses; and
- On behalf of Respondents: Mr. Kevin Tracy, Respondents' fact witness, and, Mr. Abdulla Luqman, Dr. Nayla Comair-Obeid and Mr. Matthew Lindsay, QC, Respondents' legal expert witnesses.

130. On 23 June 2016, Claimant sent an email to the Arbitral Tribunal with respect to the 75-page Post-Hearing Briefs ("PHBs"), which the Parties had agreed to file on 30 June 2016 at the

[8] The Parties agreed at that hearing that Claimant could submit factual exhibit C-339 (the reference in the hearing transcript to exhibit C-340 is wrong): TLD hearing transcript, 17 May 2016, the President, Ms. Sabben-Clare and Mr. Partasides at 209:5-12.

TLD hearing.[9] Claimant reported that the Parties had agreed on the format of the PHBs and that they would not submit any new demonstrative exhibits. Given Claimant's reservation at the TLD hearing of its right to submit a response to the excel sheet submitted by Respondents, Claimant requested the Arbitral Tribunal's input as to whether such document should fall inside or outside the agreed 75-page limit. Claimant argued that it should fall outside and that its response would put the parties on an equal footing and would provide Claimant the chance to summarize critical evidence in a similar vein to Respondents' table and decision bundle. Claimant also noted that it would also provide corrected versions of the settlement chronology and annotated Exhibit R-1.

131. On the same date, Respondents objected to Claimant's request, recalling that the Arbitral Tribunal's instructions given in its break-out room on the final day of the TLD hearing were that the Parties should stay within the PHBs' page limit without exception. Thus, Respondents considered it unfair and unequal to make an exception for Claimant simply because it chose to use demonstrative exhibits differently than Respondents.

132. On 27 June 2016, the Arbitral Tribunal stated that it was the one that had invited Claimant at the TLD hearing to submit a response to the excel sheet submitted by Respondents. It therefore allowed Claimant to submit such document in addition to its PHB, provided that it would be brief, would not contain any new or additional facts and would not be supported by any new or additional evidence.

133. On 29 June 2016, the court reporter sent by email and courier the final versions of the TLD hearing transcript.

134. On 30 June 2016, the Parties filed their PHBs. Claimant's PHB was accompanied by a Schedule filed in response to the spreadsheet submitted by Respondents, a transcribed copy of the PSA, as requested by the Arbitral Tribunal and agreed between the Parties, an amended chronology of documents regarding Exhibit R-1, Exhibit R-1, as amended by Exhibits C-312 and C-313 in both clean and tracked changes versions and selected articles of the English translation to the Lebanese Code of Obligations and Contract, which would either form a new legal exhibit for Claimant (CL-62) or be added to Respondents' legal exhibit RL-112. Respondents' PHB was accompanied by legal exhibits RL-173 through RL-177, amended factual exhibit R-445, the filing of which was notified at the TLD hearing,[10] and an updated Schedule of Threshold Legal Defences ("Updated TLD Schedule").

[9] TLD hearing transcript, 19 May 2016, the President, Mr. Partasides, Mr. Craig and Ms. Sabben-Clare at 1061:15 until 1062:5.
[10] TLD hearing transcript, 17 May 2016, Mr. Partasides and Mr. Tracy at 254:17 until 255:7.

135. On 1 July 2016, the Arbitral Tribunal acknowledged receipt by email of the Parties' PHBs and specified that the selected articles of the English translation to the Lebanese Code of Obligations and Contract could be identified as Claimant's legal exhibit CL-62.

136. On 6 July 2016, Claimant made three requests with respect to Respondents' PHB and a clarification as to what Respondents have stated in para. 3(b)(ii) of their PHB. More specifically, Claimant requested that: (i) Respondents' new legal exhibits RL-173 through RL-177 be excluded or, alternatively, that it re-serve its PHB so as to include references to those new legal exhibits. Should the Arbitral Tribunal decide to exclude them, Respondents' PHB would have to be re-served, without reference to those new legal exhibits, (ii) it reply to Respondents' new formulation of their case, as set out in their PHB from paragraph 91 onwards and (iii) it set out clearly its position on the issues that Respondents contend have not been addressed by it or on which they claim Claimant's position is unclear.

137. On the same date, the Arbitral Tribunal invited Respondent to respond to Claimant's requests by 8 July 2016, following which the Arbitral Tribunal would deliberate and decide on Claimant's requests.

138. On 8 July 2016, Respondents responded to Claimant's email of 6 July 2016. In relation to Claimant's first request, Respondents stated that Claimant had failed to distinguish between new factual evidence and new legal authorities. Whereas Respondents produced no new factual evidence, legal exhibits RL-173 through RL-177 were directly responsive to legal submissions only fully developed, for the first time, by Claimant at the TLD hearing. As a result, Respondents seized the only remaining opportunity they had and filed legal exhibits RL-173 through RL-177 to directly respond to Claimant's new submissions. In relation to Claimant's second request, Respondents explained why Claimant's allegation that they had formulated a new case in their PHB was preposterous. In relation to Claimant's third request, Respondents objected to having a second round of PHBs. Finally, Respondents addressed Claimant's clarification as to what they have stated in para. 3(b)(ii) of their PHB.

139. On 12 July 2016, Claimant sent an unsolicited reply to Respondents' email of 8 July 2016, whereby it further expounded on its three requests and clarification.

140. On the same date, the Arbitral Tribunal acknowledged receipt of Claimant's unsolicited reply, which, in the Arbitral Tribunal's opinion, did not add anything new to the Parties' positions on Claimant's three requests and clarification and did not change the Arbitral Tribunal's decisions on the same. It also explained why it granted Claimant's first request with respect to the new legal exhibits RL-173 through RL-177 and dismissed the other two requests of Claimant. Regarding Claimant's clarification and Respondents' response thereto, the Arbitral Tribunal noted that Claimant had not made any request in that respect and that it was counterproductive to repeat the same arguments that were already on record. Consequently,

the Arbitral Tribunal invited Respondents to re-serve their PHB, without any reference to legal exhibits RL-173 to RL-177, by 15 July 2016.

141. On 13 July 2016, Respondents re-submitted their PHB, without any reference to legal exhibits RL-173 through RL-177.

142. On 18 July 2016, the Arbitral Tribunal acknowledged receipt by courier of the Parties' PHBs and accompanying documents.

143. On 12 August 2016, the ICC Secretariat informed the Parties and the Arbitral Tribunal that the ICC Court extended the time limit for rendering the final award until 30 November 2016 on 11 August 2016.

144. On 18 November 2016, the ICC Secretariat informed the Parties and the Arbitral Tribunal that the ICC Court extended the time limit for rendering the final award until 31 January 2017 on 10 November 2016.

145. On 23 January 2017, the ICC Secretariat informed the Arbitral Tribunal that the ICC Court extended the time limit for rendering the final award until 28 February 2017 on 12 January 2017.

146. On 25 January 2017, the Arbitral Tribunal declared the current phase of the proceedings, dealing with Respondents' threshold legal defences, closed.

CHAPTER V. THE PARTIES AND OTHER RELATED ENTITIES

147. The PSA was concluded by the "Ministry of Energy and Minerals" on behalf of the People's Democratic Republic of Yemen, which was known back then as South Yemen.

148. On 22 May 1990, the People's Democratic Republic of Yemen united with the Yemen Arab Republic, which was known back then as North Yemen, to create the Republic of Yemen, which is the current official name of the country. The parties to the PSA Amendment (Exhibits C-3 and R-73) agreed that all references in the PSA to the People's Democratic Republic of Yemen were replaced by references to the Republic of Yemen.

149. Following the unification of Yemen, the "Ministry of Energy and Minerals," the original party to the PSA, was merged with the corresponding Ministry from the Yemen Arab Republic to form the new "Ministry of Oil and Mineral Resources of the Republic of Yemen." That new Ministry was later renamed the "Ministry of Oil and Minerals," which is the current name of Claimant.

150. Claimant is the relevant contracting authority of the Yemeni government in charge of the natural resources of the country and is responsible for entering into production sharing agreements and supervising their performance under laws currently contained in Decree No. 40 of 2000 (Exhibit CL-1) and Article 144 of the Yemeni Constitution. Article 8 of the Yemeni Constitution provides that "*[a]ll types of natural resources and sources of energy, whether above ground, underground, in territorial waters, on the continental shelf or the exclusive economic zone are owned by the state, which assures their exploitation for the public interest.*" The laws delegating authority to the "Ministry of Energy and Minerals," the original party to the PSA, to enter into the PSA are Law No. 15 of 1973 and Law No. 25 of 1976 (Exhibits CL-11 and CL-12), which are referred to in Article 22.1 of the PSA.

151. Other relevant entities involved on behalf of Claimant or its predecessors include the Petroleum Exploration and Production Authority ("PEPA"), which is the current name of the advisory department of Claimant. PEPA was formerly known as the Petroleum Exploration and Production Board ("PEPB") and PEPB's predecessor was known as the Petroleum Exploration Department ("PED"). The role of PEPA has been to advise Claimant on technical matters and to oversee exploration and production activity in the Republic of Yemen (Exhibit CL-13).

152. According to Claimant, PetroMasila, the operator of Block 14 as of the PSA's expiry on 17 December 2011, is another emanation of the Yemeni State. The Republic of Yemen receives the benefit of all oil revenue that it earns from that block and meets all of its costs (WS of Mr. Binnabhan, para. 20). As a result, PetroMasila's costs since the expiry of the PSA are costs

incurred by Claimant and all liabilities arising from Block 14 remain with Claimant. Consequently, for the purposes of this arbitration, Claimant contends that no distinction should be made between the Republic of Yemen, Claimant and PetroMasila.

153. However, Respondents point out that Claimant's sole proof that costs incurred by PetroMasila since the PSA's expiry are costs incurred by Claimant is the WS of Mr. Binnabhan, to the exclusion of any documentary evidence. Claimant has yet to prove that costs incurred by PetroMasila are costs incurred by Claimant. In case Claimant fails to do so, the Arbitral Tribunal should find that Claimant cannot raise claims regarding costs that have been incurred by PetroMasila, which is a separate legal entity that has existed only since the end of 2011.

154. As indicated above, the original signatories to the PSA on behalf of the "Contractor," as defined therein, have assigned, whether directly or through other affiliated entities, their rights and obligations under the PSA to Respondents.

155. It is undisputed that the interests in the PSA were initially held by CanadianOxy Offshore International Ltd., which held a 60% interest, and Consolidated Contractors International Company S.A.L., which held a 40% interest and that Respondents acquired their respective interests in the PSA through the following process:

- With respect to Respondent 1: (a) CanadianOxy Offshore International Ltd. transferred a 30% interest in the PSA to Canadian Occidental Petroleum Limited on 1 January 1992, (b) Canadian Occidental Petroleum Limited assigned its 30% interest in the PSA to Canadian Occidental International Petroleum Corporation on 15 November 1994, (c) Canadian Occidental International Petroleum Corporation assigned its 30% interest in the PSA to Canadian Occidental Petroleum Yemen on 1 December 1994, (d) CanadianOxy Offshore International Ltd. assigned its remaining 22% interest in the PSA to Canadian Occidental Petroleum Yemen on 15 December 1994 and (e) Canadian Occidental Petroleum Yemen changed its name to the current name of Respondent 1 on 3 December 2000;
- With respect to Respondent 2: Consolidated Contractors International Company S.A.L. trasferred a 10% interest in the PSA to Respondent 2 on 25 October 1992;
- With respect to Respondent 3: (a) Consolidated Contractors International Company S.A.L. assigned a 10% interest in the PSA to Occidental Yemen Inc on 9 September 1991, (b) CanadianOxy Offshore International Ltd. transferred an 8% interest in the PSA to Occidental Yemen Inc on 13 September 1991, (c) Occidental Yemen Inc assigned its 18% interest in the PSA to Occidental Peninsula, Inc. on 1 November 1991 and (d) Occidental Peninsula converted to a limited liability corporation, which is the current status of Respondent 3, on 6 December 2006; and
- With respect to Respondent 4: (a) Consolidated Contractors International Company S.A.L. assigned its remaining 20% interest in the PSA to Pecten Yemen Company

("Pecten") on 27 July 1990 and (b) Pecten assigned its 20% interest in the PSA to Respondent 4 on 11 August 1998.

156. As a result, Respondent 1 currently has a 52% interest in the PSA, Respondent 2 a 10% interest, Respondent 3 an 18% interest and Respondent 4 a 20% interest. Respondent 1 was the appointed "Operator" from 2001 and had the active conduct of petroleum operations at Block 14 on behalf of the "Contractor." However, the other contracting party to the PSA, Consolidated Contractors International Company S.A.L., and its assignees were severally liable for the performance of the PSA.

CHAPTER VI. THE PARTIES' POSITIONS ON THE MERITS

157. At this juncture, the Arbitral Tribunal finds it appropriate to set out in brief the Parties' positions on the merits of this case. The following summary is in no way exhaustive and it only serves to outline the background underlying the Parties' arguments in respect of Respondents' threshold legal defences.

Section 1. Claimant's position

158. In essence, Claimant contends that, on the expiry of the PSA on 17 December 2011, it took back from Respondents a block with multiple problems, including dangerous and deficient wells, deficient or dangerous items of equipment and facilities, without access to the integrated management systems and to a proper asset register. Despite making huge profits during the PSA's 20-year term, Respondents failed to make the necessary investments to keep Block 14 in "*optimal working order*" in accordance with "*generally accepted standards of the Petroleum Industry*" and the PSA.

Sub-section 1. Respondents' breaches

159. Respondents' breaches before and on the expiry of the PSA relate to: (i) their unsafe, damaging and deficient wells, (ii) the increased abandonment costs that will be incurred because many of the wells are unsafe, damaging and deficient, (iii) other environmental risks, (iv) the state of project infrastructure and equipment, (v) data, documentation and asset register and (vi) an Enterprise Resource Planning ("ERP") system called "SAP" that Respondents should have provided to Claimant or, failing that, an alternative system.

160. With respect to the above first four items, Claimant argues that Respondents were in multiple and continuing breaches of the PSA and of the contractual duties of Good Oilfield Practice, good faith and goodwill when the PSA expired. Regarding the above last two items, Claimant contends that they pertain to the PSA's expiry and to Respondents' breach of the PSA and of the contractual duties of Good Oilfield Practice, good faith and goodwill.

Sub-section 2. Well design, drilling and abandonment claim

161. According to Claimant, Respondents' well design and drilling practices were unsafe, damaging and deficient. During the 20-year term of the PSA, Respondents drilled 646 wells within Block 14 and a further 14 wells outside that block. Claimant contends that at least 311 of those wells breached Respondents' obligations under Article 8.1 and 8.2 of the PSA, Good Oilfield Practice, good faith and goodwill as they were inadequate to preserve a barrier between the hydrocarbons and the aquifers.

162. Respondents' well design under the second version of their General Drilling Programme ("GDP") was deficient and in breach of their obligations because the production casing was not fully cemented. Among the 311 wells that Claimant claims were unsafe, 206 of these were built on the basis of their GDP2 and the remaining 105 wells that were built after mid-2001 were also inadequately cemented, though Respondents had intended to implement their GDP3 or later versions. It was only after Respondents implemented their GDP6 in June 2009 that the 13 wells drilled thereafter had a fully cemented production casing, *i.e.* from the very bottom of the casing to surface level.

163. According to Claimant, Respondents failed to take any steps to remedy this issue during the life of the PSA, except for the insufficient corrosion measures. Thus, the wells remained in breach of Respondents' obligations throughout the PSA's 20-year term and when that term expired on 17 December 2011. The consequences of that continuing breach is that water from the aquifers has been lost and the deficient wells need to be repaired or abandoned, where repair works must be carried out at the latest when the wells are abandoned. Claimant has calculated the costs of this loss of water at approximately US$ 32-73 million and of the repairs/abandonment of the wells in question at approximately US$ 374.23 million.

164. In relation to its well abandonment claim, Claimant specifies that Respondents purported to abandon 6 out of the 660 wells that they drilled during the course of the PSA. However, in breach of Article 8.2 (i) of the PSA and Good Oilfield Practice, the steps taken to abandon 5 out of these 6 wells were inadequate. Furthermore, Respondents failed to take proper steps to abandon 10 out of the 14 wells that are located outside of the area of Block 14. Claimant contends that the total cost of properly abandoning these 15 wells is approximately US$ 10.369 million.

165. Another breach of Respondents has to do with the fact that, between January 1994 and 1 May 2004, they routinely used crude oil that is known for its flammability and toxicity and harmful chemicals as additives for the water-based drilling fluids, which were used when installing and drilling the production casing of the wells. According to Claimant, this practice is also contrary to Good Oilfield Practice, good faith and goodwill. Claimant contends that Respondents polluted the aquifers because of the inadequate well integrity, though it cannot currently prove that the environment beyond the immediate proximity of the wells has been polluted. Claimant reserves its right to investigate this further and indicates that there is a possibility that third-party claims be raised by the local inhabitants regarding water pollution.

166. Other issues pertaining to Respondents' wells include the failure to perform Formation Leak-Off Tests ("LOTs") or Formation Integrity Tests ("FITs"), the flawed design of the Vertical Pumping System ("VPS"), the lack of well cellars, the improper disposal of Normally Occurring Radioactive Material ("NORM") and the improper disposal of produced water.

167. In relation to the first issue, Claimant maintains that no LOTs or FITs were carried out by Respondents between 1992 and late 2005. Though it does not present any separate head of damage in relation to this issue, Claimant explains that this issue provides another reason why Respondents' wells have to be abandoned. In relation to the second issue, Claimant explains that Respondents drilled 47 VPS wells on Block 14. Their design is defective as it presents a high risk of pollution of the aquifer and their repair costs are estimated at US$ 4.943 million. In relation to the third issue, Claimant asserts that the lack of well cellars has led to serious corrosion and the costs of installing cellars for the 347 affected wells amount to US$ 49.04 million. In relation to the fourth issue, Respondents failed to ensure that the 3 wells, into which they disposed of NORM, were properly abandoned. This poses a serious environmental risk, as NORM could potentially contaminate the groundwater aquifers. In relation to the fifth issue, Claimant points out that Respondents disposed of produced water by injecting it into the Harshiyat formation from 1993 to 1996, which is a clear breach of the PSA.

168. On the basis of Article 8.2 (i) of the PSA, Claimant raises a separate claim for the abandonment costs related to the following categories of wells:

- The 311 wells that were inadequately cemented. The cost of repairing those wells to protect the aquifers is approximately US$ 272.5 million and the cost of abandoning them is US$ 124.5 million;
- The 323 wells that were adequately cemented but not adequately abandoned. The cost of abandoning those wells is approximately US$ 124.9 million; and
- The wells that Respondents purported to permanently abandon but failed to test properly, including the 3 NORM disposal wells. The cost of properly abandoning those wells is US$ 8.8 million, where US$ 1.3 million is needed for the inadequately abandoned wells and US$ 7.5 million for the NORM disposal wells.

169. In total, Claimant claims approximately US$ 532 million as abandonment costs for the 646 wells drilled by Respondents. This is a distinct ground of claim for damages from the first well design claim. Claimant concedes that, to the extent that the latter succeeds, the claim for the abandonment costs is bound to fall away.

Sub-section 3. Other environmental risks claim

170. Claimant explains that the following environmental hazards have been left by Respondents *in situ* upon handover of Block 14:

- Failure to conduct and produce an Environmental Impact Analysis ("EIA") or assessment of baseline of environmental conditions. According to Claimant's expert, an

assessment of the current baseline of environmental conditions could take place, which could cost from US$ 150,000 to US$ 300,000;

- Failure to dispose of NORM. The full impact of Respondents' failure in this respect is not fully known. By the time Claimant filed its SoC, only the NORM remediation costs could be quantified and they are in the amount of US$ 2 million;
- Groundwater contamination. Claimant's expert suggests that a detailed review of potential contamination sources be undertaken. The cost of this detailed review was in the order of US$ 50,000 at the time of Claimant's SoC. Based on the results of this detailed review, additional monitoring wells should be drilled and soil tests should be made, where, at the Terminal site, an investigation involving drilling, soil sampling, well installation and groundwater sampling of up to 50 bores/wells to depths of up to 15 metres would cost in the order of US$ 200,000 to US$ 300,000 at prices current at the time of the SoC. At the CPF, the soil investigation may cost in the order of US$ 150,000 to US$ 250,000 at prices current at the time of the SoC, excluding the costs of well installation. Furthermore, the investigation of damage to water bearing formations in the vicinity of wells with known or suspected integrity issues could be expensive, with each new well potentially costing hundreds of thousands of US$ to install. Also, additional costs would be incurred in any necessary follow-up investigations or remediation;
- Waste management failures, which include lack of proper incinerators, the open burning of hazardous waste and the dumping/uncontrolled disposal of waste, including NORM. Respondents knew about these failures, as in or about 2006, they commissioned Environmental Resources Management ("ERM"), a reputable environmental consulting firm, to evaluate their waste handling, treatment and disposal operations and to make recommendations (Exhibit C-194, tab 47). However, Respondents did nothing. Up to 2011, the cost of remedying their waste management failures amounted to US$ 17.4 million, with an additional US$ 2.85 million needed for remediating the sludge ponds at the CPF and the Terminal. Claimant's expert further advises that, once the NORM content of waste sludge and ash at the CPF and the Terminal has been assessed, an appropriate plan would need to be developed for their treatment and disposal, though the cost of that plan could not be assessed at the time of Claimant's SoC;
- Abandoned/redundant facilities. Respondents failed to clear from Block 14 the redundant sections of the MOL, the redundant flow lines and surface facilities and the disused borrow pits. As per Respondents' own calculations in 2010, the costs of removing these items: (a) abandoned MOL: US$ 250,000 to 1 million, (b) abandoned flow lines and surface facilities: US$ 4,650,000 (based on 31 wells at US$ 150,000 per well), (c) drill-site borrow pits: US$ 6 to 9 million (based on 590 pits at US$ 10-15,000 each), (d) road maintenance borrow pits: US$ 800,000 (based on 20 pits at US$ 40,000 each) and (e) terminal area borrow pits: US$ 100,000;

- Unexploded seismic charges. Seismic charges are used to assist in drilling wells and in the conduct of seismic survey acquisition work. When left unexploded, they present a safety hazard that is similar to landmines. Though Claimant concedes that there are not many current remedial actions required, the situation will be different if the charges explode and Respondents should be held accountable in this respect;
- Third-party claims. Claimant explains that, under Yemeni law, including the Environmental Protection Law No. 26 of 1995, it may be liable for death, injury, ill health and damage as a result of the environmental damage caused by Respondents. Whereas many complaints have already been made, Claimant is unable to quantify its losses and liabilities related thereto;
- Instances of death, injury, ill health and damage for which third parties may not claim. Finally, Claimant maintains that, whereas not all of Respondents' above environmental failings will give rise to claims by third parties, it is entitled to and claims compensation from Respondents for such failings.

171. According to Claimant, all of the above risks are contrary to Respondents' obligations under Articles 8.1, 8.2(a), 8.2(b) and 8.2(d) of the PSA, Good Oilfield Practice, Yemeni Environmental law and good faith and goodwill.

Sub-section 4. Infrastructure and equipment claim

172. Claimant explains that in the final years of the PSA, Respondents neglected many areas of the project infrastructure and equipment, and upon handover of Block 14, a number of elements of the project infrastructure and equipment were in poor, damaged or defective condition. Claimant has prepared a Facilities and Equipment Schedule that shows which elements exactly Respondents neglected (WS of Mr. Binnabhan, para. 71, and Exhibit C-72, Tabs 1-30). Respondents breached not only Articles 8.1, 8.2(a), 8.2(d) and 18.1(b) of the PSA, but also Good Oilfield Practice and good faith and goodwill.

173. Claimant, via PetroMasila, has had to incur considerable expenses in investigating, repairing or replacing the facilities and equipment that Respondents left in poor, damaged or defective condition. The total of the incurred and estimated costs is US$ 37,308,523.14, excluding additional sums that have not yet been fully quantified.

Sub-section 5. Data, documentation and asset register claim

174. Respondents' obligation to maintain accurate and current records of their operations and to furnish those to Claimant when reasonably required is specifically addressed by Article 16 of the PSA. In addition, in breach of Article 16.6 of the PSA, Respondents failed to provide Claimant copies of all geophysical, geological, petrophysical, engineering and environmental data. Article 16.8 of the PSA expressly states that Respondents should have delivered to

Claimant all original data upon the PSA's expiry. Respondents have failed to do so, despite Claimant's requests (Exhibits C-70, C-75 and C-140). Respondents further breached Good Oilfield Practice and good faith and goodwill.

175. Claimant seeks copies and/or originals of the missing data and further or alternatively, insofar as specific performance is not given and complied with, Claimant claims compensation in the amount of the cost of acquiring these data. In particular, the cost of acquiring seismic data anew would approximately be US$ 10,000 per km (for 2D data) to US$ 20,000 per km² (for 3D data), with the total costs amounting to approximately US$ 10,000,000 for 2D data. In addition, the cost of producing an aeronautic survey is approximately US$ 1,000,000.

176. Claimant also argues that, under Article 18.1 of the PSA, Good Oilfield Practice and good faith and goodwill, Respondents should have maintained and communicated to Claimant a register of all fixed and moveable assets that were to be handed over ("Asset Register"). The Asset Register would have allowed Claimant to know the whereabouts, condition and value of those assets for the purposes of the ongoing petroleum operations and its accounting obligations. Claimant requests specific performance by Respondents of their obligation to produce an Asset Register. Alternatively, Claimant claims compensation for the cost of compiling such an Asset Register, which is estimated at US$ 1.95 million to US$ 2.4 million.

Sub-section 6. SAP claim

177. Claimant further contends that Respondents failed to grant access to Claimant to or transfer to it the ERP system called "SAP" (Systems Application Programming). In about 2002, Respondents purchased and replaced the accounting system called IDEAS and the materials purchasing and inventory management system called CENDEC with the SAP system. Under Article 18.1(b) of the PSA, title to the SAP system should have passed to Claimant upon the PSA's expiry. However, as of 17 December 2011, Claimant's access to the SAP system was blocked by Respondents.

178. Shortly before the PSA's expiry, Respondents downloaded certain information related to their Yemen operations on to Excel spreadsheets or printed them in hard copy. Respondents did not even provide Claimant with any transition period within which data might have been migrated to another software system upon the PSA's expiry. As a result, Claimant was left without an ERP system and, for a considerable period of time, had to resort to manual systems to run its petroleum operations. Respondents breached Article 8.1 and 18.1(b) of the PSA, Good Oilfield Practice and good faith and goodwill, by failing to transfer the SAP system or provide an alternative system. Consequently, Claimant claims compensation for the cost of buying an alternative ERP system called Epicor, the implementation costs of which are estimated at US$ 9,637,513.

Sub-section 7. Request for relief and conclusion

179. On the basis of the above, Claimant seeks specific performance of all of Respondents' obligations under the PSA and, to the extent that this is not available, compensation.

180. Claimant's damage claims are as follows: (i) claim for deficient well design and/or abandonment claim in the total amount of US$ 686,487,000, (ii) claim for water lost from the Mukalla aquifer caused by the inadequate cementing of wells in the approximate amount of US$ 32 million to US$ 73 million, with a continued annual loss of approximately US$ 2 million to US$ 4.5 million, (iii) claim for other environmental damage in the approximate amount of US$ 34.6 million to US$ 38.7 million, (iv) claim for potential future losses and liabilities arising from environmental damage, which was not quantified at the time of Claimant's SoC, (v) facilities and equipment claim in the amount of US$ 37,308,523.14 and (vi) data, documentation and SAP claims, including the cost of replacing missing data in the amount of US$ 11 million, the cost of an Asset Register in the amount of US$ 1.95 million to US$ 2.4 million and the cost of a replacement ERP in the amount of US$ 9,637,513.

181. Claimant further stresses that another way of quantifying its losses would be to consider the actual value of Block 14 as at 18 December 2011, as opposed to the value that it should have had on that date. Claimant's expert has considered the remedial work required on the wells and in respect of known environmental issues and has come to the conclusion that Block 14 lost US$ 662 million in value or, applying a discounting rate of 5%, US$ 561 million.

182. As at the date of Claimant's SoC, the aggregate amount of Claimant's quantified claims is approximately US$ 812.9 million. Claimant also seeks either interest on all damages awarded or an award of damages that reflects the date of the award, rather than the date of breach. In the further alternative, Claimant seeks damages reflecting the time value of money in addition to any award to reflect the value of its loss as at 18 December 2011.

Section 2. Respondents' position

Sub-section 1. General observations

183. Respondents contend that Claimant's claims are vague and unsubstantiated allegations, which depend on future investigations and repairs that Claimant itself has chosen not to undertake since the expiry of the PSA's term on 17 December 2011. Despite having spent almost nothing on the allegedly essential repairs since the PSA's expiry, Claimant now claims the excessive amount of more than US$ 818 million in relation to Block 14, a block that, according to Claimant's own expert, has a remaining commercial lifetime of four years, that is, until 2018 (EXR of Mr. Aron, Figure 1 and para. 21). Essentially, Claimant is seeking an amount of money for possible remedial work that it is unlikely ever to undertake.

184. More fundamentally, Respondents argue that Claimant's claims are unsustainable for the following three threshold reasons: 1) many of its claims were time-barred long ago under any potentially applicable limitation period, 2) Claimant has long ago waived any right to raise, and is now estopped from raising, many of its present claims and 3) many of its remaining claims were explicitly settled through the 10 March 1996 Settlement Agreement (Exhibit R-1). These threshold legal defences are at the epicenter of the present award and are set out in full in the following chapters.

185. Respondents also note that, whereas more than two decades have passed since they began operations at Block 14, Claimant is still unable to provide any evidence of environmental damage. Claimant itself admits in its SoC that certain allegations are still not substantiated. For instance, in relation to its claim that Respondents improperly used crude oil and other chemicals in their drilling fluids, a practice that ended around a decade ago, Claimant states that it "*accepts that it cannot currently prove that the environment beyond the immediate proximity of the wells has been polluted*" and reserves the right to investigate this further. In addition, with respect to its claim that Respondents have contaminated the aquifers on Block 14, Claimant proposes a future "*detailed review of potential contamination sources based on site observations and existing records,*" which Claimant has failed to conduct since it took over the operation of Block 14. Finally, regarding the claim that Respondents failed to deal with and dispose of NORM, Claimant admits that "*[t]he impact of the Contractor's [Respondents'] ongoing failures to address NORM issues is not fully known.*"

186. Moreover, Claimant's allegations of liability are often in contradiction with its own conduct and the documentary record. By way of example, Respondents point out that Claimant's claim that each of the wells drilled on the basis of their first well design is a "*timebomb*" that could cause "*catastrophic pollution of the aquifers*" is belied by the fact that, to date, Claimant has not made any of the allegedly essential repairs. According to Respondents, Claimant has failed to do so because those repairs are not essential, given that, for the vast majority of the wells, it is simply not possible for any hydrocarbons to ingress into and pollute the aquifers.

187. Another general comment of Respondents is that Claimant omits to mention that it was constantly demanding at the time of Respondents' operations of Block 14 that costs on that block be reduced so as to maximize its own profit oil share. Thus, Claimant's current claim that Respondents should have spent more on Block 14 is at odds with its contemporaneous conduct. Furthermore, Claimant's claimed damages should have been discounted substantially, given that, under the cost recovery mechanism of the PSA, the cost of any repairs undertaken by Respondents during the PSA's term would have been charged back to Claimant. However, Claimant has not taken this aspect into account.

Sub-section 2. Cost recovery mechanism, operational framework of the PSA and Respondents' operating standards

188. Regarding the cost recovery mechanism of the PSA, Respondents point out that, under Article 9.1 of the PSA, in the event of a "Commercial Discovery," Respondents would pay all costs and expenses of development and related operations and be entitled to recover "*all [such] costs and expenses,*" unless they were otherwise excluded by the PSA, out of a maximum of 40% per annum of all crude oil produced. Article II of Annex D to the PSA provided a non-exclusive list of items eligible for cost recovery.

189. Under Article 9.1 (a) – (c) of the PSA, Respondents could recover all operating expenses in the year incurred, all exploration expenditures over four years and all development expenditures over a period of six years. The remaining petroleum, known as "profit oil," was split between the Parties in accordance with Article 9.3 of the PSA. Pursuant to that provision, Claimant was entitled to receive between 66.7% and 80% of profit oil depending on the level of production. Therefore, the cost recovery mechanism had an impact on the amount of profit oil received by the Parties.

190. Over the twenty-year term of the PSA, Respondents drilled 642 wells, producing a total of over one billion barrels of crude oil available for sale. Claimant's share of that production was in excess of 625 million barrels, which generated an economic benefit to Claimant in excess of US$ 40 billion (Exhibit C-317). From the first petroleum operation in 1993 until the PSA's expiry in December 2011, the average profit oil percentage of Claimant was approximately 72% (Exhibit R-316).

191. Furthermore, pursuant to Article 7.4 of the PSA, Respondents had to prepare and submit their "*annual production schedule, work program and budget,*" known as the Work Program and Budget ("WP&B") to the Block 14 Operating Committee ("OpCom"), a committee that consisted of representatives of both Claimant and Respondents, in October of each year for approval. Further budget updates were provided to Claimant by Respondents at the end of the first third of each year, which updates were known as the "4&8," and the beginning of the final third of each year, which updates were known as the "8&4."

192. Under Article 15.6 of the PSA, once costs were incurred by Respondents, they were recorded in the quarterly Statement of Activity ("SOA"). Respondents would then cost recover for those costs in accordance with the provisions of the PSA by lifting oil on a monthly basis. The oil lifted was recorded in the quarterly Cost Recovery Petroleum Statement. Claimant then had the opportunity to audit the costs recovered by Respondents. Under Article 15.7 of the PSA, Claimant had 24 months from the end of each calendar year to raise any issues regarding the costs appearing on the SOA for that year that had been cost recovered by

Respondents, failing which the particular SOA was presumed to be true and correct in accordance with Annex D to the PSA, Article I.3.

193. Regarding the operational framework of the PSA, Respondents stress that Claimant was involved in the operations of Block 14 throughout the PSA's term. This was achieved through various committees and bodies, namely, through the OpCom, which was responsible for approving Respondents' WP&Bs, a sub-committee of the OpCom, which was responsible for contract and procurement activities, and Claimant's own advisory body, PEPA and its predecessors, to which Claimant assigned its rights and obligations under the PSA in accordance with Article 32 of the PSA.

194. PEPA and its predecessors assumed the role of Respondents' technical counterpart from the start of the PSA in 1986. In 1997, Republican Decree No. 204 established the predecessor of PEPA, PEPB, as Claimant's regulatory agency for oil and gas operations (Exhibit CL-13). Moreover, in accordance with Republican Decree No. 40 of 2000 (Exhibit CL-1), Claimant was supported by various specialist internal departments, such as the Petroleum Accounts Department, which reviewed Respondents' WP&Bs, and the departments for Health, Safety, Environment and Security and Yemenisation, as well as by various technical teams that were monitoring Respondents' petroleum operations.

195. Respondents also contend that, from 1998 onwards, they were submitting well packages for every individual well to PEPA for its formal approval prior to drilling. Also, as part of the Yemenisation process, PEPA had inspectors and secondees who were assigned to almost all of Respondents' departments and who were involved in Respondents' operational activities. PEPA secondees participated in the daily activities of nearly all operational teams of Respondents and prepared daily reports that were typically copied out of Respondents' morning reports and were submitted to their superiors at PEPA (1 WS of Mr. Tracy, para. 80).

196. As far as their operating standards are concerned, Respondents contend that they developed a comprehensive set of standards, policies and procedures that applied to their operations on Block 14 pursuant to Article 8.1 of the PSA and the various references in the PSA to operating standards. Respondents' operating standards were detailed in their Environmental Management System ("EMS"). The EMS was originally developed in the mid-1990s and it evolved throughout the term of the PSA (Exhibits C-211, R-25, C-194, Tab 36, and R-100). Although Claimant makes only brief reference in its SoC to Respondents' EMS, Respondents point out that PEPA was specifically provided with copies of the EMS and related materials (Exhibits R-125 and R-126).

197. Respondents' standards, as reflected in the initial and subsequent EMS, were derived from a comprehensive range of sources, such as the relevant Yemeni legislation and international conventions, the laws and industry standards of the home province of Respondent 1's parent

company ("Nexen Inc."), which is Alberta, Canada, and the relevant industry practice "*as reflected in practices widely accepted by responsible operators in the International Petroleum industry.*" (Exhibit R-100, paras. 3.7.1, 3.7.2., 3.8, 3.9 and 3.10). Respondents even went beyond those standards by adopting the "Ethic and Codes of Responsible Care," which is a global voluntary initiative developed by the chemical industry.

198. Respondents accept that the PSA imposed the standard of "*Good Oilfield Practice,*" which can be defined as the practice "*generally accepted to be good, safe, and efficient in carrying out oilfield operations*" (EXR of Mr. Catterall, para. 21). However, that standard is not fixed in time and what is Good Oilfield Practice today may not have been Good Oilfield Practice ten or twenty years ago. To reflect this, Respondents maintain that the EMS was continuously revised and enhanced so as to keep up with the evolving standard of Good Oilfield Practice.

Sub-section 3. Transition planning and discussions over the extension of the PSA

199. Respondents contend that they started planning the transition of Block 14 in approximately 2007, whilst parallel discussions over the extension of the PSA were ongoing (WS of Mr. Milford, para. 43). As a consequence of the transition planning discussions, a "Project Charter," and, subsequently, department-specific transition plans were created. Respondents also made sure to provide Respondent 1's Yemeni employees with the training and experience necessary to continue operating Block 14 after the PSA's expiry. However, Claimant's input during the transition planning discussions was close to non-existent.

200. The Parties' discussions over the extension of the PSA's term commenced several years in advance of the PSA's expiry and intensified in the period from 2009 to 2011. At the time, Yemen was in the midst of the civil unrest that presided over the Middle East in 2011. In 2010, Yemen's then President, Mr. Ali Abdullah Saleh, escaped assassination but was seriously injured, and Yemen's parliament was suspended in the midst of civil unrest and protests. Respondents' first formal extension proposal was submitted to Claimant in May 2010 in accordance with Article 4.5 of the PSA (WS of Mr. Milford, para. 107). It was made further to Claimant's expressed interest in receiving such a proposal (Exhibit C-123, p. 2). The government of Yemen then established a special committee ("Future Masila Committee") to consider the future of Block 14 and Respondents' proposal.

201. Moreover, the Parties created their own teams of representatives to discuss the PSA's extension. Respondents were invited to meet with, among others, Claimant, PEPA, various other representatives of the government of Yemen, including its President, Vice President and Prime Minister. Over the course of those discussions, Respondents were invited to and did improve the terms of their extension proposal (WS of Mr. Milford, paras. 111-112, 121-122, 130, 140 and 152). Respondents also submitted to the government of Yemen offers to develop additional and new blocks within Yemen (WS of Mr. Milford, paras. 123 and 141).

202. Despite the ongoing discussions and the positive indications from the government of Yemen that an extension might be granted, Respondents' extension proposal was formally rejected on 31 October 2011, only a few weeks before the PSA's expiry (Exhibit C-192). And it was only on 3 December 2011, just two weeks before the PSA's expiry, that Respondents received notification for the first time that a new operator for Block 14 had been created (WS of Mr. Milford, para. 171).

203. On 24 November 2011, approximately four weeks before the PSA's expiry, the Chairman of PEPA had a meeting for the first time with Respondent 1's senior employees to discuss the transition process (WS of Mr. Milford, para. 182). To facilitate continuity of the operations, Respondents allowed PetroMasila to make offers of employment to Respondent 1's Yemeni employees and to a significant number of employees who had worked at the neighboring Block 51, which was operated by an affiliate of Respondent 1 (WS of Mr. Milford, paras. 195, 198-199). As a result, almost all of Respondent 1's Block 14 employees and an important number of Block 51 employees joined PetroMasila. This fact is of a significant value, considering the Parties' current arguments on the question of whether Claimant or PEPA had knowledge of the "*quantitative and qualitative terms of [Block 14's] assets.*"

204. On 17 December 2011, Block 14 was transitioned to PetroMasila. The transition was adequately made, given that production in the months that followed the PSA's expiry was the same as it had been in the preceding months (Exhibit R-303). In May 2014, Mr. Mohammed Bin Sumait, a former Respondent 1 employee and the current Executive General Manager of PetroMasila, reported that PetroMasila had "*achieved more than US$ 1,5 billions [sic] to the State's treasury in 2012 and around US$1,5 billions [sic] in 2013.*" (Exhibit R-305). PetroMasila's own website reports an average daily production of 48,000 barrels of crude oil and states that "*production targets hav[e] been maintained since PetroMasila's takeover in late 2011.*" (Exhibits R-304 and R-303). In fact, Mr. Bin Sumait reported in June 2013 that PetroMasila had "*outperform[ed] the previous operator*" and, more recently, he stated that operations continued to proceed "*smoothly*" and that "*production was far beyond expectations by the end of 2014*" (Exhibits R-306 and R-318).

205. However, in recent years, the Yemeni oil industry is in decline, due to a combination of declining production in its mature fields and frequent attacks on its energy infrastructure. According to Respondents, this decline has given rise to Claimant's present claims.

Sub-section 4. Well design and drilling claims

206. Claimant asserts that Respondents breached Articles 8.1 and 8.2 of the PSA, by: (i) failing to cement the full length of the 9 5/8" production casing on 318 wells and failed to create adequate barriers between hydrocarbons and the aquifers (ii) failing to take proper steps to

abandon five wells safely, (iii) using crude oil and harmful chemicals in drilling fluids, (iv) failing to conduct LOTs and FITs, (v) designing flawed VPS wells, (vi) failing to construct cellars for the wells, (vii) disposing of NORM in wells without proper well integrity checks and (viii) injecting produced water into the Harshiyat formation.

207. Respondents' main observations on those allegations are summarized as follows:

- Respondents had a full understanding of the geology and hydrogeology of Block 14 when they commenced their petroleum operations. Claimant's expert appears to accept that this is the case;
- Respondents' cementing policy related to GDP1, GDP1.1 and GDP2 was based on the geology and hydrogeology of Block 14 and was consistent with Good Oilfield Practice, the Alberta Guidelines not always being representative of that practice. Moreover, Claimant has not shown that any loss of freshwater has occurred as a result of Respondents' initial cementing policy;
- Respondents addressed and managed the corrosion issue related to the first well design in accordance Good Oilfield Practice and no environmental damage has been caused as a result of the then-current cementing programme, as confirmed by PetroMasila's very limited expenses in repairing the allegedly deficient wells since it took over Block 14;
- Respondents' approach to abandonment was consistent with Good Oilfield Practice and has caused no environmental damage. In any event, Claimant's estimate of the abandonment costs is grossly inflated and no further steps are required in relation to the five out of the six wells that Respondents abandoned during the PSA's term;
- Respondents' use of crude oil and other additives in water based drilling fluids that ended in September 2003 was consistent with Good Oilfield Practice at the relevant time and has caused no environmental damage to the aquifers, with Claimant confirming that it is unable to "*prove that the environment beyond the immediate proximity of the wells has been polluted*";
- Respondents' practice of not performing LOTs and FITs between 1992 and 2005 were in accordance with Good Oilfield Practice at the time and their obligations under the PSA. Moreover, these tests were not required to confirm the integrity of the surface casing. In any event, no damage has been caused, as Claimant confirms that it "*does not contend that any separate identifiable damage flowed from lack of testing alone*";
- The design of VPS wells was consistent with Good Oilfield Practice and no environmental damage can be established by Claimant in this respect;
- There was no need for Respondents to install well cellars on Block 14 and this omission has not caused any corrosion. Moreover, Claimant's proposal to install cellars on all Block 14 wells is totally unjustified;

- The injection of produced water into the Harshiyat, a practice that took place from 1994 to 1999, was consistent with industry standards at the time and has caused no environmental damage, as confirmed by the contemporaneous site visits and environmental reports (Exhibits R-141, C-194, Tab 41, R-349, Tab 135, and R-47);
- The disposal of NORM-contaminated equipment in three specific wells was consistent with Good Oilfield Practice and has caused no environmental damage; and
- The use of drilling mud sumps was consistent with Good Oilfield Practice and has caused no environmental damage, as confirmed by the 2009 Trium ecological assessments (Exhibits R-171 and R-190).

Sub-section 5. Other environmental claims

208. With respect to the alleged failure to conduct and produce an EIA, Respondents point out that Claimant has conveniently omitted to mention that they did commission Komex and VSO Canada, Inc. to conduct such an environmental study in 1992-1993 (Exhibit R-16). The government of Yemen was provided with a copy of that EIA in 1993 (1WS of Mr. Tracy, para. 84) and Claimant never suggested that the existing EIA reports were inadequate. To the contrary, the former Deputy Oil Minister, Dr. R. Ba-Rabaa, referred to both the existence and breadth of Respondents' EIA in 2000 (Exhibit R-52, pp.2-3).

209. The EIA dated March 1993 was used as the basis for the development of Block 14. Respondents also conducted a number of further EIAs and risk assessments regarding specific aspects of their petroleum operations (1WS of Mr. Tracy, para. 87). However, Respondents were under no obligation to provide an EIA or any other "*detailed environmental assessment*" at the PSA's expiry (EXR of Mr. Conner and Mr. Hemingway, p. 64). Despite having taken over Block 14 on 18 December 2011, Claimant has yet to conduct such an assessment, noting that Claimant's own expert concedes that "*it is not possible to carry out a retrospective EIA.*"

210. Regarding Claimant's NORM claims, Respondents contend that their related policies and procedures were introduced from as early as late 1990s and were consistent with Good Oilfield Practice (EXR of Mr. Conner and Mr. Hemingway, p. 103). All personnel involved in the handling of NORM were provided with training in 2000, 2006 and 2011 (1WS of Mr. Tracy, paras. 143-144, Exhibits R-129 and R-334). Respondents also provided suitable personal protective equipment for all employees who came into contact with NORM. Respondents further sought the assistance of an external and experienced NORM expert, Mr. Hunt, in relation to the above-mentioned training sessions and the Sunah pipeline.

211. Claimant accuses Respondents of not having proceeded with a remediation contract, although it was Claimant that never approved such a contract (1WS of Mr. Tracy, paras. 153-156). Claimant now contends that Respondents "*obtain[ed] an approval for a NORM remediation contract by February 2011,*" but it does not provide any supporting evidence. It simply refers

to one presentation on this subject given by Respondents to the OpCom (Exhibit C-208) and what appears to be an extract from an internal risk categorization document (Exhibit C-194, Tab 48). Given Claimant's refusal to approve the remediation contract, Respondents disposed of NORM-contaminated equipment through canisterisation, a disposal practice that Claimant now objects to.

212. Contrary to Claimant's assertions, Respondents performed NORM surveys in relevant areas and on relevant facilities during the PSA's term and the Nexen Petroleum UK report, on which Claimant relies, was inaccurate, as there was only one NORM storage area at the CPF, records were kept of the equipment stored there and regular monitoring existed, including under the supervision of Mr. Hunt (1WS of Mr. Tracy, paras. 149 and 151-152, and EXR of Mr. Conner and Mr. Hemingway, p. 105). The only NORM-contaminated equipment that was left in the storage yard after the PSA's expiry was four pieces of equipment, which were too large to be disposed of downhole. PetroMasila should have disposed of these remaining pieces of equipment as part of routine oilfield operations. Claimant hides its failure to provide any evidence of environmental damage, by stating that the "*impact of the Contractor's ongoing failures to address NORM issues is not fully known.*" Respondents' experts confirm there is no evidence of any environmental damage in respect of Claimant's NORM claims.

213. As far as Claimant's groundwater contamination claim is concerned, it is solely based on the speculations of its expert that there are a number of "potential" sources of groundwater contamination on Block 14. As a result, Claimant claims the costs of a detailed groundwater investigation and remediation programme. However, Claimant has no contractual right to such an investigation and it has not established that Respondents did not comply with Good Oilfield Practice. Furthermore, no evidence of damage has been produced and Claimant conveniently omits to mention that PetroMasila did not undertake itself such a comprehensive investigation and remediation programme since the expiry of the PSA.

214. Respondents' witnesses and experts address Respondents' practices with respect to well integrity, drilling, the produced water disposal and the Terminal and explain how those practices could not have resulted in any impact to the beneficial use of groundwater. They also address the alleged "potential" sources of groundwater contamination at the CPF, Terminal and in the field that have been identified by Claimant's expert, who is referring to the Al Safa report (Exhibit C-194, Tab 26) and explain that it is unlikely that groundwater contamination would have been caused (1WS of Mr. Tracy, Sections VII(H) and VII(c), WS of Mr. Rasmussen, Sections VI-VIII, and EXR of Mr. Conner and Mr. Hemingway, Sections 6.0, 7.0, 9.0 and Table 4).

215. Respondents further monitored groundwater quality, by regularly testing a number of water wells located at various locations across Block 14. This monitoring did not identify any impacts to the UeR, Mukalla or the Harshiyat aquifers (1WS of Mr. Tracy, paras. 111, 114

and 133, and EXR of Mr. Conner and Mr. Hemingway, pp. 65, 98, 120 and Appendix C). Respondents also undertook ongoing monitoring of the marine environment at the Terminal, which, once again, did not identify any negative impacts to the coastal environment (1WS of Mr. Tracy, paras. 123-125, and EXR of Mr. Conner and Mr. Hemingway, pp. 13-14 and 53).

216. Claimant has also raised a claim regarding Respondents' waste management practices. In particular, Claimant contends that Respondents breached their duties of good faith and goodwill, by "*deliberately*" failing to implement the recommendations made by ERM, the environmental management consultants, in March 2007 (Exhibit C-194, Tab 47). Among Respondents' failures, Claimant refers to the lack of proper incinerators, the open burning of hazardous waste and the dumping/uncontrolled disposal of waste.

217. Contrary to Claimant's allegations, Respondents' waste management standards, policies, procedures and practices were consistent with Good Oilfield Practice (1WS of Mr. Tracy, paras. 169-172, EXRs of Mr. Catterall, p. 87, and of Mr. Conner and Mr. Hemingway, pp. 12 and Section 7.0). The standards defined by Respondents' Waste Management Plan were derived from the Alberta Guidelines and the Waste Management Plan itself made specific provision for the adaptation of those standards to local conditions (Exhibit R-156, Revision 2 dated 16 June 2008, paras. 1.5 and 2.3.2). Moreover, the basis of their Waste Management Plan was the "Best Practicable Environmental Option" ("BPEO") strategy for waste management, which prioritized waste reduction, reuse, recycling and recovery ahead of residue or waste disposal. The BPEO strategy was the same strategy endorsed by ERM and, as Claimant's expert acknowledges, ERM concluded that Respondents' waste management procedures "*were comprehensive in coverage.*"

218. Respondents explain that the various wastes produced as a result of their petroleum operations on Block 14 were assessed and classified and managed in accordance with three main waste streams (Exhibit R-156, Sections 6 and 9.1). And each of these three main waste streams was acceptable (EXR of Mr. Conner and Mr. Hemingway, pp. 29, 107 and 108).

219. Regarding the recommendations set out in the ERM report dated March 2007, Respondents maintain that that report evaluated "options" for waste management and that their decision not to implement all of these options does not amount to a breach of Good Oilfield Practice. As Respondents' experts confirm, the recommendations were "*desirable in accordance with EU standards which were not necessarily suitable for operations in Yemen*" and "*were excessive relative to accepted oilfield practice*" (EXRs of Mr. Catterall, para. 79, and of Mr. Conner and Mr. Hemingway, p. 112). Respondents' witness addresses Claimant's specific claims in relation to the recommendations of ERM and Respondents' waste management practices (1WS of Mr. Tracy, paras. 175-179, 180-191).

220. In any event, Respondents stress that Claimant has not proved any actual environmental damage. The amount sought of US$ 17.4 million is baseless, specifically considering that Claimant has not itself implemented the recommendations of the ERM since it started operating Block 14 on 18 December 2011. The additional amount of US$ 2.85 million for remediating the sludge ponds at the CPF and the Terminal is unsupported and far exceeds the amounts previously budgeted by Respondents during the PSA's term (1WS of Mr. Tracy, para. 186). Finally, PetroMasila should have undertaken the bioremediation of oily wastes and contaminated soil in the course of its regular operational activities.

221. Claimant's abandoned/redundant facilities claim is equally unmeritorious. Contrary to what Claimant alleges, the abandonment of the buried sections of the MOL was consistent with the policy set out in Respondents' EMS, which provided that "*[b]uried pipelines will be purged of all hydrocarbons, filled with inhibited water, sealed and abandoned in situ.*" (Exhibit C-211, para. 12.4.2). The abandonment of the redundant flow lines and surface facilities was also in line with their EMS (Exhibit C-211, paras. 12.4.1 and 12.4.2). Respondents' practice was to block the flow lines to prevent ongoing corrosion, disconnect them from the network and leave *in situ* for future use, in case additional opportunities for the concerned well appeared later on. Similarly, surface facilities would be purged, cleaned, made safe and left *in situ* for future use (1WS of Mr. Tracy, paras. 335-341). This practice did not breach Good Oilfield Practice (EXR of Mr. Catterall, paras. 91-93).

222. Respondents' witness also explains why Respondents left behind borrow pits (1WS of Mr. Tracy, para. 342). Further to their EMS, the borrow pits would be finally abandoned only at the end of the block's life (Exhibit C-211, paras. 12.4.2). Respondents further contend that many of the borrow pits on Block 14 were still in use upon the PSA's expiry and will continue to be used for road maintenance and construction of new roads or drilling locations and that PetroMasila has used borrow pits to extract materials for use in the construction of large bioremediation pits, as well as for use in new wells being drilled and for the construction of well sites and lease roads (1WS of Mr. Tracy, para. 345).

223. Claimant has failed once again to establish any actual environmental damage caused by the abandoned and redundant facilities, with the exception of a small sub-section of the MOL. Respondents' related policy could not have had any environmental or human health impact and the total claimed amount of US$ 15,550,000 relates to works that Claimant itself has decided not to undertake.

224. Another baseless environmental claim of Claimant is related to seismic charges. Seismic charges were used for mapping subsurface targets for exploration or development wells, and they represent an alternative to large vibration trucks. The seismic misfires on Block 14 originated from seismic acquisition programs conducted between 1995 and 2001 (1WS of Mr. Tracy, paras. 200-202). In accordance with the guidelines prepared by the Canadian

Association of Geophysical Contractors and the International Association of Geophysical Contractors, Respondents determined that attempting to remove the misfires would introduce a greater risk of injury than abandoning the misfires in place. As a result, and given the remote location of the charges, Respondents removed the lead wire or cut it back under the soil, short-circuited the wire, known as "shunting," and cemented and backfilled the shot hole with rocks and soil.

225. Respondents further explain that monuments were installed in certain locations on the basis of their risk assessment but, as a security precaution, the misfires in populated wadis and agricultural areas were not precisely marked because high visibility would be more likely to invoke curiosity and the risk of tampering. Respondents' practice was endorsed by the Vice President of the International Association of Geophysical Contractors, who also confirmed that marking misfire sites "*may encourage attempts at recovery by unauthorised persons.*" (Exhibit R-46 and 1WS of Mr. Tracy, paras. 206). Maps of locations of the misfires were held by Respondents' Construction and HSE&SR Departments and Respondents implemented Construction Standing Order 002 "Identifying Seismic Misfires," which required inspections for seismic activity prior to any movement of heavy equipment or excavation work. That standing order was provided to Claimant and PetroMasila at the end of the PSA (1WS of Mr. Tracy, para. 208).

226. Further to Respondents' internal meeting held in September 2010, Respondents commissioned ERM to undertake a study of the seismic misfire issue and to prepare a report (Exhibit C-194, Tab 51). ERM concluded that the risk to individuals was extremely low, noted that "*further efforts to locate the charges are not justified*" and "*recommended that CNPY continues to inform relevant parties of the locations of the charges*" (Exhibit C-194, Tab 51, p. i). And that is what Respondents did (1WS of Mr. Tracy, para. 210).

227. In any event, "*[t]he fact that the seismic misfires have been in place since at least 1995 and there have been no reported incidents in 20 years shows that this assessment was accurate.*" (1WS of Mr. Tracy, para. 211). Claimant's own expert concedes that this claim leads nowhere because "*further efforts to locate the charges would not be justified based on the level of risk*" and "*there is little that can reasonably be done.*" Respondents' experts conclude that "*there is no unacceptable risk to human health or the environment*" related to this practice (EXR of Mr. Conner and Mr. Hemingway, p. 14 and 117).

228. As for Claimant's third-party claims, Respondents point out that Claimant has produced evidence of only very few complaints, which provide no basis for awarding an unquantified indemnity. Most of the letters referred to by Claimant consist of internal correspondence and the third-party complaints included therein appear to represent political demands, which, in any event, appear to have been made almost a full year after the PSA's expiry. Regarding the complaints of the local fishermen at the Terminal, Respondents took measures to assist the

fishermen and cannot be blamed for the anti-terrorist measures taken by the Yemeni Ministry of Defence (1WS of Mr. Tracy, paras. 358-360).

229. Respondents are not aware of any other third-party claims during the PSA's term (1WS of Mr. Tracy, para. 361). In any event, Respondents have no ongoing obligation under the PSA to indemnify Claimant in relation to any future third-party claims. Claimant never made any claims under Article 22.4 of the PSA during the PSA's term and that provision does not survive the PSA's expiry. To the extent that Claimant's third-party claims are based on Yemeni law, including Articles 79 and 82 of the Environment Protection Law No. 26 of 1995, such claims fall outside the scope of this arbitration because they do not arise in connection with the PSA.

Sub-section 6. Facilities and equipment claim

230. Claimant has raised thirty individual claims in relation to its facilities and equipment claim and they are all set out in its Facilities and Equipment Schedule (Exhibit C-72). Respondents contend that all thirty individual claims are flawed and address each one of them in their Facilities and Equipment Response Schedule (1WS of Mr. Tracy, para. 362 and Annex 2).

231. Respondents point out that Claimant's facilities and equipment claim is based on the erroneous premise that they should have provided brand new facilities and equipment on expiry of the PSA. Article 8.1 of the PSA provides that they had to maintain the Block 14 facilities and equipment in good working order during the PSA's life. Moreover, under Article 18.1(b) of the PSA, they had to transfer assets to Claimant in good working order, subject to ordinary wear and tear. Respondents complied with these obligations.

232. Claimant relies on an inaccurate translation of Article 8.1 of the PSA in its effort to argue that Respondents had to maintain the facilities and equipment in "optimal working order." However, Respondents maintain that a more accurate translation of that expression is "good working order." Moreover, Claimant relies on an unworkable definition of "optimal working order," which requires equipment to be "*operating at the peak of its stated specifications defined when it was originally manufactured.*" (EXR of Mr. Jewell, para. 63). On the other hand, Respondents define "optimal working order" "*as the condition and/or operating configuration of materials, equipment and facilities that allows the balance of performance, availability for duty and cost of operation to be at its best*" (EXR of Mr. Catterall, para. 46).

233. Contrary to Claimant's unfounded allegations, Respondents kept maintaining the condition of the Block 14 facilities and equipment throughout the PSA's life. Respondents note in this respect that they had reasons to believe that Claimant would grant an extension of the PSA and as a result, they had a strong incentive to routinely maintain the facilities and equipment up to the end of the PSA's term. Nevertheless, Respondents specify that they were

constrained by Claimant's ongoing requests to reduce costs, particularly towards the end of the PSA, and by the security and labor issues that arose in 2011 (1WS of Mr. Tracy, para. 371, and Exhibit R-6).

234. Moreover, Claimant has waived, and is estopped from raising, certain sub-claims of its facilities and equipment claim, given that it was made aware of the status of those facilities and equipment throughout the PSA's term, including through the 2012 budget that included schedule maintenance and repair activities (Exhibit R-282), and raised no fundamental objections at the time.

235. In any event, Claimant has not established that the items described in its Facilities and Equipment Schedule were not in good working order during the PSA's term or on its expiry and what kind of repair work PetroMasila has carried out. Moreover, the claim for US$ 37,308,523.14 for sums "*spent and expected to be spent*" is entirely unsupported and does not take into account the fact that that amount would have been cost recovered, had Respondents made any repairs during the PSA's term, and that Claimant would have raised exceptions in the cost recovery audit process on the basis that these costs were non-essential.

Sub-section 7. SAP claim

236. Claimant's SAP claim is unmeritorious because none of the provisions of the PSA requires Respondents to provide this system or any other ERP system to Claimant on expiry of the PSA. Nexen Inc., entered into a license agreement under which its subsidiaries, including Respondent 1, were entitled to use the SAP system in connection with their operations on Block 14. The terms of the license did not allow Nexen Inc. to transfer the license to Claimant after the PSA's expiry. Once Respondent 1 ceased to operate Block 14, it had no contractual entitlement to use Nexen Inc.'s SAP system on that block.

237. Respondents made considerable efforts to encourage Claimant to obtain its own ERP system into which the data contained in the SAP system could be transferred. They identified suitable ERP providers and arranged meetings between ERP providers and Claimant. To the extent that Claimant has suffered any inconvenience as a result of its lack of an ERP system, this is solely a result of its own conduct.

Sub-section 8. Claimant's request for relief and Respondents' counterclaim

238. Claimant seeks in its SoC "*specific performance of the PSA obligations together with a substantial damages award.*" Not only Claimant's claims are factually unsupported but also Claimant's request for relief is flawed as a matter of law. A request for specific performance requires a breach of a contract that is still in force. Here, the PSA expired on 17 December 2011 and as a result, its performance can no longer be ordered.

239. Having recognized this flaw, Claimant seeks the "*cost of the performance that should have been given, but was not,*" but such a request for relief is neither specific performance nor is it damages. And even if Claimant were to establish an entitlement to damages, it would still need to show that it has suffered any actual loss. However, what Claimant seeks here is the possible "*cost of perform[ing]*" certain work that it has not undertaken so far and may not undertake at all in the future.

240. Claimant's attempt to transform potential future costs into actual present damages is fundamentally erroneous, since it does not take into account the cost recovery mechanism of the PSA and, in particular, the value of the benefit in profit oil received by Claimant over the course of the PSA that Claimant would not have received as a result of Respondents' incurred costs. Finally, Claimant still needs to explain and prove how the alleged incremental costs incurred by PetroMasila, the current operator of Block 14, constitute damages that can be sought by Claimant.

241. Respondents' counterclaim is for damages representing their profit oil share of the lost production resulting from the labor strikes of May and September 2011 (Exhibits R-2-R-6). These strikes caused the shutdown of operations and severe staffing shortages and thus, they were *force majeure* events in accordance with Article 25.2 of the PSA. Claimant refused to accept that these were *force majeure* events and to grant Respondents a commensurate extension of the PSA of one year on the basis of Article 25.1 of the PSA (Exhibits R-7-R-10). The aggregate amount of the counterclaim is US$ 9,896,596.

CHAPTER VII. THE PARTIES' PRAYERS FOR RELIEF

Section 1. Claimant's prayers for relief

242. As identified in the SoC, Claimant's prayers for relief regarding the merits of this case are as follows:

"*Accordingly, the Ministry claims:*

(1) *Specific performance of all of the Contractor's obligations under the PSA;*

(2) *Damages arising from the deficient design of wells and the Contractor's deficient drilling practices in a total sum of at least US$686,487,000;*

(3) *Alternatively to (2) in whole or in part, the cost of proper abandonment of all wells drilled by the Contractor in a total sum of at least US$686,487,000;*

(4) *Damages for water lost from the Mukalla aquifer in the sum of at least US$ 32m;*

(5) *Damages for known environmental damage in the sum of at least US$ 34.6m;*

(6) *Damages for breach of the Contractor's duties in respect of facilities and equipment in a total sum of at least US$$37,308,523.14;*

(7) *Specific performance of the Contractor's obligation to provide all data and documentation to the Ministry, alternatively damages in lieu in a total sum of at least US$ 1.95m in respect of the Asset Register and a sum of at least US$ 11m in respect of some of the Missing Data.*

(8) *Specific performance of the Contractor's obligation to provide access to the SAP system upon expiry of the PSA, alternatively damages in respect of the cost of an alternative system in the sum of at least US$ 9,637,513 or as may be assessed;*

(9) *Further or alternatively to some or all of these heads of damage, damages reflecting: (i) the diminution in value to the Ministry of the Block as at 18 December 2011 caused by any or all of the foregoing breaches of PSA; and/or (ii) loss of production and/or loss of profitability from Block 14 after 18 December 2011;*

(10) *A declaration that the Contractor is liable to indemnify the Ministry against any further consequences of environmental pollution caused by the Contractor which are discovered after the conclusion of this arbitration;*

(11) *A declaration that the Contractor is liable to indemnify the Ministry against any liability that it has incurred or may incur to third parties in respect of their breach(es) of the PSA and/or applicable laws (including but not limited to the Environmental Protection Law (Law No. 26 of 1995) and any costs of defending itself against the claim or proceedings brought by any such third party;*

(12) *Interest, alternatively damages reflecting repair costs and/or replacement costs as at the date of the Award, alternatively damages reflecting the time value of money;*

(13) *All costs and expenses (including, but not limited to, costs payable to the ICC, legal fees and expenses and expenses of experts, consultants and others) incurred by the Ministry in connection with this arbitration.*

The Ministry will also ask the Tribunal to:

(1) *Grant interim relief inter alia in the form of an interim order for a list of missing data;*

(2) *Make directions for determination or consideration of the issues by one of more joint experts;*

(3) *Further or alternatively to (2), direct that assessment of the environmental damage and production interruption claims be deferred to a later hearing;*

(4) *Declare that its award is immediately enforceable.*"

243. As identified in the SoRjTLD, Claimant's prayers for relief regarding Respondents' threshold legal defences are as follows:

"*For the reasons set out above, the Ministry maintains its position that the Tribunal should dismiss the alleged Settlement Agreement defence, rule that the legal rules governing time-bar and waiver/estoppel are as set out in the Defence and above and rule that the Contract[or] has not made allegations that are capable of establishing a waiver/estoppel. The Tribunal cannot properly go any further at this stage; the Ministry would object to any proposal that it should do so.*"

244. As identified in the PHB, Claimant's prayers for relief regarding Respondents' threshold legal defences are the following:

> *"For the reasons set out above, the Tribunal is asked to dismiss the alleged "threshold defences" on the ground that the Respondents' case fails as a matter of law. In relation to each defence, the Respondents have not even alleged facts that would make out their case.*
>
> *If, contrary to this submission, the Tribunal regards any aspect of the Respondents' time-bar or estoppel/waiver case as correct in law, the factual issues must be held over to a full liability hearing. Disputed issues in relation to the nature and time of breach and the Claimant's knowledge cannot be disposed of fairly without hearing all of the evidence in relation to the breaches themselves, including expert evidence, and without a full document production exercise. The scope of the oral hearing and the impossible task with which the Tribunal would otherwise be faced now bear out these points."*

Section 2. Respondents' prayers for relief

245. As identified in the SoDC, Respondents' prayers for relief in respect of the merits of this case are as follows:

> *"[T]he Respondents respectfully request the Tribunal to:*
>
> *(a) DISMISS the Claimant's claims in their entirety;*
>
> *(b) ORDER the Claimant to pay damages to the Respondents for breach of Article 25.1 of the PSA;*
>
> *(c) ORDER the Claimant to pay the costs of this arbitration on a full indemnity basis, including the fees and expenses of the Tribunal, the ICC's administrative costs and the costs of the Respondents' legal representation and expert assistance; and*
>
> *(d) ORDER any other relief that the Tribunal considers appropriate."*

246. As identified in the SoRTLD and PHB, Respondents' prayer for relief in respect of their threshold legal defences is as follows:

> *"On the basis of the foregoing, the Contractor invites the Tribunal to dismiss the Ministry's claims, with costs."*

CHAPTER VIII. THE PARTIES' POSITIONS ON THE THRESHOLD LEGAL DEFENCES

247. In its analysis below, the Arbitral Tribunal has not only considered the positions of the Parties as summarized in this partial award, but also the detailed arguments included in their written submissions and those made at the procedural and TLD hearings. To the extent that these arguments are not expressly referred to herein, they must be deemed to be subsumed in the Arbitral Tribunal's analysis.

Section 1. Respondents' position

Sub-section 1. Preliminary remarks

248. According to Respondents, many of Claimant's current claims date back to the 1990s. They are not only time-barred, but also based on facts that Claimant was aware of at the time and, in almost all cases, never previously objected to. They are therefore also subject to a waiver/estoppel defence. Moreover, many of its claims have been settled by virtue of the Settlement Agreement, the validity of which Claimant never previously questioned.

249. Despite the seriousness of Respondents' threshold legal defences of time-bar, waiver/estoppel and settlement, Claimant has attempted to circumvent them, by relying on totally unsupported theories that old breaches were resuscitated and transformed into brand new breaches at the PSA's term's expiry on 17 December 2011, that all alleged breaches are continuing breaches that were renewed on every day of the PSA's term, including the day of the PSA's expiry, and that the required knowledge, triggering the applicable limitation period, should not be limited to the facts underlying the alleged breaches, but should also include the other party's liability.

250. Contrary to Claimant's objection to the Arbitral Tribunal making any finding of fact as to its state of knowledge at this stage of the arbitration, Respondents maintain that Claimant's state of knowledge is simply demonstrable by reference to documentary evidence, which allows the Arbitral Tribunal to rule on their threshold legal defences in respect of each of Claimant's claims.

Sub-section 2. The Settlement Agreement

A. The Settlement Agreement is binding and has been performed for years

251. Respondents point out that the Settlement Agreement dated 10 March 1996 was concluded, on the one hand, by the Ministry of Oil and Mineral Resources represented by the Minister of Oil and Mineral Resources and, on the other hand, by Canadian Occidental Petroleum Yemen,

Consolidated Contractors (Oil and Gas) S.A.L., Occidental Peninsula Inc., Pecten and Canadian Occidental Petroleum Yemen (Exhibit R-1).

252. Although Claimant stated in its Reply that it was still investigating the Settlement Agreement's enforceability and how it was treated by the Parties, Claimant did not make a single reference to that agreement in its SoC. Instead, Claimant characterised many of its claims for abandonment costs as claims for "*increased abandonment costs*" that arise out of an alleged breach of Articles 8.1 and 8.2 of the PSA.

253. In its SoDTLD, Claimant argues for the first time that the Settlement Agreement was not a concluded agreement. Almost exactly twenty years after the agreement's conclusion in March 1996, Claimant now characterizes the Settlement Agreement as a mere "*draft proposal*" that was subsequently rejected by the government of Yemen, despite having received long time ago the benefit of Respondents' full payment of the settlement sum of US$ 150 million prescribed in that agreement. Claimant also argues for the first time that the Settlement Agreement was never ratified and is therefore unenforceable as a matter of Yemeni law.

254. Contrary to Claimant's novel and unmeritorious arguments, Respondents stress that the Settlement Agreement was fully executed by its parties and subsequently ratified by the Yemeni Supreme Economic Council and the Council of Ministers in accordance with the requirements of Yemeni law. Furthermore, the parties to that agreement have subsequently and repeatedly confirmed their understanding of the full force and effect of its terms.

255. Most notably, Respondents fully paid and Claimant fully took the benefit of the US$ 150 million settlement payment. That payment was made by Respondents on the basis of the Settlement Agreement and it expressly included a settlement of and release from all necessarily future dismantlement, abandonment and reclamation obligations in exchange for a non-cost recoverable payment in 1996 of US$ 20 million, which, as at 2011, had a net present value of US$ 83.5 million and was equivalent to approximately US$ 300 million in cost-recovered abandonment work. Claimant now brazenly contends that its Supreme Economic Council revised the Settlement Agreement so as to accept that very same consideration to settle only a part of that agreement's obligations.

256. Respondents specify that the Settlement Agreement was concluded in order to settle a variety of different disputes and obligations, including certain cost recovery items and a number of other additional matters, such as future abandonment expenses. Whereas Respondents agree with Claimant that the initial scope of the settlement discussions pertained only to outstanding cost recovery disputes (Exhibit C-304(a)), they show that the final scope of the Settlement Agreement encompassed a wide range of matters, including "*Transfer of Al-Arish Compound in Aden,*" "*Surplus Inventory,*" "*2% Tax,*" "*Customs Duties,*" and "*Port Fees.*" One of those

items was also related to Respondents' "*Dismantlement, Abandonment and Reclamation*" obligations under the PSA (Exhibit R-1, Clause 9(b)).

257. Respondents explain that, in anticipation of the possibility for Claimant to take over the operations of Block 14 after the PSA's expiry, Article 8.2 (i) of the PSA provided that Respondents could deposit with Claimant "*a mutually agreed sum of money*" for future abandonment expenses. That deposit was paid through Clause 9 of the Settlement Agreement, which expressly referred to Respondents' obligation under Article 8.2 (i) of the PSA and was drafted in the broadest terms possible, granting Respondents a full and unequivocal release.

258. With respect to the Settlement Agreement's ratification, Respondents specify that it was duly ratified by the resolutions of the Supreme Economic Council on 25 June 1996 and the Council of Ministers on 26 June 1996 (Exhibit C-312). Nowhere in its resolution does the Supreme Economic Council state that it is rejecting the Settlement Agreement. To the contrary, the cover letter accompanying those resolutions stated that the "*[...] resolutions of the [Supreme Economic Council held on Tuesday 25th June 1996, cover[ed] each item of the Settlement Agreement signed between the Ministry and COPY [Respondent 1].*" (Exhibit C-312, p. 1).

259. Claimant has not proved that it ever presented to Respondents a counter-offer amending the Settlement Agreement, much less that Respondents ever accepted such a counter-offer. Claimant's reference to Respondent 1's letter of 15 September 1996 is unavailing because there is nothing in that letter to suggest that Respondents agreed to ignore the already executed Settlement Agreement and accepted to make the same settlement payment in exchange for the settlement of only certain issues covered by that agreement (Exhibits C-325 and C-307, p. 6).

260. Claimant's formalities objections are further contradicted by its own contemporaneous view that the resolutions of the Supreme Economic Council and the Council of Ministers were sufficient and that full constitutional procedures did not apply (Exhibit C-311, p. 10). The truth is that Respondents paid US$ 150 million to Claimant, which is the exact amount that was specified in the Settlement Agreement. This payment confirms the binding nature of the Settlement Agreement.

261. In any event, Respondents' pre-payment to Claimant was expressly contemplated by Article 8.2 (i) of the PSA, which does not require a ratified agreement, and Clause 14 of the Settlement Agreement confirms that the making of such a pre-payment did not involve any possible amendment to the PSA. As a result, the terms of the Settlement Agreement that had nothing to do with the tax clarification provision (Clause 7 and Exhibit "A") would have required no ratification at all by the Supreme Economic Council or the Council of Ministers.

262. Moreover, Clause 13 of the Settlement Agreement imposed a condition precedent on Respondents' performance of the Settlement Agreement that its tax clarification provision set out in Clause 7 and Exhibit "A", "*will be subject to the Constitution Procedures of the Republic of Yemen, and a Presidential Decree (Law) will be issued ratifying such amendment*". (Exhibit C-307, pp. 7-8). Thus, Clause 13 confirms that only the enactment of the tax clarification provision would have required the Yemeni Parliament to ratify it as a matter of Yemeni law, which would have formally amended the PSA. It would also have required the President of Yemen to issue a Decree ratifying that amendment.

263. However, Respondents ultimately waived this condition precedent to their performance on the basis that the tax clarification provision of the Settlement Agreement was not an amendment to the PSA (Exhibit C-325). This was confirmed by the Supreme Economic Council's resolution, which ratified the tax clarification provision of the Settlement Agreement on 26 June 1996 (Exhibit C-313). Moreover, the resolutions and the cover letter pertaining to the remaining terms of the Settlement Agreement also do not specify any further constitutional requirements (Exhibit C-312, p. 1). Respondents' subsequent legal opinions relate to the subsequent tax provisions discussed in 1999 and 2009 that revolved around the PSA Amendment and "PSA Amendment #2" and are entirely irrelevant to the question of whether the Settlement Agreement was duly ratified (Exhibits C-241 and C-324).

264. Although Claimant and Respondent 1 considered that the tax clarification provision of the Settlement Agreement was not an amendment to the PSA and that it did not therefore need to meet any constitutional requirements (Exhibits C-325 and C-311), Pecten and Respondent 2 initially held the view that it would be safer to proceed with the constitutional procedures in order to ensure that the tax clarification provision of the Settlement Agreement would indeed be enforceable. However, this dialogue had no impact whatsoever on the other terms of the Settlement Agreement, and, in any event, it came to an end when Pecten and Respondent 2 added their signatures to the Settlement Agreement within a matter of months and fully endorsed the agreement on the terms of Exhibit R-1.

265. In relation to Settlement Agreement's signatures, Claimant has also raised the unmeritorious argument that the Settlement Agreement is not a binding agreement because Pecten, the assignor of the PSA's rights and obligations of Respondent 4, and the assignor of Respondent 2 signed the Settlement Agreement only at a later stage. However, Respondents contend that the timing of Pecten's and Respondent 2's assignor's signatures is of no relevance to the binding effect of the Settlement Agreement on Claimant. The terms of the release under Clause 9(b) of the Settlement Agreement are clear. Moreover, all of the then Contractor parties to the PSA contributed to the US$ 150 million payment made to Claimant.

266. Respondents further point out that in the years that followed the execution of the Settlement Agreement, all of the parties involved, including Claimant and its independent auditors,

performed that agreement on its written terms and referred to it and its binding effect as follows: (i) Respondents made full payment to Claimant of the settlement sum, (ii) Claimant, in fulfilment of the Settlement Agreement, honoured its settlement of any cost recovery audit exceptions arising in 1995 and did not subsequently issue an audit report for 1995, but instead resumed its cost recovery audit exercise in 1996, (iii) Nexen Inc., its former name being Canadian Occidental Petroleum Limited, made open and repeated reference to the Settlement Agreement in its financial results, (iv) numerous subsequent letters were exchanged both between the Parties and within Claimant itself, which referred expressly to the Settlement Agreement, (v) a subsequent agreement made expressly pursuant to the Settlement Agreement was reached between the Parties regarding the recovery of the Al-Arish compound costs, one of the issues settled under the Settlement Agreement and (vi) the 2006 Cost Recovery Audit Report prepared by Deloitte, Claimant's independent auditors, confirmed that the Settlement Agreement was concluded between the Parties and that the US$ 150 million payment was made by Respondent 1, on behalf of all of the Contractor parties to the PSA.

267. In addition, Respondents repeatedly confirmed to Claimant that all of their abandonment obligations had been settled pursuant to the Settlement Agreement. For example, in a letter to the OpCom Chairman, Mr. Abdul Bari Al Wazir, dated 5 July 2003, Respondents recalled the effect of the Settlement Agreement on their abandonment obligations and the OpCom Chairman raised no objection thereto (Exhibit R-421, p. 2).

268. The issue of Respondents' abandonment obligations was further raised directly with the then Minister of Oil, Mr. Amir Salem al-Aidroos, in a meeting that took place on 11 December 2010, at which the Parties also discussed the PSA's extension. At that meeting, Mr. al-Aidroos recognized that the Settlement Agreement released Respondents from any dismantlement, abandonment and reclamation obligations under the PSA. This was confirmed internally by Respondents through an email sent shortly after that meeting (Exhibit R-216).

269. Respondents also confirmed their position on the Settlement Agreement in their letter dated 10 December 2011 (Exhibit R-285). That letter was sent in response to a meeting held with PEPA on 6 December 2011, during which PEPA wanted to agree on funding for abandonment liability. In its letter, Respondent 1, on behalf of Respondents, confirmed that Respondents' abandonment liabilities had been "*covered off*" by the Settlement Agreement and invited PEPA to request a copy of that agreement from Claimant.

270. According to Respondents, the foregoing confirms that there was a concluded agreement on the terms of the Settlement Agreement and that the Settlement Agreement is binding and has been fully performed many years ago. In addition, by having accepted the US$ 150 million payment made by Respondents to settle all claims covered by that agreement, Claimant has waived and is now estopped from denying the effect of the Settlement Agreement.

B. The scope of the Settlement Agreement

271. Regarding the scope of the Settlement Agreement, Respondents reject Claimant's assertion that that agreement covered only the facilities in existence as of 1995. The unequivocal and unqualified terms of Clause 9 of the Settlement Agreement disprove Claimant's assertion. The clear wording of that provision is also at odds with Claimant's novel argument that "*[a]ll that was ever proposed in this regard was that the Respondents would not have to clear the area. They could leave facilities in situ, in good working order.*"

272. In addition, Claimant's own advice to the Prime Minister and Head of the Supreme Economic Council that was provided on 22 June 1996 confirms the wide scope of the Settlement Agreement (Exhibit C-311). That advice refers to "*pre-agreeing abandonment*" and makes no reference to the release only covering the few facilities already in existence at the end of 1995. Finally, the Parties' discussions over the extension of the PSA's term, which took place between 2007 and 2011, proceeded on the basis that the settlement covered all abandonment and reclamation obligations under the PSA (Exhibit R-216).

273. Respondents further contend that Claimant's alleged scope of the Settlement Agreement would have been entirely disproportionate to the abandonment costs of the few facilities already in existence as of 1995, given that the payment by Respondents of US$ 20 million would have been worth as at 2011 US$ 83.5 million (EXR of Mr. Lagerberg, para. 5.5.3). Based on Respondents' average profit oil share in 1996 of 27.204% (Exhibit R-316), the payment of US$ 20 million would have been worth as at 2011 approximately US$ 300 million in abandonment work. It should also be noted that, at the end of 1995, Respondents had drilled only 69 wells, which represent only a small proportion of the 642 wells that had been drilled by 2011. Thus, such an early payment for a minor proportion of eventual abandonment obligations would have made no commercial sense. From Respondents' perspective, the only rationale for giving Claimant the benefit of a 15-year acceleration of a non-cost recoverable pre-payment was to obtain in exchange a full release from any further obligations in this regard.

274. In light of the above, Respondents conclude that Clause 9 of the Settlement Agreement provides a full and complete release in relation to all of Claimant's current claims for breach of Article 8.2 (i) of the PSA, including claims for payment for the abandonment of active or inactive wells on Block 14 or for the clearing of the Contract Area. Claimant's current claims that are subject to Respondents' Settlement Agreement are set out in Respondents' Updated TLD Schedule.[11]

[11] Updated TLD Schedule, Claims Nos. 1, 2, 3 and 4.

Sub-section 3. Many of Claimant's claims are time-barred

A. Applicable law and limitation periods

275. According to Respondents, Claimant was in a position to know of the issues underlying its current claims many years ago and thus, it should have raised those claims long time ago.

276. Claimant relies on a preposterous theory that its original claims are considered as both continuing breaches and new breaches that were reborn on the PSA's expiry on 17 December 2011. According to Respondents, this is legal nonsense and it has no basis in the PSA or the applicable law.

277. The point of departure for determining the applicable law to the time-bar defence is Article 27.2 (i) of the PSA and para. 68 of the Arbitral Tribunal's PO3. As a next step, Respondents show that there are no common limitation periods for contractual claims under Yemeni, Canadian and Lebanese law, given that the first national law prescribes a five-year period, the second one a two-to-six-year period and the third one a ten-year period. On the other hand, what Claimant erroneously argues is that the longest ten-year limitation period under Lebanese law should apply, although that period is not common to Yemeni and Canadian law.

278. As a result of the absence of commonality amongst these three national laws regarding limitation periods, Article 27.2 (i) of the PSA requires that "*the principles of law normally recognized by nations in general, including those which have been applied by International Tribunals*" be applied. According to Respondents, these principles are reflected in the UNIDROIT Principles of International Commercial Contracts of 2010 ("the UNIDROIT Principles"), which are widely recognized as a source and statement of general principles of law applied in commercial relations (Exhibits RL-151, Preamble, RL-162, para. 18, and RL-163, paras. 3 and 64-67). In fact, numerous international tribunals, including ICC tribunals, have accepted the UNIDROIT Principles to be a codification of the principles of law of contract commonly recognized by nations in general. For instance, in the *Hunt* case, the arbitral tribunal applied those principles as representative of the "*principles of law normally recognized by civilized nations in general, including those which have been applied by International Tribunals.*" (Exhibit RL-156, pp. 164-165).

279. Article 10.2 of the UNIDROIT Principles provides for a three-year and a ten-year limitation period (Exhibit RL-151). Under Article 10.2 (1) of the UNIDROIT Principles, the three-year limitation period commences when a claimant has "*actual or constructive knowledge of [the] 'facts'*," upon which its right can be exercised (Exhibits RL-151, comment 6 to Article 10.2, and RL-156, pp. 685-687). The Commentary to the UNIDROIT Principles expressly states that the requirement that a claimant have actual or constructive knowledge of the facts "*does not mean that the [claimant] must know the legal implications of the facts.*" Even if the

claimant "*despite full knowledge of the facts [...] is mistaken about its rights,*" the three-year limitation period will commence (Exhibit RL-151, comment 6 to Article 10.2). It has also been observed that the risk of receiving insufficient or wrong legal advice about certain facts should be borne by the party seeking that advice (Exhibit RL-164, p. 1059, para. 7).

280. As for the ten-year limitation period under Article 10.2 (2) of the UNIDROIT Principles, it starts running "*at the time when the right can be exercised, regardless of the obligee's actual or constructive knowledge.*" (Exhibit RL-151, comment 4 to Article 10.2). This means that, even if a claimant had no actual or constructive knowledge, its ability to bring a claim will expire after a maximum period of ten years from the date of the breach. The purpose of that ten-year period is "*the restoration of peace and the prevention of speculative litigation where evidence has faded.*" (Exhibit RL-151, Comment 9).

281. Respondents also point out that the UNIDROIT Principles reflect international law, which includes the principle of extinctive prescription that itself recognizes a moment in time "*[w]hen a right of action becomes extinguished because the person entitled thereto neglects to exercise it after a period of time.*" (Exhibits RL-155, pp. 557 and 561, and RL-161, pp. 122-126). The principle of extinctive prescription takes into account the "*additional difficulties caused to the respondent [...] due to the lapse of time (e.g. as concerns the collection and presentation of evidence).*" (Exhibit RL-160, p. 70, para. 258(d)).

282. The application of that principle in the present case shows the difficulties that Respondents have to face in defending themselves against claims that arose decades ago and years after the PSA's expiry and the takeover by Claimant of Block 14. These difficulties become more substantial if one considers that many of the documents created in the early years of the PSA were destroyed in the 1994 civil war and that many of the transmittal records recording the delivery of documents from Respondent 1's Yemen offices to PEPA were stored at Respondent 1's Sana'a office, where they were left at the expiry of the PSA and are therefore no longer in Respondents' possession. Moreover, a number of potential witnesses have now retired or passed away (for instance, Mr. Al Attar, the Minister of Oil and Minerals at the time he signed the Settlement Agreement, passed away in 2005 and Dr. Tawfik Al-Nabhani, the advisor of Mr. Al Attar, passed away in August 2015). Needless to say that these difficulties have hampered Respondents' ability to fully present their case.

B. Claimant's erroneous theory of new and continuing breaches

283. Claimant's position on Respondents' time-bar defence is to argue that its "original breach" claims, which it characterizes as "*breaches at the time that the Respondents created each hazard, i.e. at the time that they drilled wells, created toxic sludge ponds and abandoned radioactive material etc.,*" were renewed at the PSA's expiry and concerned continuing breaches that existed throughout the life of the PSA. Irrespective of the absurdity of such a

position, Respondents contend that the inescapable truth is that Claimant's allegations pertain to singular acts or omissions of Respondents that are alleged to have taken place decades ago and of which Claimant had adequate knowledge.

284. Claimant further erroneously argues that the legal test for relevant knowledge, which triggers limitation periods, requires not only knowledge of the underlying facts of the breach by the eventual claimant, but also that a party first acknowledge to its counterparty that it is in breach. This is obviously preposterous and entirely unsupported. Respondents point out that if Claimant's argument were right, limitation periods would never have application, since a limitation period would only begin to run in circumstances in which a party admits an allegation of breach.

285. As indicated above, under the UNIDROIT Principles, the legal test for relevant knowledge is whether a claimant knew, or ought to have known, of the facts underlying the claim. Knowledge of the existence of a breach is not required so as to trigger the three-year limitation period. In any event, under the ten-year limitation period of the UNIDROIT Principles, claims based on facts that existed more than ten years prior to the commencement of arbitral proceedings are time-barred, regardless of the claimant's actual or constructive knowledge before that date.

286. As far as Claimant's renewed breach arguments are concerned, Respondents claim that this entirely unsupported theory would once again render any limitation period pointless. In essence, Claimant argues that all original breaches were resuscitated as new breaches on the PSA's expiry on 17 December 2011. For instance, if a well was designed deficiently when it was drilled in 1992 breaching the PSA, the same breach would be reborn as an entirely new breach on the PSA's expiry because the well was handed over in a less-than-optimal condition.

287. This theory is not based on any express provision of the PSA, where Article 18.1(b) of the PSA could have been used as a reference, though it applies only to facilities and equipment in which title has not yet been transferred to Claimant, *i.e.* which has not been cost-recovered, at the time of the PSA's expiry. Furthermore, such an obligation to repeat all of the performance obligations under a long-term contract on that contract's expiry cannot be implied into the PSA. No rational commercial party would have implicitly agreed to such an obligation.

288. Moving now to the main thrust of Claimant's case on Respondents' time-bar defence, the theory of continuing breaches, Respondents highlight the fact that the effect of such a theory would once again render any limitation period pointless, since it would not matter that Claimant knew of the specific acts giving rise to Respondents' alleged breaches and, nevertheless, failed to take any action for years.

289. The way Claimant has presented each of its claims is to refer to Articles 8.1 and 8.2 of the PSA and argue that the original alleged breaches by Respondents continued to exist each and every day during the PSA's term, since those breaches were never remedied. For instance, regarding Claimant's first well design claims, Claimant contends that "*so long as they did nothing, the Respondents were in breach of ongoing obligations, which breach continued to occur every single day.*" Whereas Respondents do not deny that the duty to comply with Good Oilfield Practice and Articles 8.1 and 8.2 of the PSA was an ongoing one, they do not accept that this has the effect of transforming every allegation of breach at any point during the entire term of the PSA into a new breach each and every subsequent day for the remaining term of the PSA. This theory is not based on any relevant principles of law.

290. Claimant also relies heavily on the duty of good faith, which was allegedly breached each and every day during the PSA's term. However, Respondents stress that good faith works both ways and that Claimant should not benefit from its decision to wait for decades before raising its current claims.

291. Regarding the relevant legal principles underlying the theory of continuing breach, Respondents contend that, although Canadian and Lebanese law recognize the concept of a continuing breach, Yemeni law does not. As a result, this lack of commonality amongst those three national laws means that the Arbitral Tribunal should seek to identify "*the principles of law normally recognized by nations in general, including those which have been applied by International Tribunals*" pursuant to Article 27.2 (i) of the PSA.

292. According to Respondents, international law focuses on the nature of the allegedly breaching act and not on the underlying duty or the effects of the breaching act (Exhibits RL-1, Article 14(1), and RL-19, p. 255). The Commentary on the International Law Commission's Articles on the Responsibility of States for Internationally Wrongful Acts makes that important distinction between the instantaneous wrongful act and its effects or consequences (Exhibit RL-152, p. 60, para. 6). This distinction is also enshrined in the jurisprudence of international courts (Exhibit RL-157, pp. 19-20 and 23).

293. Respondents further argue that the Arbitral Tribunal should seek guidance from the commercial jurisprudence of developed national legal systems, which deals with the question of continuing breach in greater detail. To this end, Respondents refer to some instructive case law that has emerged under English law. Under English law, the breach of a continuing duty does not necessarily give rise to a continuing breach. English courts focus primarily on the original breaching act itself, rather than whether there was an ongoing failure to remedy that breach (Exhibits RL-169, paras. 58-64, and RL-172, paras. 19 and 25-26).

294. Respondents conclude that, in considering the above international and national approaches to the issue of continuing breach and in applying "*the principles of law normally recognized by*

nations in general, including those which have been applied by International Tribunals," the Arbitral Tribunal needs to answer the following two questions:

(i) When did Claimant know, or when was it in a position to know, of the facts underlying its current claims of original breach?
(ii) Has anything since then changed in those underlying facts, notwithstanding the continuing nature of the duty on which the claim is made, such as to make the commencement and running of a reasonable limitation period during the intervening years inappropriate?

295. In so doing, the Arbitral Tribunal should keep in mind that the fundamental purpose of all limitation periods is to strike a balance between the need to provide a claimant with a reasonable opportunity to bring a claim, on the one hand, and the need to protect a respondent from the undue prejudice of facing untimely claims, on the other hand. Here, it is clear that Claimant was afforded a reasonable opportunity to bring its claims and that Respondents now face undue prejudice in defending themselves against very old alleged breaches.

C. Time-barred claims

296. Respondents note that, for purposes of applying their time-bar defence, they accept Claimant's allegations of all of its original breach claims.

297. Regarding Claimant's first well design claims, Respondents contend that their GDP1 was issued in 1992. Given that 206 wells were drilled in accordance with GDP1, GDP1.1 and GDP2 prior to, but not beyond, 6 June 2001 and that Claimant: (i) knew of Respondents' GDP1 as early as 25 May 1992, (ii) was provided with well plans for each and every well drilled on Block 14 that, from at least November 1996, described Respondents' cement programme showing the length of the production casing and (iii) was provided with numerous operational documents detailing the cement programme used for GDP1, GDP1.1 and GDP2 from at least as early as August 2000, Claimant's first well design claims were time-barred on 6 June 2004 pursuant to the UNIDROIT Principles 3-year limitation period, which takes account of Claimant's knowledge, or on 6 June 2011 pursuant to the UNIDROIT Principles 10-year limitation period, which is applicable regardless of Claimant's knowledge. In any event, Claimant's claim relating to Respondents' first well design came into existence more than 3 years before the signing of the Standstill Agreement on 22 March 2013.[12]

[12] Respondents initially referred to the date of the Request, which is 23 November 2013 (Annex A). However, further to Claimant's submission that the applicable limitation period should stop running on 22 March 2013 (SoRjTLD, para. 13.2 and footnote 6), which is the date of the Standstill Agreement's conclusion (Exhibit C-12), Respondents amended the cut-off date with respect to their time-bar defence (Updated TLD Schedule).

298. In addition to Claimant's claim relating to Respondents' first well design, Claimant alleges that a further 105 wells drilled after mid-2001 were allegedly inadequately cemented, although they were intended to be drilled in accordance with what Claimant considers as an adequate well design. Respondents contend in this respect that Claimant received cement bond logs that were run prior to the initial completion on most wells that were not successfully cemented into the surface casing. These logs showed exactly how close to the surface these wells were cemented, and therefore clearly indicated whether the well had been successfully cemented to the height of the surface casing in accordance with its design.

299. As Claimant's witness himself acknowledges, Respondents specifically addressed cement quality issues in connection with its corrosion management efforts and clearly explained by at least June 2003 that efforts to cement into the surface casing "to assist in corrosion mitigation" were not always 100% effective (2WS of Mr. Al Humidy, paras. 64-66). Claimant was also informed in November 2001 that cementing on its own was not guaranteed to prevent corrosion and that cathodic protection was also required.

300. As a consequence, Respondents argue that, from June 2003 at the very latest, Claimant was aware that not all wells drilled on Block 14 after mid-2001 had been cemented in accordance with their intended design. Thus, Claimant's claim regarding the wells drilled after mid-2001 was time-barred, for the wells drilled prior to 22 March 2003, on 22 March 2013 pursuant to the UNIDROIT Principles 10-year limitation period, which does not take account of Claimant's knowledge, and, for the wells drilled prior to 22 March 2010, on 22 March 2013 pursuant to the UNIDROIT Principles 3-year limitation period, which takes account of Claimant's knowledge. Considering that only one inadequately cemented well was drilled on Block 14 after 22 March 2010, Respondents argue that Claimant's inadequately cemented wells claims are all time-barred, with the exception of the claim regarding that single well.

301. Regarding Claimant's well abandonment claims, Claimant alleges that Respondents failed to properly abandon four categories of wells: (i) the 311 inadequately cemented wells that were not properly abandoned, (ii) the 323 wells that were adequately cemented but not abandoned, (iii) the five wells that were permanently abandoned by May 2001 but not properly abandoned and (iv) the three wells into which NORM-contaminated equipment was disposed in 2011 that were also not properly abandoned.

302. As far as the 311 inadequately cemented wells are concerned, Respondents reiterate that Claimant was aware of GDP1 from as early as 25 May 1992 and of the issues regarding their initial cementing practice from at least 2001. In addition, as of at least February 2007, Claimant was explicitly made aware of the difference in the abandonment costs for wells that were not cemented to surface, as compared to wells that were.

303. As to the five wells that were improperly abandoned by May 2001, Respondents stress that Claimant had a representative engineer on every drilling rig and that those engineers were provided with daily reports that described every step taken in relation to the abandonment of the wells. Claimant also received copies of the daily drilling reports and the final well reports. Consequently, Claimant was aware of both the well design of those wells and the specific abandonment programme used at the time they were abandoned between 1995 and 2001.

304. Considering that the latest of the five improperly abandoned wells was abandoned in April 2001, the limitation period for those wells started running from May 2001. Thus, Claimant's claim regarding those five wells was time-barred in May 2004 pursuant to the UNIDROIT Principles 3-year limitation period, which takes account of Claimant's knowledge, or in May 2011 pursuant to the UNIDROIT Principles 10-year limitation period, which does not take account of Claimant's knowledge. In any event, Claimant's claim came into existence more than 3 years before the signing of the Standstill Agreement on 22 March 2013.

305. In relation to the three wells into which NORM-contaminated equipment was disposed in 2011, Respondents contend that this claim is subject to the threshold legal defence of waiver/estoppel that is summarized in the following sub-section.

306. With respect to Claimant's waste management claims, Claimant alleges that Respondents lacked proper incinerators, engaged in open burning of hazardous waste and in "*[d]umping/uncontrolled disposal of waste*" and left four unlined sludge ponds at the CPF and four lined sludge ponds at the Terminal. Respondents claim that Claimant started becoming aware of their waste management facilities and practices from the late 1990s, as a result of regular inspections of the Block 14's facilities by PEPA.

307. More specifically, Respondents contend that: (i) from as early as 2000, PEPA had been visually inspecting the landfill and was aware of Respondents' methods, including with respect to filter burning, (ii) from at least as early as 2007, PEPA regularly inspected the sludge ponds. Both the lining of the sludge ponds and sludge management were specifically discussed with PEPA inspectors from at least 2007 and PEPA was kept informed of the sludge remediation plans, including that the work would be carried out in 2012. To this end, Claimant specifically approved the contract to treat the sludge, (iii) from as early as 2008, PEPA inspections included the landfill, the hazardous materials area and the sludge ponds at the Terminal, and the landfill, the sludge ponds, the scrap yard and the recycling area at the CPF and filter disposal in the field, (iv) from at least as early as April 2008, Claimant was also provided with operational documents that included details covering installation of the incinerator, and sludge ponds, among other waste management facilities and (v) from at least July 2010, PEPA inspected the incinerator at the CPF.

308. In light of the above, Claimant's waste management claims were time-barred, for all waste management facilities and practices in place prior to 22 March 2003, on 22 March 2013 pursuant to the UNIDROIT Principles 10-year limitation period and regardless of Claimant's knowledge, or, for all waste management facilities and practices in place prior to 22 March 2010, on 22 March 2013 pursuant to the UNIDROIT Principles 3-year limitation period that takes account of Claimant's knowledge. Respondents specify that all relevant waste management facilities and practices were in place prior to 2003 and that the CPF incinerator was commissioned in 2009. Therefore, all of Claimant's waste management claims are time-barred, except for the claim in relation to the CPF incinerator.

309. Regarding Claimant's seismic misfires claim, Claimant asserts that Respondents "*left hundreds of unexploded charges in situ*" and failed to identify to Claimant or the local population the precise location of the charges. Respondents note that the seismic misfires occurred in the course of seismic survey acquisition work that took place from 1995 to 2001. Claimant became aware that seismic misfires had been left in place as early as 8 January 2008, as Claimant's OpCom representative, Mr. Bahumaish, specifically approved the investigation of a "*number of misfired seismic shots [that] remain in place in the Masila field as a result of seismic programs conducted in 1998 and 2001.*" (Exhibit R-446). It was also in 2008 that the costs of the investigatory work were duly approved in the WP&B.

310. Consequently, Claimant's seismic misfires claim was time-barred on 8 January 2011 pursuant to the UNIDROIT Principles 3-year limitation period, given that Claimant became aware of the misfires by 8 January 2008, or in 2011 pursuant to the UNIDROIT Principles 10-year limitation period, given that the seismic misfires were left in place at the latest from 2001. In any event, Respondents argue that this claim came into existence more than 3 years before the signing of the Standstill Agreement on 22 March 2013.

311. Regarding Claimant's claim pertaining to the injection of produced water into the Harshiyat, Respondents explain that that practice commenced in 1994 and ended in 1999. Faced with Respondents' evidence that Claimant was fully aware of and supported that practice, Claimant contends in its SoDTLD that it "*did not know that the [Respondents] had failed to carry out any form of risk assessment and did not know that the practice was in breach of the PSA.*" However, whether there has been any risk assessment or whether Claimant understood that that practice was in breach of the PSA is irrelevant for the issue of when the limitation period was triggered.

312. Claimant's detailed knowledge of the practice of injecting produced water into the Harshiyat begun from as early as April 1994. In April 1994, Claimant was presented with Respondents' external water management plan, in the form of the Stanley report, which included an assessment of the risks of Respondents' proposal. Between 1994 and 1997, Claimant approved six injection wells used to inject produced water into the Harshiyat. In 1997, in

response to concerns specifically regarding potential contamination of the Harshiyat, Claimant formed a technical committee to assess the impact of the produced water injection. At Claimant's request, an update of the Stanley report was prepared and presented to Claimant in April 1997. Claimant also met with Stanley and Dr. Gideon Kruseman, an external expert, and a further updated version of the Stanley report was presented to Claimant in September 1997. Finally, Respondents' plan to cease water disposal into the Harshiyat was shared with Claimant and the practice was ceased in March 1999. Claimant was heavily involved in the process and also publicly endorsed Respondents' approach.

313. Consequently, given that Respondents' decision to cease the practice of injecting produced water into the Harshiyat was made in March 1999, Claimant's claim was time-barred in March 2002 pursuant to the UNIDROIT Principles 3-year limitation period, which takes account of Claimant's knowledge, or in March 2009 pursuant to the UNIDROIT Principles 10-year limitation period, which does not take account of Claimant's knowledge. In any event, Claimant's claim came into existence more than 3 years before the signing of the Standstill Agreement on 22 March 2013.

314. Regarding Claimant's claims in respect of the use of crude oil and other additives in water-based drilling fluids, Claimant falsely alleges that it "*did not know about the drilling fluids used for GDP1 and GDP2 until after the expiry of the PSA.*"

315. In addition, Respondents contend that Claimant was aware of the use of additives in the drilling fluids from as early as 1992. In particular, Respondents stress that: (i) from as early as 25 May 1992, Claimant received copies of Respondents' GDP1, which sets out the main contents of the drilling fluids, including biocide and corrosion inhibitor, (ii) from the mid-1990s, daily drilling reports for each well drilled on Masila Block 14 were provided to Claimant on a daily basis, which included a drilling fluids summary, (iii) from at least 1997, the main contents of the drilling fluids, including the percentage of crude additive and other key ingredients, such as biocide and corrosion inhibitor, were also detailed in individual well plans submitted to PEPA prior to the drilling of each well on Block 14, (iv) from at least 1999, detailed final well reports, which were also provided to Claimant at the conclusion of the drilling of each well, also included a complete list of mud additives, (v) at the very latest in May 2001, Claimant received a copy of Respondents' GDP2, which Claimant's expert acknowledges that it lists all of the additives Claimant now complains of, (vi) on 14 January 2002, Claimant, via the OpCom, approved the renewal of a drilling fluid supply contract with M.I. Overseas Ltd. and (vii) from at least 2004, Respondents provided Claimant with a document entitled "drilling fluids recap," which included a drilling fluids summary and a breakdown of the additives used in the drilling fluids.

316. Claimant itself acknowledges that it knew by at least 2001 that crude oil was being used as a drilling fluid additive on the basis that it "*saw GDP3 in November 2001.*"[13] GDP3 also specifically included the name, concentration and function of all of the other additives that Claimant now complains of. Claimant was also aware that Respondents were using drilling mud sumps to collect the used drilling fluids at the time each well was drilled. In particular, Mr. Khaled Bahumaish, who is one of Claimant's witnesses in this arbitration and was the OpCom Chairman at the time, along with Dr. Khaled Bashamekh, one of Claimant's OpCom representatives, visited Block 14 in 2007 to inspect the drilling mud sumps. Whereas Mr. Bahumaish's witness statement is silent on that visit, the contemporaneous report of that visit shows that Claimant's representatives were satisfied with Respondents' related practices.

317. Accordingly, Respondents argue that Claimant's claims regarding the use of drilling fluid additives, including its claims relating to drilling mud sumps, were time-barred, for each well drilled prior to 22 March 2003, on 22 March 2013 pursuant to the UNIDROIT Principles 10-year limitation period and regardless of Claimant's knowledge, or, for each well drilled prior to 22 March 2010, on 22 March 2013 pursuant to the UNIDROIT Principles 3-year limitation period and on the basis of Claimant's contemporaneous knowledge. This means that only claims for the use of fluid additives in the drilling of wells after 22 March 2010 are not time-barred. In that regard, Respondents point out that only eight wells were drilled on Block 14 after that date using the additives now complained of. However, the claims related to those eight wells have been waived by Claimant and Claimant is estopped from raising them.

318. Regarding Claimant's LOTs and FITs claims, Claimant alleges that, in breach of the PSA and Good Oilfield Practice, Respondents failed to perform LOTs and FITs on wells drilled between 1992 and 2005. However, Claimant does not deny that it was aware of the Respondents' practices with respect to LOTs and FITs prior to the PSA's expiry. In fact, Claimant was aware that Respondents had removed the requirement to conduct LOTs and FITs from its GDP1, which Claimant received from as early as 1992. GDP2, which reflected Respondents' decision to discontinue LOTs and FITS, was issued on 20 July 1998 and shared with Claimant contemporaneously. FITs were re-introduced in 2006 and this was reflected in GDP6 that was provided to Claimant at that time (WS of Mr. Rasmussen, para. 106).

319. Consequently, Claimant's LOTs and FITs claims were time-barred, for all wells drilled without conducting LOTs and FITs between 1992 and 2005, in 2008 pursuant to the UNIDROIT Principles 3-year limitation period and on the basis of Claimant's knowledge, or, for all wells drilled without conducting LOTs and FITs prior to 22 March 2003, on 22 March 2013 pursuant to the UNIDROIT Principles 10-year limitation period and regardless of Claimant's knowledge. In any event, Claimant's claims came into existence more than 3 years before the signing of the Standstill Agreement on 22 March 2013.

[13] SoDTLD, para. 119.

320. Regarding Claimant's VPS wells claim, Claimant alleges that Respondents' VPS design breached the PSA because it used only a single barrier, the 13 3/8" steel casing, to separate the produced water from the Umm Er Radhuma aquifer. Contrary to Claimant's allegations, from at least 25 November 2001, the VPS design was regularly discussed with Claimant and diagrams of the design were provided to Claimant. In addition, from as early as 25 November 2001, PEPA received work programs and other documents relating to VPS casing repairs, almost all of which included diagrams that unmistakably show that the VPS design only had a single barrier, *i.e.* the 13 3/8" steel casing. On 2 October 2002, Respondents prepared and presented a detailed explanation and a diagram of the VPS design to PEPA. The installation and repair of VPS wells were also discussed repeatedly at other PEPA technical meetings, well review meetings and in PEPA monthly technical reports.

321. As a result, considering that all VPS wells were drilled between December 2001 and May 2010 and that Claimant was aware of the VPS design from as early as 25 November 2001, Claimant's VPS wells claim was time-barred, for all VPS wells drilled prior to 22 March 2010, on 22 March 2013 pursuant to the UNIDROIT Principles 3-year limitation period and on the basis of Claimant's knowledge, or, for all VPS wells drilled prior to 22 March 2003, on 22 March 2013, pursuant to the UNIDROIT Principles 10-year limitation period that does not take account of Claimant's knowledge. Only one VPS well was drilled on Block 14 after 22 March 2010. Thus, only Claimant's claim in relation to that single well is not time-barred.

322. Regarding Claimant's well cellars claim, Claimant has argued that, in breach of Good Oilfield Practice, Respondents "*failed to install well cellars for any of the wells.*" Whereas Claimant alleges that the Parties never discussed the issue of well cellars, Respondents assert that the presence of well cellars, or their absence, is immediately apparent from even the quickest surface inspection of a well. Therefore, Claimant could not have been unaware of the absence of well cellars, since PEPA secondees were assigned to every drilling rig by at least the mid-1990s and PEPA conducted regular environmental inspections from the late 1990s.

323. Accordingly, Respondents maintain that Claimant's well cellars claim was time-barred, for wells drilled prior to 22 March 2003, on 22 March 2013 pursuant to the UNIDROIT Principles 10-year limitation period and regardless of Claimant's knowledge, or, for wells drilled prior to 22 March 2010, on 22 March 2013 pursuant to the UNIDROIT Principles 3-year limitation period and on the basis of Claimant's knowledge. Respondents specify that only five wells were drilled on Block 14 after 22 March 2010 and that the claims in relation to those wells have been waived by Claimant and Claimant is estopped from raising them.

324. Regarding Claimant's NORM claims, Claimant alleges that, in breach of Good Oilfield Practice, Respondents "*neglected [their] obligations to deal with and dispose of [NORM] safely*" and omitted to "*devise and implement a comprehensive plan for the safe handling,*

storage, transportation, processing, treatment and disposal" of NORM. Claimant further alleges that Respondents were in breach of their duty of good faith because they "*knew [they] faced NORM issues and yet consistently failed to address them.*" Claimant has also raised a claim regarding the canisterisation of NORM-contaminated equipment at the end of the PSA.

325. Respondents explain that, from at least November 2000, Claimant was aware of their approach to managing and disposing of NORM-contaminated equipment. As of July 2010, Respondents further explained the available NORM management methods to Claimant, shared their NORM-management plans with Claimant, gave presentations on NORM management policies and procedures to Claimant and even invited PEPA to attend NORM training. As to the later practice of canisterisation of NORM-contaminated equipment, Respondents stress that, from 18 July 2010 onwards, Respondents discussed the issue directly with Claimant and proposed that the equipment be de-contaminated, but Claimant refused to approve the contract to complete the work. By 18 October 2011, Claimant was made aware of Respondents' decision to canisterise NORM-contaminated equipment and it was aware that canisterisation was Respondents' recommended alternative, given that it had not approved decontamination.

326. Consequently, Claimant's NORM claims were time-barred, for all NORM management and disposal procedures implemented prior to 22 March 2003, on 22 March 2013 pursuant to the UNIDROIT Principles 10-year limitation period and regardless of Claimant's knowledge, or, for all NORM management and disposal procedures implemented prior to 22 March 2010, on 22 March 2013 pursuant to the UNIDROIT Principles 3-year limitation period that takes account of Claimant's knowledge. As for the canisterisation of NORM-contaminated equipment that occurred after 22 March 2010, Claimant's claim in this respect is not time-barred, but it is subject to the waiver/estoppel defence. All other NORM management procedures were in place prior to 22 March 2003 and thus, all claims in relation to those procedures are time-barred.

327. Regarding Claimant's groundwater monitoring facilities and practices claim, Claimant asserts that it "*has only learned since taking over the [B]lock that the Respondents did not have an adequate Groundwater Monitoring Plan, did not monitor the impact of the disposal of produced water into the Harshiyat or into the unlined ponds, soakaways and an infiltration gallery at the Terminal and did not take accurate measurements of potential groundwater contamination as a result of the crossflow from the failed wells.*" Contrary to these inaccurate assertions, Respondents argue that Claimant was aware of their groundwater monitoring practices through PEPA's regular environmental inspections, which started as early as late 1990s.

328. Furthermore, in August 2000, PEPA inspected the CPF landfill and was informed of the measures taken to protect groundwater and obtain water samples from the wells. From as

early as 2003, PEPA repeatedly inspected the Terminal produced water facilities. In January 2003, the PEPA inspectors noted that "*[t]hey were impressed to see that the evaporation ponds were lined, [and] that evaporation rates were being recorded and that ground monitoring wells were in place.*" In April 2005, PEPA inspected the Terminal produced water facilities and enquired about Respondents' leak detection system. In January 2008, PEPA's inspection again covered the Terminal produced water disposal system and the PEPA inspectors took water samples from the retention ponds before and after filtering. Finally, in April 2005, PEPA's inspection also covered the Terminal sludge ponds and landfill and, at its inspection of the CPF in January 2008, PEPA inspected and enquired about the CPF landfill, settling ponds, the water disposal process and the sludge ponds.

329. Given that Respondents had their groundwater monitoring facilities and practices in place from the mid-1990s and that Claimant became fully aware of those facilities and practices by January 2008, Claimant's claim in that respect was time-barred, for all groundwater facilities and practices in place prior to 22 March 2003, on 22 March 2013 pursuant to the UNIDROIT Principles 10-year limitation period and regardless of Claimant's knowledge, or, for all groundwater facilities and practices in place prior to 22 March 2010, on 22 March 2013 pursuant to the UNIDROIT Principles 3-year limitation period that takes account of Claimant's knowledge. Respondents specify that all of their groundwater monitoring facilities and practices were in place prior to 2003 and that the Terminal produced water infiltration gallery system was installed in 2004. Thus, all related claims are now time-barred.

330. Finally, regarding Claimant's EIA claim, Claimant asserts that, in breach of Good Oilfield Practice and the duty of good faith, Respondents failed "*to produce a complete EIA prior to and during operations.*" However, in its SoDTLD, Claimant does not deny having received an EIA in 1993 and does not refer at all to its EIA claim. Irrespective of whether that claim is maintained, Respondents contend that it is time-barred.

331. Respondents did commission EIAs covering potential land-based and marine impacts prior to the commencement of production, which were completed in March 1993. Respondents provided Claimant's predecessor, the Ministry of Oil and Mineral Resources, and the Environment Protection Agency with copies of the EIAs in 1993. In addition, both the existence and the breadth of Respondents' EIAs were acknowledged by the former Deputy Oil Minister, Dr. R. Ba-Rabaa, in 2000. Accordingly, Claimant's EIA claim was time-barred in 1996 pursuant to the UNIDROIT Principles 3-year limitation period and on the basis of Claimant's knowledge, or in 2003 pursuant to the UNIDROIT Principles 10-year limitation period and regardless of Claimant's knowledge. In any event, Claimant's claim came into existence more than 3 years before the signing of the Standstill Agreement on 22 March 2013.

Sub-section 4. Claimant has waived its right to bring many of its claims and is estopped from bringing them

A. Applicable tests and preliminary remarks

332. According to Respondents, the contemporaneous complaints of Claimant regarding some of Respondents' practices show that Claimant was in a position to challenge Respondents' practices. However, Claimant chose not to object to the practices that are the subject of its current claims. Such a choice must have legal consequences many decades later and Claimant should be found to have waived its right to bring such claims now. The question of whether the alleged breaches arising from those practices are continuing or not does not have any legal effect on Claimant's long-standing conduct. That conduct also has as consequence that Claimant is estopped from bringing such claims now.

333. With respect to the applicable waiver test, Respondents demonstrate that Yemeni, Canadian and Lebanese law all recognize the defence of waiver. In sum, where a party has an opportunity to exercise a right and it evinces, through its statements or conduct, a clear intention not to do so, the consequence is that it is deemed to have abandoned that right and it is not allowed to resuscitate it at a later stage.[14] Both Canadian and English courts have held that even continuing breaches can be waived (Exhibits RL-165, paras. 47 and 60-64, RL-166, p. 152, RL-167, p. 989, RL-168, pp. 623-624, RL-170 and RL-171).

334. Claimant acknowledges that the approach under international law to waiver is consistent with the approach under Yemeni, Lebanese and Canadian law.[15] Thus, in the event the Arbitral Tribunal decides that there are no waiver principles common to Yemeni, Lebanese and Canadian law, the position remains the same under the principles of law recognized by nations in general. More specifically, international law recognizes waiver and its application is consistent with the approach under Yemeni, Lebanese and Canadian law (Exhibits RL-8, p. 266, RL-14, pp. 1036-1038, RL-17, p. 748, RL-18, p. 420, RL-19, p. 70, RL-159, pp. 1037-1038).

335. Waiver is also codified in Article 45(a) of the International Law Commission's Articles on Responsibility of States for Internationally Wrongful Acts, which provides that "*[t]he responsibility of a State may not be invoked if: (a) the injured State has validly waived the claim.*" (Exhibits RL-150 and RL-152, p. 122, para. 5). And international tribunals have held that acquiescence by conduct is sufficient to amount to a waiver under international law (Exhibits RL-154, p. 23 and Separate Opinion of Sir Gerald Fitzmaurice, pp. 62-63). Whereas

[14] SoDC, paras. 149-151 and 153, EXR of Mr. Luqman, paras. 76-83, EXR of Mr. Lindsay, paras. 38-44, and EXR of Dr. Comair-Obeid, paras. 44-48.
[15] SoDTLD, para. 145.

a party's acquiescence and an implied waiver can be seen as one and only concept, they relate to different concepts (Exhibits RL-159, pp. 1042-1044, RL-153, para. 130).

336. Regarding the applicable estoppel test, Respondents maintain that Yemeni, Canadian and Lebanese law all share common principles of estoppel that focus on the effect of a party's representations. In particular, where a party makes a representation, expressly or impliedly through conduct, as to a certain state of affairs and subsequently attempts to assert rights in a manner that is inconsistent with that prior representation, it will be estopped from doing so.[16] Canadian law imposes an additional requirement, according to which a party asserting estoppel must establish that it detrimentally relied on the prior representations made by the other party (EXR of Mr. Lindsay, paras. 47-50). Contrary to Claimant's submissions, there is no requirement under any of the above three legal systems, or under English law, that "*the representation must be so clear that it would amount to fraud to allow the representor to resile from it.*"[17]

337. It should also be noted that Canadian courts have found that an estoppel defence may also apply to a continuing breach (Exhibit RL-165, paras. 55 and 58). Moreover, estoppel is also recognized under international law and has been applied by international tribunals (Exhibits RL-6, pp. 383-384, RL-7, p. 69, RL-9, pp. 38-39, RL-10, pp. 62-63, RL-12, p. 1094, RL-15, p. 201, and RL-20, pp. 221-222). International tribunals have confirmed that acquiescence by conduct can give rise also to estoppel (Exhibits RL-154, Separate Opinion of Sir Gerald Fitzmaurice, pp. 62-63 and Separate Opinion of Vice-President Alfaro, p. 40).

338. Estoppel is also codified in Article 1.8 of the UNIDROIT Principles (Exhibit RL-151), which states that "*[a] party cannot act inconsistently with an understanding it has caused the other party to have and upon which that other party reasonably has acted in reliance to its detriment.*" The elements of inconsistent behaviour under that provision are: (a) one party causes an understanding in another party, (b) the other party reasonably acts in reliance on that understanding, (c) there is inconsistent behaviour of the first party and (d) there is detriment to the other party. An understanding can be caused by any conduct, such as the non-exercise of a right over a relatively long period or silence (Exhibit RL-151, Comments 1 and 2 to Article 1.8).

339. A critical element of Respondent's waiver/estoppel defence is Claimant's close involvement in Block 14's petroleum operations, which has been described hereinabove. Respondents assert that that involvement went beyond approving cost recovery through the OpCom and also included technical aspects of the petroleum operations (2WS of Mr. Tracy, paras. 24-29). Whereas Claimant incorrectly alleges that it was "*unable to have meaningful input into many*

[16] SoDC, paras. 154-155, EXR of Mr. Luqman, paras. 78 and 81-82, EXR of Mr. Lindsay, paras. 45-52, and EXR of Dr. Comair-Obeid, paras. 49-52.
[17] SoDTLD, para. 140.

of the technical aspects of the approval process in relation to the development of the Block," and that it merely "*rubberstamped*" Respondents' recommendations, it also concedes that PEPA was assisted by various "*technical, administrative and specialized teams*" (1WS of Mr. Al Humidy, paras. 26, 36 and 38). Thus, Respondents argue that Claimant and PEPA were able to consider and approve Respondents' technical decisions on a regular basis, including the decisions as to the drilling of each individual well, which was preceded by the communication to PEPA of a detailed well package and request for individual approval.

340. Respondents further point out that Claimant employed technically knowledgeable personnel, who interacted regularly with them on technical operational matters and who exercised independent technical judgement well in advance of 2006. First and foremost, one of Claimant's most important witness in this arbitration, Mr. Al Humidy, studied petroleum engineering in the United States, where he achieved a "*perfect academic record with excellence and honour in all subjects*" and was awarded a bachelor's degree in the subject in 1989 (1WS of Mr. Al Humidy). His CV also sets out the extensive experience he has gained through decades of industry involvement since 1990.

341. In addition, Mr. Hussein Al-Rashid Jamal Alkaff, who was the Vice Minister of Claimant's predecessor at the time of the PSA's conclusion and has subsequently served as the Minister of Oil, has worked for a number of years as a consultant in the oil and gas industry and was CEO of Al-Nimr, a private Saudi oil company (Exhibit R-301). Several other individuals at Claimant and PEPA, who were actively involved in Respondents' petroleum operations, have not been called as witnesses. These are Mr. Thabet Abbas, Mr. Faisal Haitham, Mr. Nabeel Saleh Al Qawsi, Mr. Mohammed Rageh, Mr. Tawfiq Noaman Mohammed and Mr. Labeeb Al Haidary and they all interacted with Respondents on detailed technical matters to a greater extent than Mr. Al Humidy (2WS of Mr. Tracy, paras. 10-14).

342. Mr. Abbas, PEPA's Deputy Chairman for Production Affairs and General Manager of Production, has a background in engineering and was deeply involved in the technical review and approval of well packages and other operational issues. Mr. Abbas was also responsible for approving individual well packages and regularly exercised independent technical judgement in deciding whether to approve Respondents' proposed well locations (1WS of Mr. Tracy, paras. 55-58 and 71-73). Mr. Abbas was also appointed by the then Deputy Oil Minister to present a paper on Respondents' plan to inject produced water into the Qishn formation as part of the 1999 Scientific Symposium on Environment Protection in the Hadhramout Governate (1WS of Mr. Tracy, paras. 57 and 112). Thus, Mr. Abbas had a firm understanding of the technical operational issues and yet, Claimant has conspicuously decided not to present him as a witness in this arbitration.

343. Respondents also stress that, in addition to publicly confirming PEPA's active role in performing supervisory and advisory roles during the PSA's term (Exhibit R-425, p. 13),

Claimant questioned Respondents' practices with which it did not agree. For example, Claimant questioned and approved Respondents' methods for the disposal of produced water into the Harshiyat, which were eventually ceased in 1999. PEPA also engaged with Respondents on technical issues, such as well locations and construction methods (Exhibits R-56, R-103, R-105 and R-106). Respondents also supplied PEPA with copies of their GDPs from as early as 1992, submitted Monthly Operations/Production Reports to PEPA and had monthly technical meetings with PEPA to discuss any issues, including well package proposals.

344. PEPA's engineers also met with Respondents semi-annually from at least 2001 for reviews of all well activity and they were active participants at those meetings. Moreover, the PEPA Health, Safety and Environment inspectors undertook bimonthly inspections of the facilities on Block 14 over a number of days and were entitled to visit without notice and inspect any of the facilities on that block. PEPA inspectors also raised concerns in relation to certain practices of Respondents, *e.g.* the drilling of mud sumps, which were responded to and resolved by Respondents (1WS of Mr. Tracy, paras. 76-77 and 97-99).

345. Respondents also gave a number of presentations to Claimant on various operational issues that arose during the course of the PSA. For example, when the issue of corrosion on external well casings arose, Respondents gave a detailed presentation to PEPA in 2001, which was followed by regular updates on casing integrity and corrosion delivered to both PEPA and the OpCom. Claimant never raised any fundamental concerns with respect to either the problem of corrosion or Respondents' proposed solution. Claimant not only understood the proposed solution but also approved the budget expenditure required to implement it (1WS of Mr. Tracy, paras. 238-240).

346. Against the backdrop of Claimant's close involvement, Respondents maintain that legal significance must be attached to Claimant's long-standing acquiescence, which not only amounts to a waiver but also was relied upon by Respondents to their detriment, thus giving rise to an estoppel defence. The gist of Respondents' estoppel defence is that, had Claimant contemporaneously objected to the operating practices it now complains of, they would have been able to cost-recover the expenses related to the implementation of new or alternative practices. In addition, it is inequitable now to allow Claimant to disregard its long-standing acquiescence and bring claims that Respondents could have far better defended and/or mitigated the effect of, had they been raised contemporaneously.

B. Waiver/estoppel arguments relative to Claimant's claims

347. Respondents' waiver and estoppel defences are factually based on the evidence pertaining to Claimant's knowledge of the facts underlying its current claims. The evidence is set out in the previous sub-section, dealing with Respondents' time-bar defence.

348. In particular, Claimant's relative knowledge with respect to its first well design claims, including those related to the wells drilled after mid-2001, is addressed in paras. 297-300 hereinabove. Considering that Claimant was aware of GDP1 since 1992 and of the cementing issues on wells drilled subsequently since the date each well was drilled from mid-2001 and that it did not raise any objections, even after February 2007, when Claimant was made specifically aware of the increased abandonment costs of wells that were not cemented to surface, and continued to approve the drilling of wells, Claimant demonstrated a clear intention not to raise a claim in that respect and has waived its right to do so.

349. In addition, Claimant's conduct can reasonably be understood as a representation that it would not bring any claims, on which Respondents detrimentally relied, as they continued to drill wells in accordance with the first well design until 6 June 2001 and were deprived of the opportunity to cost recover on the basis of the cost recovery mechanism of the PSA alternative well designs or other remedial actions.

350. Claimant also failed to raise any relevant objections to the issues relating to the cementing of wells into the surface casing in accordance with their design after mid-2001. Instead of raising objections, Claimant approved the drilling of each well and thus, it can reasonably be understood as a representation that Claimant would not bring any claims, on which Respondents detrimentally relied, as they were denied the opportunity to undertake further remedial cementation of the wells and to recover the costs of doing so through the cost recovery mechanism of the PSA. As a result, Claimant is estopped from raising its claims relating to the inadequately cemented wells, including those that were drilled after mid-2001.

351. With respect to the five wells that were improperly abandoned in May 2001, Respondents' submissions on Claimant's relative knowledge are set out in para. 303 hereinabove. Given that Claimant failed to object at the very latest in 2001, when the last of the five wells was abandoned, Claimant can be reasonably understood to have waived its right to bring a claim in relation to these five wells. Moreover, this long-standing failure to object can reasonably be understood as a representation that Claimant had no complaints about Respondents' practices and would not bring a claim in relation to these five wells. Respondents detrimentally relied on this representation in continuing with their practices and being denied the opportunity to cost recover remedial actions during the PSA's term. Consequently, Claimant is estopped from bringing such a claim.

352. As for the three wells into which NORM-contaminated equipment was disposed in 2011, Respondents contend that PEPA was aware of the well design and of the steps taken to hydrocarbon abandon those wells. Claimant was also actively informed in 2011 of Respondents' decision to dispose of NORM-contaminated equipment by canisterisation. Claimant's failure to object can reasonably be understood to have demonstrated a clear

intention not to bring any claims in relation to these practices and it has therefore waived its rights to do so.

353. Respondents' submissions on Claimant's relative knowledge pertaining to its waste management claims are set out in paras. 306-307 hereinabove. As a result of PEPA environmental inspections that were conducted as early as late 1990s and of the technical reports that included details covering some of the waste management facilities and were provided on a monthly basis, Claimant commented on some of Respondents' practices and, on occasion, it objected to certain aspects of the waste management facilities and practices.

354. Thus, Claimant's full access to Respondents' waste management facilities over more than a decade and failure to raise any other objections in that respect can reasonably be understood to evince a clear intention not to raise any claims in that respect and Claimant has therefore waived them. Furthermore, Claimant's long-standing acquiescence can reasonably be understood to amount to a representation that it would not bring a claim, on which Respondents detrimentally relied, as they continued their waste management practices and did not cost recover alternative approaches to waste management through the cost recovery mechanism of the PSA. Accordingly, Claimant is also estopped from raising the majority of its waste management claims.

355. In respect of Claimant's specific claim pertaining to the sludge ponds, Respondents point out that Claimant was aware of the project to treat the existing oily sludge by bioremediation and itself approved the contract for the bioremediation contractor. Respondents also informed Claimant about the NORM readings that had been taken of the sludge ponds in August 2011. Although Claimant raised objections regarding the storage of sludge, it ultimately accepted the proposed treatment method and was made aware of the expected timing of its completion. Consequently, Claimant waived its right to bring any claim in that respect. Also, Respondents relied to their detriment on Claimant's representation in continuing with the bioremediation programme and foregoing the opportunity to cost recover alternative approaches during the PSA's term and Claimant is therefore estopped from bringing its claim.

356. Respondents' submissions on Claimant's knowledge pertaining to its seismic misfires claim are set out in para. 309 hereinabove. Claimant knew that the seismic misfires had not been removed by 8 January 2008 and yet, it did not raise any objections. Claimant can therefore reasonably be understood to have waived its right to raise this claim.

357. Respondents' submissions on Claimant's knowledge relative to its claim on the injection of produced water into the Harshiyat are set out in para. 312 hereinabove. In addition to being aware of the facts underlying its claims as of April 1994, Claimant repeatedly and explicitly endorsed Respondents' practices regarding the injection of produced water into the Harshiyat. According to Respondents, Claimant's conduct constituted a waiver of its right to raise any

related claims and can also be reasonably interpreted as a representation that it would not raise any related claims. Respondents detrimentally relied on this representation, as they could not cost recover alternative methods for the disposal of produced water during the PSA's term and thus, Claimant is also estopped from raising this claim.

358. Respondents' submissions on Claimant's knowledge regarding the use of crude oil and other additives in water-based drilling fluids are set out in paras. 315-316 hereinabove. Once again, Claimant's long-standing knowledge and silence can reasonably be understood as a clear intention not to raise a claim in relation to the additives and thus, Claimant has waived its rights to do so. Regarding the drilling of mud sumps, Claimant's own representatives, Mr. Khaled Bahumaish and Dr. Khaled Bashamekh, expressed their satisfaction with Respondents' explanations further to a site visit. Thus, Claimant has also waived its right to bring a claim in that respect. Claimant's conduct can also be reasonably understood as a representation on which Respondents detrimentally relied, as they continued to use two of the contested additives until the PSA's expiry and their sump design and were deprived of the opportunity to add alternative additives to their water-based drilling fluids and cost recover those alternative additives and any other remedial work during the PSA's term. Accordingly, Claimant is estopped from raising these claims.

359. Respondents' submissions on Claimant's knowledge relative to its LOTs and FITs claims are set out in para. 318 hereinabove. Claimant's failure to object to Respondents' decision to discontinue LOTs and FITs as of July 1998, which was communicated to Claimant through their GDP2, and Claimant's subsequent silence can reasonably be understood as a clear intention not to bring any claims in that respect. Claimant should therefore be held to have waived its right to do so. This conduct can also reasonably be understood as a representation that Claimant would not raise such a claim. Respondents detrimentally relied on that representation, as they did not have the opportunity to implement again LOTs and FITs and to recover the costs of those tests and any remedial work during the PSA's term. On this basis, Claimant is estopped from raising these claims.

360. Respondents' submissions on Claimant's knowledge concerning its VPS wells claim are set out in para. 320 hereinabove. Claimant not only was aware of the VPS design from as early as 25 November 2001, but also did not raise any objections thereafter. Claimant's silence can reasonably be understood as a clear intention not to raise a claim and thus, Claimant has waived its right to do so. Moreover, this silence can reasonably be understood as a representation that it would not raise a claim in that respect, on which Respondents detrimentally relied, as they lost the opportunity to use and cost recover alternative pumping system designs during the PSA's term. As a result, Claimant is estopped from raising this claim.

361. Respondents' submissions on Claimant's knowledge concerning its well cellars claim are set out in para. 322 hereinabove. Despite the presence of PEPA secondees at every drilling rig from the mid-1990s and the numerous environmental inspections by PEPA that started in the late 1990s, Claimant did not raise any objections in respect of well cellars and can reasonably be understood to have shown a clear intention not to raise such a claim. It has therefore waived its right to do so. Claimant's conduct can also reasonably be understood as a representation that it would not raise such a claim, on which Respondents relied to their detriment, as they were unable to recover the costs of installing well cellars during the PSA's term. Consequently, Claimant is estopped from raising this claim.

362. Respondents' submissions on Claimant's knowledge pertaining to its NORM-related claims are set out in paras. 324-326 hereinabove. Considering that Claimant never raised any relevant objections to Respondents' NORM-management practices, despite its relevant knowledge from at least November 2000, Claimant demonstrated a clear intention not to raise a claim, thereby waiving its right to do so. Moreover, such a conduct can reasonably be understood to amount to a representation, on which Respondents detrimentally relied, as they continued with their NORM-management practices and did not have the opportunity to cost recover alternative measures during the PSA's term. Accordingly, Claimant is estopped from raising the NORM-related claims.

363. Regarding the disposal of NORM-contaminated equipment, Claimant did not raise any relevant objections to the methods used by Respondents, despite becoming aware of them in 2011 at the latest. Moreover, by refusing to approve Respondents' earlier proposal for the de-contamination of the NORM-contaminated equipment, Claimant waived its rights to bring any claim with respect to the canisterisation method used by Respondents. Respondents had no other choice but to proceed with canisterisation in order to ensure that the NORM-contaminated equipment had been safely disposed of prior to the PSA's end.

364. Respondents' submissions on Claimant's knowledge regarding the groundwater monitoring facilities and practices are set out in paras. 327-328 hereinabove. Given that Claimant was aware of Respondents' groundwater monitoring practices through PEPA's regular environmental inspections at the earliest from the late 1990s onwards and, at the very latest, by 2008 and that PEPA's inspectors raised limited concerns that were ultimately resolved, Claimant demonstrated a clear intention not to raise any other relevant objections and, as a result, not to raise any related claims. Consequently, Claimant has waived its rights to do so. Claimant's conduct can also reasonably be understood as a representation, on which Respondents detrimentally relied, as they were unable to recover the costs of alternative practices during the PSA's term. Therefore, Claimant is estopped from raising this claim.

365. Respondents' submissions on Claimant's knowledge relative to its EIA claim are set out in paras. 330-331 hereinabove. Claimant received Respondents' EIA as of 1993 and did not raise

any objections thereafter. This conduct can reasonably be understood to evince its intention not to raise any claim, thereby waiving its right to do so. In 2000, the former Deputy Oil Minister, Dr. R. Ba-Rabaa, acknowledged the extensive scope of Respondents' EIAs. Respondents reasonably relied on this statement, considering also that no relevant objections were ever raised, as a representation that Claimant would not raise any EIA claims. Respondents detrimentally relied on that representation, as they were not afforded the opportunity to undertake a further EIA and to recover their costs during the PSA's term. Respondents have been prejudiced by Claimant's contemporaneous conduct, as even Claimant's own expert concedes that "*it is not possible to carry out a retrospective EIA.*" Thus, Claimant should be estopped from raising this claim.

366. Finally, Claimant has raised a claim with respect to the maintenance of Block 14's facilities and equipment. It alleges that Respondents, in breach of Articles 8.1, 8.2 (a), 8.2 (d) and 18.1 (b) of the PSA and of the duty of good faith and good will, "*sought to handover facilities and equipment that [they] knew were unsafe*" or not in good working order.[18] Respondents raised in their SODC[19] their waiver/estoppel defence with respect to items 1-8, 11, 13, 18, 27 and 28 of the Facilities and Equipment Schedule that was filed by Claimant as Exhibit C-72.

367. As far as Claimant's knowledge in respect of the above items is concerned, Respondents submit that: (i) from the mid-1990s, they hosted PEPA secondees who were "*attached to the maintenance department and [...] in daily contact [with] the maintenance staff*" and would "*review technical issues with regard to key maintenance events and procedures,*" (ii) from at least the late 1990s, PEPA inspectors undertook regular inspections of facilities on Block 14 and regularly inspected their facilities and equipment (for example, in 2007, PEPA's Head of Maintenance visited the Block 14 field for three days specifically to review the maintenance program for the surface facilities), (iii) PEPA was regularly provided with a variety of documents concerning maintenance of facilities and equipment, including monthly technical reports, Weekly Production Reports, Engineering and Construction weekly reports, detailed field maintenance information, including spreadsheets that contained line-by-line details of genset maintenance activities and costs, and maintenance reports covering the Sunah 6" gas line, MOL inspections and gensets, (iv) PEPA representatives were also regularly informed about MOL inspections and specifically received the 2008/9 SPM pipeline inspection report, (v) they made presentations at the regular OpCom meetings relating to the status of the facilities and equipment and (vi) the 2012 budget prepared by them included scheduled maintenance and repair activities.

368. Accordingly, Respondents argue that Claimant has waived and is estopped from raising its facilities and equipment claim in respect of items 1-8, 11, 13, 18, 27 and 28. For each item,

[18] SoC, paras. 322-331.
[19] SoDC, paras. 604-605, and 1WS of Mr. Tracy, Annex 2.

Claimant was aware of the issue prior to the PSA's expiry and yet, it raised no relevant objections. This conduct evinces a clear intention not to raise any related claims and is a representation that Claimant would not do so. Respondents detrimentally relied on this representation, as they were prevented from prioritizing these maintenance activities and from recovering the associated costs during the PSA's term. As a result, Claimant has waived and is estopped from raising its facilities and equipment claim in relation to the above items.

Sub-section 5. Conclusion

369. In light of the above, Respondents contend that Claimant's current claims that are subject to their settlement, time-bar and waiver/estoppel defences should be dismissed. Claimant's remaining claims can be determined at a subsequent phase of this arbitration.

Section 2. Claimant's position

Sub-section 1. Preliminary remarks

370. Claimant stresses that Respondents have the burden to prove their alleged threshold legal defences, *i.e.* the issues of compromise, time-bar and waiver/estoppel.

371. Claimant understands that only its well integrity, abandonment and environmental claims are subject to Respondents' threshold legal defences, to the exclusion of its facilities and equipment, documentation and data, and SAP claims. In the amended Annex 1 that was filed together with the MPI, Respondents argue that some of Claimant's facilities and equipment claims had been waived and that Claimant was estopped from raising them. Claimant briefly touches upon those claims that Respondents contend are subject to the waiver/estoppel defence (2WS of Mr. Al Humidy, paras. 179-197).

372. Claimant also notes that, at this preliminary stage, it must be assumed that Claimant's breach allegations are correct, since the purpose of the threshold legal defences is to consider whether Claimant's breach allegations could succeed even if proven or whether they would fail in any event in view of the threshold legal defences.

373. Contrary to Respondents' assertion about the limited legal and factual inquiry related to their threshold legal defences, Claimant contends that the Arbitral Tribunal can make at this stage only very limited factual rulings. This was also the approach of the arbitral tribunal in the *Chevron-Texaco v. Ecuador* case, where an estoppel defence had been raised (Exhibit CL-41, para. 149).

374. According to Claimant, the Arbitral Tribunal cannot decide now whether conditions created by Respondents during the PSA's term and Respondents' conduct gave rise to breaches of

obligation of any sort, including continuing obligations to comply with Good Oilfield Practice and good faith. The Arbitral Tribunal is also not in a position at this stage to finally rule on Respondents' knowledge. Respondents' conduct was in breach of the PSA as of the first date of appearance of their breaches, as they created conditions that put them in continuing breach of the PSA during its term and at the time of the handover of Block 14. Respondents were also in continuing breach of the duty of good faith because they were aware of their own shortcomings, without disclosing them to Claimant, they withheld material information and they misrepresented that they had achieved good oilfield standards.

375. Claimant's position on Respondents' threshold legal defences proceeds on this basis. Claimant expressed grave concerns at the procedural hearing about the fairness and practicality of proceeding with Respondents' threshold legal defences. Claimant contends that there is a fundamental problem with the Arbitral Tribunal being asked to determine whether breaches of the PSA are time-barred or have been waived/are subject to an estoppel defence, without finding first what the breach was and what the Parties' state of mind was in relation to the breach. Without answering these questions, the Arbitral Tribunal cannot and should not determine when Claimant learned of the facts relevant to a breach and if it made an unequivocal representation that it would make no claim in respect of that breach.

376. Claimant objects to the Arbitral Tribunal deciding at this stage that its claims are time-barred or that it has waived or is estopped from raising its claims. It would go against the terms of Article 22 (4) of the ICC Rules to consider Claimant's knowledge, but not the one of Respondents. Claimant emphasizes that its knowledge depended on what was communicated to it by Respondents. On the one hand, Respondents allege that they were not in breach of any contractual obligations. If that is correct, why should then Claimant have suspected breaches? On the other hand, Claimant asserts that Respondents deliberately and knowingly withheld important information from Claimant to prevent the latter for raising potential claims.

377. In fact, Respondents' internal documents show that, from at least 2007 onwards, they expected to face and prepared to meet precisely the claims now advanced by Claimant. These internal documents include: (i) their recognition in March 2001 of the deficiencies related to the inadequately cemented wells (Exhibit C-265), (ii) their PowerPoint presentation of April 2001 regarding the issue of corrosion (Exhibit C-255), (iii) their correspondence in April 2005 regarding well suspension and abandonment (Exhibit C-276), (iii) their communication in November 2006 regarding abandonment of suspended wells (Exhibit C-280), (iv) the "*List of End of Masila PSA Liability Concerns*" that was prepared in July 2007, (v) their correspondence in December 2007 regarding wellbore integrity (Exhibit C-246), (vi) their correspondence in the period from November 2008 to January 2009 regarding aquifer isolation (Exhibit C-248), (vii) their correspondence in May 2011 regarding well suspension and abandonment (Exhibit C-252), (viii) the "*High-Level Transition Plan*" that was prepared in June 2011 (Exhibit C-336) and (ix) their correspondence in November 2011 regarding "*the*

major areas of concern where [they] have risk of being litigated upon a handover to the MOM [Claimant]." (Exhibit C-8).

378. It is striking that Respondents have not addressed at all in any of their submissions filed so far the importance of the above internal documents. Claimant argues that these documents are of central importance to Respondents' threshold legal defences because they are inconsistent with their position that the Settlement Agreement was concluded. If Respondents had signed up to an agreement that released them from all future abandonment obligations, they would not have anticipated and discussed abandonment claims. Moreover, the above internal documents show that Respondents have deliberately withheld information from Claimant regarding their own breaches. This is evidence of Respondents' bad faith and continuing breaches of the PSA and it also touches upon the issue of knowledge, which arises in relation to the time-bar and estoppel/waiver defences. These documents further show that Respondents did not understand Claimant to have represented that it would make no claims regarding the matters pursued in this arbitration. On the contrary, Respondents expected that such claims would be made, a position that is inconsistent with their current estoppel/waiver defence. Finally, they confirm that all of Claimant's claims involve ongoing breaches of the duty of good faith that are not time-barred or settled/waived on any view.

379. The Arbitral Tribunal needs to have a complete record of the evidence regarding Respondents' knowledge and withheld information, which, in turn, will allow it to assess Claimant's own knowledge. Thus, the factual issues pertaining to Claimant's knowledge are not threshold issues and can only be determined at a final hearing, following full document production and service of technical expert evidence. Claimant's claims are of such great importance to Yemen that it would be unfair and wrong to dismiss them without proper scrutiny and with Claimant being seriously hampered by the current conflict and challenging circumstances in Yemen (Exhibits C-337 and C-338).

380. On the basis of the above, Claimant argues that the proper scope of the TLD hearing should comprise only genuine issues of law or narrow issues of fact in relation to the Settlement Agreement. Claimant's following substantive submissions on Respondents' threshold legal defences are made without prejudice to the above caveats and objections.

Sub-section 2. The Settlement Agreement

A. The Settlement Agreement was never concluded and ratified

381. According to Claimant, the Settlement Agreement dated 10 March 1996 is not a concluded agreement. Exhibit C-306 is the version of the Settlement Agreement that was signed by the then Minister of Oil, Mr. Al-Attar, and Respondent 1, under its previous name, but not by the other Respondents. Exhibit R-1 is another version of that agreement that has the signatures of

the assignors of Respondents 2 and 4, but the record shows that the assignor of Respondent 4, Pecten, had not signed that agreement by June 1996, when the proposal was considered by the Yemeni Economic Council and the Council of Ministers. Furthermore, the Settlement Agreement was never duly ratified by the government of Yemen.

382. Regarding the signatures of Pecten, the assignor of Respondent 4, and of Consolidated Contractors (Oil & Gas) S.A.L., the assignor of Respondent 2, Respondents simply contend that Pecten and Consolidated Contractors (Oil & Gas) S.A.L. added their signatures "*within a matter of months and fully endorsed its terms.*" However, they adduce no supporting evidence in this respect. On the other hand, Claimant shows that Pecten had not signed the Settlement Agreement by 14 June 1996 and that the parties to that agreement continued to discuss its terms in the subsequent months.

383. In particular, the minutes of a meeting between Pecten and Respondent 1 on 15 March 1996, which is 5 days after the purported conclusion of the Settlement Agreement, show that Pecten had still not agreed on its terms (Exhibit C-307). Pecten concluded the meeting by stating that "*[f]or the record, Pecten still only supports the December 14th figure of removing $85MM from the cost recovery pool.*" And Respondent 1 is quoted stating (by Mr. Jackson) that "*[i]f Pecten can't support agreement, Pecten must decide on its next course of actions.*"

384. On 7 April 1996, the office of Yemen's President wrote to Claimant's predecessor that the Settlement Agreement had to be "*clarified and redrafted*" (Exhibit C-309). Moreover, a memorandum dated 5 June 1996, by which Dr. Al-Nabhani, one of the Minister's advisor, reported to the Minister on a discussion with Mr. Murphy of Respondent 1, makes it clear that there was still no concluded agreement at that date in relation to the non-cost recovery items (Exhibit C-310).

385. In mid-June 1996, Pecten's position was still the same. In a letter dated 14 June 1996 from Pecten to the Minister of Oil, Pecten stated that it had yet to sign the Settlement Agreement (Exhibit C-215).

386. The above confirms that the Settlement Agreement had not been concluded by mid-June 1996. Exhibit R-1 does not show when the assignors of Respondents 2 and 4 signed the Settlement Agreement and Respondents have not served any evidence in that respect. Claimant will ask the Arbitral Tribunal to draw adverse inferences from the continued lack of any supporting evidence from Respondents so as to find that the Settlement Agreement was never concluded. If this agreement really had been concluded, Respondents would have easily called one or more of their senior executives as their witness(es). The most obvious witness would have been Mr. Larry Murphy, Respondent 1's General Manager at the time, who was involved in the Settlement Agreement discussions. It is to be inferred from his absence that he would not support Respondents' case.

387. There is no doubt that Respondents, being the party asserting that certain claims have been settled, have the *onus probandi* to present evidence that a settlement agreement was agreed and became binding (Exhibits CL-41, para. 138, CL-42, p. 369, CL-43, pp. 1040-1042, CL-44, p. 21, CL-45, CL-46, CL-47, and CL-48, para. 348). However, Respondents have not discharged their burden of proof.

388. As an additional ground against the enforceability of the Settlement Agreement, Claimant submits that that agreement was never duly ratified. Respondents concede that the ratification process had to be followed, but they have not proved that the Supreme Economic Council and the Council of Ministers ever ratified an agreement in the terms of Exhibit R-1. They submit that there is no evidence that these bodies ever rejected Exhibit R-1 and that Claimant's cover letter, which transmitted the resolutions to Respondent 1, did not refer to terms being rejected and referred to ratification (Exhibit C-312). Even if these contentions were true, which they are not, they would still be insufficient to establish ratification.

389. To establish ratification, Respondents should have produced: (a) a resolution of the Supreme Economic Council approving the Settlement Agreement in the terms of Exhibit R-1, (b) a resolution of the Council of Ministers approving the same, (c) a law issued by the Yemeni Parliament, (d) a Presidential Decree approving and issuing the law and (e) an excerpt of the Official Gazette, where the Presidential Decree would have been published (WS of Mr. Al-Huribi, para. 9). Exhibit R-1 is simply a signed agreement that was needed in order to start the ratification process (WS of Mr. Al-Huribi, paras. 11-12).

390. On 15 March 1996, Respondent 1 and Pecten had a meeting, where they also discussed the ratification requirement in respect of the Settlement Agreement, confirming, among other things, that the Settlement Agreement had to go through the full ratification process (Exhibit C-307). The ratification process was also set out in the legal opinion of Nexen Inc.'s external Yemeni lawyer dated 9 October 1999 (Exhibit C-324) and in an internal correspondence dated 29 July 2009 (Exhibit C-241).

391. Furthermore, the ratification requirement is reflected in the PSA and the Settlement Agreement itself. In particular, though the PSA was agreed between and signed by its parties on 15 September 1986, it is undisputed that it took effect on 15 March 1987, when the ratification process was completed with the approval by the Yemeni People's Assembly, which approval took the form of Law No. 4 for 1987 (Exhibit CL-2). Even Respondents' own expert refers to the ratification requirement under Yemeni law (EXR of Mr. Luqman, para. 38). Also, the PSA Amendment went through the same ratification process (Exhibit C-3). The fact that the PSA was a Yemeni law and that its amendment required legislation confirms that Claimant had no authority to vary the PSA on its own.

392. Claimant further points out that Clause 13 of the Settlement Agreement made ratification of the tax provision a condition precedent to any performance on the part of Respondents under that agreement. It is true that this provision relates only to the tax provision of the Settlement Agreement, but this is immaterial because the tax ratification is expressed to be a condition precedent to any payment obligations coming into effect and it recognizes and embodies the ratification requirement for any variations to the PSA. Accordingly, there is no doubt that the whole of the Settlement Agreement had to go through the above ratification process (2WS of Mr. Al Humidy, para. 215).

393. What Respondents demonstrate is that the then Minister of Oil and Respondent 1 prepared a draft proposal in the terms of Exhibit R-1. That draft proposal was never approved and ratified by the Yemeni Supreme Economic Council, the Yemeni Council of Ministers and the Yemeni Parliament and it was never issued as a law to bind Claimant. On the contrary, the Yemeni Supreme Economic Council considered that draft agreement (2WS of Mr. Al Humidy, para. 219), which is presumably either Exhibit R-1 or C-306, and rejected it (Exhibit C-312). The resolution of the Supreme Economic Council stated that it simply "*ratified*" the agreed financial settlement of US$ 150 million. However, it rejected the proposal for the US$ 50 million in relation to the "*other issues,*" as the resolution states that "*the Council made the following decision concerning the other issues contained in the agreement.*" This language is to be contrasted with the words "*the Council ratified*" used for the financial settlement.

394. What the Supreme Economic Council did was to set out a list of terms that it was prepared to agree to, subject to the agreement of the parties to the Settlement Agreement. These "*other issues,*" on which the Supreme Economic Council did not agree, included abandonment, in relation to which it decided that "*in the event of abandonment, the equipment are to be received as are in a working condition.*" The resolution of the Supreme Economic Council was itself approved the following day on 26 June 1996 by the Council of Ministers (Exhibit C-312). The Supreme Economic Council also ratified the tax amendment of the Settlement Agreement, but not any other term of that agreement (Exhibit C-313). As for Claimant's cover letter, it does not add anything to the resolutions that it enclosed and it simply states "see attached to see what has been decided." (Exhibit C-310).

395. In light of the above, Claimant argues that Exhibits C-306 or R-1 were never ratified and never became binding. Either there was no Settlement Agreement at all on any issues, or, there was a settlement agreement, but on the terms of the Supreme Economic Council's resolution (Exhibit C-312). In any event, there is no proof that Claimant ever agreed to accept a payment of US$ 20 million in full and final settlement of all abandonment costs, in respect of past and future infrastructure and whether caused by breach of the PSA or not.

396. Even Respondent 1 itself recognized that only the cost recovery issues were approved by the Supreme Economic Council's resolution, as it stated so in its letter dated 15 September 1996 (Exhibit C-325).

397. According to Claimant, the cost recovery issues were the real dispute between the parties involved in 1996 (Exhibits C-303 and C-304). At that time, Respondents were claiming from cost oil over US$ 350 million of unauthorized expenses that related to the costs of building facilities in Block 14 (2WS of Mr. Al Humidy, paras. 204-208). Claimant's position was and still is that Respondents had wrongfully deducted GBP 365 million worth of cost oil, which belonged to Yemen. The Supreme Economic Council's rejection of a wider deal was consistent with the then parties' prior discussion of this GBP 365 million dispute.

398. Respondent 1's letter dated 14 February 1996 explains that, on 6 September 1995, the President of Yemen had instructed Claimant to reject Respondents' costs of GBP 365 million and said that a cash settlement of US$ 150 million by Respondents would resolve all issues (Exhibit C-304(a)). According to that letter, Respondent 1 had "*managed to convince*" the Minister in January 1996 that US$ 100 million was a fair solution to that dispute and the Minister had recommended acceptance to the President, but "*the President rejected the settlement*" and the President was "*adamant*" that he wanted a US$ 150 million cash settlement regarding the cost recovery issues. And this was exactly what the Supreme Economic Council and the Council of Ministers approved in their resolutions of 25 and 26 June 1996 (Exhibit C-312).

399. Moreover, Respondents' later documents show that they knew full well that there was no concluded Settlement Agreement, including as to abandonment costs. By virtue of a memorandum dated 9 October 1999, Respondents received advice from a local Yemeni lawyer that a subsequent tax Settlement Agreement would not be effective without completion of the ratification process (Exhibit C-324). Another example is an email dated 15 May 2005, where Mr. Mitch White, the Vice President of Finance at Respondent 1, wrote that Respondent 1 had not been able to rely on the Settlement Agreement for anything yet (Exhibit C-326). Finally, Respondents' pre-handover documents, such as the "*List of End of Masila PSA Liabilities/Costs Concerns,*" include references to the abandonment costs that Respondents now claim have been settled (Exhibit C-7).

400. Claimant also stresses that Respondents have failed to answer several important questions:

- How and when did Exhibit R-1 come into existence? That document bears Pecten's signature and is dated 10 March 1996, whereas it is clear from Exhibits C-215 and C-307 that Pecten did not sign it then. Claimant did not have a copy of Exhibit R-1 and only held a copy of Exhibit C-306 (2WS of Mr. Al Humidy, para. 202);

- Why did Respondent 1 tell its fellow contractors that this was a settlement extorted from them by the President of Yemen for political reasons (Exhibit C-304(a))?;
- Why was it necessary to have a "*separate and closed meeting*" with Mr. Murphy of Respondent 1 after an OpCom meeting (Exhibit C-310)?;
- Why was the Settlement Agreement regarded by the mid-2000s as "*an extremely sensitive matter*" (Exhibit C-327)? Many internal emails from Respondent 1 refer to that agreement as "*the stickiest of all assignments,*" to "*sensitivities and uncertainties*" around that agreement and state that it was unclear to what extent it could be relied "*due to the sensitivity of the Settlement Agreement*";
- Why were Respondents so reluctant to produce Exhibit R-1 during the PSA's term? On 10 December 2011, Respondent 1 invited Claimant to request its legal department to provide it with a copy of Exhibit R-1, but Respondents did not produce that document until they served their Answer in this arbitration; and
- Why Respondents have not served a WS from Mr. Larry Murphy, who dealt with Claimant in respect of the Settlement Agreement? Presumably, this is because he would say that the agreement is unenforceable (Exhibit C-328). Nor is there any evidence from the many individuals at Respondent who seemed concerned about the "*sensitivities*" of the Settlement Agreement. For its part, Claimant explains that the then current Minister of Oil, Mr. Al-Attar, died in 2005 and that his adviser, Dr. Al-Nabhani, died in August 2015.

401. Respondents criticize the fact that Claimant remained silent on the Settlement Agreement in its SoC. However, Claimant points out that the Settlement Agreement does not form part of its case. In its Reply, Claimant made it clear that it would seek to challenge the enforceability of that agreement and set out its initial comments on the scope of that agreement. Claimant's position on the Settlement Agreement was set out in full in the SoDTLD and no inconsistencies have been identified.

402. Though Claimant does not deny that Respondents paid Claimant US$ 150 million in total, it contends that that payment was made pursuant to the Supreme Economic Council's resolution of 25 June 1996 (Exhibit C-312). The fact that there was a payment of US$ 20 million in respect of abandonment costs, which is not denied, does not prove that Clause 9(b) of the Settlement Agreement was ever agreed.

B. Even if the Settlement Agreement was effective, its scope is limited

403. In any event, Claimant contends that, even if the Settlement Agreement was effective, it was meant to cover only the costs of clearing Block 14 of all facilities created up to the end of 1995. The Settlement Agreement was not meant to preclude Claimant from raising any of its current claims, which are for increased abandonment costs in relation to facilities created after March 1996 and caused by Respondents' breaches of the PSA.

404. In its 14 February 1996 letter, Respondent 1 explained to the contracting parties that "*we are now trying to resolve all outstanding issues from inception to December 31, 1995.*" (Exhibit 304-(a)). Respondent 1 contemplated the idea of paying a deposit of US$ 20 million on account of the reclamation issues prior to 1995. Under the Settlement Agreement, it was proposed that Respondents would not have to clear the area and they could leave the facilities *in situ* and in good working order.

405. Claimant's contemporaneous understanding is evidenced by an internal report dated 22 June 1996 that was submitted by Claimant to the Prime Minister, who was also head of the Supreme Economic Council (Exhibit C-311). Moreover, the report explicitly advised that the proposed abandonment agreement would not relieve Respondents from their environmental protection obligations during the term of the PSA. The Supreme Economic Council's resolution of 25 June 1996 reflected this distinction between performance of the PSA and costs of reclamation and disposal (Exhibit C-312, p. 4, decision "E").

406. Respondents knew that this was Claimant's understanding, as evidenced by Mr. Beingessner's email of 12 March 2004 that (Exhibit C-327). Respondents also described the Settlement Agreement in equivalent terms in public and private documents. For example, the 2003 Nexen Inc. annual report confirms that Respondents prepaid "*dismantlement and site restoration costs*" (Exhibit C-329).

407. Claimant further stresses that Respondents' construction of Clause 9(b) of the Settlement Agreement lacks commercial sense and is contrary to good faith. This is because Claimant had no idea at that time what breaches had been committed and how much they would cost to rectify. In addition, the Parties had no idea what facilities would be constructed during the rest of the PSA's life. By the end of 1995, there were 54 producing wells (Exhibit C-320), whereas, by the end of the PSA's term in December 2011, approximately 700 wells had been drilled. Consequently, Respondents' contention that Claimant agreed to compromise unknown and unquantifiable claims for the costs of abandoning wells or other facilities, irrespective of any future breaches of the PSA, is preposterous and contrary to the good faith duty included in the PSA itself.

408. Finally, Respondents' own documents speak to the financial value of the payment made in 1996. In an email dated 12 March 2004, Respondent 1 estimated that the cost of abandonment of the approximately 75 wells then drilled and the facilities then constructed was between US$ 60 and 200 million, which is between three and ten times the value of the payment of US$ 20 million (Exhibit C-327). Also, by an email of 15 June 2010, an employee at Nexen Inc. noted that they "*pre-paid an abandonment charge when we first entered the block, but this did not anticipate such a large number of wells being drilled.*" (Exhibit C-322). This

language is inconsistent with Respondents' current allegation that all abandonment claims have been settled.

409. In the event the Arbitral Tribunal determines that the Settlement Agreement is a concluded and ratified agreement, Claimant submits that its Clause 9(b) must be read together with Clause 9(a), which says that the agreed sum includes US$ 20 million as "*a pre-payment of the Masila Block (14) Participants' deposit for their work obligations required by Article VIII, sub-clause 8.2 (i) of the Masila Block (14) PSA.*" However, a "*pre-payment*" is inconsistent with a waiver of any further right to abandonment costs, whatever facilities are created thereafter. This language is only consistent with the US$ 20 million being a payment on account and in respect of the facilities created thus far.

Sub-section 3. Claimant's claims are not time-barred

A. Applicable limitation period and knowledge test

410. Claimant notes that, further to the Arbitral Tribunal's PO3, the Parties' rights are governed by "*principles of law common to the PDRY, Canada and Lebanon, and in the absence of such common principles then in conformity with the principles of law normally recognized by nations in general.*"

411. In their SoRTLD, Respondents relied for the first time on the UNIDROIT Principles. This argument was not made in the SoDC, where Respondents identified the three different limitation periods under Canadian, Yemeni and Lebanese law, *i.e.* between 2 and 6 years under Canadian law, 5 years under Yemeni law and 10 years under Lebanese law and the applicable knowledge test.[20]

412. Claimant's position on the applicable time-bar rule has not changed. Claimant has always contended that the only possible applicable limitation period is the ten-year limitation period under Lebanese law. It would be contrary to PO3 to apply a shorter limitation period that would bar claims that are allowed under Lebanese law. In the alternative, the Arbitral Tribunal should apply the 5-year limitation period under Yemeni law. Claimant reiterates here that the PSA is a Yemeni statute and thus, no limitation period shorter than the one under Yemeni law should be applied. It could not have been the intention of the Parties when concluding the PSA to do so.

413. Respondents' reliance on the UNIDROIT Principles is wrong because Article 27.2 (i) of the PSA allows the Arbitral Tribunal to apply principles of international law only in the absence of laws common to Yemen, Lebanon and Canada. Here, there is no absence of commonality,

[20] SoDC, paras. 140-141.

since all three national laws have limitation period rules, which Respondents acknowledge in their SoDC.[21] Moreover, Claimant maintains that the UNIDROIT Principles do not contain "*principles of law recognised by nations in general*" in relation to prescription. Respondents' own authorities, which were deliberately produced only in partial form, confirm Claimant's position (Exhibits CL-49 and RL-162). In the *Hunt* case, which also concerned a production sharing agreement having a *tronc commun* choice of law clause, the arbitral tribunal refused to apply the UNIDROIT Principles in respect of prescription (Exhibits CL-50 and RL-156).

414. In addition, applying the UNIDROIT Principles would go against the terms of Article 27.2 (i) of the PSA, given that none of the three applicable national laws has a 10-year absolute limitation period, which is provided under the UNIDROIT Principles and is triggered regardless of knowledge. On the contrary, Respondents' own submissions confirm that Yemeni, Lebanese and Canadian law have limitation periods that can be extended in the event that the victim of a wrongdoing lacks the knowledge necessary to bring a claim. Under the relevant statutes of certain Canadian provinces, the rules on knowledge are more stringent (Exhibits CL-51 and CL-52). The UNIDROIT Principles themselves recognize their limited role "*even in cases in which the Principles are applied as the law governing the contract, [as] domestic mandatory rules on limitation periods prevail over the rules laid down in this chapter, provided that they claim application whatever the law governing the contract.*" (Exhibit CL-53).

415. Regarding the relevant knowledge test to be applied by the Arbitral Tribunal, Claimant agrees with Respondents' experts that the applicable limitation period runs from the date of breach, unless the injured party did not have immediate knowledge of the facts constituting the breach, in which case the time runs from the date of knowledge. By knowledge, Claimant understands that the breach must be apparent and detectable by reasonable means. Respondents' experts appear to agree that this is the appropriate test to ascertain knowledge (EXRs by Mr. Luqman, para. 70, Dr. Comair-Obeid, para. 36, and Mr. Lindsay, para. 26).

416. Respondents' argument that the knowledge test should deal with the question of whether Claimant knew or ought to have known of the facts of the breach is not supported by any authority and does not even rely on the evidence of their own experts. Respondents' experts confirm Claimant's position that the relevant test is whether a breach is apparent and detectable by reasonable means. And by reasonable means a claimant is not expected to commission investigations so as to consider whether it might have grounds for a claim (Exhibit CL-29).

417. Arbitral and national case law show that the damage has to be apparent to a claimant. The 11 August 2015 ICSID interim decision on an environmental counterclaim brought by the

[21] SoDC, para. 140.

Republic of Ecuador against Perenco Ecuador Ltd upheld a submission that the limitation period could only start to run from the discovery of the harm (Exhibit CL-23, pp. 114-116). This requirement can also be found in the laws of certain provinces of Canada (Exhibits CL-51 and CL-52). In addition, Canadian courts have held that the date of discovery triggering a limitation period is fact-specific (Exhibits CL-54, paras. 41-42, and CL-55). This is highly relevant here, since Claimant's knowledge requires an in-depth inquiry into Respondents' state of mind. However, that inquiry cannot be properly undertaken at this threshold stage.

418. Respondents' own expert confirms that: "*[t]he assessment of if and when a prescription period starts to accrue is necessarily a question of the facts of the case at hand and ... should be assessed in light of the specific claim being pursued (and the underlying obligation).*" (EXR by Dr. Comair-Obeid, para. 38). And the Arbitral Tribunal is being asked at this stage to answer the question of what is the breach, without having a complete picture of the facts. The Arbitral Tribunal would need to determine what Respondents did wrong and what they knew about their breaches. Given that Respondents' state of mind and conduct is critical to assess Claimant's knowledge, the Arbitral Tribunal should avoid making findings of fact in that respect, in the absence of full document production and technical evidence. It would be contrary to Article 22 (4) of the ICC Rules to do so because Claimant would not have had a reasonable opportunity to present its case.

419. Claimant's case is that time only starts to run when a claimant ought reasonably to know of his entitlement to make a claim. Claimant reiterates here that it did not have the requisite knowledge in relation to any of its claims until after the PSA's expiry, when it gained full access to Block 14. Claimant acted with reasonable diligence in establishing prior to and immediately after the handover what the condition of the assets was and in promptly reviewing the documentation left behind by Respondents that was withheld from Claimant during the PSA's term. Claimant was then able to compile the original list of complaints, called the "Hakim's List" (WS of Mr. Mohamed Binnabhan, paras. 54-57), through which Claimant put Respondents on notice of their liabilities.

B. Causes of action and application of the limitation period to Claimant's claims

420. Claimant states that Respondents have rightly identified the following three types of claim: (i) original breaches, (ii) continuing breaches and (iii) breaches at the time of handover of Block 14.

421. In relation to the original breaches, Claimant points out that these breaches accrued when, in breach of the PSA, Respondents' petroleum operations fell below the standard of Good Oilfield Practice or created environmental hazards. If those breaches occurred more than 10 years before the conclusion of the Standstill Agreement on 22 March 2013, the claims are *prima facie* time-barred. However, the Arbitral Tribunal needs to wait until after the final full

hearing to determine the date of relevant knowledge in respect of the original breaches. This is also because Respondents have failed thus far to identify precisely when all of the original breaches occurred, making the application of the time-bar defence impossible.

422. In relation to the continuing breaches and breaches at the time of handover of Block 14, Claimant argues that such breaches are said to have occurred at dates up to and including 17 December 2011, the date of the PSA's expiry. On Respondents' own case that the three-year limitation period of the UNIDROIT Principles should be applied, this arbitration was commenced in less than three years from that date. Therefore, these claims are not time-barred on any view.

423. Claimant's primary complaint in its SoC[22] was that it did not receive what it should have received upon the PSA's expiry. The thrust of Claimant's case is that Respondents were in continuing breach of their duties of good faith and Good Oilfield Practice throughout the PSA's term and upon handover of Block 14, since that block was not in good order and condition and presented multiple environmental hazards. Thus, all of Claimant's claims are also advanced as claims accruing at the time of the PSA's expiry. Respondents seem to accept in principle that handover claims are not time-barred. For example, Annex 1 to their SoDC accepts that the abandonment claims found in Section II of Claimant's SoC are not time-barred. These are claims accruing at the time of the PSA's expiry and are based on Article 8.2 (i) of the PSA, which refers to the PSA's expiry.

424. Moreover, Claimant's claims are based on the continuing breaches of Articles 8.1, 8.2 (a)-(d) and 27.2 (i) of the PSA (Exhibit C-1). According to Claimant, the express terms of Article 8.1 of the PSA created for Respondents an ongoing obligation to maintain the standard of Good Oilfield Practice, which is defined by Claimant's expert as "*a set of rules by which petroleum professionals self-regulate the conduct of petroleum operations on a day-by-day basis. It has been described as... "doing the right thing even if no-one is watching*"" (EXP by Mr. Jewell, para. 14). Claimant will rely on its expert evidence at phase 2 of this arbitration to show that Good Oilfield Practice involves a continuing obligation.

425. As for Article 8.2 of the PSA, it imposed on Respondents strict obligations to prevent environmental damage, which were, necessarily, continuing obligations. And Article 27.2 (i) of the PSA imposed on Respondents an ongoing obligation of good faith, which obligation is recognized by Yemeni, Lebanese and Canadian law. Good faith is integral to Sharia Law, the latter being part of Yemeni and Lebanese law, and Canadian law also places an important value on the duty of good faith (Exhibit CL-26).

[22] SoC, para. 20.

426. Claimant's allegations of breach of good faith touch upon Respondents' conduct during the PSA's term, where Respondents were aware of their breaches of Good Oilfield Practice, which are in and of themselves continuing breaches, and yet misrepresented to Claimant that they had always conducted themselves to the best possible industry standards, these misrepresentations being further continuing breaches of their continuing duties under the PSA. Respondents' internal recognition of their liabilities, which was deliberately not disclosed to Claimant, gives rise to a further continuing breach of their duty of good faith.

427. By way of example, Claimant states that if Respondents drilled a well in 1992 that complied with then prevailing industry standards, but, by 1998, the well started corroding and such a corrosion caused environmental damage through the leakage of petroleum products from the well shaft into the surrounding aquifers, Respondents would be in breach of the following obligations every single day from 1998: (i) the obligation under Article 8.1 of the PSA, because they failed every day to ensure compliance with Good Oilfield Practice and that the well was kept in optimal working order, (ii) the obligation under Article 8.2 of the PSA, because they failed every day to take all proper measures to prevent pollution, and (iii) the duty of good faith, because they failed to disclose to Claimant that prevailing standards had changed and that they understood that the well they had drilled posed an environmental risk.

428. There would be no significant difference to the above example if the well was in breach of the prevailing standards when it was first drilled. The only difference would be the start date of Respondents' breach of their continuing duties, which would be the date of when the well was drilled. Regarding its well integrity claims, Claimant followed the above approach in its SoC.[23]

429. Respondents falsely contend in their SoDC that these claims are advanced on the basis that there was continuing damage arising from an earlier act. Claimant's SoC clearly focuses on the continuing obligations that were breached. And Claimant has referred to cases involving continuing duties that were the subject of continuing breaches (Exhibits CL-24 and CL-25). In addition, Claimant refers to *Grefer v. Alpha Technical* case that concerned Exxon's failure to investigate whether a site had been contaminated with NORM, issue warnings and clean it up. The court in question rejected Exxon's submissions that it had done enough, holding that it had cut corners to try to save costs (Exhibit CL-27).

430. Respondents also state that they "*would not deny the existence of an ongoing duty to comply with good oilfield practice and the relevant contractual standards set out in Articles 8.1 and 8.2.*"[24] They further concede that continuing duties are recognized under Canadian, Lebanese

[23] SoC, paras. 143 and 145.
[24] SoRTLD, para. 125.

and English law and international law.[25] Two English court judgments should be mentioned here, where a project involved the handover of facilities constructed by one of the parties and where the breaches arising out of the deficient quality of construction were found to have occurred at the time of the handover and irrespective of whether the constructor was in breach of contract at an earlier date (Exhibits CL-56 and CL-57). Respondents' English law authorities on continuing breaches do not add anything, as they are fact-specific (Exhibits RL-169 and RL-172). There are other English court cases that have found continuing duties and have held that claims continue to accrue whilst the duty exists (Exhibits CL-58 and CL-59). A party's failure to disclose a known breach was considered in another English court case (Exhibit CL-60).

431. At this juncture, Claimant reiterates that, in the absence of full document production and expert evidence, the Arbitral Tribunal should determine at this stage only the applicable legal rules with respect to the time-bar defence. Put simply, the Arbitral Tribunal should not answer the question "*is this claim time-barred?*" without first answering the questions "*has there been a breach?*" and "*if so, when and how?*" because these last two questions will establish when the breach occurred, including whether it was a continuing breach of a continuing duty and whether there was a breach at the time of handover.

432. Regarding Claimant's conduct during the PSA's term, Claimant contends that it was not for it to investigate and second-guess Respondents' contractual performance, as they were the experts and had the requisite knowledge, which Claimant lacked. By arguing that Claimant knew or ought to have known of the facts underlying its claims prior to the PSA's expiry, Respondents are effectively shifting their operational duties to Claimant.

433. The following table contains Claimant's specific comments on the impact of Respondents' time-bar defence on its current claims:

Reference to Claimant's SoC	**Head of claim**	**Impact of the time-bar defence**
Paras. 146-207	Respondents' failure to cement the full length of the 9 5/8" production casing on 318 wells to create	Respondents drilled wells following their GDP1 and GDP2 until 2001. Claimant did not know of the GDP1 and GDP2, on the basis of which wells were drilled up to 2001, until the PSA's expiry. Claimant became aware only of the GDP3 at the end of 2001. Despite having understood, by 13 July 2000, that their

[25] SoRTLD, paras. 128-148.

	adequate barriers between hydrocarbons and the aquifers	GDP1 and GDP2 were in breach of ECRB Guide 009 on Casing Cement Minimum requirements, Respondents did not disclose that breach to Claimant. They further made misleading presentations in an effort to prevent Claimant from discovering the true situation. For example, in 2001, Respondents informed Claimant that there was evidence of corrosion, which needed to be treated, but they did not disclose that that was caused by their well design. In 2003, they presented a drilling review that suggested that any problems were connected to the quality of the cement and that they had extensive procedures in place to monitor drilling designs and procedures. Accordingly, Claimant's well integrity claims are based on Respondents' continuing breach of Article 8.1 and 8.2 of the PSA, given their failure to take steps to put the wells into a condition that complied with the ECRB Guide 009 and prevented pollution, also of Article 8.2 of the PSA, given their failure to handover the wells in good working order, subject to wear and tear, upon the PSA's expiry, and of the duty of good faith, given their failure to disclose to Claimant that the pre-2001 wells were not drilled in accordance with the ECRB Guide 009 and presented an environmental risk as a result.
Paras. 208-213	Improperly abandoned wells	Claimant did not know of the abandonment method of any of the abandoned wells until after the expiry of the PSA in December 2011. Respondents' information provided in 2007 was cursory and Respondents never provided any meaningful information to Claimant in this respect.
Paras. 214-223	Use of crude oil and unsuitable chemicals in drilling fluids	Claimant did not know of the drilling fluids used for GDP1 and GDP2 until after the PSA's expiry. Claimant became aware of GDP3 in November 2001, which referred to the use of 10% of crude oil in the drilling fluid and 13% crude oil thereafter. Claimant was not aware of the use of unsuitable chemicals in the drilling fluids at any time prior to the PSA's expiry. In 2006, PEPA had warned Respondents that non-toxic additives should not be used in the drilling fluids and Respondents assured Claimant that they were not using these additives, though

		these assurances turned out to be false.
Paras. 224-227	Non-performance of LOTs or FITs at the surface casing	These are omission claims. The Parties never discussed this issue during the PSA's term. Claimant became aware of the grounds supporting this claim after the expiry of the PSA.
Paras. 228-232	Flawed design of the VPS wells	The VPS drilling plans were contained in a rig schedule that Claimant received from 2001 onwards. However, this did not give Claimant knowledge of grounds for a claim. There was no discussion of the design between the Parties.
Paras. 233-236	Lack of well cellars	There was no discussion of the well cellars between the Parties until after the PSA's expiry. Claimant was not aware that it had grounds to make a claim.
Paras. 237-241	Disposal of NORM	There was no agreement between the Parties on the method of NORM disposal during the PSA's term. The issue was only brought to Claimant's attention in 2010.
Para. 242	Disposal of produced water	Claimant was not aware that it had any ground for such a claim until after the expiry of the PSA. Claimant did not know that Respondents had failed to carry out any form of risk assessment and that the practice was in breach of the PSA.
Paras. 243-250	Abandonment costs	As mentioned above, Claimant was not aware of the flawed GDP1 and GDP2 until after the PSA's expiry and thus, it did not know that it had a claim for increased abandonment costs.
Paras. 281-286	Groundwater contamination	Claimant has only learned that Respondents did not have an adequate groundwater monitoring plan and did not take accurate measurements of potential groundwater contamination until after the handover of Block 14.
Paras. 287-303	Waste management policies	Respondents left four unlined sludge ponds at the CPF and four lined sludge ponds at the Terminal. These presented an environmental hazard that was ongoing and so was Respondents' obligation to remedy it.
Paras. 312-317	Unexploded seismic charges	Claimant only learned of the extent and possible consequences of unexploded misfires in 2013.
Paras. 322-331	Facilities and equipment	According to Claimant, the Parties never discussed the items covered by this claim until 2010 and even then Respondents concealed the deficient state of the facilities and equipment.

Sub-section 4. No waiver/estoppel

A. Applicable legal principles

434. Claimant reiterates here that the Arbitral Tribunal should only determine at this stage the applicable legal principles pertaining to Respondents' waiver/estoppel defence.

435. Claimant points out that courts and international tribunals have held on many occasions that an estoppel or waiver defence can only be based on a clear and unequivocal representation. And that representation requires that the maker be aware of its legal rights, take a deliberate decision not to exercise them and communicate that decision in an unambiguous manner. Furthermore, an estoppel defence requires the party seeking the contract's variation to establish that it relied on the representation not to exercise a contractual right to its detriment so that it would be inequitable to allow the representor to go back on its word.

436. These requirements are accepted by Respondents' experts on Canadian, Lebanese and Yemeni law and are also set out in detail in several authorities (EXRs by Mr. Lindsay, para. 42, Dr. Comair-Obeid, paras. 44 and 46, and Mr. Luqman, para. 83, and Exhibits RL-62 and CL-30 – CL-32). Furthermore, Respondents' own legal authorities support Claimant's position that knowledge is an essential component of an estoppel or waiver defence (Exhibits RL-89, para. 19, RL-165, para. 60, RL-166, p. 152, RL-167, p. 989, and RL-168, p. 623).

437. Regarding the waiver defence, Claimant contends that there can be no waiver, if there is no question of choosing between options. Respondents' expert on Canadian law confirms that "*waiver occurs when a party is forced by law to "elect" between different rights.*" (EXR by Mr. Lindsay, para. 41). No such choice is present in this case. For example, Claimant was not faced with the decision to accept or reject goods supplied under a purchase contract.

438. Claimant further specifies that neither Yemeni law nor Lebanese law has a well-developed rule of estoppel. Under both of these national laws, the rule of estoppel is essentially one of good faith and good faith works both ways. It would not be an act of good faith to invoke estoppel based on an alleged representation that the recipient knew was unintended and based on partial information. And, as Respondents' expert on Lebanese law confirms, "*the principle of good faith ... does not provide a basis for departing from the terms of a contract where those terms are clear.*" (EXR by Dr. Comair-Obeid, para. 25). According to Claimant, the same would be true under Yemeni law. Under Canadian law, a party relying on estoppel must also show that it acted in reliance on the representation in such a way so as to make it inequitable to permit the representor to renege on its representation (EXR by Mr. Matthew Lindsay, paras. 45-50).

439. Whereas the rules of estoppel and waiver are not precisely the same under Yemeni, Lebanese and Canadian law, Claimant contends that there are common elements that are also consistent with the international law approach. Under the international law approach, there are three requirements that have to be met: (i) a representation must be made by one party to another, (ii) the representation must be unequivocal, clear and unambiguous and (iii) the recipient of the representation must rely on it in *bona fide* (Exhibits CL-33 and CL-34). The requirement that the representation must be unequivocal is quite difficult to meet (Exhibits CL-35 and CL-36). As for the reliance requirement, it is derived from the underlying principle of good faith, which "*lies at the very root*" of the doctrine of estoppel (Exhibit CL-37). For example, two ICJ tribunals have held that a party must show "*that it has taken distinct acts in reliance of the other party's statement either to its detriment or to the other's advantage.*" (Exhibit CL-34).

440. Respondents' reliance on the doctrine of acquiescence under international law is not only belated but also unhelpful to their case. Claimant stresses that there is no separate doctrine of acquiescence under Yemeni, Lebanese or Canadian law. Thus, that doctrine cannot apply to the PSA. In any event, even as a matter of international law, acquiescence is not a separate legal doctrine and, as Respondents' own legal authority confirms, no sensible distinction between acquiescence and waiver/estoppel can be made (Exhibit RL-159). The ICJ case that Respondents rely on is about the interpretation of treaties, not acquiescence. Sir Gerald Fitzmaurice's separate opinion did refer to acquiescence as a species of estoppel. However, his opinion turned on the specific facts of that case, which have no bearing here.

441. Claimant does not dispute that an unequivocal representation can be made by conduct. However, it contends that the threshold for establishing an estoppel or waiver defence on the basis of a party's conduct is high and it requires very clear evidence (Exhibits CL-41, paras. 143-144, and CL-48, paras. 352-353, and CL-61, para. 469).

B. Factual considerations

442. Though Claimant's position is that no facts should be addressed at this stage and that it would be contrary to Article 22 (4) of the ICC Rules to proceed without looking at Respondents' knowledge regarding their breaches, Claimant points out that Respondents' allegations of waiver/estoppel are intrinsically improbable, since they require proving that Claimant knew of their multiple breaches of Good Oilfield Practice, multiple environmental hazards and failure to keep facilities in good working order and yet, made unequivocal representations that it would not protest about these matters, thereby waiving its rights to raise claims under the PSA and protect its population and one of its key assets, Block 14.

443. Respondents allege that Claimant was aware of their standards, policies, procedures and practices, since it reviewed and approved the annual WP&Bs, reviewed and approved well

packages, inspected facilities and operations and was involved in numerous operational activities. However, these allegations are not sufficient to establish estoppel or waiver.

444. Respondents need to show that (i) Claimant knew of its right to make the present claims during the PSA's term, (ii) Claimant made any representations that it would not raise the present claims, (iii) Respondents relied on such representations to their detriment, (iv) Claimant made any statements intending to induce any conduct from Respondents and (v) it would be inequitable, or contrary to good faith, or tantamount to fraud, to permit Claimant to raise the present claims in light of its prior representations.

445. Regarding Respondents' criticism that Claimant has not called relevant witnesses, who worked contemporaneously at Claimant or PEPA, Claimant explains that, though Mr. Thabet Abbas is not a central witness, it tried its best to contact him in relation to this arbitration. However, he was located outside of Sana'a at the time of service of the SoRjTLD and contact with him has been very difficult. Claimant has also been unable to contact Mr. Haitham or Mr. Al Qawsi. In addition, Mr. Al Haidary has passed away. As for Mr. Rageh, he was an employee of Respondents and it should have been Respondents calling him as a witness.

446. Claimant recalls that Articles 3.3 and 3.4 of the PSA attest to the fact that Respondents were solely responsible for conducting the petroleum operations and did so at their own risk. The PSA did not establish a partnership between the Parties.

447. Under Article 6.7 of the PSA, Respondents had to prepare and perform under the WP&Bs in accordance with "*internationally accepted good industry practices.*" The process of preparing and approving WP&Bs was governed by Article 7.4 of the PSA. Its purpose was twofold, that is, first, it enabled the OpCom to ensure that Respondents were developing Block 14, and, second, it meant that costs could be recovered through the cost recovery process. It had nothing to do with the question of whether Respondents were performing the petroleum operations in accordance with the standards set by Article 8 of the PSA. And the approval of the WP&Bs certainly did not amount to an unequivocal representation that Claimant would not exercise rights that were stemming from Respondents' breaches.

448. As for the "*key functions*" of the Opcom, these are set out in Respondents' memorandum of 13 July 2003: "*1. Review and approval of Budgets and Outlooks; and 2. Review and acknowledgment of contract proposals.*" (Exhibit C-90, p. 4). Thus, the OpCom meetings' purpose was to obtain budget approvals. As for the well packages, Mr. Mitch White of Respondent 1 wrote in an email dated 27 October 2005 that "*I believe we started providing well packages to PEPA as a courtesy to include their technical people in the process in improve [sic] their understanding of what we are doing, improve their technical capabilities.*" (Exhibit C-87).

449. With respect to the issue of whether Claimant made any representations that it would not make any claims in respect of the assets received from Respondents, Claimant stresses there was a formal handover process. An example of that process was the subject of Ministerial Resolution No. 101 of 1997 (Exhibit CL-39). Respondents themselves described in their document headed "Handover of Materials to MOMR" the process that had to be followed both internally and externally in order to hand over assets back to Claimant (Exhibit C-334). Respondents also knew that an equivalent process had to be put in place at the end of the PSA (Exhibit C-335). Had this formal handover process been followed in relation to any of the assets that are the subject of Claimant's present claims, there would have been a waiver/estoppel case, considering that Claimant would have granted express releases in light of full information about the condition of the assets. However, this is not what happened here and thus, no estoppel/waiver defence can be raised.

450. Claimant further stresses that Respondents knew at all times that any amendment to the terms of the PSA would require formal ratification by several different organs of Yemen. Respondents do not explain how Claimant could have made representations that Yemen would not enforce its rights under the PSA, despite knowing that even the Minister himself was not authorized to alter Claimant's rights under the PSA. As a result, Respondents' waiver/estoppel case is hopeless.

451. As far as the Parties' experience in petroleum operations during the PSA's term is concerned, Claimant asserts that there was a clear imbalance between the Parties. This was so especially at the PSA's start (WS of Mr. Alkaff, paras. 8-22, and 1WS of Mr. Al Humidy, paras. 6-68). A clear example of the difference in experience are the CVs of Respondents' witnesses, Mr. Tracy and Mr. Rassmusen, which show that their experience in the oil and gas industry started in the 1970s, well before there were any oil and gas operations in Yemen. Moreover, the PSA reflected this imbalance of experience, as it included a provision for training and "Yemenisation," which would be carried out by Respondents and help the inexperienced people of Claimant and PEPA. Against this imbalance of experience, Claimant contends that no estoppel can be found because of its lack of experience and expertise that meant that it was not aware of Respondents' breaches of the PSA and of its right to raise the present claims.

452. Another important obstacle to Respondents' estoppel defence is that they misled Claimant into believing that it had no legal rights to exercise. As the party seeking the protection of equity and thus, the party that must have behaved equitably, Respondents fail to meet the requirement of having clean hands (Exhibit CL-38). Claimant's silence cannot be construed as a representation specifically because Respondents kept confirming during the PSA's term that they were performing under the PSA's and the industry's standards. Examples of Respondents' misleading information are their presentation made to PEPA in 2003 concerning drilling (Exhibit R-80, slide no. 12), the minutes of a meeting dated 3 January

2011 between Respondents and Aish Awwas and Ibrahim Al-Gadi of Sheba Strategic Study Agency (Exhibit C-243) and Nexen Inc.'s annual report for 2010 (Exhibit C-242, p. 38).

453. Moreover, Respondents withheld documents from Claimant, to which Claimant had a contractual entitlement, and which would have informed Claimant as to the way they conducted petroleum operations. Claimant's entitlement to receive certain reports from Respondents is provided under Article 16.6 of the PSA (Exhibit C-1, Article 16.6). Despite this contractual entitlement, Claimant did not receive geophysical, geological, petrophysical, engineering and general data so as to assess Respondents' work. Claimant reminds here that one of its claims in this arbitration is that Respondents withheld important reports.[26]

454. A few examples of withheld information by Respondents that have come to light through this arbitration are:

- Respondents' GDP1, GDP1.1 and GDP4 (Exhibits R-12, R-14 and R-101). GDP1 and GDP1.1 would have informed Claimant that the wells drilled until at least 2001 had not been cemented over the full length of the 9 5/8" casing, which is the basis of Claimant's deficient well design claim;
- The Trium reports dated 20 March 2009 and 20 July 2009 that were commissioned by Respondent 1's parent company (Exhibit R-171 and R-190). They are entitled "Yemen Legacy Drilling Sump and Water well investigation" and "Human Health and Ecological Risk Assessment," which are topics at the epicenter of Claimant's present claims. Both reports say that they are subject to "*solicitor-client privilege,*" which confirms that Respondent 1 was considering that it was potentially liable;
- The Worley Parsons report entitled "*CNPY Masila (Block 14) Project, Yemen File review and data compilation*" (Exhibit C-244). This is a report that collates information about the environmental condition of Block 14. Respondents told Claimant in 2010/2011 that they would produce such a report, in the face of repeated demands from Claimant from 2005 onwards for more information about the environmental impact of Respondents' operations (1WS of Mr. Al Humidy, para. 31). Despite their undertaking, Respondents produced that document for the first time in 2015, in response to Claimant's document production request made in the course of this arbitration. The report includes highly material information, including information that Respondents should be, but were not, monitoring the water pressure and water quality of the lower Mukalla formation so that they would be alerted to any pollution of the aquifers;
- Reports on the lining of the sumps and the cementing of the wells (1WS of Mr. Al Humidy, paras. 76-77); and

[26] SoC, paras. 332-355.

- The Broadsword report (Exhibit C-245) that was commissioned with the OpCom's approval by Respondents and submitted to them in 2006, but withheld from Claimant and the OpCom until 2011.

455. More importantly, Respondents discussed internally the risks associated with their petroleum operations on several occasions. For instance, in an email dated 4 December 2007, Respondents discussed plans for the abandonment of the wells (Exhibit C-246). The same topic was discussed in a February 2008 email (Exhibit C-246). In January 2009, Respondents discussed internally that referring to temperature logs from three wells would be good evidence that they could present to Claimant to show that there was no cross flow between the aquifers (Exhibit C-248).

456. In December 2010, Respondents gave an internal presentation on underground water aquifers, in the face of concerns raised by their own employees about well integrity and pollution of the aquifers (2WS of Mr. Al Humidy, para. 48). An internal email dated 6 December 2010 (Exhibit C-250) shows that the situation was far from clear. In an email dated 4 May 2011 (Exhibit C-252), Respondents discussed the well integrity and abandonment issues that are the subject of Claimant's current claims.

457. However, Respondents' presentations to Claimant were very different from their internal discussions. For example, the presentation to PEPA in November 2001 in support of a request for approval of spending on cathodic protection (Exhibit R-59) contrasts to the internal presentation in April 2001 (Exhibit C-255). This internal presentation included a slide headed "*What we know,*" the title of which shows that Respondents knew, whereas Claimant did not. In that slide, they confirm that the AEUB Guidelines were not being met and that there was a concern about isolating the aquifers (Exhibit C-255). By contrast, the presentation to PEPA presented the problem as a routine one ("*all types of Wells can have Some External casing Corrosion*") and did not refer to the well design or breach of industry standards.

458. The first time PEPA learned of any corrosion issues was in the course of the February 2001 OpCom meeting, when Respondents asked for approval of the costs of a casing inspection program. Respondents prepared information to support this request, without revealing any of the problems that were occurring at the time and that were caused by their breaches (2WS of Mr. Al Humidy, para. 55, and Exhibit C-253). Similarly, Respondents did not disclose anything regarding the reasons for corrosion at a meeting on 9 November 2001 (2WS of Mr. Al Humidy, para. 56).

459. In the course of a 2003 presentation, Respondents reported to Claimant that their drilling programme had addressed the need to isolate the Mukalla and Harshiyat formations, whereas in fact this was not the case (Exhibit R-80). Once again, Respondents presented any corrosion issues as a routine issue and/or as being caused by cement problems. Consequently, it is

preposterous to now claim that Claimant represented that it would not enforce its legal rights concerning the present well integrity claims, by not objecting to the work performed by Respondents at the time.

460. In addition, in a memorandum dated 4 August 2003 from Moner Sallam to Dave Wilke entitled "*Basic Procedures and Cost Estimates for Abandonment of Masila Wells,*" Respondents identified that the abandonment costs for wells without adequate cementing would be higher (Exhibit C-273). They considered costs for abandonment of three types of wells: (i) abandonment of perforated zone(s) for all Masila wells in the amount of US$ 30,672, (ii) usable ground water abandonment for wells with useable zones protected by cemented casing in the amount of US$ 11,275 and (iii) useable groundwater and surface abandonment for wells with usable water zones not protected by cemented casing, which, in 2003, Respondents estimated as costing between US$ 77,714 and US$ 85,536.

461. Another memorandum, this time from Dave Wilke and dated 5 November 2004, was entitled "*Casing Integrity – current Status of Masila Well Failures and Repairs*" and went into great detail concerning well integrity problems (Exhibit C-274). Claimant also shows that Respondents were working on convincing Claimant that the aquifers had been properly protected (Exhibits C-246 and C-247).

462. Furthermore, as the PSA's expiry was approaching, Respondents put a huge amount of time and effort into assessing and quantifying their potential liability:

- The "*List of End of Masila PSA Liability Concerns*" (Exhibit C-7) contains a list of the liabilities that Respondents knew they were facing. Respondents produced numerous drafts of this document, which date back to 2007 (Exhibit C-330). Claimant notes that the documents refer to "*liability concerns*" and that they were not just an exercise in cost accounting. Moreover, the liability concerns touch upon wells and associated abandonment costs, land claims, environmental claims and asset handover, which are the subject of Claimant's current claims. In an email dated 2 October 2010, Respondents' counsel stated that many pages of those documents had been withheld on the ground that they contained privileged legal advice from in-house and external counsel (Exhibit C-331). If that is the case, then this shows that Respondents were expecting damage claims;
- Document production has also revealed an entire file of "*Handover – Risk assessment plans*" (Exhibit C-332). These documents all anticipate claims and address how Respondents should seek to defend them. For instance, Risk Mitigation Plan #1.0 refers to the abandonment of over 40 wells and says that "*[t]he probability that a claim or claims will be made against CNPY on the basis of abandonment and reclamation is considered high.*" Risk Mitigation Plan #1.4 addresses the risk of claims for damage and/or contamination of the Mukalla Formation aquifer due to drilling fluid losses,

cementing and other drilling operations and says that "*[t]his is very sensitive subject and frequently it has been brought out by PEPA representatives during regular field visits and broader forums. ... The risk of getting the claim of aquifer damage and contamination is very likely.*"

463. In light of the foregoing, Claimant invites the Arbitral Tribunal to dismiss Respondents' waiver/estoppel defence. Claimant never unequivocally represented that it would not pursue its present claims and Respondents never understood that to be the case. Respondents were not only misled by Claimant, but were also preparing to defend themselves against the present claims. Finally, Respondents have not established that they ever relied on Claimant's representations to their detriment and that it would be inequitable to allow Claimant to pursue its present claims.

Sub-section 5. Conclusion

464. To conclude, Claimant stresses that all of Respondents' threshold legal defences are bound to fail. The alleged Settlement Agreement was a mere draft that was never concluded and ratified. The time-bar allegations cannot have an impact on its claims for continuing breaches of the PSA, good faith and Good Oilfield Practice. In any case, Claimant's claims will only be time-barred if the breach occurred more than ten years ago and Claimant was aware at that time of its right to make a claim. Regarding the waiver/estoppel defence, Respondents have failed to meet all necessary requirements. The real picture is that Respondents were in breach of good faith from an early stage of the PSA and have behaved inequitably.

CHAPTER IX. ANALYSIS OF THE ARBITRAL TRIBUNAL ON RESPONDENTS' THRESHOLD LEGAL DEFENCES

Section 1. Scope of the present award

465. On the one hand, Respondents argue that only their counterclaim and the following claims of Claimant are not subject to their threshold legal defences and are therefore to be determined at a subsequent stage of this arbitration:[27] (i) third-party claims, (ii) certain of the facilities and equipment claims, (iii) documentation and data claim, (iv) Asset Register claim and (v) the SAP claim.

466. On the other hand, Claimant's position on the scope of the present award is as follows:[28]

> *"The Claimant asks the Tribunal to focus on (i) the legal principles and (ii) what is not alleged by the Respondents which would need to be alleged in order to make out their defences. This, but only this, is a proper threshold exercise.*
>
> ***The rulings that the Claimant asks the Tribunal to make are, in summary, as follows**:*
>
> ***The waiver/estoppel defences fail**. These defences were not seriously pursued by the Respondents at the hearing. They fail because the Claimant was not aware of its rights and made no holdings out that it would not pursue the claims now made in the arbitration.*
>
> ***The Settlement Agreement defence also fails**, because the only agreement ever accepted by the Yemeni government and ratified by any Yemeni authorities was as per the resolutions of 25 June 1996. Any money that was paid changed hands pursuant to the 25 June 1996 resolutions, not pursuant to the document at R-1.*
>
> ***The claims for breach of continuing duties (oilfield duties and duties of good faith), for breach at the time of handover and for breach of the Yemeni Environment Protection Act are not time-barred**. The pleaded claims are for breach of duties said to arise or continue to arise at the time of the handover. By definition, they are not time-barred. It appears that the Respondents dispute their merits. That is a question for the next stage, not a threshold point.*
>
> ***The "original breach" claims are not time-barred even if they accrued before the prima facie time-bar date, because of the applicable knowledge rule**. In relation to this:*

[27] MPI, paras. 60 and 61, and SoRTLD, para. 354.
[28] Claimant's PHB, paras. 6-7.

***The Tribunal must apply a latent defect/discoverability rule**, because that forms part of Canadian, Yemeni and Lebanese law and the UNIDROIT rules (the Claimant also says that it is necessary in consequence of the "good faith" clause).*

***The test for knowledge under that rule is when was the Claimant aware that it had suffered injury?** i.e. when did the Claimant have an opportunity to challenge what the Respondents had done?*

***The Ministry was unaware that it had suffered injury until well after expiry of the PSA**. The Respondents have not challenged the Ministry's factual case in this regard.*

***The relevant time-bar rules do not include a 10 year "drop dead" rule**, regardless of knowledge. It would be wrong in law to apply one, because this is not a rule common to Yemen, Canada and Lebanon. Nor is it a law recognised by nations in general.*

***The Claimant's claims for breach of the Yemeni Environment Protection Act are not time-barred** because there is no time-bar for such claims under Yemeni law."*

467. Claimant objects to "*any broader determination of factual issues of knowledge, whether in relation to allegations of time-bar or estoppel.*"[29] Claimant argues as follows:[30]

"*[...]The claims concern a block that was operated exclusively by the Contractor for 20 years at its sole risk, and which involved the drilling of more than 600 wells. The drilling of oil wells and operation of oilfields is a sophisticated business. Questions about what was done, whether that work was done as it should have been, and in light of the foregoing, who knew what about it, inevitably require: (i) a complete and proper document production exercise; (ii) expert evidence, so that the Tribunal understands the evidence before it and the parties can present their case; and (iii) wide ranging factual witness evidence. None of this has happened yet and it is, therefore, both unsurprising and right that the Tribunal should be daunted by the factual questions that the Respondents are asking it to consider.*

Against this background, to the extent that the Tribunal is left in any doubt in relation to any of the factual issues before it, the correct answer is unquestionably that the issue must be held over to a full liability hearing. As is clear from the Statement of Claim and supporting materials, the Claimant's position in this arbitration is evidenced by the factual and expert evidence served with the Statement of Claim. The Tribunal will need to hear the totality of the factual and expert witness evidence on the substance of the issues in order to resolve finally

[29] Claimant's PHB, para. 9.
[30] Claimant's PHB, paras. 13-15.

what the breaches were, when they occurred and what both of the parties knew about them. There also needs to be a complete document production exercise.

Accordingly, for the avoidance of any doubt, ***these closing submissions are subject to the Claimant's continuing objection to the Tribunal resolving disputed findings of fact at this stage, prior to a full liability hearing and document production exercise. This objection applies to all disputed factual issues relevant to time-bar and waiver/estoppel.***"

468. With respect to Claimant's continuing objection to the Arbitral Tribunal deciding on contested issues of fact by virtue of this award, the Arbitral Tribunal notes that Respondents briefly presented for the first time their threshold legal defences in their Answer[31] and that they further developed their position on those defences in their SoDC.

469. Following the SoDC and the Parties' written submissions on the conduct of this arbitration, the Arbitral Tribunal and the Parties held the procedural hearing, where they discussed Respondents' request to bifurcate this arbitration into two stages, the first one addressing Respondents' threshold legal defences and the second one focusing on any outstanding claims of Claimant. The Arbitral Tribunal and the Parties also discussed the Parties' document production requests and the need to file submissions on the applicable substantive law.

470. As far as document production is concerned, the Arbitral Tribunal notes that Claimant's initial document production requests that were included in the Parties' joint Redfern Schedule transmitted on 18 May 2015 were 69 in total. Following the procedural hearing, Claimant filed its amended document production requests on 17 June 2015, whereby it reduced them to 45, by withdrawing the document production requests that it would pursue at the second stage of this arbitration. By virtue of PO2 dated 13 July 2015, the Arbitral Tribunal granted, whether fully or partially, 15 out of Claimant's 45 document production requests and, in relation to 16 other document production requests, it invited Respondents to reinforce the evidentiary value of their then-current evidence, by producing the requested documents.

471. Following the end of the document production phase, the Arbitral Tribunal determined the applicable substantive law in this case by virtue of PO3 dated 26 August 2015. Further to a three-week extension, Claimant filed its SoDTLD. Respondents replied to that submission through their SoRTLD and Claimant rebutted that reply through its SoRjTLD.

472. The TLD hearing took place on 16 to 19 May 2016. At that hearing, the Parties cross-examined the chosen fact and expert witnesses on matters related to Respondents' threshold legal defences. Also, at the end of that hearing, the Parties made oral closing arguments on the

[31] Answer, paras. 5.11-5.12, 5.19-5.22, 5.23-5.25 and 5.73.

evidence presented at the TLD hearing and they were further afforded the opportunity to file PHBs, which they did on 30 June 2016.

473. In light of the above, the Arbitral Tribunal considers that the Parties have had ample opportunity to present evidence and arguments with respect to Respondents' threshold legal defences and finds that they have done so in a comprehensive manner.

474. Consequently, the Arbitral Tribunal does not agree with Claimant's one-sided approach to limit its findings at this stage to questions of law and very narrow questions of fact pertaining either to the Settlement Agreement or to Respondents' knowledge of their alleged breaches. Instead of imposing a blanket restriction on factual issues that Claimant deems are incomplete or in need of further expert evidence, the Arbitral Tribunal will proceed to assess Respondents' threshold legal defences on a claim-by-claim basis and based on the legal and factual evidence produced thus far, having regard, of course, to the burden of proof, which requires a party raising a claim or a substantive defence to prove it. To the extent that the Arbitral Tribunal is not satisfied with the legal and factual evidence already adduced with respect to a particular threshold legal defence, as applied to a particular claim of Claimant, the Arbitral Tribunal will dismiss that defence and allow that particular claim to be heard at the subsequent stage of this arbitration.

Section 2. The Settlement Agreement defence

Sub-section 1. Preliminary remarks

475. The Arbitral Tribunal notes in the first place that the Parties are in agreement that the Arbitral Tribunal is in a position and should decide on Respondents' Settlement Agreement defence at this stage.[32]

476. The Arbitral Tribunal also notes that Claimant's position on the Settlement Agreement defence has not been forthcoming since the beginning of this arbitration, as opposed to Respondents' position. More specifically:

- In the Request, Claimant did not refer at all to the Settlement Agreement;
- In the Answer,[33] Respondents presented their main arguments regarding the Settlement Agreement and filed a signed copy of that agreement as their very first exhibit in this arbitration (Exhibit R-1);

[32] Claimant's PHB, para. 7.2, and Respondents' PHB, para. 3.c.
[33] Answer, paras. 5.19-5.22, 5.50 and 5.73.

- In the Reply,[34] Claimant stated that it was "*still investigating whether this document [Exhibit R-1] ever became effective and/or is rescindable and how it has been treated by the parties*" and set out its position on the scope of that agreement;
- In the SoC,[35] Claimant did not refer at all to the Settlement Agreement or Exhibit R-1, despite the fact that a substantial part of its claims was based on Article 8.2 (i) of the PSA, which refers to the possibility of pre-agreeing a deposit for abandonment work;
- In the SoDC,[36] Respondents further developed their position on their Settlement Agreement defence and filed supporting evidence in relation thereto;
- At the procedural hearing,[37] in the face of Respondents' arguments on the Settlement Agreement defence, Claimant stated for the first time that the Settlement Agreement never came into force because it was never ratified and reiterated its arguments about the scope of that agreement;
- In the SoDTLD,[38] Claimant filed evidence for the first time to support its position that the Settlement Agreement was not a concluded and ratified agreement and that the scope of that agreement was a limited one;
- In the SoRTLD,[39] Respondents addressed Claimant's evidence and arguments set out in the SoDTLD;
- In the SoRjTLD,[40] Claimant rebutted Respondents' evidence and arguments presented in the SoRTLD;
- At the TLD hearing,[41] further to Respondents' opening statements, Claimant asserted for the first time that there was "*something untoward*" about the Settlement Agreement, without arguing that Exhibit R-1 "*[i]s forged*"; and
- In their PHBs,[42] the Parties addressed each other's arguments and evidence presented at the TLD hearing with respect to the Settlement Agreement defence.

Sub-section 2. Chronology pertaining to the Settlement Agreement defence

477. Before it delves into the Parties' arguments with respect to Respondents' Settlement Agreement defence, the Arbitral Tribunal considers it appropriate to set out the events related to that agreement in a chronological order.

[34] Reply, paras. 23-30.
[35] SoC, paras. 243-250.
[36] SoDC, paras. 56-58, 212-221 and 365-370.
[37] Procedural hearing transcript, 9 June 2015, Mr. Partasides at 102:10-103:17 and Ms. Sabben-Clare at 120:13-121:18.
[38] SoDTLD, paras. 20.a and 21-79.
[39] SoRTLD, paras. 23-66.
[40] SoRjTLD, paras. 32-61.
[41] TLD hearing transcript, 16 May 2016, Mr. Partasides and Mr. Craig at 72:25-95:5 and Ms. Sabben-Clare, Mr. Pryles, Mr. Craig and the President at 164:14-195:9.
[42] Claimant's PHB, paras. 154-166, and Respondents' PHB, paras. 59-86.

478. The first piece of evidence related to the Settlement Agreement defence is a letter dated 10 January 1996 that was sent by Mr. Larry Murphy, the then President and General Manager of Respondent 1, to Mr. Abdul Bari Al-Wazir, the then Director General of Petroleum Accounts of Claimant (Exhibit C-304). In that letter, Mr. Murphy set out six cost-recovery items, the total value of which was US$ 365 million and requested that Claimant cooperate "*to resolve this issue to [their] mutual satisfaction.*"

479. On 3 February 1996, Dr. Ray Irani, the then Chairman of Respondent 1, sent a letter to the former President of Yemen (Exhibit C-214). In that letter, Dr. Irani stated that "*[a]s per our conversation last week, I am prepared to recommend to the Board of Directors of Canadian Occidental [Respondent 1] and the Masila Partners a settlement of all issues outstanding as of December 31, 1995 for an amount equal to ONE HUNDRED FIFTY MILLION U. S. DOLLARS (USA 150,000,000).*" Dr. Irani also mentioned that "*[t]he outstanding issues include: the cost recovery account, the Al-Arish Compound, and issues under discussion between Ministry of Oil and Mineral Resources [Claimant] and Ministry of Finance and Canadian Occidental Petroleum Yemen [Respondent 1]. Canadian Occidental Petroleum Yemen is ready to meet with the Minister and Vice Minister of Oil and Mineral Resources to draft an Agreement resolving all issues to be presented for your approval and the Board of Directors of Canadian Occidental. As soon as that Agreement is approved, the transaction can be completed.*"

480. On 6 February 1996, Dr. Mohammad Said Al-Attar, the then Minister of Oil, advised the former President of Yemen on Dr. Irani's above-mentioned letter of 3 February 1996 and Mr. Murphy's letter of 4 February 1996 (Exhibit C-305). Mr. Murphy's letter of 4 February 1996 explained that, out of the US$ 150 million settlement payment, US$ 100 million would cover the totality of the outstanding cost-recovery issues and the "*Al Arish transfer to Government*" and the remaining US$ 50 million would cover the six items listed in his letter, among of which was the second item of "*a pre-payment of Abandonment Costs*" (Exhibit C-305, p. 3). Dr. Al-Attar set out Respondents' "*demands*" with respect to the additional payment of US$ 50 million in the order of Mr. Murphy's letter's six items. Dr. Al-Attar specified that "*Clause (2),*" which referred to Mr. Murphy's letter's second item of "*a pre-payment of Abandonment Costs*" was "*[t]o include, under the above payments, the advance payment for the expenses of abandoning the fields once they run out of oil.*" (Exhibit C-305, p. 1). Dr. Al-Attar's opinion on that "*Clause (2)*" was that "*[a]s to Clause (2) relating to the final abandoning of the fields, part of such expenses shall be paid as part of the Fifty (50) Million US Dollars under the settlement amount, and shall be considered as part of the total settlement amount provided it shall be deducted from the total costs for abandoning fields following the expiry of the agreement, which is estimated to be no more than Twenty to Twenty Five (20-25) Million US Dollars.*" (Exhibit C-305, p. 2).

481. On 14 February 1996, Mr. Murphy sent a letter to Pecten, the assignor of Respondent 2, and Respondent 3 under its then corporate name (Exhibit C-304(a)). In his letter, Mr. Murphy set out the factual background relating to the negotiations of the US$ 150 million settlement payment. Of particular relevance here are Mr. Murphy's references to the following facts pertaining to Yemen's former President, President Ali Abdullah Saleh: a) his rejection of Respondents' expenditures of US$ 365 million that they had sought to cost-recover, b) his rejection, despite Dr. Al-Attar's recommendation to the contrary, of the initial US$ 100 million settlement payment proposal made by Respondent 1 in respect of those cost-recovery expenditures and the issues of "*East Shabwa tariff and Al-Arish upkeep,*" c) his "*enormous political problems*" "*during the civil war,*" in relation to which "*he need[ed] to show, particularly to the Islah Party, that he has ext[r]acted 'compensation' from the Masila Partners [Respondents]*" and d) his determination to "*achieving the [payment of the] $150MM cash amount.*" Mr. Murphy also explained that, in order "*to obtain some 'quid pro quo' from the Government of Yemen,*" Respondent 1 proposed that an additional amount of US$ 50 million be included in the settlement negotiations and listed the issues "*which can be used to offset the extra $50MM*" and in relation to which he had "*assigned values*" (Exhibit C-304(a), p. 2). The fourth issue listed in Mr. Murphy's letter related to "*Dismantlement, Abandonment & Reclamation,*" where the "at risk" value was estimated at US$ 60 million and the "unrisked PV 10" and "risked PV 10" values were at US$ 20 million (Exhibit C-304(a), pp. 2-3). With respect to that fourth issue, Mr. Murphy explained that "*[a] mutually agreed cash pre-payment for abandonment fees will be made to resolve our obligations under Clause 8.2 of the PSA which stipulates payment of an abandonment fee or removal of all production related facilities. This allows the Partnership to turn over the assets to the Government under Clause 18.1(b).*" Mr. Murphy concluded that "*Canadian Occidental now believes it is the best settlement we can achieve under the prevailing circumstances in Yemen,*" noting that "*[n]egotiations are still ongoing*" and that "*[w]e will discuss each of the items with you to explain our approach, with the aim of obtaining your company's approval of this settlement approach*" (Exhibit C-304(a), pp. 4-5).

482. Whereas Claimant places in its Chronology of Documents relating to the Alleged 1996 Settlement Agreement the undated memorandum prepared by Mr. Abdullah Ahmed Zaeed and Dr. Tawfeeq Noaman Mohamed for the then Minister of Oil (Exhibit C-308) after the 10 March 1996 Settlement Agreement, the Arbitral Tribunal finds that that memorandum was prepared earlier than the date of 10 March 1996. This is because there is no reference in that memorandum to any recently proposed settlement agreement or its terms and also because the memorandum was still discussing the "*two options for settlement,*" that is, the US$ 100 million settlement payment option that President Ali Abdullah Saleh had already rejected by February 1996, as evidenced in Mr. Murphy's letter of 14 February 1996, and the US$ 150 million settlement payment option. In any event, the memorandum referred to the six items that the additional US$ 50 million payment would cover, including the "*advance payment for field abandonment costs after depletion of oil,*" which "*mean[t] that the Company shall not*

bear all of the costs for the plugging and clearing of wells and producing fields and clearing the Block from the remnants of oil operations." (Exhibit C-308, pp. 1-4). "*Accordingly, the Ministry will incur these costs, estimated at 30 to 35 million US dollars at that time; which is equal to at least twenty five (25) million dollars in 1995.*" The memorandum concluded with respect to that item that "*[they] therefore do not recommend acceptance of this point [on the advance payment for field abandonment costs after depletion of oil] among the settlement points of the second option.*" (Exhibit C-308, p. 4).

483. The date of 10 March 1996 appears as the date of conclusion of the Settlement Agreement on both Parties' exhibits (Exhibits R-1 and C-306). However, whereas Respondent's copy of that agreement is signed by all contracting parties, that is, Claimant, Respondent 1, Respondent 3 under its then corporate name, Pecten and the assignor of Respondent 2 (Exhibit R-1), Claimant's copy of the same is signed only on behalf of Claimant and Respondent 1 (Exhibit C-306).

484. On 15 March 1996, Respondent 1 and Pecten held a meeting to discuss the "*Masila Settlement Agreement,*" which was listed as one of the meeting materials (Exhibit C-307). Mr. Paul Ching, the then President of Pecten, stated that "*this meeting was requested to gather information regarding the settlement*" and that "*Pecten would require Board approval.*" (Exhibit C-307, p. 1). The most relevant parts of the 15 March 1996 meeting minutes are as follows (Exhibit C-307, pp. 3-7):

> "***Ching:*** *Where is the payment [under the Settlement Agreement] being made?*
> ***Murphy:*** *To the government's bank account – the London Branch of the Tokyo Bank. [...]*
>
> *Appendix 5 [being the Summary of Cash Value of Settlement Items] was presented by Mr. Murphy and discussed. [...]*
>
> ***Murphy:*** *Settlement resolves all of our dismantlement issues forever. The actual cost could exceed $100MM. [...]*
>
> ***Ching:*** *What assurances do we have that this will eliminate future issues?*
> ***Murphy:*** *It is important to make this as public as possible. This is one reason for reviewing it in Parliament.*
> ***Jackson:*** *How solid is this agreement?*
> ***Murphy:*** *The Oil Minister signed on behalf of the government. The agreement will be discussed at the Supreme Economic Council, the tax clarification will be discussed in parliament, and the President will sign the decree.*
> ***Jackson:*** *Is money being withheld to ensure this happen?*

Murphy: *Yes, $100MM is to be paid now, and the $50MM when we see appropriate government movement on issues such as East Shabwa, Al-Arish, and port fees. Two distinct things are settled: (1) cost recovery, and (2) other issues. [...]*

Jackson: *There are four issues:*

1) The partnership needs to re-establish effective communication.
2) Pecten needs to understand the issues to prepare a position for the Board.
3) Pecten needed to understand potential impact on PSA.
4) If Pecten can't support agreement, Pecten must decide on its next course of actions."

485. On 7 April 1996, the office of Yemen's President sent a letter to Dr. Al-Attar, the then Minister of Oil, whereby "*[t]he [President's] Office agree[d] with the Ministry that the agreement [Settlement Agreement] should be clarified and redrafted so as to avoid the breach of any other agreement, so long as such amendment would not have a material effect on the State, either in the short or long term.*" (Exhibit C-309). Moreover, the President's Office stated that "*specialized experts should be consulted as to how re-draft the agreement [Settlement Agreement] in order to determine and clarify the concessions granted to the company.*" (Exhibit C-309).

486. On 8 May 1996, Business Wire, Inc., a company that disseminates full-text press releases from thousands of companies worldwide reported that "*[i]n exchange for US $ 78 million, CanadianOxy [Respondent 1] reached an agreement with the government of Yemen which settles all outstanding matters including prepayment of future dismantlement and site restoration obligations, entitlement to revenues for transportation of production from nearby fields, and approval of all costs incurred through December 1995 as recoverable costs. The amount was recorded in the quarter as a capital expenditure.*" (Exhibit R-23, p. 2).

487. On 5 June 1996, Dr. Eng. Twafiq Noaman Mohammad, the Minister's Advisor and Coordinator of Respondent 1 sent a letter to the Minister of Oil with respect to recent meetings held with Respondent 1 (Exhibit C-310). The Minister of Oil was advised that "*[a] separate and closed meeting was held with the Company's General Manager, Mr. Larry Murphy to discuss clarifications regarding the terms of the settlement agreement in respect of which the discussions and debate were raised in the Supreme Council of the Economic and Oil Affairs*" and that "*[t]hey were instructed to complete and clarify the information regarding the agreement and to speed up the payment of the sum of 50 million dollars specified in the settlement agreement. Thus, it has been agreed that information regarding the relevant clauses should be completed within the next days (before the end of the week) and that the remaining amount should be paid upon the issuance of a resolution of the Council*

regarding the clarification of the taxation provisions and to hold a joint review of the other terms of the agreement and the issuance of the Council of a resolution within the next two weeks, which will [be] conducive to the payment of the remaining amount (50 million American Dollars) in the next days or by the end of this month (30 June 96) at the latest." (Exhibit C-310, pp. 2-3).

488. On 14 June 1996, Mr. Paul Ching, Vice President of Pecten, sent a letter to the then Minister of Oil, Dr. Al-Attar stating the following (Exhibit C-215):

"*The March 10, 1996 Settlement Agreement signed by you and Mr. Murphy of Canadian Occidental puts to rest several issues which in the past have created friction. We are pleased that the cost recovery audit exceptions are resolved. Pecten did not sign the Settlement Agreement, however, owing to our disagreement with item 7 – "Clarification of the Masila PSA Tax Provision". Pecten believes that the Masila PSA tax provisions are plainly worded, clear in intent, and contain no ambiguity. In short, what needs to be clarified?*

As a Contractor party to the Masila PSA Pecten does not agree that the Tax Amendment called for in Item 13 of the Settlement Agreement is appropriate. We believe all Parties to the PSA must agree before the implementing Parliamentary Procedures are to be issued ratifying the Tax Amendment. We have reviewed this matter in detail with our Yemen legal advisor. He indicated that the clarification language as contained in Exhibit "A" of the Settlement Agreement must be legislatively adopted by Parliament to be legally effective. Since we do not support the Tax Amendment, further legislative action should not be initiated. Without legislative action, any clarification is worthless.

We urge that all parties to the Masila PSA should continue to move forward with our venture under our agreement as originally drafted by the Ministry's predecessor, and by Canadian Occidental. Canadian Occidental should be willing to abide by the terms it agreed, as should all other parties absent a mutual consent to change.

I look forward to making your acquaintance, learning your views on Masila and other industry matters, and further presenting this matter to you personally. To this end we will be in contact with you or a member of your staff to schedule a meeting as soon as possible in Sana'a. Prior to our meeting, we respectfully suggest that no further action be taken regarding the Tax Amendment matter."

489. On 22 June 1996, the then Minister of Oil, Dr. Al-Attar, sent an explanatory report to the Prime Minister and Head of the Supreme Economic Council with respect to the Settlement Agreement (Exhibit C-311). In relevant part, Dr. Al-Attar stated the following:

"The Settlement Agreement we are going to discuss is basically aimed at settling the dispute over the project investment expenses addressed by the Agreement under the clause No. 3. Such clause is deemed the main part of the Settlement Agreement. [...]

As for the remaining terms of the Agreement, they were intended for other purposes, and we shall briefly state the same as following: [...]

2- Considering that the Agreement does not concern only settlement of the dispute relating to cost oil, but also concerns the creation of a friendly atmosphere and the removal of any obstacles that may affect the progress of operations in the Block and the performance of future petroleum operations, this will encourage the parties to adopt the Agreement and comply with its obligations.

3- Other reasons for including the additional items, which are not related to the issue in dispute between the parties, is that they create no burdens or liabilities on the Ministry. Furthermore, they show the importance of the settlement agreement and facilitate the payment process of the first payment of US$ 100 million, on execution of the Agreement, and the remainder US$50 million, on completion of the ratification procedures Council as set out in the Agreement.

In the following sections, we will discuss each term of the Settlement Agreement and the recitals leading the current wording of the Agreement. We shall start with clause No. 3 which constitutes the essential part of the Agreement. [...]

Clause 9 - Final Abandonment of Agreement Block:

In relation to this clause, we would first like to clarify what a final abandonment of the Block is. The final abandonment of the Block can happen in any of the following cases:

1- Lapse of the PSA period (20 years from commercial announcement) and any extension of the same, whether there is still oil in the field or not.

2- Sharp decrease of production rates from the wells and oilfields in the Block (an area or development areas) due to the age of the production operations and approaching the end of the production life of the fields. At such time the operator is no longer able to recover the operation costs incurred in the production of the oil (high operation costs and low production rates), and the final abandonment of the Block by the contractor becomes inevitable. In this respect, we would like to make the following notes:

(a) During the last phases of the PSA period, when production rates are at their lowest, the number of productive wells become extremely low and only a few wells remain

productive, though at low levels. As for the rest of wells, they are abandoned in accordance with the observed norms of the oil industry.

(b) At the time of final abandonment of the Block, some wells and facilities related to mobilisation, transport and export remain in good working condition and can be operated in an economic way by reducing their operation costs. This however may take place only if the Ministry carries out the operations directly or through a competent operator affiliated to the Ministry, as a result of the reduced costs in doing so.

There are therefore no costs in respect to final abandonment, seeing that no actual abandonment took place (dismantling of facilities, clearing the operation areas of machinery, equipment accommodation units, etc.), since the facilities remain in operation and are used for production purposes in the areas close to the Block.

The inclusion of a final abandonment provision in the Settlement Agreement therefore achieves an additional financial benefit for the State through the operation of the abandoned areas by the Ministry, whether directly or via a state company it sets up, or carrying out the individual risk provisions set out in the agreement. The additional financial represents the following:

1- *The existing value of the settlement amount which equates to approximately 40 million at the time of abandonment (for example, after ten years).*

2- *Extending the period of full utilization of the Block and aquiring the remaining oil after abandonment, and sole utilization of the same at lower operation costs for the sole benefit of the Ministry.*

3- *Use of the existing facilities in treating, transporting and exporting produced oil from the areas close to the Block, and continued economic operation of the same, as they are not independent from the rest of oil explorations in the country. This will constitute a complete network of facilities and pipelines that are usable and in a good operating condition. Such network shall serve as the infrastructure for developing oil industry in the country and reducing investment costs of any oil and gas discoveries, no matter how small they are. This will create balance between oil production and development of extractable oil reserve.*

4- *The regulations and standards of the oil industry state that environmental protection operations shall be carried out to protect the environment and the effects of the oil operations, such regulations and standards may not be not complied with whether prior to or after abandonment. Therefore pre-agreeing abandonment, which as explained*

above would not actually take place, raises no concerns. Furthermore, in the worst case scenario, there are other possible uses for the facilities.

This is the most economical option instead of dismantling and removal of the facilities to be sold as scrap and to clean the Block from all remnants of operations. [...]

Clause 12 [reference should be to Clause 13]- Execution Provision:

The Settlement Agreement provides that payment of the remaining settlement amount shall be conditional of issuance the necessary decisions to comply with the Agreement and issuance of the presidential decision to ratify the tax explanatory note.

Since the tax explanatory note does not affect the essence of the Agreement or the obligations of parties, such clause was replaced by the attached letter signed by the two parties, and the execution provision shall be replaced by the Council approval of the tax explanatory note stated in Exhibit A of the Settlement Agreement, without the need to go through constitutional procedures, as such explanatory note does not constitute an amendment of or prejudice to the provisions of the Agreement.

We hope our explanations will adequately respond to the inquires raised by the Council, so that we can inform the Company of the resolution of the Honorable Council and to instruct the Company to pay the settlement amount of fifty (50) million US dollars within three days in accordance with the provisions of Settlement Agreement.

Kindly review the above and take the necessary action to accelerate the execution of the Settlement Agreement."

490. On 29 June 1996, Dr. Al-Attar sent to Mr. Murphy a letter bearing the subject of "*[t]he Resolutions of the Supreme Council and its Ratification by the Council of Ministers on the Settlement* Agreement" and enclosing said resolutions (Exhibit C-312). In his letter, Dr. Al-Attar stated the following:

"*Reference to the above subject, please find attached the resolutions of the supreme Economic, Petroleum and Investment Council held on Tuesday 25th June 1996, covering each item of the Settlement Agreement signed between the Ministry and COPY [Respondent 1], which were ratified by the Council of Ministers (Prime Minister Cabinet) in its session of Wednesday 26th June1996.*

You will find attached the resolution which addresses the issues of the main body of the agreement."

491. The first resolution entitled "*Resolution of the Supreme Council for Economic, Petroleum and Investment Affairs Concerning the Settlement Agreement with CanadianOxy Masila Block (14)*" was issued following its session on 25 June 1996. It reads as follows (Exhibit C-312, pp. 4-5):

"*The Supreme Council for Economic, Petroleum and Investment Affairs, discussed in its meeting of Tuesday 25/6/1996, under the chairmanship of Mr. Abdul Aziz A-Ghani, Prime Minister, Chairman of the Supreme Council, the draft of settlement agreement submitted by the Minister of Oil and which was agreed upon between the Ministry of Oil & Mineral Resources and CanadianOxy [Respondent 1].*

Following an abundant presentation by the Minister and some key technicians from the Ministry of the contents, background and outcome of the agreement, the Council comprehensively discussed the matter and consequently issued the following resolution the following:

First: *The Council ratified the financial settlement agreed upon by the Ministry of Oil and Mineral Resources and CanadianOxy on the amount of US$150 Million (One Hundred Fifty Thousands Million) in favor of the Yemeni government to settle differences in the calculation of the costs for the development of oil transportation from the production fields at Masila to the export terminal.*

Second: *The Council made the following decision concerning the other issues contained in the agreement:*

A - Approved the principals of handing over of Al-Arish compound of the company and its receipt by the Ministry, subject to its final acquisition by the Ministry after three months, during which the two parties shall agree on and prepare detailed costs of operation and maintenance of the buildings, as well as reviewing, the optimum ways of utilization of the project in future.

B- Treat the issue of surplus inventory as raised in the agreement in accordance with the valid systems applied with other oil companies.

C- The Council agreed to the resolution of accounting of the costs for the tie-in of East Shabwa (Block 10} with Masila facilities.

D- Tax liabilities are to be treated in accordance with the valid tax laws and provisions of the Production Sharing Agreement.

E- The Council agreed that in the event of abandonment, the equipment are to be received as are in a working condition.

F- Treatment of the customs duties issue claimed by the company on its lost machinery and equipment is to be handled upon receipt of a list highlighting of such lost items.

G- In respect of Port fees, the company is to be treated similar to other oil companies working in Yemen.

H- Ratification of the Calgary office expenditures resulting from the transfer of technical and financial staff to Calgary to resume their duties concerning the block, provided that they return as agreed in the settlement agreement and in accordance to what is applied in the other companies.

Third: *The Council decided to submit its resolutions to the Council of Ministers for final approval.*

- The matter was presented to the Council of Ministers on its session held on Wednesday 26/6/1996, where it was entirely approved."

492. The second resolution of the "*Council of Ministers*" was issued on 26 June 1996 and it reads as follows (Exhibit C-312, p. 2):

"***Resolution No.(172) for 1996 Issued By the Council of Ministers on the Ratification of the Resolution issued by the Supreme Council for Economic, Petroleum and Investment Affairs Concerning the Project Settlement Agreement With CanadianOxy Masila Block (14)***

1- The Council of Ministers approves the decision issued by the Supreme Council for Economic, Petroleum and Investment Affairs on its session held on Tuesday 25/6/1996 concerning the Project Settlement Agreement with CanadianOxy, Masila Block (14) which is attached with this resolution.

2- The resolution is to be implemented through the appropriate regular administrative means.

3- The resolution is to be enforced as of 26/6/1996 and expires with the expiry of the agreement."

493. In a second letter dated 29 June 1996, Dr. Al-Attar sent to Mr. Murphy the "*Resolution for the Tax Clarification of the Settlement Agreement, By the Supreme Economic, Petroleum and*

Investment Council and the Council of Ministers" (Exhibit C-313). The tax clarification resolution had the exact same title as the first resolution issued on 25 June 1996 and its first two paragraphs were identical with the ones of that previous resolution (Exhibit C-313, p. 2). The remaining part of the tax clarification resolution reads as follows:

"- *Ratified the tax clarification attached to the settlement agreement [Exhibit "A" of the Settlement Agreement], since it will not result in burdens on the Yemeni side and does not affect the government's share in share oil and does not influence the general economical terms of the agreement.*

The Council decided to submit to the Council of Ministers for final approval.

The Matter was presented to the Council of Ministers at its session held on Wednesday 26/6/1996 where it was entirely approved."

494. In a third letter dated 29 June 1996, Dr. Al-Attar informed Mr. Murphy of the "*Implementation of S.E.P.I [Supreme Economic, Petroleum and Investment] Council Resolutions*" with respect to Clause 8 of the Settlement Agreement (Exhibit C-314):

"*Reference to the above subject, and since most of the issues contained in the Settlement Agreement have been already implemented. The Ministry herein wishes to clarify the background upon which the resolutions on the 2% Tax issues, may need some clarification on the way of their implementation. Accordingly, we would like to inform you that:*

The 2% tax issue will be implemented through informing the Chairman of Tax Authority about the Supreme Council Resolution and the ratification of the cabinet and informing them that the exploration period is coming to its end and ask them to issue a tax clearance certificate to the Company for the period of exploration."

495. On 30 June 1996, Dr. Al-Attar informed Mr. Murphy of the "*Implementation of S.E.P.I Council Resolutions*" in relation to "*customs duties and the port fees.*" Those issues were specifically addressed by Clauses 10 and 11 of the Settlement Agreement (Exhibit C-315).

496. On 15 September 1996, Mr. Murphy sent a letter to Dr. Al-Attar, on which Pecten, Respondent 3 and the assignor of Respondent 2 were copied, bearing the subject "*Settlement Agreement Finalization*" (Exhibit C-325). In that letter, Mr. Murphy stated as follows:

"*Greetings and kindest regards. We would like to take this opportunity to thank you for your supportive considerations during negotiations, involved in resolving the matters outlined in the Settlement Agreement.*

We also gratefully acknowledge your Excellency's achievement in obtaining Resolution of the Supreme Council for Economic, Petroleum and Investment Affairs on the Settlement Agreement and ratification of same by the Council of Ministers.

During the course of discussions, we mutually agreed to remove the requirement, set out in Clause 13, of the Settlement Agreement, relating to the Tax Amendment and Condition Precedent, regarding parliamentary procedures.
During the course of discussions, a letter dated May 12, 1996, relating to the Tax Clarification issue, Clause 7 of the Settlement Agreement, may have been informally received by the Ministry of Oil. This letter if received should be considered to be rescinded.

As a result of subsequent discussions, we fully accept that the Settlement Agreement is satisfied by the items covered by Resolution of the Supreme Council for Economic Petroleum and Investment Affairs, dated June 25th 1996, and by ratification of the Council of Ministers, dated June 26th 1996.

In order to complete certain of our legal and partnership requirements, we respectfully seek your assistance, in obtaining an official seal signed by your Excellency, attesting to the authenticity of the translations of the Resolution and ratification documents sent by your Excellency under covering letters, addressed to me in June 1996.

We look forward to your Excellency's invaluable assistance in completing this final matter, regarding the Settlement Agreement."

497. On 17 December 1996, Respondent 1 issued its Environmental Management Plan, which, under Section 12, discusses the issue of "Abandonment and Remediation." (Exhibit R-25).

498. On 21 December 1996, Mr. Murphy sent a letter to Dr. Tawfik Naoman Mohamed, Claimant's Masila Block Coordinator, bearing the subject "*Settlement Agreement – Implementation of Resolutions of Council of Ministers – Status Update*" (Exhibit R-26). In his letter, Mr. Murphy, on behalf of Respondent 1, gave "*an update of the status of the implementation of the [Settlement] Agreement and Resolutions (March 11 1996 and June 26 1996 respectively)*" that would form "*the basis to proceed towards finally completing the tasks with which we were tasked by H.E. Dr. Al Attar, following the complete financial settlement by the contractor.*" The items that still had not been implemented related to Clauses 4, 10 and 11 of the Settlement Agreement regarding the "*Transfer of Al-Arish Compound in Aden,*" the "*Custom Duties*" and the "*Port Fees,*" respectively (Exhibit R-26, pp. 1-2).

499. In 1996, Respondent 1's annual report stated in relevant part that "*[i]n March 1996, CanadianOxy and the other Masila Block participants reached an agreement with the Government of Yemen which provided for prepayment of and release from further obligation*

regarding future dismantlement and site restoration costs, entitlement to revenues for transportation of production from nearby fields, and approval of all costs incurred through December 31, 1995 as recoverable costs. CanadianOxy's $107 million (U.S. $78 million) share of the cash settlement was recorded as a capital expenditure." (Exhibit R-28, p. 43).

500. On 28 January 1997, the report from the Independent Chartered Accountants sent to the shareholders of Respondent 1 reproduced the above text of Respondent 1's 1996 annual report regarding the Settlement Agreement (Exhibit R-27, p. 11).

501. On 14 November 1997, Mr. Jazrawi, the then President and General Manager of Respondent 1, sent a letter to the Minister of Oil and the Chairman of the Masila Block Operating Committee, referring to the implementation of Clauses 4 and 11 of the Settlement Agreement regarding the "*Transfer of Al-Arish Compound to MOMR*" and the "*PCMA - Port Fees,*" respectively (Exhibit R-30, pp. 3-4).

502. In 1997, Respondent 1's annual report referred to the Settlement Agreement and explained the US$ 107 million payment made by Respondent 1 pursuant to that agreement (Exhibit R-33, p. 25).

503. On 4 January 1998 and further to his letter of 14 November 1997, Mr. Jazrawi sent a letter to the then Minister of Oil, enclosing an agreement that implemented Clause 4 of the Settlement Agreement in respect of the "*Transfer of Al-Arish Compound in Aden*" (Exhibit R-31). The enclosed agreement stated that it was made "*[p]ursuant to the Settlement Agreement made as of March 10, 1996 between the Ministry of Oil and Mineral Resources on behalf of the Government of the Republic of Yemen (the "Ministry") and Canadian Occidental Petroleum Yemen ("CanadianOxy")*" (Exhibit R-31, p. 2).

504. On 12 July 1998, the then Minister of Oil sent a letter to the then President and General Manager of Respondent 1 with respect to the "*Surplus Materials of Operations stipulated in the Settlement Agreement signed on 10/6/1996.*" (Exhibit R-37). This item was dealt with by Clause 5 of the Settlement Agreement entitled "*Surplus Inventory*" (Exhibit R-1, p. 4). In his 12 July 1998 letter, the then Minister of Oil stated the following:

"*With reference to the above subject and the Settlement Agreement signed on 10/6/1996 concerning the surplus materials in excess of the project's need.*

We would like to advise you of MOMR concurrence on the disposition by Canadian Occidental Petroleum Yemen on these materials, estimated at US$ 30,000,000 (thirty million US Dollars), as stipulated under the Settlement Agreement.

Therefore, in case of any use of any of these materials in the current or future petroleum operations in Block 14, they will be charged to the cost oil in their book value at the time of usage."

505. By virtue of another letter of even date, the then Minister of Oil sent a letter to the then President and General Manager of Respondent 1 to confirm the agreement of Claimant with the operation and maintenance costs of the Al-Arish Compound, which is covered by Clause 4 of the Settlement Agreement "*dated 10/3/1996 [and] signed by MOMR [Claimant] and CanadianOxy [Respondent 1]*" (Exhibit R-38).

506. On 9 November 1998, the PEPB informed Claimant of the re-export of the surplus materials that were addressed by the letter of the then Minister of Oil in his letter of 12 July 1998 (Exhibit R-43). On 26 December 1998, the PEPB informed Claimant of the re-export of certain surplus materials that would not be "*charged against cost oil in accordance with the Settlement Agreement.*" (Exhibit R-44).

507. On 19 February 1999, Respondent 1 issued its 1998 annual report that referred once again to the US$ 107 million payment made by Respondent 1 pursuant to the Settlement Agreement (Exhibit R-45, p. 31).

508. On 9 October 1999, Mr. Khalid T. Abdullah, an external Yemeni lawyer, provided his legal opinion to Respondents with respect to the ratification process of amendments to the PSA and of a "Settlement Agreement" (Exhibit C-324).

509. On 22 January 2000, Respondent 1 and Claimant signed the "*Agreement relating to the Recovery of Al Arish Compound Costs,*" which was based on the draft agreement communicated by Respondent 1 through the letter of 4 January 1998 (Exhibits R-49 and R-31, p. 2). The signed Agreement stated that it was made "*pursuant to the Settlement Agreement made as of March 10, 1996 between the Ministry of Oil and Mineral Resources on behalf of the Government of the Republic of Yemen (the "Ministry") and Canadian Occidental Petroleum Yemen ("CanadianOxy"), on behalf of the Contractor under the Masila Block PSA*" (Exhibit R-49, p. 1).

510. On 1 May 2000, Respondent 1 issued its Environmental Management Plan, which, under Section 12, discusses the issue of "*Abandonment and Remediation.*" (Exhibit C-211).

511. On 5 June 2001, in an internal communication, Respondent 1's employees had the following discussion (Exhibit C-216): "*Tim faxed or emailed me on May 23/01, a copy of the 1996 Settlement Agreement. In my paranoia that someone might see it, I encrypted the message. However, after that, IT changed my encryption and now I can't retrieve it. The auditor's have a copy but I don't want to ask them for it.*"

512. In January 2002, in an internal report of Nexen Inc. to Management with respect to the Audit of Yemen Masila 2001 Operations, it was stated that "*[p]rovision for future reclamation and abandonment costs over the amount previously agreed in the settlement will need to be monitored more closely going forward.*" (Exhibit C-321, p. 2).

513. On 22 February 2002, Nexen Inc. issued its 2001 annual report that referred to the Settlement Agreement, under which "*the Company prepaid and was released from further obligation regarding dismantlement and site restoration costs on the Masila Block Development Project.*" (Exhibit R-64, p. 48).

514. On 27 January 2003, an internal Respondent 1 memorandum dealt with the "*Customs Issues Resolution Strategy*" and mentioned that "*[f]or exemptions prior to 1996, we will explore internally the possibility of using the 1996 Settlement Agreement as the mechanism for clearing older exemptions. Although the settlement Agreement is clear on settlement of customs exemption issues, there may still be some sensitivities to using this approach.*" (Exhibit C-317, p. 3). The Settlement Agreement was also mentioned in that memorandum with respect to the issue of "*Clearance of War Loss Materials.*" With respect to the issue of "*Exportation of Masila Export Project (MEP) Materials,*" the memorandum stated that "*[w]e are in the process of exporting all remaining MEP materials we aquired as part of the 1996 Settlement Agreement, save approximately $5 million of the materials we believe we can use in future capital projects.*" (Exhibit C-317, p. 4).

515. On 23 February 2003, Nexen Inc. issued its 2002 annual report that referred to the Settlement Agreement, under which "*[they] prepaid the dismantlement and site restoration costs on the Masila Block Development Project, and were released from any further obligation relating to these costs on this block.*" (Exhibit R-77, p. 44).

516. On 5 July 2003, Respondent 1 sent a letter to Claimant regarding "*Upcoming Block 14 Items for Your Consideration and Advice*" (Exhibit R-421). Under the heading "*Uneconomic Well Reclamation and Abandonment,*" the letter stated the following:

> "*Some of the Masila Block 14 have reached the end of their economic life. CNPY would like to abandon these wells because suspending them with incur ongoing operating costs equal or exceeding the reclamation and abandonment costs. The costs of reclamation and abandonment have already been paid as part of the "Settlement in 1996" between CNPY and MOM has paid for the all the well and infrastructure reclamation and abandonment costs related to Block 14. One solution might be a cost recovery formula like the Al Arish compound. CNPY is seeking the Chairman's advice on how to pay for the well's reclamation and abandonment as part of the MOM's responsibility for Block 14.*"

517. A follow-up email confirming the transmittal of the 5 July 2003 letter to Claimant was sent to a Respondent 1 employee on 9 July 2003 (Exhibit R-422).

518. On 9 February 2004, Nexen Inc. issued its 2003 annual report that referred to the Settlement Agreement, under which "*[they] prepaid the dismantlement and site restoration costs on the Masila Block Development Project, and were released from any further obligation relating to these costs on this block.*" (Exhibit R-98, p. 47).

519. Between January and March 2004, certain employees of Respondent 1 and Nexen Inc. exchanged several emails with respect to the Settlement Agreement and the "*R&A [Reclamation & Abandonment]*" obligations of Respondent 1 (Exhibit C-327). Further to references to the "*confidential memo written by Larry [Murphy],*" "*sensitivities and uncertainties,*" "*the stickiest of all assignments,*" "*extremely sensitive matter,*" and "*difficult situation,*" Mr. Rick Beingessner, Nexen Inc.'s in-house counsel, prepared the following analysis:

> "*A privileged and confidential analysis of this provision of the Settlement Agreement [pertaining to Respondents' reclamation and abandonment obligations], prepared concurrently with the Settlement Agreement, provides that internal estimates of this expense ranged between US$60 and US$200 million. Accordingly, we believe that we were getting good value for this item. The Ministry was of the understanding that we would leave their facilities in good working condition. This is similar to how B.P. handed over the Aden Refinery. At the point in time that the Masila Participants decide that the Project is no longer economic or upon expiry of the PSA, we will leave behind facilities which have value for the Yemen Government. It is expected that there will still be some production at that time. The facilities include the Central Power Plant, Wartsilas and Turbines at the CPF and field generators. This power could be used as the power supply for the region. Diesel fuel could continue to be produced from the topping plant at the CPF. When we abandon the producing oil wells, we could recomplete them in the Makalla aquifer. The Yemen Government will have access to an enormous fresh water supply upon the plateau and could use the main pipeline to transport the water.*
>
> *At the terminal, the generators could remain there or be moved to km 18 on the pipeline. This is the site of a large aquifer from which water could be pumped to the City of Mukalla. As well, the storage facilities at the terminal could be used for storing imported oil products into the region. There was also talk of a refinery being located near the terminal.*
>
> *There are many potential future uses for the facilities which is why the Yemen Government agreed to accept the deposit at this time as a full settlement. And, as discussed above, this appeared to be an excellent deal for the Masila Participants. If abandonment is undertaken*

late in the project life, there would be insufficient cash flow to recover the costs. Therefore, cost recoverability of abandonment costs is a moat point.

Based on the foregoing, it appears that the bulk of our reclamation and abandonment liabilities have already been addressed. I believe you are correct that we have an opinion from Sheik Tariq to the effect that the Settlement Agreement is a valid and binding agreement. I do not recall any separate opinions regarding the Dismantlement, Abandonment and Reclamation provision. Deanna Zumwalt has confirmed that the entire Agreed Sum (US$150 million) was capitalized. There are three reasons why I believe that only 'the bulk' of our reclamation and abandonment liabilities have been addressed. Firstly, I believe that our duty as a reasonably prudent operator may require us to do some 'clean as you go'. I am not sure how these ongoing costs are treated from an accounting perspective. Secondly, I fully expect that the Yemen Government will no doubt attack this provision (either at the time of abandonment or during any extension negotiations), saying that our operations were bigger, dirtier or less prudently conducted than was envisaged in 1996. While I believe this is completely without merit and that our Release should hold up, I expect they will demand additional consideration. Thirdly, it is arguable that this payment only applies to operations conducted up to the original expiration date of 2011. Accordingly, any operations conducted during any extension period may attract additional reclamation and abandonment liabilities.

I think this pretty well exhausts my knowledge of the situation, but would welcome any questions."

520. Nexen Inc.'s 2004 annual report does not refer to the Settlement Agreement.

521. On 15 May 2005, Mr. Mitch White, Vice President of Finance at Respondent 1, stated the following in relation to "*Well Suspension and Abandonment*" (Exhibit C-326).

"*Due to the sensitivity of the Settlement Agreement (SA), it is still unclear (at least to me) to what extent we will be able to rely on the SA at the end of the PSA. We have not been able to rely on it for anything yet (Tax, War Lost Vehicles and other long o/s customs issues, minor suspension costs incurred in last couple of years), but amounts have been relatively small compared to a final reclamation bill that could be received on Masila and CPF. Having said that, our 2003 annual report refers to the SA as fulfilling our obligation. I note that there is no such reference in the 2004 annual report, but the 2004 report does not have the country by country detail included in the 2003 report. Simplest answer is that for financial statement purposes as reported to the SEC we are relying on the SA as we are not booking any additional provision for abandonment and reclamation. For any minor expenditures on abandonments we are claiming normal cost recovery, so we are in effect paying twice. We have not developed any sort of mechanism to correct this as of yet. This will be a toughie.*"

522. Nexen Inc.'s 2005 annual report also did not refer to the Settlement Agreement.

523. On 19 September 2006, a Masila Block Management Committee meeting was held in Bagshot, England. The meeting identified technology transfer as an action to be taken by Respondents (Exhibit C-316, p. 6). In particular, "*CNPY [Respondent 1] reiterated that technology transfer is a key element in transition planning for the expiry of the PSA. It was agreed to identify and progress initiatives aimed at achieving meaningful technology transfer. The establishment of a "centre of technology" and the transfer of best industry practices for well abandonment were identified as examples of this type of initiative.*"

524. With respect to the year of 2006, Deloitte, Claimant's independent auditors, prepared the 2006 cost recovery audit report entitled "*Proposed Rejections and Referrals arising from Compliance Audit of the Statement of Activities*" (Exhibit R-149). This report "*cover[ed] the findings arising from compliance audit of the Statement of Activities of Block 14 for the year ended 31 December 2006, prepared and filed by the Canadian Nexen Petroleum Yemen (CNPY) with the Ministry of Oil and Minerals (MOM) under the terms of the Production Sharing Agreement for Masila Area – Block 14.*" (Exhibit R-149, p. 9). Under the Section "Inventory" and with respect to the item "MEP Surplus Inventory," the report stated the following (Exhibit R-149, p. 141):

> "*As we explained in our previous reports, the total Masila Export Project (MEP) Surplus Inventory which remained on hand was estimated at $30 million. CNPY informed us during the above audit that they are in the process of computing the exact value of the surplus inventory, which was expected to be completed, at that time, by October 1995.*
>
> *The initial charges of MEP surplus inventory were included under the MEP construction costs in the SOA.*
>
> *As a result of the MOM, exceptions, claims or objections and other outstanding issues that were to be resolved with respect to operations and expenditures under the Masila Block PSA, a Settlement Agreement dated March 10, 1996 was concluded between MOM, CNPY and the other Partners in the PSA. As per this Settlement Agreement, CNPY paid to MOM, on its behalf and on behalf of the Masila Block Partners, the sum of US$150 million, which is not chargeable to the Petroleum Operations of the Masila Block.*
>
> *As per a letter signed by the Minister of Oil and Minerals, dated July 12, 1998, MOM advised CNPY of its concurrence on the disposition of the MEP Surplus materials by CNPY. Further MOMR advised CNPY in their above letter that in case of use of any of the MEP Surplus materials in the Petroleum Operations in the Masila Block, they will be charged to the cost oil at their book value at the time of usage. We noted a movement of US$106,362 during the year 2006 in the MEP surplus inventory.*"

525. Nexen Inc.'s 2006 annual report also did not refer to the Settlement Agreement.

526. In their "*List of End of Manila PSA Liability Concerns (Amounts Net to 'Contractor')*" prepared in 2007, Respondents referred to the "*Wells on 'Long-Term Suspension' (Abandonments)*" and inquired whether there were any estimates for these costs (Exhibit C-330).

527. On 22 June 2007, the OpCom met in Athens "*with the objective of reviewing the status of the 2007 4-8 Outlook and the 2007 work program progress to date.*" (Exhibit C-288). Mr. Alistair Mooney, the then President and General Manager of Respondent 1, stated that "*CNPY has identified some wells that must be abandoned and therefore will require MOM permission. Issues arising from these abandonments include: abandonment cost tracking; technical agreement on procedures; timing; and recovery of costs associated with well abandonment.*" (Exhibit C-288, p. 5).

528. Nexen Inc.'s 2006 and 2007 annual reports did not refer to the Settlement Agreement.

529. On 29 July 2009, Respondent 1 received external legal advice with respect to the "*PSA Amendment #2 Approval Process*" (Exhibit C-241). The external lawyer set out the approval process as follows:

> "*1) The Ministry and CNPY will execute the agreements.*
> *2) The Agreements will be forwarded to the Cabinet of Ministers for approval.*
> *3) The Agreements will be forwarded to Parliament for their approval*
> *4) A presidential Decree will be issued approving the amendment.*"

530. Nexen Inc.'s 2009 annual report also did not refer to the Settlement Agreement.

531. On 15 June 2010, Respondent 1 discussed internally the "*2011 Budget Memo*" and stated the following in relation to well abandonment (Exhibit C-322, p. 1):

> "*Abandonments - discuss the 'overall philosophy' with the Operations Manger and the VP Operations. I believe we have done a lot of Suspensions in the past several months that should reduce the final abandonment costs for those wells which will eventually be abandoned. In past years, we have put a few 'Abandonment' jobs into the budget in order to keep the issue in front of the government. This is a complicated issue, where we pre-paid an abandonment charge when we first enterred the block, but this did not anticipate such a large number of wells being drilled. As I mentioned above, your senior management should be able to give you some guidance on their current thinking.*"

532. On 14 December 2010, in an internal email of Nexen Inc., it was stated that "*[o]ur prior assumptions on Masila ARO [Abandonment and Reclamation Obligations] still valid, no increased liabilities nor need to account/substantiate for ARO as part of the 2nd $100mm.*" (Exhibit R-216). It also stated that "*[f]or clarity the Settlement Agreement stands valid. We confirmed this w/minister on Dec 11th.*"

533. Nexen Inc.'s 2010 annual report did not refer to the Settlement Agreement (Exhibit C-242).

534. In another internal report of Nexen Inc. prepared in 2011, Nexen Inc. set out its various risk mitigation plans regarding Block 14 (Exhibits C-213 and C-322). Under "*Risk Mitigation Plan Risk # 1.1*" regarding "*Abandonment,*" Nexen Inc. noted in relevant part as follows (Exhibit C-322, pp. 6-7):

> "***2.0 Summary of Risk:***
> *Clause 8.2(i) of the Masila PSA provides that on termination Contractor will plug all wells and clear the contract area of all buildings, facilities, installations and debris to the extent required by the Ministry. Alternatively, if the Ministry agrees in writing the Contractor can deposit with Ministry a mutually agreed sum for Ministry to carry out such work.*
>
> *Pursuant to a Settlement Agreement dated March 10, 1996 an agreed sum of $20 million was deposited as a pre-payment against the work obligations under the above provision. As part of this agreement, the Ministry released the Contractor from all claims and demands of any kind relating to the carrying out of work necessary upon termination under the Masila PSA with respect to dismantlement, abandonment and reclamation.*
>
> *As a consequence of the Settlement Agreement, Masila wells have historically been suspended rather than completely abandoned. Suspension involves abandoning the bottom of the well by isolating the hydrocarbon zone so there is no fluid movement. A full abandonment involves cutting off the casing, removing and disposing of the wellhead and reclaiming the land around the well. The costs associated with a complete abandonment are in the range of USD $80,000 - $150,000 per well.*
>
> *It should be noted that the risk involves not only the 40 or so wells that have been identified, but could also include other wells which the Ministry suggests should be abandoned, as well as other reclamation activities for obsolete operations and activities. For example, this would include the unused portions of the main oil line.*
>
> *Finally, this mitigation plan does not address issues associated with about 20 of these wells, which have no cathodic protection and cement is below the aquifer. This issue is addressed as part of mitigation plan for Risk #1.7.4.*

3.0 Risk mitigation Recommendation:

The current position is that the abandonment obligations under the Masila PSA have been satisfied by Nexen's previous deposit payment to the Ministry pursuant to the Settlement Agreement, and it is recommended that this approach be maintained. Accordingly, actions or statements that may compromise this position should be avoided.

Until the Ministry's position is known regarding abandonment and reclamation of assets and wells, it is difficult to respond with physical mitigation efforts since doing so would potentially be inconsistent with the terms of the Settlement Agreement. Once more detailed and formal discussions commence with the Ministry with respect to handover of the Masila assets, and their position is known, some physical mitigation can be decided in the context of the broader settlement of Masila PSA transition and handover issues and the prospects of future litigation.

4.0 Risk Assessment:

4.1 Probability:

The probability that a claim or claims will be made against CNPY on the basis of abandonment and reclamation is considered high, although CNPY has a full release from such claims which would be expected to translate into a low chance of success for the government of Yemen in arbitration proceedings. However, a favorable arbitration result in the context of a broader set of claims carries a certain amount of unpredictability. Accordingly, CNPY and its partners may decide to settle claims for a negotiated amount or carry out some physical abandonment and reclamation efforts.

4.2 Impact assessment:

The two impacts would be the financial cost of completing abandonment and reclamation which would be expected to form the basis for a claim, and reputation. Successful claims for failure to abandon and reclaim assets on handover could have an impact on Nexen's reputation, in particular if made public.

5.0 Review of Risk Mitigation Options:

Actions undertaken without knowing the position of the Ministry may weaken CNPY's position of relying on the release. While engaging in abandonment and reclamation would minimize the potential of claims, the costs of undertaking the work are neither warranted nor justifiable until further engagement is had with the Ministry regarding the handover and transition of the Masila assets."

535. On 10 December 2011, Respondent 1 replied to PEPA's issue relating to "*Abandonment*" as follows (Exhibits C-302, p. 2, and R-285, p. 2):

> "*You mentioned that PEPA wants to agree funding for abandonment liability. CNPY's view is that this was covered off by the 1996 Settlement Agreement. We suggest that you obtain a copy of the agreement from the Ministry. If you cannot locate a copy of the agreement, please have the Ministry request our Legal Department to provide a copy of the agreement.*"

536. Finally, an undated internal Respondent 1 document entitled "*SOX-Reclamation & Abandonment,*" stated as follows (Exhibit C-328, p. 2):

> "*I have spoken with Mitch and he will be meeting with Neil McCormick to discuss this further. Initially it would appear that we currently do not have a responsibility therefore a potential liability for the restoration and/or abandonment of the field (including pipeline, Terminal, wells and CPF). This is due to a payment during the 1st Cost Recovery Settlement, whereby as part of the settlement, the MOM agreed to waive our responsibilities for R&A [Reclamation & Abandonment]. The amount currently in mind is $150million, which will be confirmed with Mitch and Neil.*
>
> *There was a letter signed to this effect, however preliminary discussions would question whether Larry Murphy believes this to be enforceable and if in fact we would wish to make it enforceable. A copy of this letter will be required as will the interpretation [] and decision of management whether we will attempt to hold the MOM to the conditions of said letter.*
>
> *Mr. Abdulbari Al-Wazair is aware of this agreement. Waiting on outcome of discussions with Mitch and Neil before pursuing this further.*
>
> *With regards to the wells we again are presently of the opinion that we have no responsibility for the R&A. Having said this, there may be issues concerning EH&S and Responsible Care which have now to be taken into consideration. There are a number of wells we no longer wish to maintain and there are plans to discuss this with the MOM to see if there is a mechanism whereby we would do the restoration or abandonment on behalf of the Govt.*"

Sub-section 3. Is there a concluded agreement and on which terms?

537. On the one hand, Respondents submit that Exhibit R-1 proves that the Settlement Agreement has been executed by all parties to it and that the question of when the signatures were affixed, noting that Claimant has not alleged that the signatures have been forged or that it has disavowed the agreement, is irrelevant to the question of whether there was a meeting of minds. Moreover, Respondents point out that the Settlement Agreement has been fully

performed through the payment to Claimant of US$ 150 million on behalf of all of the Contractor parties to the Settlement Agreement.[43]

538. On the other hand, Claimant argues that Respondents have failed to establish that Exhibit R-1 was a concluded agreement, given that the signatures on that document could not have been affixed by 10 March 1996, the date of Exhibit R-1, and that that agreement was amended later on by the resolutions of the Supreme Economic Council of 25 June 1996 and of the Council of Ministers of 26 June 1996 (Exhibit C-312). According to Claimant, these two resolutions constitute the only agreement that counts for the purpose of Respondents' Settlement Agreement defence.[44]

539. As a preliminary remark, the Arbitral Tribunal finds that Claimant's request for adverse inferences on the basis of Respondents' failure to call Mr. Larry Murphy or other individuals of Respondents involved in the Settlement Agreement discussions to testify in this arbitration is unwarranted. In the Arbitral Tribunal's opinion, whereas the testimony of a witness who had personal experience of the circumstances surrounding the conclusion of the Settlement Agreement would have been of great assistance to the Arbitral Tribunal, the above vast chronology of events and documentary evidence related to Respondents' Settlement Agreement defence is sufficient to dispose of the question of whether there was a concluded agreement or not and on which terms.

540. As a further preliminary remark, the Arbitral Tribunal notes that the Parties have not referred to any legal principles of a specific national law to support their arguments on whether the Settlement Agreement was a concluded agreement or not. The Parties have rather focused on the issue of whether there was a meeting of the minds, which the Arbitral Tribunal understands is a fundamental issue of any national contract law, including Yemeni law.

541. First of all, the Arbitral Tribunal notes that at the origin of the settlement payment discussions between the then parties to the PSA were Respondents' cost-recovered expenditures worth of US$ 365 million (Exhibit C-304). Following President Ali Abdullah Saleh's rejection of those expenditures, the Parties initially envisaged a US$ 100 million payment by Respondents to settle the outstanding dispute over those expenditures. However, that initial proposal was rejected by President Ali Abdullah Saleh and a US$ 150 million payment proposal was made. That subsequent proposal would cover the issue of the US$ 365 million cost-recovery expenditures, the "*transfer of Al Arish to Government*" and six additional items, including "*the advance payment for the expenses of abandoning the fields once they run out of oil*" (Exhibit C-305).

[43] Respondents' PHB, paras. 61-69.
[44] Claimant's PHB, paras. 154-159.

542. As part of the US$ 150 million payment, Respondent 1 proposed to pay an amount of US$ 50 million, the "*quid pro quo*" of which included "*[a] mutually agreed cash pre-payment for abandonment fees*" under Article 8.2 (i) of the PSA (Exhibit C-304(a)). Despite the advice of Mr. Abdullah Ahmed Zaeed and Dr. Tawfeeq Noaman Mohamed to the then Minister of Oil not to accept the proposal on the advance payment for field abandonment costs after oil depletion, the then Minister of Oil and Respondent 1 concluded and signed the Settlement Agreement on 10 March 1996, Clause 9 of which refers to Respondents' dismantlement, abandonment and reclamation obligations (Exhibits C-308, R-1, C-306, C-307 and C-215).

543. Claimant and Respondent 1 agreed that an initial payment in the amount of US$ 100 million would be made in or around March 1996, whereas the additional US$ 50 million would be paid following the Government of Yemen's resolutions approving the Settlement Agreement (Exhibits C-307 and C-310). It should be reminded here that Claimant has agreed that Respondents fully made the US$ 150 million payment to Claimant.[45]

544. Further to the signing of the Settlement Agreement by Claimant and Respondent 1 on 10 March 1996, the President's Office agreed with Claimant that the Settlement Agreement needed to be clarified and redrafted and envisaged the intervention of "*specialized experts*" to assist them to this end (Exhibit C-309). At that time, Respondent 1 gave clarifications and undertook to provide information regarding the terms of the Settlement Agreement in the months preceding the resolutions of 25 and 26 June 1996 (Exhibit C-310).

545. In addition, on 22 June 1996, the Supreme Economic Council received by the then Minister of Oil a detailed explanatory report on the various terms of the Settlement Agreement, stating that Clause 3 was the essential part of that agreement (Exhibit C-311). In the Arbitral Tribunal's opinion, this explanatory report clearly formed the basis of the subsequent resolutions of the Supreme Economic Council and Council of Ministers, which were issued three and four days later, respectively. In relation to Clause 3 of the Settlement Agreement, Claimant has not contested Respondents' argument that Claimant, in fulfilment of that "*most important clause and [...] essential part of the Settlement Agreement,*" settled the cost recovery audit exceptions arising up to 31 December 1995 and did not subsequently issue an audit report for 1995, but instead resumed its cost recovery audit exercise in 1996.

546. After having been advised by "*some key technicians from the* Ministry" and having considered the content of the Settlement Agreement, the Supreme Economic Council ratified the financial payment of US$ 150 million and approved the non-cost-recovered issues covered by the terms of the Settlement Agreement in its meeting of 25 June 1996 (Exhibit C-312). For its part, the Council of Ministers ratified the decisions set out in the resolution of the Supreme Economic Council on 26 June 1996 (Exhibit C-312).

[45] TLD hearing transcript, 16 May 2016, Mr. Pryles and Ms. Sabben-Clare at 168:13-20.

547. Claimant argues that these two resolutions rejected the terms of the Settlement Agreement, whereas at the same time they ratified the US$ 150 million payment. However, the Arbitral Tribunal fails to see on which other basis than the Settlement Agreement and, in particular, Clause 2 thereof, which provides for the US$ 150 million payment, the Supreme Economic Council and the Council of Ministers ratified the US$ 150 million payment. There was no other document at that time contemplating the US$ 150 million payment by Respondents to Claimant. The US$ 150 million payment is only consistent with the acceptance and ratification of the Settlement Agreement.

548. Moreover, Claimant maintains that the resolutions of the Supreme Economic Council and the Council of Ministers of 25 and 26 June 1996 re-drafted the Settlement Agreement. However, Claimant has failed to establish how these two resolutions did so. Certainly, the wording of the resolutions themselves, as well as of the accompanying letter of the then Minister of Oil, does not convey any intention to reject, modify or re-draft the terms of the Settlement Agreement (Exhibit C-312). To the contrary, rather than using terms such as "reject," "modify," "amend," "delete," "replace" or "counter-offer," the resolutions and the accompanying letter contain terms such as "*ratified*," "*approved*" and "*agreed*" and refer to issues "*contained in the [settlement] agreement*," "*raised in the [settlement] agreement*" or "*agreed in the settlement agreement.*" The fact that the resolutions referred to the "*Project Settlement Agreement*" and the "*draft of settlement agreement*" simply confirms that the Settlement Agreement was subject to the Government of Yemen's approval. And such approval was given through the resolutions of 25 and 26 June 1996, despite the fact that the President's Office had envisaged to call "*specialized experts*" to re-draft the Settlement Agreement (Exhibit C-309).

549. As for the "A-H decisions" of the Supreme Economic Council's resolution of 25 June 1996 regarding the non-cost-recovery items covered by the Settlement Agreement, the Arbitral Tribunal finds that they do not amend the terms of the Settlement Agreement. Otherwise, the Supreme Economic Council would have easily expressed its intention or invited Respondents to re-draft or replace the various clauses of the Settlement Agreement with its "A-H decisions." For example, with respect to "decision E," the Supreme Economic Council would and should have mentioned that Clause 9 of the Settlement Agreement was to be replaced by the wording used in its resolution that "*in the event of abandonment, the equipment are to be received as are in a working condition.*" However, it did not do so and there is no evidence that the parties to Settlement Agreement ever agreed to replace the terms of Clause 9 of the Settlement Agreement, as they appear on Exhibit R-1.

550. In addition, had the Supreme Economic Council intended to supplement or replace the terms of the Settlement Agreement with its "A-H decisions," it would have indicated in its 25 June 1996 resolution that its acceptance of the Settlement Agreement was conditional on the

incorporation of its "A-H decisions" in the text of the Settlement Agreement. Once again, no such intention was ever expressed.

551. In the Arbitral Tribunal's opinion, what the "A-H decisions" of the 25 June 1996 resolution sought to accomplish was to clarify the Government of Yemen's understanding of the actual terms of the Settlement Agreement and of their implementation. These decisions did not reject or re-draft the terms of the Settlement Agreement set forth in Exhibit R-1.

552. In any event, the Arbitral Tribunal considers that the Parties' subsequent conduct not only shows that the Settlement Agreement was never rejected or amended as a result of the 25 and 26 June 1996 resolutions, but also that that agreement was implemented on the terms of Exhibit R-1 through the various communications and agreements of the Parties.

553. In particular, through its second resolution discussed on 25 June 1996, the Supreme Economic Council "*[r]atified the tax clarification attached to the settlement agreement [Exhibit "A" of the Settlement Agreement]*" and the "*Council of Ministers at its session held on Wednesday 26/6/1996 [...] entirely approved [it].*" (Exhibit C-313). Claimant accepts that that second resolution ratified the tax clarification provisions of the Settlement Agreement, *i.e.* Clause 7 and Exhibit "A" of the Settlement Agreement, but specifies that no other terms of the Settlement Agreement were ratified through that second resolution. Once again, the wording of that second resolution of the Supreme Economic Council does not express in clear terms that the remaining terms of the Settlement Agreement were not accepted or had to be re-drafted. In any event, Claimant has not proved that that second resolution of the Supreme Economic Council ratified a separate bespoke agreement, rather than an important part of the actual Settlement Agreement.

554. On 29 June 1996, the then Minister of Oil confirmed that "*most of the issues contained in the Settlement Agreement ha[d] been already implemented*" and informed Respondent 1 of the implementation steps of Clause 8 of the Settlement Agreement (Exhibit C-314). The following day, the then Minister of Oil reiterated that "*most of the issues contained in the Settlement Agreement ha[d] been already implemented*" and informed Respondent 1 of the implementation steps of Clauses 10 and 11 of the Settlement Agreement (Exhibit C-314).

555. On 15 September 1996, Respondent 1 confirmed to Claimant and Respondents 2-4 that the Settlement Agreement was fully covered by the resolutions of the Supreme Economic Council and of the Council of Ministers dated 25 and 26 June 1996 (Exhibit C-325). Contrary to Claimant's contention, this communication does not confirm that Respondents understood that their agreement was based only on the resolutions of the Supreme Economic Council and Council of Ministers. What they expressed was their understanding that the terms of the Settlement Agreement were covered by those two resolutions. In any event, had Claimant, or Respondents 2-4 for that matter, believed that the Settlement Agreement was not a concluded

agreement and that the resolutions of the Supreme Economic Council and Council of Ministers constituted the only agreement that mattered, they would have reacted to Respondent 1's communication and stated they had never agreed on the terms of the Settlement Agreement. However, they did not do so.

556. On 21 December 1996, Respondent 1 confirmed that the US$ 150 million settlement payment had been made ("*following the complete financial settlement by the contractor*") and referred several times to the Settlement Agreement (Exhibit R-26). Respondent 1 further invited Claimant to agree on the manner in which Clauses 4, 10 and 11 of the Settlement Agreement would be implemented (Exhibit R-26).

557. Between 1997 and 2000, the Parties kept exchanging communications in an effort to implement Clauses 4, 5 and 11 of the Settlement Agreement (Exhibits R-30, R-31, R-37, R-38, R-43 and R-44). With respect to Clause 4 of the Settlement Agreement, Claimant and Respondent 1 concluded and signed the "*Agreement relating to the Recovery of Al Arish Compound Costs*" on 22 January 2000, which was made "*pursuant to the Settlement Agreement made as of March 10, 1996.*" (Exhibit R-49). Had Claimant and Respondent 1 considered the resolutions of the Supreme Economic Council and Council of Ministers of 25 and 26 June 1996 as the only valid and concluded agreement, they would have concluded the "*Agreement relating to the Recovery of Al Arish Compound Costs*" pursuant to those resolutions, and not "*pursuant to the Settlement Agreement made as of March 10, 1996.*"

558. As for the subsequent internal communications of Respondents, the Arbitral Tribunal finds that they show that Respondents were not sure how to treat the Settlement Agreement from a financial reporting perspective and, given the lapse of time, whether they or Claimant would want to treat that agreement as enforceable. However, they kept referring to it, as they believed that it was a concluded agreement. And there is no evidence that Claimant or Respondents ever withdrew their consent to be bound by the Settlement Agreement, as Respondents confirmed that they had already made the US$ 150 million settlement payment (Exhibit C-327, p. 1, reference to "*Deanna Zumwalt has confirmed that the entire Agreed Sum (US$ 150 million) was capitalized*") and stated that "*[f]or clarity the Settlement Agreement stands valid [and that they] confirmed this w/minister on Dec 11th*" (Exhibit R-216), also noting that "*Mr. Abdulbari Al-Wazair [from Claimant] is aware of this agreement [Settlement Agreement].* (Exhibit C-328, p. 2).

559. On the other hand, there is not a single communication from Claimant or the Government of Yemen in the years that followed the resolutions of the Supreme Economic Council and Council of Ministers, expressing any disagreement with the Settlement Agreement or indicating that they believed that the Settlement Agreement had never been concluded.[46] To

[46] TLD hearing transcript, 16 May 2016, the President and Ms. Sabben-Clare at 190:18-23.

the contrary, Respondent 1's letter of 5 July 2003 advised Claimant that "*the costs of reclamation and abandonment have already been paid as part of the "Settlement in 1996" between CNPY and MOM*" (Exhibit R-421). There is no evidence that someone from the Government of Yemen ever reacted to this letter. Moreover, the 2006 cost recovery audit report that was prepared by Claimant's independent auditors confirmed that the US$ 150 million payment had been made "*[a]s per this Settlement Agreement*" and reported on the implementation of Clause 5 of the Settlement Agreement (Exhibit R-149, p. 141). The reference in that report to the US$ 150 million payment made "*[a]s per this Settlement Agreement*" runs contrary to Claimant's current contentions that "*any money that the Contractor paid was paid pursuant to the 25 June 1996 resolutions*" and that "*[t]his is absolutely clear from the documents.*"[47] Finally, on 10 December 2011, Respondent 1 advised PEPA that "*[abandonment liability] was covered off by the 1996 Settlement Agreement.*" (Exhibit C-302, p. 2). Once again, there is no evidence that the Government of Yemen ever reacted to this communication, stating that the Settlement Agreement was never concluded.

560. With respect to Pecten's and Respondent 2's assignor's agreement and signatures, the Arbitral Tribunal agrees with Respondents that they both agreed to the terms of the Settlement Agreement set forth in Exhibit R-1 and that the timing of their signatures has no bearing on the binding effect of the Settlement Agreement on Claimant. The evidence shows that Pecten had not signed the Settlement Agreement by 14 June 1996 because it did not agree with Clause 13 of that agreement regarding the ratification procedure of the tax clarification provisions of the Settlement Agreement (Exhibits C-307 and C-215). Though it is unclear when exactly Pecten and the assignor of Respondent 2 affixed their signatures to the Settlement Agreement, as evidenced through Exhibit R-1, Claimant has not made any forgery allegations and there are no communications subsequent to the resolutions of the Supreme Economic Council and Council of Ministers of 25 and 26 June 1996 to the effect that Pecten and the assignor of Respondent 2 still disagreed with the terms of the Settlement Agreement and refused to sign that agreement. To the contrary, Pecten and the assignor of Respondent 2 could have reacted to Respondent 1's letter of 15 September 1996, confirming that the Settlement Agreement was fully covered by the resolutions of the Supreme Economic Council and of the Council of Ministers dated 25 and 26 June 1996 (Exhibit C-325). However, there is no evidence that they did so. In addition, the fact that all of the then Contractor parties to the PSA contributed to the US$ 150 million payment made to Claimant pursuant to the Settlement Agreement has not been contested by Claimant and this shows that Pecten and Respondent 2's assignor agreed with the terms of the Settlement Agreement.

561. As an additional ground for dismissing Claimant's arguments against the binding nature of the Settlement Agreement, Respondents contend that Claimant has waived, and is now estopped,

[47] Claimant's PHB, paras. 158.2 and 165.

from maintaining that the Settlement Agreement was not binding and effective.[48] The estoppel argument was raised at the TLD hearing and Claimant conceded that, if it was clear that the US$ 150 million payment was made pursuant to the Settlement Agreement, the estoppel defence could apply.[49] The Arbitral Tribunal has determined hereinabove that the resolutions of the Supreme Economic Council and of the Council of Ministers of 25 and 26 June 1996 did not reject or modify the terms of the Settlement Agreement and, as a result, the US$ 150 million payment could only have been made pursuant to the Settlement Agreement.

562. Regarding the legal principles governing the waiver/estoppel defence, the Arbitral Tribunal refers to the section of the present award dealing with Respondents' waiver/estoppel threshold legal defence. Suffice it to say here that the Arbitral Tribunal finds that Claimant is estopped from claiming that the Settlement Agreement was not a concluded agreement, since Claimant not only did not represent otherwise for nearly two decades, despite having had the opportunity to do so (Exhibits R-421, R-149, p. 141, and R-285, p. 2), but also worked together with Respondents to implement specific provisions of the Settlement Agreement, thereby causing an understanding in Respondents that the Settlement Agreement was a concluded agreement (Exhibits C-314, C-315, R-37, R-38, R-43, R-44 and R-49). Moreover, Claimant has taken the benefit of the US$ 150 million payment made pursuant to the Settlement Agreement nearly two decades ago and Respondents have undeniably relied upon Claimant's conduct to their detriment.

563. Consequently, the Arbitral Tribunal finds that there was a concluded agreement on the terms of the Settlement Agreement, as set out in Exhibit R-1, and that the resolutions of the Supreme Economic Council and Council of Ministers of 25 and 26 June 1996 approved those terms and served to clarify the Government of Yemen's understanding of their meaning and implementation.

Sub-section 4. Ratification

564. Respondents contend that the Settlement Agreement was duly ratified by the resolutions of the Supreme Economic Council and of the Council of Ministers of 25 and 26 June 1996 and that the Settlement Agreement did not have to go through the full ratification process, given that Respondents waived the condition precedent set out in Clause 13 of that agreement.[50]

565. According to Claimant, the Settlement Agreement, as every amendment to the PSA, had to go through the full ratification process. Claimant further argues that, in the absence of any

[48] SoRTLD, para. 57, and Respondents' PHB, para. 72.
[49] TLD hearing transcript, 16 May 2016, the President and Ms. Sabben-Clare at 191:3-17; Claimant's PHB, para. 165.
[50] Respondents' PHB, paras. 66-72.

evidence to the contrary, the Arbitral Tribunal should find that the Settlement Agreement was never duly ratified.[51]

566. The Arbitral Tribunal notes in the first place that the Parties are in agreement that the issue of the ratification of the Settlement Agreement can be resolved only by reference to Yemeni law.[52] The Arbitral Tribunal also notes that it is undisputed that, under Yemeni law, an agreement amending the PSA is subject to the following ratification steps: (a) a resolution of the Supreme Economic Council approving the agreement, (b) a resolution of the Council of Ministers approving the agreement, (c) a law issued by the Yemeni Parliament enacting these two resolutions, (d) a Presidential Decree approving and issuing the law of the Yemeni Parliament and (e) a publication in the Official Gazette.

567. The Arbitral Tribunal further notes that, with respect to Respondents' abandonment obligations under the PSA, Article 8.2 (i) of the PSA did not contemplate an amendment to the PSA, but only an agreement in writing and a deposit of an agreed sum of money (Exhibit C-1):

"*8.2 CONTRACTOR shall: [...]*

(i) on termination or cancellation of this Agreement plug all wells and clear the Contract Area of all buildings, facilities, installations and debris within the time frame and to the extent required by MINISTRY or, if MINISTRY so agrees in writing, deposit with MINISTRY a mutually agreed sum of money for MINISTRY to carry out such work."

568. Moreover, the Arbitral Tribunal notes that Clause 14 of the Settlement Agreement expressly states that "*nothing in this agreement will be considered as amendment or change of the provisions of the Masila Block (14) PSA, except as provided in Paragraph (7) herein.*" (Exhibits R-1 and C-306). Despite its importance, Claimant has remained entirely silent on this part of Clause 14 of the Settlement Agreement, which clearly expresses the intentions of the parties to the Settlement Agreement not to amend the PSA's terms, except in relation to "*Paragraph (7).*"

569. In turn, "Paragraph (7)" of the Settlement Agreement reads as follows:

"*7. CLARIFICATION OF THE MASILA PSA TAX PROVISION*

As a means of clarifying certain provisions of the Masila Block (14) PSA, the parties hereby agree that the Masila Block (14) PSA shall be interpreted in accordance with the provisions

[51] Claimant's PHB, para. 160.5.
[52] SoDC, para. 212; SoDTLD, para. 24.

set forth and described in Exhibit "A" attached hereto and made a part hereof. The terms of these provisions shall be effective as of the effective date of the Masila Block (14) PSA. This is necessary in order to confirm the right of the Masila Block (14) Participants to obtain foreign tax credits in their respective home jurisdictions with regard to the payment of taxes in the Republic of Yemen under the Masila Block (14) PSA."

570. Exhibit "A" of the Settlement Agreement sets out Articles 9.3, 14.1, 14.2 and 14.3 of the PSA both in their original version and in the version containing the underlined clarifications (Exhibits R-1 and C-306, Exhibit "A"). Regarding those clarifications, the parties to the Settlement Agreement agreed under Clause 13 of the Settlement Agreement as follows:

"*13. CONDITION PRECEDENT*

It is a condition precedent to the Masila Block (14) Participants performing any of their obligations under this Agreement, including the payment of the Agreed Sum, that the Tax Amendment [referring to Clause 7 and Exhibit "A" of the Settlement Agreement] will be subject to the Constitution Procedures of the Republic of Yemen, and a Presidential Decree (Law) will be issued ratifying such amendment."

571. At this juncture, it is important to compare the above provisions of the Settlement Agreement with the following provisions of the PSA (Exhibit C-1) and the PSA Amendment (Exhibits C-3 and R-73):

"

ARTICLE I
DEFINITIONS

[...]

1.19 "Effective Date" means the date on which this Agreement [the PSA], signed by MINISTRY and CONTRACTOR, is approved in accordance with Article XXXI.

[...]

ARTICLE XXXI
APPROVAL OF THE GOVERNMENT

31.1 This Agreement [the PSA] shall not be binding upon either of the Parties hereto unless and until a law is issued by the competent authorities of the PDRY [Republic of Yemen] approving said Agreement and giving the provisions of this Agreement including the Annexes, full force and effect of law notwithstanding any countervailing governmental enactment."

and

"The Parties hereto have agreed to amend the Petroleum Exploration and Production Agreement (PSA) of the Masila Block (14), as follows: [...]

Except as is provided in Clauses 1 and 2 of this First Amendment Agreement all terms, conditions end provisions of the PSA will remain in full legal force and effect. [...]

5. This First Amendment Agreement shall be subject to the Governmental approvals according to the constitutional procedures in the Republic of Yemen."

572. In light of the foregoing, the Arbitral Tribunal makes the following conclusions:

- Where the Parties intended to amend the PSA, they expressly stated so;
- Where the Parties intended to subject an agreement's binding nature to the full constitutional ratification process of the Republic of Yemen, they expressly stated so;
- With respect to the Settlement Agreement, the Parties expressly stated that they did not intend to amend the PSA, except with respect to Clause 7 and Exhibit "A" of that agreement. Under Clause 13 of the Settlement Agreement, they further agreed to impose on Respondents a condition precedent to their performance of their obligations, including the payment of the settlement sum of US$ 150 million, that the tax amendment provisions of the Settlement Agreement would be subject to the full Yemeni constitutional ratification process. They did not agree that that condition precedent would have any impact on the binding nature of the Settlement Agreement in general.

573. The Arbitral Tribunal now turns to the Parties' intentions with respect to the ratification process applicable to the Settlement Agreement's tax clarification provisions.

574. In particular, in his letter of 6 February 1996, the then Minister of Oil reported to Yemen's then President on the sixth bullet point set out in Mr. Murphy's attached letter of 4 February 1996, where Respondent 1 had proposed to "*[o]btain a letter which amends the wording of the PSA to give greater comfort from a Canadian Tax perspective,*" as follows (Exhibit C-305):

"[...] (a) The Company's demands: [...]

Clause (6): To have a letter issued to amend the language of the agreement [the PSA] to give the Company more flexibility with regards to the Canadian tax requirements.

(b) The Opinion of the Ministry: [...]

5. As for Clauses (5) and (6) shown under the Company's proposal, the Ministry has no objection to look into and rephrase the same in such a manner that does not breach the agreement [the PSA] and insofar as they do not have any material impact on the Ministry on the short and long run and as long as this shall reassure the Company that it shall not be deprived of the privileges granted to the Company by the agreement in force [the PSA]. Accordingly, the Ministry requires that the two proposals shall be rephrased to meet the reassurance purpose and deal with the matter relating to the payment of the tax arising from the Company's income in Canada pursuant to the Canadian tax requirements."

575. In his letter of 14 February 1996, Mr. Murphy of Respondent 1 explained to the then Contractor parties to the PSA that part of the additional US$ 50 million payment would cover the item of the "*Foreign Tax Credit,*" where "*[t]he Government w[ould] clarify the PSA income tax terms to allow the Masila Partners to obtain foreign tax credits in their respective home jurisdictions.*" (Exhibit C-304(a), p. 4).

576. In the undated memorandum prepared for the then Minister of Oil, Mr. Abdullah Ahmez Zaeed and Dr. Twafeeq Noaman Mohamed advised on Respondent 1's proposal "*[t]o obtain a letter for amendment of the agreement [the PSA] wording to give more flexibility for the Company towards Canadian tax requirements*" as follows (Exhibit C-308, pp. 2 and 5):

"*As for the points 5 and 6, after discussion with the Company, it became clear that those points don't have any financial effect on the Ministry whether in the short or the long term. Those points will relatively assure the Company about the concessions granted to them under the effective agreement [the PSA]. Accordingly, this requires rewording to assure the Company and to address the issues related to income tax in Canada in light of the Canadian tax requirements.*"

577. In their internal meeting of 15 March 1996, the then Contractor parties to the PSA discussed the tax clarification provisions of the Settlement Agreement as follows (Exhibit C-307):

"***Morris:*** *Have the proposed tax clarification wording in the PSA been discussed in Partnership meetings?*

Murphy: *We are not opening up the PSA but are asking for clarification.*

Todesco: *Prior to the war this was discussed at the partnership level and with the MOMR. As a result of the changes that arose after the war, the matter was tabled for future consideration. The intent of what was discussed prior to the war is now encompassed within the Settlement Agreement.*

Densmore: *Continued dialogue with government was interrupted due to civil war.*

Murphy: *At that time, the Oil Minister said there would be no problem.*

Ching: *We are concerned that the PSA will get opened up. The clarification does not benefit Pecten.*

Densmore: *We understand your position.*
Zerke: *Does only Canadian Oxy benefit from this?*
Murphy: *It is not just Canadian companies that benefit. For example, the Amoco farm-in wasn't pursued because of this.*
Murphy: *The actual payment mechanism will not change.*

John Patterson agreed to have further discussions to clarify the tax changes if requested by Pecten. [...]

Ching: *What assurances do we have that this will eliminate future issues?*
Murphy: *It is important to make this as public as possible. This is one reason for reviewing it in Parliament.*
Jackson: *How solid is this agreement?*
Murphy: *The Oil Minister signed on behalf of the government. The agreement will be discussed at the Supreme Economic Council, the tax clarification will be discussed in parliament, and the President will sign the decree.*
Jackson: *Is money being withheld to ensure this happen?*
Murphy: *Yes, $100MM is to be paid now, and the $50MM when we see appropriate government movement on issues such as East Shabwa, Al-Arish, and port fees. Two distinct things are settled: (1) cost recovery, and (2) other issues.*
Ching: *How valuable is the tax clarification?*
Densmore: *It is important, however, it only clarifies our position with Revenue Canada.*
Reinhart: *There is no earnings impact."*

578. In its 7 April 1996 letter, the President's Office said to the then Minister of Oil that "*[it] agreed with the Ministry that the agreement [Settlement Agreement] should be clarified and redrafted so as to avoid the breach of any other agreement, so long as such amendment would not have a material effect on the State, either in the short or long term.*" (Exhibit C-309).

579. In his 5 June 1996 letter to the then Minister of Oil, Dr. Eng. Twafiq Noaman Mohammad stated that "*it has been agreed that information regarding the relevant clauses [of the Settlement Agreement] should be completed within the next days (before the end of the week) and that the remaining amount should be paid upon the issuance of a resolution of the Council regarding the clarification of the taxation provisions and to hold a joint review of the other terms of the agreement and the issuance by the Council of a resolution within the next two weeks, which will [be] conducive to the payment of the remaining amount (50 million American Dollars) in the next days or by the end of this month (30 June 96) at the latest.*" (Exhibit C-310).

580. In his letter of 14 June 1996, Mr. Ching of Pecten stated to the then Minister of Oil that (Exhibit C-215):

"The March 10, 1996 Settlement Agreement signed by you and Mr. Murphy of Canadian Occidental puts to rest several issues which in the past have created friction. We are pleased that the cost recovery audit exceptions are resolved. Pecten did not sign the Settlement Agreement, however, owing to our disagreement with item 7 "Clarification of the Masila PSA Tax Provision". Pecten believes that the Masila PSA tax provisions are plainly worded, clear in intent, and contain no ambiguity. In short, what needs to be clarified?

As a Contractor party to the Masila PSA Pecten does not agree that the Tax Amendment called for in Item 13 of the Settlement Agreement is appropriate. We believe all parties to the PSA must agree before the implementing Parliamentary Procedures are to be issued ratifying the Tax Amendment. We have reviewed this matter in detail with our Yemen legal advisor. He indicated that the clarification language as contained in Exhibit "A" of the Settlement Agreement must be legislatively adopted by Parliament to be legally effective. Since we do not support the Tax Amendment, further legislative action should not be initiated. Without legislative action, any clarification is worthless."

581. In his explanatory report of 22 June 1996 to the then Prime Minister, the then Minister of Oil advised as follows (Exhibit C-311, pp. 5 and 10):

"***Clause 7 - Explanation of Tax Provisions***

This clause does not have any effect on the Ministry of State revenues, and does not constitute any additional burden. The purpose of this clause is to help the operator fulfill the tax requirements of its home country. [...]

Clause 12 [it should read Clause 13] - Execution Provision:

The Settlement Agreement provides that payment of the remaining settlement amount shall be conditional of issuance the necessary decisions to comply with the Agreement and issuance of the presidential decision to ratify the tax explanatory note [Exhibit "A" of the Settlement Agreement].

Since the tax explanatory note does not affect the essence of the Agreement [Settlement Agreement] or the obligations of parties, such clause was replaced by the attached letter signed by the two parties, and the execution provision shall be replaced by the Council approval of the tax explanatory note stated in Exhibit A of the Settlement Agreement, without the need to go through constitutional procedures, as such explanatory note does not constitute an amendment of or prejudice to the provisions of the Agreement."

582. The resolutions of the Supreme Economic Council and Council of Ministers of 25 and 26 June 1996 approved the Settlement Agreement, to the exclusion of Exhibit "A" of the same. This is how the Arbitral Tribunal understands the then Minister of Oil's reference in the accompanying letter of 29 June 1996 (Exhibit C-312) to "*the main body of the agreement [which meant that the annexed Exhibit "A" was not addressed by those two resolutions].*" The resolutions or the accompanying letter said nothing about having the Settlement Agreement approved by the Yemeni Parliament and by a Presidential Decree confirming the Yemeni Parliament's approval.

583. The resolution of the Supreme Economic Council that ratified Exhibit "A" of the Settlement Agreement was sent through the then Minister of Oil's second letter of 29 June 1996 (Exhibit C-313). Once again, the resolution or the accompanying second letter said nothing about having the Settlement Agreement or its Exhibit "A" approved by the Yemeni Parliament and by a Presidential Decree confirming the Yemeni Parliament's approval. It is reminded here that that second letter bore the subject of "*Resolution for the Tax Clarification of the Settlement Agreement, By the Supreme Economic, Petroleum and Investment Council and the Council of Ministers*" and that the tax clarification resolution of the Supreme Economic Council had the exact same title and first two paragraphs as its resolution approving the Settlement Agreement (Exhibit C-313, p. 2). The remaining part of the tax clarification resolution read as follows:

"- *Ratified the tax clarification attached to the settlement agreement [Exhibit "A" of the Settlement Agreement], since it will not result in burdens on the Yemeni side and does not affect the government's share in share oil and does not influence the general economical terms of the agreement.*

The Council decided to submit to the Council of Ministers for final approval.

The Matter was presented to the Council of Ministers at its session held on Wednesday 26/6/1996 where it was entirely approved."

584. In his letter of 15 September 1996 to the then Minister of Oil, Pecten, the assignor of Respondent 2 and Respondent 3, Mr. Murphy stated the following regarding the tax clarification provision of the Settlement Agreement (Exhibit C-325):

"*During the course of discussions, we mutually agreed to remove the requirement, set out in Clause 13, of the Settlement Agreement, relating to the Tax Amendment and Condition Precedent, regarding parliamentary procedures.*
During the course of discussions, a letter dated May 12, 1996, relating to the Tax Clarification issue, Clause 7 of the Settlement Agreement, may have been informally received by the Ministry of Oil. This letter if received should be considered to be rescinded."

585. With respect to the legal opinions of Respondents' external Yemeni lawyers of 9 October 1999 and 29 July 2009 (Exhibits C-324 and C-241), the Arbitral Tribunal agrees with Respondents' view that they relate to subsequent tax provisions that amended the terms of the PSA and have nothing to do with the question of whether the Settlement Agreement was duly ratified.

586. Claimant agrees that the legal opinion of 9 October 1999 relates to a subsequent tax settlement agreement.[53] The Arbitral Tribunal also notes that the tax-related issues discussed in that legal opinion (Exhibit C-324, pp. 3-4) cover the same issues addressed by the PSA Amendment, *i.e.* the exemption of Respondents' sub-contractors from Yemeni income taxes (Exhibits C-3 and R-73).

587. As for the legal opinion of 29 July 2009 (Exhibit C-241), it clearly refers to "*PSA Amendment #2*" that never materialized.

588. Claimant's reference to the *Hunt* arbitration is equally misplaced, as the issue of ratification in that case concerned the extension of the term of the PSA in question (Exhibit RL-156). The tribunal in that case was therefore right to determine that the full constitutional process was necessary. However, the issue here did not concern the extension of the PSA's term, but the tax clarifications contained in Clause 7 and Exhibit "A" of the Settlement Agreement, which were subject to the condition precedent provision of Clause 13 of the Settlement Agreement.

589. In light of the foregoing, the Arbitral Tribunal finds that the parties to the Settlement Agreement clearly understood the implications of the tax clarification terms set out in Clause 7 and Exhibit "A" of the Settlement Agreement, which would not have any material or financial effect on the Government of Yemen or the PSA, and agreed that the issuance of the resolution by the Supreme Economic Council of 26 June 1996 (Exhibit C-313) would be sufficient to satisfy the Yemeni ratification requirements. Certainly, that was the contemporaneous understanding of Claimant and the Government of Yemen (Exhibit C-311, p. 10).

590. Moreover, the evidence shows that the parties to the Settlement Agreement "*mutually agreed*" not to exercise the condition precedent contained in Clause 13 of the Settlement Agreement, which, in any event, was imposed only on Respondents (Exhibit C-325). And there is no doubt that, despite Pecten's initial disagreement with the tax clarification terms of the Settlement Agreement, Respondents waived that condition precedent, by making the US$ 150 million payment under the Settlement Agreement, which was envisaged by Clause 13 of the Settlement Agreement itself ("*performing any of their obligations under this Agreement,*

[53] SoDTLD, para. 52.

including the payment of the Agreed Sum"). It is reminded here that Claimant has not contested the fact the US$ 150 million payment was made on behalf of all of the Contractor parties to the Settlement Agreement.

591. Respondents also raise the additional ground that Claimant has waived, and is now estopped, from maintaining that the Settlement Agreement was not binding and effective as a matter of its own law.[54] The Arbitral Tribunal reminds here that the estoppel argument was raised at the TLD hearing and Claimant conceded that, if it was clear that the US$ 150 million payment was made pursuant to the Settlement Agreement, the estoppel defence could apply.[55]

592. Regarding the legal principles governing the waiver/estoppel defence, the Arbitral Tribunal refers to the section of the present award dealing with Respondents' waiver/estoppel threshold legal defence. Suffice it to state here that the Arbitral Tribunal finds that Claimant is estopped from claiming that the Settlement Agreement was not a duly ratified agreement, since Claimant not only did not raise any ratification objections for nearly two decades, but also understood that the Settlement Agreement would not amend the PSA, transmitted two letters and three resolutions pertaining to the Settlement Agreement (Exhibits C-312 and C-313), without referring to any additional ratification steps, and did not react to Respondent 1's express indication that "*we mutually agreed to remove the requirement set out in Clause 13, of the Settlement Agreement, relating to the Tax Amendment and Condition Precedent, regarding parliamentary procedures*" (Exhibit C-325), thereby causing an understanding in Respondents that the necessary ratification procedures in relation to the Settlement Agreement had been followed. Moreover, Claimant has taken the benefit of Respondents' US$ 150 million payment made pursuant to the Settlement Agreement nearly two decades ago and Respondents have undeniably relied upon Claimant's conduct to their detriment.

593. Consequently, the Arbitral Tribunal finds that the Settlement Agreement and its Exhibit "A" were duly ratified by the resolutions of the Supreme Economic Council and of the Council of Ministers of 25 and 26 June 1996 (Exhibits C-312 and C-313) and that no other ratification steps were necessary.

Sub-section 5. Scope of the Settlement Agreement

594. With respect to the scope of the Settlement Agreement, Respondents argue that Clause 9 of the Settlement Agreement clearly provides for a pre-payment of full field abandonment and not of abandonment work up to 1995. According to them, the value of the US$ 20 million payment made pursuant to Clause 9 (a) of the Settlement Agreement further attests to the wide scope of the Settlement Agreement, covering future abandonment and reclamation

[54] Respondents' PHB, para. 72.
[55] TLD hearing transcript, 16 May 2016, the President and Ms. Sabben-Clare at 191:3-17; Claimant's PHB, para. 165.

obligations. In particular, they show that US$ 20 million in 1996 had a net present value as at 2011 of US$ 83.5 million (EXR of Mr. Lagerberg, para. 5.5.3). They also show that their average profit oil share in 1996 was 27.204% (Exhibit R-316), which means that the US$ 20 million payment would have been worth as at 2011 US$ 306.9 million in abandonment work that Respondents would have undertaken during the PSA's currency, had there not been an agreement under Clause 9 of the Settlement Agreement to pre-pay all future abandonment costs. On this basis, Respondents argue that the amount of US$ 20 million is entirely disproportionate to the abandonment costs of the few facilities already in existence as of 1995. Given that Respondents had drilled only 69 wells by the end of 1995 (2WS of Mr. Tracy, para. 56), Claimant would have received as at 2011 a gross payment of US$ 1.21 million per well.[56]

595. On the other hand, Claimant points out that the Settlement Agreement's recital confirms that the agreement's purpose was "*to settle all such outstanding issues with respect to operations and expenditures as set out herein for the period up to and until December 31, 1995.*" Moreover, Claimant argues that the US$ 20 million amount does not prove that all abandonment claims were settled in 1996. Respondents' net present value calculation is flawed because not all of the abandonment costs had accrued in 1996, but they were accruing on a rolling basis throughout the term of the PSA. Claimant also contends that there is no evidence that anyone calculated US$ 20 million in 1996 as equivalent to the amount that Respondents would have to pay upon the PSA's term's expiry in 2011. This is because no one could have predicted in 1996 how Block 14 would be developed. Respondents' construction of Clause 9 of the Settlement Agreement is contrary to commercial sense and good faith.[57]

596. The Arbitral Tribunal notes in the first place that the Parties rely on the actual wording of the Settlement Agreement and also on the Parties' then current intentions, by referring to the value of the amount of US$ 20 million. In this respect, the Arbitral Tribunal notes that Article 212 of the Yemeni Civil Code provides in relevant part that "*[i]f the contract provisions are clear, no interpretation may be allowed on the basis of wishing to know the parties' intentions.*"[58]

597. The Arbitral Tribunal recalls here that Article 8.2 (i) of the PSA provided that Respondents would "*on termination or cancellation of this Agreement plug all wells and clear the Contract Area of all buildings, facilities, installations and debris within the time frame and to the extent required by MINISTRY or, if MINISTRY so agrees in writing, deposit with MINISTRY a mutually agreed sum of money for MINISTRY to carry out such work.*" (Exhibit C-1).

[56] Respondents' PHB, paras. 73-82.
[57] TLD hearing transcript, 16 May 2016, Ms. Sabben-Clare at 179:21-25, 180:1-4, 181:8-15, 194:5-22 and at 195:1-9; Claimant's PHB, para. 166.
[58] Exhibit RL-108; EXR of Mr. Luqman, paras. 57-62.

598. Moreover, Clause 9 of the Settlement Agreement, which refers to Article 8.2 (i) of the PSA, provides as follows (Exhibits R-1 and C-306):

> "*9. DISMANTLEMENT, ABANDONMENT AND RECLAMATION*
>
> *(a) Pre-Payment of Deposit*
>
> *The Agreed Sum includes the sum of TWENTY MILLION UNITED STATES DOLLARS (US$20,000,000.00) which is a pre-payment of the Masila Block (14) Participants' deposit for their work obligations required by Article VIII, sub-clause 8.2(i) of the Masila Block (14) PSA.*
>
> *(b) Release*
>
> *The Ministry agrees that it hereby forever releases and discharges the Masila Block (14) Participants and their directors, officers, employees, affiliates, successors, and assigns of and from any and all claims and demands of any kind and nature whatsoever, at law or in equity, or under any statute relating to the carrying out the work necessary upon termination or cancellation under the Masila Block (14) PSA with respect to dismantlement, abandonment, and reclamation.*"

599. As a preliminary remark, the Arbitral Tribunal agrees with Respondents that Clause 9 (b) of the Settlement Agreement was drafted in the broadest manner possible. Respondents' release and discharge from "*any and all claims [...] upon termination or cancellation under the [PSA] with respect to dismantlement, abandonment and reclamation*" is indeed unlimited in time and scope.

600. Claimant relies on the recital of the Settlement Agreement, which states that "*the parties [to the Settlement Agreement] have agreed to settle all such outstanding issues [including abandonment obligations] with respect to operations and expenditures as set out herein for the period up to and until December 31, 1995, on the terms and conditions set out herein,*" but it does not explain how that recital is reconciled with or can trump Clause 9 (b) of the Settlement Agreement, which "*forever releases and discharges*" Respondents from their "*dismantlement, abandonment and reclamation*" obligations related to "*work necessary upon termination or cancellation*" of the PSA. However, this inconsistency between the different parts of the Settlement Agreement needs to be assessed through the Parties' contemporaneous understanding, to which the Parties refer.

601. In the Arbitral Tribunal's opinion, Claimant's reliance on the recital of the Settlement Agreement is at odds with the Parties' contemporaneous understanding of agreeing on a pre-

payment by the then Contractor parties to the PSA for future abandonment work that would take place either upon oil depletion or at the end of the PSA's term.

602. In particular, the Arbitral Tribunal refers to the letter sent on 6 February 1996 from the then Minister of Oil to Yemen's then President, stating that (Exhibit C-305):

> "*Clause (2): To include, under the above payments, the advance payment for the expenses of abandoning the fields once they run out of oil; [...]*
>
> *As to Clause (2) relating to the final abandoning of the fields, part of such expenses shall be paid as part of the Fifty (50) Million US Dollars under the settlement amount, and shall be considered as part of the total settlement amount provided it shall be deducted from the total costs for abandoning fields following the expiry of the agreement, which is estimated to be no more than Twenty to Twenty Five (20-25) Million US Dollars.*"

603. The Arbitral Tribunal also refers to the undated letter sent to the then Minister of Oil, advising on the abandonment-related part of the US$ 150 million settlement payment as follows (Exhibit C-308):

> "*As for the second point of considering the settlement amount stated in the second option (150 million dollars) as inclusive of the costs of field abandonment after depletion of oil, this means that the Company [Respondents] shall not bear all of the costs for the plugging and clearing of wells and producing fields and clearing the Block from the remnants of oil operations. Accordingly, the Ministry will incur these costs, estimated at 30 to 35 million US dollars at that time; which is equal to at least twenty five (25) million dollars in 1995.*"

604. Furthermore, reference is made to Mr. Murphy's statement at the 15 March 1996 meeting with Pecten that the "*Settlement [Agreement] resolves all of our dismantlement issues forever[,] [t]he actual cost [of which] could exceed $100MM*" (Exhibit C-307, p. 4) and to the explanatory report dated 22 June 1996, where the then Minister of Oil explained at length to the then Prime Minister the concept of the "*final abandonment of the Block*" that was also envisaged to occur at the end "*of the PSA period (20 years from commercial announcement)*" (Exhibit C-311, pp. 6-8).

605. With respect to the wording of the 25 June 1996 resolution of the Supreme Economic Council pertaining to Clause 9 of the Settlement Agreement, the Arbitral Tribunal notes that the Supreme Economic Council "*agreed that in the event of abandonment, the equipment are to be received as are in a working condition.*" (Exhibit C-312, p. 4). As explained above, this "decision E" did not modify or re-draft Clause 9 of the Settlement Agreement.

606. In addition, the Supreme Economic Council's "decision E" did not limit in any manner whatsoever the temporal scope of Clause 9 of the Settlement Agreement. Had the Government of Yemen intended to limit the scope of the US$ 20 million payment to abandonment work up to the end of 1995, it would have stated so through the 25 June 1996 resolution and it certainly would not have agreed to the unqualified terms of Clause 9 (b) of the Settlement Agreement.

607. In the Arbitral Tribunal's opinion, the broad wording of Clause 9 (b) of the Settlement Agreement and the Parties' contemporaneous understanding of the "*final abandonment work*" confirm that the unlimited in time and scope release and discharge contained in Clause 9 (b) of the Settlement Agreement related to future abandonment work and not only to abandonment work up to 31 December 1995.

608. The Arbitral Tribunal has also considered the Parties' value-related arguments regarding the US$ 20 million payment made by Respondents to Claimant pursuant to Clause 9 (a) of the Settlement Agreement, which Claimant acknowledges[59] that it has received. The Arbitral Tribunal finds that Respondents have successfully demonstrated that the amount of US$ 20 million would have been excessive, if it had been agreed upon in respect of the limited amount of wells and facilities already in place at the end of 1995. On the basis of Respondents' contention that there were 69 wells by the end of 1995,[60] Respondents have shown that Claimant would have received as at 2011 a gross payment of US$ 1.21 million per well. This is to be compared with Claimant's current abandonment claim pertaining to the "*inadequately designed/constructed wells,*" which ranges from US$ 307,000 per well to US$ 485,000 per well.[61] Therefore, in the Arbitral Tribunal's opinion, the disproportionality between the amount of US$ 20 million and the abandonment costs of the limited facilities already in existence in 1995 confirms the prospective character of the US$ 20 million payment made pursuant to Clause 9 (b) of the Settlement Agreement.

609. The Arbitral Tribunal notes Claimant's position that no one could have predicted back in 1996 how and to what extent Block 14 would be developed during the PSA's term. However, there is evidence that the then parties to the PSA attempted to predict during the Settlement Agreement's negotiations what the value of the future abandonment work would be (Exhibits C-305, p. 2, C-307, p. 6, C-308, p. 4, and C-311, p. 7). As indicated above, this shows that the then parties to the PSA had in mind future abandonment work and not only abandonment work regarding the period up to 1995. Claimant's reference to good faith is not warranted, as it has not relied on any authority or facts showing that good faith can lead to a different result than the one produced from the clear terms of an agreement.

[59] SoRjTLD, para. 56.3; TLD hearing transcript, 16 May 2016, Ms. Sabben-Clare at 195:1-6.
[60] SoRTLD, foonote 57. Claimant contends that there were 54 producing wells by the end of 1995 and 75 wells by 1996 (SoDTLD, para. 78, and SoRjTLD, para. 56.3.2).
[61] EXR of Mr. Sands, para. 139.

610. In relation to Respondents' subsequent internal estimates of the final abandonment costs (for example, Exhibits C-327 and C-322), the Arbitral Tribunal finds that Claimant has failed to establish how they can prevail over the clear and unequivocal terms of Clause 9 (b) of the Settlement Agreement and, especially, in light of the entire agreement clause of that agreement (Clause 14 providing that "*[t]his Agreement constitutes the entire and only agreement between the parties regarding the subject matter hereof*"). In any event, those estimates confirm the prospective character and significant importance of the US$ 20 million payment made pursuant to Clause 9 (a) of the Settlement Agreement.

611. Consequently, the Arbitral Tribunal finds that Clause 9 of the Settlement Agreement released Respondents from any dismantlement, abandonment and reclamation claims regarding the period up to the expiry of the PSA's term on 17 December 2011.

Sub-section 6. Impact of the Settlement Agreement on Claimant's claims

612. Respondents contend that the following claims of Claimant have been settled through the Settlement Agreement:[62] (i) the claim related to the primary cement program of Respondents' first well design, where Claimant contends that US$ 124,480,000 should be paid as abandonment costs of the "inadequately cemented wells" (overlap with the increased abandonment costs claims), (ii) the claims related to the increased abandonment costs, where Claimant contends that US$ 124,480,000 should be paid as abandonment costs of the "inadequately cemented wells" (overlap with primary cement program claim), US$ 124,944,000 as abandonment costs of the "adequately cemented wells," US$ 9,060,000 for re-abandoning the "improperly abandoned wells" and US$ 1,309,000 for re-abandoning wells in which NORM-contaminated equipment was canisterised, (iii) the claim related to the remediation of sludge ponds, the value of which is US$ 2,850,000 and (iv) the claim related to the cost of abandoning sections of the MOL, redundant flow lines, surface facilities and disused borrow pits, the value of which is US$ 15,500,000.

613. On the other hand, Claimant argues that the Settlement Agreement can have no impact on Claimant's current claims since that agreement was never meant to cover the abandonment costs of wells that have not been drilled in compliance with the PSA and Good Oilfield Practice.[63] Moreover, Claimant submits that the impact of the US$ 20 million payment on its current claims is a question "*for another day*,"[64] without specifically objecting to Respondents' characterization of the above claims as abandonment-related claims.

[62] Updated TLD Schedule, Claims Nos. 1, 2, 3 and 4.
[63] TLD hearing transcript, 16 May 2016, Ms. Sabben-Clare at 180:17-25 and at 181:1-15.
[64] Claimant's PHB, para. 166.3.

614. In relation to Claimant's last argument that the impact of the Settlement Agreement on its current claims is not an issue to be determined now, the Arbitral Tribunal finds that this argument is not only unreasonably belated, given that Respondents set out their position on the impact of their Settlement Agreement defence already in their SoDC[65] and Claimant waited until the PHB to raise its argument, but also contradictory to Claimant's previous submissions that all issues pertaining to that agreement can be determined at this stage of the proceedings.[66] In addition, the Arbitral Tribunal finds that the evidence produced thus far is sufficient to establish the impact of the Settlement Agreement on Claimant's current claims.

615. Claimant argues that the Parties could have never settled abandonment claims in relation to wells and facilities that had not been drilled and put in place in compliance with the PSA and Good Oilfield Practice. The Arbitral Tribunal notes in that respect that Article 8.2 (i) of the PSA, pursuant to which the Parties agreed on Clause 9 of the Settlement Agreement, logically did not contemplate such a breach situation. Article 8.2 (i) of the PSA only contemplated the deposit of "*a mutually agreed sum of money for [Claimant] to carry out*" the work of plugging all wells and clearing the Contract Area of all buildings, facilities, installations and debris.

616. However, by virtue of the more specific Clause 9 of the Settlement Agreement, Claimant agreed to "*forever*" release and discharge Respondents "*from any and all claims and demands of any kind and nature whatsoever, at law or in equity, or under any statute relating to the carrying out the work necessary upon termination or cancellation under the Masila Block (14) PSA with respect to dismantlement, abandonment and reclamation.*" (Exhibit R-1). This provision shows that Respondents' release from abandonment-related claims is unlimited in time and scope and that future breach claims are not excluded.

617. The Arbitral Tribunal therefore disagrees with Claimant's argument that its current abandonment-related claims are not covered by the Settlement Agreement because they relate to wells and facilities that are allegedly in breach of the PSA and Good Oilfield Practice. The all-encompassing wording of Clause 9 (b) of the Settlement Agreement leaves no doubt that the Parties intended to settle all future abandonment-related claims, whether stemming from a breach of the PSA and Good Oilfield Practice or not and whether they pertain to "standard" or "increased" abandonment costs. There is no evidence to support Claimant's argument that its current "increased abandonment costs" claims have survived the unlimited release in favor of Respondents under Clause 9 of the Settlement Agreement.

618. Claimant also refers to the explanatory report of 22 June 1996, where the then Minister of Oil explained to the then Prime Minister that "*[t]he regulations and standards of the oil industry*

[65] Annex 1 accompanying the SoDC, pp. 1 and 3.
[66] SoDTLD, para. 17.a, and SoRjTLD, paras. 54-56.

state that environmental protection operations shall be carried out to protect the environment and the effects of the oil operations [and] such regulations and standards may not be not complied with whether prior to or after abandonment. Therefore pre-agreeing abandonment, which as explained above would not actually take place, raises no concerns." (Exhibit C-311, p. 8). However, Claimant's contemporaneous understanding of not waiving future environmental claims related to the "*final abandonment provision in the Settlement Agreement*" did not find its way in Clause 9 of the Settlement Agreement and was not included in the Supreme Economic Council's and Council of Ministers' resolutions of 25 and 26 June 1996 (Exhibits C-312). Once again, Claimant could have expressed its intention to limit the scope of Clause 9 of the Settlement Agreement, by excluding future environmental claims, but it failed to do so.

619. Regarding the Supreme Economic Council's resolution of 25 June 1996, Claimant alleges that it distinguished between performance of the PSA, which would remain Respondents' responsibility, and the costs of reclamation and disposal, by stating that "*in the event of abandonment, the equipment are to be received as are in a working condition.*" (Exhibit C-312). As explained above, the Arbitral Tribunal does not agree with Claimant's position that the Supreme Economic Council's "decision E" modified or re-drafted the terms or the scope of Clause 9 (b) of the Settlement Agreement. Moreover, the Arbitral Tribunal fails to see how that decision distinguished between the future performance of Respondents' abandonment obligations and the abandonment costs incurred thus far or how it excluded future breach claims from the scope of Clause 9 (b) of the Settlement Agreement.

620. Consequently, the Arbitral Tribunal finds that all current claims of Claimant related to Respondents' dismantlement, abandonment and reclamation obligations under the PSA have been fully settled in accordance with Clause 9 of the Settlement Agreement. Despite having had ample opportunity to do so, Claimant has not contested that the following claims relate to Respondents' dismantlement, abandonment and reclamation obligations under the PSA and Good Oilfield Practice:

(i) The claim of US$ 124,480,000 related to the abandonment costs of 311 "inadequately cemented wells,"[67]

(ii) The claims of US$ 124,944,000 related to the abandonment costs of 323 "adequately cemented wells,"[68] US$ 9,060,000 related to the re-abandonment costs of 5 "improperly abandoned wells"[69] and of US$ 1,309,000 related to the re-abandonment of 3 wells into which NORM-contaminated equipment was disposed,[70]

[67] SoC, paras. 141-142, 185-204, and, in particular, para. 247(1); EXR of Mr. Sands, para. 139.
[68] SoC, paras. 243-250, and, in particular, para. 247(2); EXR of Mr. Sands, para. 270.
[69] SoC, paras. 208-213, and, in particular, para. 247(3); EXR of Mr. Sands, paras. 156-157.
[70] SoC, paras. 237-241, and, in particular, para. 247(3); EXR of Mr. Sands, paras. 161-170.

(iii) The claim of US$ 2,850,000 related to the remediation of sludge ponds,[71] and
(iv) The claim of US$ 15,550,000 related to the cost of abandoning sections of the MOL, redundant flow lines, surface facilities and disused borrow pits.[72]

621. Claimant contends that Respondents have omitted from Claimant's abandonment-related claims the claim for failing to take proper steps to abandon 10 out 14 off-block wells, which were purportedly abandoned between 1999 and 2001.[73] The Arbitral Tribunal notes that Claimant's reference in the SoC to the alleged damage of US$ 1,309,000, representing the abandonment costs of the 10 off-block wells, is not expressly corroborated by Claimant's expert, who refers to the amount of US$ 1,309,000 in relation to the re-abandonment costs of the 3 wells into which NORM-contaminated equipment was disposed, without presenting a separate amount for the 10 off-block wells.[74] In fact, Claimant's expert concludes with respect to the 10 off-block wells that "*the PSA did not cover the off block wells. However, it is worthy of note that there are legacy environmental issues remaining in Yemen for which the Claimant has no recourse.*" In the absence of any basis supporting Claimant's off-block wells claim, the Arbitral Tribunal agrees with Respondents' position[75] that this claim does not fall within the scope of this arbitration, which encompasses only disputes arising in connection with the PSA and its defined Contract Area, *i.e.* Block 14.

Section 3. Time-bar defence

Sub-section 1. Applicable law

A. The choice-of-law provision of the PSA

622. Respondents argue that, under Article 27.2 (i) of the PSA, the Arbitral Tribunal has to apply the UNIDROIT Principles, as there is no common limitation period under Yemeni, Canadian and Lebanese law and as these principles represent general principles of law. They also assert that Claimant's argument that the Arbitral Tribunal should apply the 10-year limitation period under Lebanese law because it is the most generous to it is clearly one-sided and it contradicts the commonality requirement under Article 27.2 (i) of the PSA.[76]

623. Claimant's position is that all three national laws (Yemeni, Canadian and Lebanese) are common in the sense that they all have limitation periods. According to Claimant, the *prima facie* time-bar period applicable to its claims is the 10-year limitation period under Lebanese law and, in the alternative, the 5-year limitation period under Yemeni law, given that the PSA

[71] SoC, paras. 287-303; EXR of Mr. Larkin, Section 5.2 and Appendix B, items 8 and 9.
[72] SoC, paras. 304-311; EXR of Mr. Larkin, Section 6.7 and Appendix B, items 10-15.
[73] Claimant's PHB, fn. 72; SoC, para. 213; EXR of Mr. Sands, paras. 158-160.
[74] EXR of Mr. Sands, para. 161-170.
[75] SoDC, para. 385.
[76] Respondents' PHB, paras. 5 and 7-13.

itself is a Yemeni statute and requires compliance with Yemeni law. Claimant also contends that it would be wrong for the Arbitral Tribunal to apply the UNIDROIT Principles, as they do not represent "*principles of law normally recognized by nations in general,*" are not a law common to the laws of Yemen, Canada and Lebanon and are contrary to the good faith provision of the PSA. However, if the Arbitral Tribunal were to apply the UNIDROIT Principles, the 10-year long-stop limitation period provided therein should be subject to the exception of deliberate concealment stipulated under Canadian law.[77]

624. The Arbitral Tribunal notes in the first place that Article 27.2 (i) of the PSA provides as follows:

"*The signatories base their relations with respect to this Agreement on the principles of good will and good faith. Taking into account their different nationalities, this Agreement for such arbitration shall be given effect and shall be interpreted and applied in conformity with principles of law common to the PDRY, Canada and Lebanon and in the absence of such common principles then in conformity with the principles of law normally recognized by nationals in general, including those which have been applied by International Tribunals.*"

625. Moreover, in para. 68 of PO3 dated 26 August 2015, the Arbitral Tribunal decided as follows:

"*Consequently, in accordance with the terms of Article 27.2 (i) of the PSA, the PSA must be interpreted and applied as follows:*

- First, in conformity with the principles of law common to Yemen, Canada and Lebanon;
- And in the absence of such common principles, in conformity with the principles of law normally recognized by nations in general, including those which have been applied by International Tribunals, which, in the opinion of the Arbitral Tribunal, would include international arbitral tribunals constituted under public or private law;
- It is on the Parties to identify and demonstrate in their submissions to be filed in this arbitration which are the principles of law common to the abovementioned three countries or the principles of law normally recognized by nations in general, including those which have been applied by International Tribunals; and
- The Arbitral Tribunal will also take into consideration the principles of good will and good faith."

626. Consequently, the Arbitral Tribunal's first task is to determine whether the three national laws of Yemen, Canada and Lebanon have common principles of law regarding limitation periods.

[77] Claimant's PHB, paras. 18, 20, 22-44.

627. In the Arbitral Tribunal's opinion, it is beyond doubt that the limitation periods under Yemeni (5 years), Canadian (between 2 and 6 years, depending on the province/territory) and Lebanese law (10 years) are not common. Claimant has admitted so.[78] It has also admitted that, even within Canada, there are different time-bar rules.[79] Whereas Claimant contends that all three national laws are common because they all have time-bar rules, there is no reason why the commonality inquiry should stop there. The Arbitral Tribunal considers that the length of the applicable limitation period is a significant, if not determining, factor in assessing whether there are common time-bar rules under different laws.

628. The same approach was adopted by the arbitral tribunal in the *Hunt* case, where the tribunal was faced with a similarly worded choice-of-law provision and had to assess the commonality of two national laws with respect to the good faith principle (Exhibit RL-156, paras. 104-106). The *Hunt* tribunal held that the fact that the two national laws recognized the good faith principle was not enough and proceeded to examine how that principle was applied under the two national laws. It concluded that the two national laws were not common on that issue, as they did not apply that principle in the same manner (Exhibit RL-156, para. 106).

629. Claimant goes at great lengths to explain why the time-bar rules under Yemeni, Canadian and Lebanese law are common, despite the fact that their time-bar periods are not common and that only Alberta law contains a 10-year long-stop limitation period that applies regardless of a claimant's knowledge. In doing so, Claimant explains how Yemeni, Canadian and Lebanese law treat the question of knowledge and how the laws of only certain Canadian provinces provide for a long-stop limitation period and also refers to different provisions under Yemeni, Canadian and Lebanese law, governing particular types of claim.[80] Claimant's arguments in this respect further support the Arbitral Tribunal's finding that there are no common time-bar rules under Yemeni, Canadian and Lebanese law.

630. As for Claimant's arguments that the 10-year limitation period under Lebanese law should be applied because it is the longest and most generous limitation period,[81] the Arbitral Tribunal finds that, in the absence of commonality, Article 27.2 (i) of the PSA does not provide for the application of the most generous limitation period. Moreover, it goes without saying that what is generous to Claimant is not necessarily generous to Respondents. Whereas Claimant considers the 10-year limitation period under Lebanese law as generous, Respondents would probably consider the 2-year limitation period under various Canadian provinces or territories as generous.[82] In any event, Article 27.2 (i) of the PSA contains a safeguard clause, triggering

[78] TLD hearing transcript, 19 May 2016, Ms. Sabben-Clare at 1024:11-14; Claimant's PHB, paras. 26.1 and 27.
[79] TLD hearing transcript, 19 May 2016, Ms. Sabben-Clare at 1024:19-21.
[80] Claimant's PHB, paras. 26-27 and 70-86.
[81] SoRjTLD, para. 65, and Claimant's PHB, para. 41.
[82] TLD hearing transcript, 16 May 2016, Mr. Pryles and the President at 159:2-15; EXR of Mr. Lindsay, Annex B.

the application of "*principles of law normally recognized by nations in general, including those which have been applied by International Tribunals,*" in the event of lack of commonality among Yemeni, Canadian and Lebanese law.

631. Claimant's reliance[83] on Respondents' contention in the SoDC that the "*maximum possible applicable limitation period for claims under the PSA is ten years*"[84] is misplaced, as at that time the Arbitral Tribunal had not yet determined the applicable substantive law. In any case, Respondents already alleged in their SoDC that, in the absence of commonality on particular issues of law, the applicable substantive law in this case would also comprise of the UNIDROIT Principles.[85] And their position on the time-bar defence was confirmed in the SoRTLD.

632. In light of the foregoing, the Arbitral Tribunal concludes that there is no commonality among the three national laws of Yemen, Canada and Lebanon on the issue of time-bar.

B. General principles of law and the UNIDROIT Principles

633. Having determined that the time-bar rules under Yemeni, Canadian and Lebanese law are not common, the Arbitral Tribunal has to apply "*principles of law normally recognized by nations in general, including those which have been applied by International Tribunals.*" According to the Arbitral Tribunal's PO3 dated 26 August 2015, these "*International Tribunals*" "*would include international arbitral tribunals constituted under public or private law.*"

634. Respondents rely on the UNIDROIT Principles, arguing that they represent general principles of law, whereas Claimant maintains that the UNIDROIT Principles do not represent general principles of law. However, Claimant does not identify or refer to any other text or instrument that would satisfy the requirement under Article 27.2 (i) of the PSA to apply "*principles of law normally recognized by nations in general, including those which have been applied by International Tribunals*" in respect of Respondents' time-bar defence.

635. Before it answers the question of the applicability of the UNIDROIT Principles in this case, the Arbitral Tribunal notes that Claimant has argued that Respondents' reliance in the SoRTLD on the UNIDROIT Principles is a new argument that should have been put forward before.[86] The Arbitral Tribunal dismisses this argument, given that, by the time Respondents filed their SoDC, the Arbitral Tribunal had not yet determined the applicable substantive law. Moreover, the Arbitral Tribunal reiterates here that Respondents openly stated in their SoDC that, in the absence of commonality among the three applicable national laws on particular

[83] Claimant's PHB, para. 40.
[84] SoDC, chapter IV, sub-section 1.2.
[85] SoDC, para. 138.
[86] SoRjTLD, paras. 64-65.

issues of law, the applicable substantive law in this case would also include the UNIDROIT Principles.[87] Therefore, Respondents' reliance in the SoRTLD on the UNIDROIT Principles should not have come as a surprise to Claimant.

636. As far as the UNIDROIT Principles are concerned, the Arbitral Tribunal agrees with Claimant that they are not necessarily applicable when the choice-of-law provision of a contract refers to general principles of law. The preamble of the UNIDROIT Principles confirms so, by stating that they "*may be applied when the parties have agreed that their contract be governed by general principles of law, the lex mercatoria, or the like.*" This wording is to be compared with the preceding part of the preamble, stating that the UNIDROIT Principles "*shall be applied when the parties have agreed that their contract be governed by them.*" (Exhibit RL-151).

637. The Arbitral Tribunal further refers to the commentary on the UNIDROIT Principles, stating that those principles are "*an expression or evidence of transnational law*" and that they "*assemble and systematize the 'common core' of current global contract law as found in national laws.*" (Exhibits RL-162, para. 18, and RL-163, para. 3). The commentary further states that "*[e]ven if the PICC [UNIDROIT Principles] undoubtedly form a "systematic and well-defined set of rules", they do not necessarily reflect general principles of law*" and that "*Arbitral Tribunals must assess on a case-by-case basis whether a specific provision in the PICC [UNIDROIT Principles] reflects the common core of current global contract law.*" (Exhibit CL-49, p. 87). It also notes that "*[i]n practice though, arbitral tribunals often equate lex mercatoria, general principles and the PICC [UNIDROIT Principles].*" (Exhibit CL-49, p. 87, fn. 32).

638. With respect to the *Hunt* case, the Arbitral Tribunal notes that the agreement in that case had two choice-of-law provisions, the first one providing for "State W law" as the applicable substantive law (Article XXIII) and the other one for "*principles of law common to State W and the United States and in the absence of such common principle, then in conformity with the principles of law normally recognized by civilized nations in general, including those which have been applied by International Tribunals.*" The *Hunt* tribunal took into consideration those principles where "State W law" did not contain any specific rules and it did so by reference to the UNIDROIT Principles. And as for the applicable limitation period, the *Hunt* tribunal applied the five-year limitation period under "State W law," considering that that law established specific rules on prescription. However, it applied the UNIDROIT Principles to determine when that five-year limitation period commenced, considering that "State W law" was not clear on that particular question (Exhibit RL-156, paras. 178-181 and 185-186). It results from the foregoing that the *Hunt* tribunal did consider and apply, where necessary, the UNIDROIT Principles as representative of "*principles of law normally*

[87] SoDC, para. 138.

recognized by civilized nations in general, including those which have been applied by International Tribunals."

639. Additionally, in determining whether the UNIDROIT Principles should be applied or not, the *Hunt* tribunal referred to the following reasoning of the tribunal in ICC case no. 7110 of 1995 (Exhibit RL-156, para. 108):

> *"'The reasons why this Tribunal considers the UNIDROIT Principles to be the central component of the general rules and principles regarding international contractual obligations and enjoying wide international consensus, which constitutes the proper law of the Contracts, are manifold:*
>
> *(1) the UNIDROIT Principles are a restatement of international legal principles applicable to international commercial contracts made by a distinguished group of international experts coming from all prevailing legal systems of the world, without the intervention of States of government, both circumstances rebounding to the high quality and neutrality of the product and its ability to reflect the present stage of consensus on international legal rules and principles governing international contractual obligations in the world, primarily on the basis of their fairness and appropriateness for international commercial transactions falling with their purview;*
> *(2) at the same time, the UNIDROIT Principles are largely inspired [by] an international uniform-law text already enjoying wide international recognition and generally considered as reflecting international trade usages and practices in the field of the international sales of goods, which has already been ratified by almost 40 countries, namely the 1980 Vienna Convention of the International Sale of Goods;*
> *(3) the UNIDROIT Principles are specially adapted to the contracts being the subject of this arbitration, since they cover both international sale of goods and supply of services;*
> *(4) the UNIDROIT Principles (see their preamble) have been specifically conceived to apply to international contracts in instances in which, as it is the case in these proceedings, it has been found that the parties have agreed that their transactions shall be governed by general legal rules and principles; and*
> *(5) rather than vague principles or general guidelines, the UNIDROIT Principles are mostly constituted by clearly enunciated and specific rules coherently organised in a systematic way...."*

640. The above reasoning convinces the present Arbitral Tribunal to apply the UNIDROIT Principles as a source and reference of "*principles of law normally recognized by nations in general, including those which have been applied by International Tribunals.*" In addition, the application of the UNIDROIT Principles by the *Hunt* tribunal and the tribunal in ICC case no. 7110 of 1995 is consistent with the wording of Article 27.2 (i) of the PSA that the general

principles of law "*includ[e] those which have been applied by International Tribunals.*" Claimant's own authority further shows that international arbitral tribunals have considered the application of the UNIDROIT Principles, even if the issue at hand was *lex mercatoria* (Exhibit CL-49, p. 87, fn. 32, reference to ICC cases nos. 9029, 9875 and 10422).

641. In addition, this Arbitral Tribunal is faced with the practical challenge of applying, in the absence of commonality among the three national laws of Yemen, Canada and Lebanon, "*principles of law normally recognized by nations in general, including those which have been applied by International Tribunals.*" The Arbitral Tribunal recalls here that Claimant did not offer any other solution to that practical challenge.

642. With respect to the prescription-related provisions of the UNIDROIT Principles, the commentary to Article 10.2, setting out the three-year and ten-year limitation periods, explains the reasons underlying the two-tier system and how that system should be applied. After stating the obvious that there is no common limitation period to all legal systems, the commentary to Article 10.2 explains how party autonomy and the balance between the conflicting interests of the obligee and the obligor of a dormant claim have been taken into account in establishing the two-tier system (Exhibit RL-151, pp. 347-351).

643. Claimant argues that it would be contrary to Article 27.2 (i) of the PSA to apply the UNIDROIT Principles, as none of the three national laws (Yemeni, Canadian[88] and Lebanese) has an absolute 10-year limitation period, which applies regardless of a claimant's knowledge. However, Article 27.2 (i) of the PSA does not state that the Arbitral Tribunal should not apply general principles of law, in case they appear to be in conflict with one or more of the three national laws. In the Arbitral Tribunal's opinion, the bargain that the Parties struck when they agreed on Article 27.2 (i) of the PSA was that, in the absence of commonality among Yemeni, Canadian and Lebanese law, general principles of law would be applied, even if they were not in conformity with one or all three national laws. Moreover, the stated purpose of the absolute 10-year limitation period under the UNIDROIT Principles of ensuring "*the restoration of peace and the prevention of speculative litigation where evidence has faded*" reflects a transnational concern, which is highly relevant for long-term contracts, such as the PSA (Exhibits RL-151, p. 350, RL-160, p. 70, para. 258(d), RL-161, pp. 123-124, and RL-155, pp. 552-558 and 560).

644. Claimant further argues that the absolute 10-year limitation period under the UNIDROIT Principles is contrary to the intention of those principles themselves, as the commentary on Article 10.1 states that "*even in cases in which the Principles are applied as the law governing the contract, domestic mandatory rules on limitation periods prevail over the rules*

[88] With the exception of the Canadian provinces/territories providing for a maximum limitation period, as set out in Annex B to the EXR of Mr. Lindsay. Nova Scotia has recently introduced a maximum 15-year limitation period (TLD hearing transcript, 19 May 2016, Mr. Lindsay at 948:10-18).

laid down in this chapter, provided that they claim application whatever the law governing the contract." (Exhibit CL-53). The Arbitral Tribunal notes in this respect that Claimant has not identified any mandatory rules on limitation periods under any of the three national laws. It has only referred to some Yemeni and Canadian statutes, pursuant to which environmental damage claims cannot be time-barred. Even if these statutes are considered mandatory rules on limitation periods, which Claimant has not argued, Claimant has not explained how and on which basis they can exclude the general application of the prescription-related provisions of the UNIDROIT Principles in this case.

645. Moreover, Claimant points out that the UNIDROIT Principles were not introduced until 2004, some 18 years after the PSA was concluded and thus, the Parties could never have anticipated their application at the time of concluding the PSA. However, the Arbitral Tribunal reiterates here that this is the bargain that the Parties struck when they agreed under Article 27.2 (i) of the PSA to apply "*principles of law normally recognized by nations in general, including those which have been applied by International Tribunals,*" in case there were no "*principles of law common to the PDRY, Canada and Lebanon.*" Naturally, the content of general principles of law has not remained static, but has evolved over the last 30 years.

646. With respect to Claimant's good faith arguments, the Arbitral Tribunal agrees that, under Article 27.2 (i) of the PSA, it also needs to take into consideration the principles of good will and good faith. However, despite the importance of the principle of good faith in interpreting a legal provision or assessing a party's conduct, that principle cannot create or add requirements that are not otherwise provided for in the legal provisions. In particular, Claimant has not established how and on which basis the good faith requirement can trump the terms of Article 27.2 (i) of the PSA, providing for the application of general principles of law, which, in this case, lead to the application of the prescription-related provisions of the UNIDROIT Principles.

647. The Arbitral Tribunal considers, for the above reasons, that the UNIDROIT Principles and, in particular, their Article 10.2, should be applied as a source and reference of "*principles of law normally recognized by nations in general, including those which have been applied by International Tribunals*" in respect of Respondents' time-bar defence.

C. Limitation periods and knowledge test under the UNIDROIT Principles

648. Article 10.2 of the UNIDROIT Principles reads as follows (Exhibit RL-151, p. 346):

"*(1) The general limitation period is three years beginning on the day after the day the obligee knows or ought to know the facts as a result of which the obligee's right can be exercised.*

(2) In any event, the maximum limitation period is ten years beginning on the day after the day the right can be exercised."

649. Based on the commentary of the UNIDROIT Principles and the findings of the *Hunt* tribunal, Respondents argue that actual or imputed knowledge by a claimant of the facts underlying its claims is sufficient to meet the knowledge test that should be applied in this case. In addition, they reject Claimant's knowledge test, requiring knowledge not only of the facts underlying its claims but also of the technical and legal consequences of said facts, as it is highly subjective, it is not supported by the UNIDROIT Principles and it would deprive limitation periods of any practical meaning or effect.[89]

650. By contrast, Claimant argues that the Arbitral Tribunal should apply a latent defect/discoverability test, which requires that a breach be apparent and detectable by reasonable means. Claimant points out that this test is in agreement with Respondents' test, as argued at the procedural hearing, that a claimant has knowledge only when it is in a position to challenge what the defendant has done.[90] Furthermore, Claimant points out that the Arbitral Tribunal should apply that latent defect/discoverability test because it is recognized under all three laws of Yemen, Canada and Lebanon and the UNIDROIT Principles and because it gives effect to the good faith requirement under Article 27.2 (i) of the PSA.[91]

651. As a preliminary remark, the Arbitral Tribunal notes that the question of knowledge is related to the applicable limitation period and that the former cannot be artificially distinguished from the latter. Considering the Arbitral Tribunal's above finding that, in view of the lack of commonality among the three national laws of Yemen, Canada and Lebanon on the issue of time-bar, the UNIDROIT Principles are applicable to Respondents' time-bar defence, the Arbitral Tribunal fails to follow Claimant's argument that the Arbitral Tribunal should look at the applicable knowledge test under the UNIDROIT Principles only if it concludes that there is no common knowledge test under Yemeni, Canadian and Lebanese law.[92] In the Arbitral Tribunal's opinion, the point of departure remains the UNIDROIT Principles, since the applicable knowledge test is inextricably linked to Respondents' time-bar defence. Therefore, the Arbitral Tribunal has to assess what the applicable knowledge test under the UNIDROIT Principles is.

652. The Arbitral Tribunal also notes that Claimant has not established how and on which basis the good faith principle can alter or add requirements to the applicable knowledge test under the UNIDROIT Principles. As a result, Claimant's good faith allegations with respect to the applicable knowledge test under the UNIDROIT Principles are difficult to follow.

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[89] Respondents' PHB, paras. 13-27.
[90] Procedural hearing transcript, 9 June 2015, Mr. Partasides at 90:3-20, 91:16-25, 92:1-25 and at 93:4-16.
[91] Claimant's PHB, paras. 26.2 and 66-94.
[92] Claimant's PHB, para. 87.

653. Going now back to the question of the applicable knowledge test under the UNIDROIT Principles, the Arbitral Tribunal refers to the commentary to Article 10.2 of the UNIDROIT Principles, which states the following in relation to the question of when the three-year and ten-year limitation periods under Article 10.2 of the UNIDROIT Principles commence (Exhibit RL-151, pp. 348-350):

> *"**4. Basic structure of the limitation regime***
> *The two-tier system adopts the policy that the obligee should not be barred before it has had a real possibility to pursue its right as a result of having actual or constructive knowledge of the right. Paragraph (1) therefore provides for a rather short three-year limitation period starting the day after the obligee knows or ought to know the facts on which its right is based and this right can be exercised. Paragraph (2) provides for a ten-year maximum limitation period, commencing at the time when the right can be exercised, regardless of the obligee's actual or constructive knowledge.*
>
> ***5. Right can be exercised***
> *The obligee has a real possibility to exercise its right only if it has become due and can be enforced. Paragraph (2) therefore provides that the maximum limitation period starts only at such date.*
>
> ***6. Knowledge of the facts as distinguished from knowledge of the law***
> *The general three-year limitation period starts the day after the day "the obligee knows or ought to know the facts as a result of which the obligee's right can be exercised". "Facts" within the meaning of this provision are the facts on which the right is based, such as the formation of a contract, the delivery of goods, the undertaking of services, and non-performance. The facts indicating that a right or claim has fallen due must be known or at least knowable by the obligee before the general limitation period starts. [...] Actual or constructive knowledge of "facts", however, does not mean that the obligee must know the legal implications of the facts. If, despite full knowledge of the facts, the obligee is mistaken about its rights, the three-year limitation period may nevertheless start to run.*
>
> ***7. Day of commencement***
> *Since, in the absence of an agreement to the contrary, the obligor can normally perform its obligation in the course of the whole day of the debt's maturity, the limitation period does not start on that same day but only on the following day.*
>
> ***9. Maximum period***
> *Under paragraph (2) the obligee is in any event, i.e. irrespective of whether it knew or ought to have known the facts giving rise to its right, prevented from exercising the right ten years*

after it could have exercised it. The objectives of this maximum period of ten years are the restoration of peace and the prevention of speculative litigation where evidence has faded."

654. The above-quoted paragraphs 6 and 9 of the commentary to Article 10.2 of the UNIDROIT Principles are followed by the following illustrations (Exhibit RL-151, pp. 348-350):

"*Illustrations*

1. A designs and builds a bridge under a contract with county B. A's engineers make a mistake in calculating the strength of some steel girders. Four years later, the bridge collapses due to a combination of the weight of some heavy trucks and a storm. B's claims for damages are not barred, because the general limitation period started only at the time of the collapse, when B was in a position to discover A's breach.

2. The facts are the same as in Illustration 1, except that the bridge collapses eleven years after its construction. B's claims are barred under the maximum limitation period under Article 10.2(2). Parties to such a contract are well advised to adjust the maximum period while remaining within the limits of Article 10.3.

3. A sends B a notice under Article 7.3.2 terminating a sales contract between A and B because B refuses to take delivery of goods tendered by A. Thirty-seven months after receipt of the note of termination, B demands the return of an advance on the purchase price paid prior to the termination, asserting that, due to an error in its bookkeeping, it had overlooked its payment of the advance with the consequence that it had only recently become aware of the claim for restitution it had under Article 7.3.6(1). B's claim for restitution is barred by the three-year limitation period, as B ought to have known of its payment when the contract was terminated and the claim to repay the advance arose.

4. The facts are the same as in Illustration 1, except that B asserts that it had not realised the legal effects of a notice of termination. B's claim for restitution is nevertheless barred. An error of law with regard to the legal effects of a notice of termination cannot absolve the obligee since "ought to know" includes seeking legal advice if the party is uncertain about the legal effects of the circumstances."

655. In light of the foregoing, the Arbitral Tribunal makes the following conclusions with respect to the commencement date of the three-year and ten-year limitation periods under Article 10.2 of the UNIDROIT Principles:

- The three-year limitation period starts on the day following the date on which a claimant knows or ought to know the facts on which a right or a claim is based, including non-performance of a contract, which is relevant for this case, irrespective of the date on which that claimant knows or ought to know the legal implications of the facts giving rise to its right or claim;

- If a claimant does not know or ought to know the facts giving rise to a right or a claim, the three-year limitation period starts on the day following the date on which it was in a position to discover those facts;
- The wording "ought to know" regarding the three-year limitation period includes seeking legal advice if the party is uncertain about the legal effects of the facts giving rise to a right or a claim;
- The ten-year limitation period starts on the day following the date on which a right or a claim has become due and can be enforced, regardless of a claimant's actual or constructive knowledge of the facts giving rise to a right or a claim.

656. The Arbitral Tribunal notes that the approach of the *Hunt* tribunal in ruling on claimant's time-bar defence raised in connection with a counterclaim put forward by the respondent state was similar. In particular, the tribunal rejected the respondent state's knowledge test, according to which the limitation period could not start to run until the damage claimed for had occurred and could be proved and instead examined whether the respondent state knew or ought to know the facts giving rise to the counterclaim regarding claimant's alleged failure to pay personal income taxes for its local and expatriate employees (Exhibit RL-156, paras. 170-186). It is reminded here that the *Hunt* tribunal relied on the UNIDROIT Principles to determine when the applicable five-year limitation period commenced (Exhibit RL-156, paras. 178-181 and 185-186).

657. Claimant argues that in the event that the Arbitral Tribunal concludes that the UNIDROIT Principles apply, the absolute 10-year limitation period should be subject to the exception of fraudulent or willful concealment, which is recognized under Canadian law and reflects the good faith requirement under Article 27.2 (i) of the PSA. According to Claimant, it would be contrary to good faith to allow a party to conceal information about claims knowingly and deliberately so that they become later on time-barred.[93]

658. The Arbitral Tribunal notes in this respect that the prescription-related provisions of the UNIDROIT Principles do not address the issue of fraudulent or willful concealment. This issue is addressed only by certain Canadian statutes, providing for a long-stop limitation period (for example, Exhibits RL-39, Section 15(4)(c) and RL-42, Section 4(1)). In the absence of any provision under the UNIDROIT Principles, addressing the issue of fraudulent or willful concealment, the Arbitral Tribunal fails to see on which basis these specific Canadian statutes, which are not common with Yemeni or Lebanese statutes, can be imported into the prescription-related provisions of the UNIDROIT Principles. Moreover, as explained above, the Arbitral Tribunal disagrees with Claimant's position that the good faith requirement under Article 27.2 (i) of the PSA can create or add requirements that are not

[93] Claimant's PHB, paras. 23, 26.4 and 37.

otherwise provided for in the UNIDROIT Principles. Claimant's position in that respect is totally unsupported.

659. Consequently, the Arbitral Tribunal finds that, the applicable knowledge test, triggering the 3-year limitation period under Article 10.2 of the UNIDROIT Principles consists of whether Claimant knew or ought to know the facts on which its current claims of Respondents' non-performance of their obligations are based. If the answer is in the affirmative, then the Arbitral Tribunal needs to assess when Claimant first knew or ought to know these facts so as to determine when the 3-year limitation period commenced. The question of when Claimant knew or ought to know the legal implications of the facts giving rise to its current claims is not relevant for the application of the 3-year limitation period under Article 10.2 of the UNIDROIT Principles. The Arbitral Tribunal also finds that the 10-year limitation period under Article 10.2 of the UNIDROIT Principles commences as of the day following the date on which Claimant's right or claims became due and could be enforced, regardless of Claimant's actual or constructive knowledge of the facts giving rise to those rights or claims.

660. The issue of whether Claimant knew or ought to know the facts on which its current claims are based and of when Claimant's current claims became due and could be enforced will be determined, as stated hereinabove, on a claim-by-claim basis and after having assessed the value of the evidence produced thus far.

D. Continuing breaches

661. Whereas Respondents accept that a duty can be continuing and that the PSA may contain some continuing duties, they argue that all legal systems and, in particular, leading English jurisprudence, find ways to apply limitation periods to breaches of those continuing duties. In assessing whether an alleged breach of a continuing duty has been time-barred here, the Arbitral Tribunal needs to determine when Claimant knew or was in a position to know of the facts underlying its claim of original breach and whether anything since that original breach has changed in those underlying facts. According to Respondents, Claimant's silence on these questions can only mean that its claims of continuing breaches, like its claims of original breach, have been time-barred a long time ago. As for Claimant's good faith arguments, Respondents point out that good faith works both ways and Claimant cannot be allowed to sit on claims for decades and only bring them forward when it is convenient for it.[94]

662. On the other hand, Claimant argues that all of its current claims are brought forward as claims for breach of continuing duties under the PSA and the duty of good faith. Claimant notes that Respondents accept that the PSA gave rise to continuing obligations and that they have not challenged its continuing duty position, which is supported by Claimant's technical expert.

[94] Respondents' PHB, paras. 28-32 and 37-39.

Therefore, the Arbitral Tribunal should limit its assessment at this stage to the question of whether claims that are only alleged to have accrued at the time of the PSA's expiry on 17 December 2011 are time-barred under any applicable limitation period, considering that the Standstill Agreement, which interrupted the running of the applicable limitation period, was concluded on 22 March 2013. The answer to that question is obviously no.[95]

663. The Arbitral Tribunal notes in the first place that Claimant has not contested Respondents' position that only the laws of Canada and Lebanon recognize the concept of a continuing breach, whereas Yemeni law does not follow suit, with the exception of some specific laws.[96] Therefore, in the absence of commonality among the three national laws, the Arbitral Tribunal has to apply the "*principles of law normally recognized by nations in general, including those which have been applied by International Tribunals*" on the issue of continuing breach in accordance with Article 27.2 (i) of the PSA.

664. The Arbitral Tribunal notes in this respect that Respondents have relied on the International Law Commission's Articles on the Responsibility of States for Internationally Wrongful Acts, Article 14(1) of which states that "*[t]he breach of an international obligation by an act of a State not having a continuing character occurs at the moment when the act is performed, even if its effects continue.*" (Exhibit RL-1). The Commentary on Article 14(1) further states that, "*[a]n act does not have a continuing character merely because its effects or consequences extend in time. It must be the wrongful act as such which continues. In many cases of internationally wrongful acts, their consequences may be prolonged. The pain and suffering caused by earlier acts of torture or the economic effects of the expropriation of property continue even though the torture has ceased or title to the property has passed. Such consequences are the subject of the secondary obligations of reparation, including restitution, as required by Part Two of the articles. The prolongation of such effects will be relevant, for example, in determining the amount of compensation payable. They do not, however, entail that the breach itself is a continuing one.*" (Exhibit RL-152, p. 60, para. 6).

665. This distinction between the act itself and its effects has been upheld by prominent scholars, commenting on what became later on Article 14(1) of the International Law Commission's Articles on the Responsibility of States for Internationally Wrongful Acts (Exhibit RL-19, pp. 253-256). These scholars also specify that, in distinguishing between instantaneous and continuing breaches, the inquiry of international tribunals primarily focuses on the continuing nature of the act in question, where the completion of the act complained of leads to equating continuing acts to instantaneous acts (Exhibit RL-19, pp. 258-265).

[95] Claimant's PHB, paras. 46-60.

[96] SoDC, para. 143; EXR of Mr. Luqman, paras. 73-75; SoRTLD, para. 128; SoRjTLD, para. 85.2; TLD hearing transcript, 19 May 2016, Ms. Sabben-Clare, Mr. Luqman, Mr. Partasides and the President at 926:16 until 929:20.

666. Moreover, Respondents have also relied on the findings of the Permanent Court of International Justice in the case of *Phosphates in Morocco*, where Italy argued that, since the deprivation of the phosphate-related licenses was of a continuing nature, the acts of the Moroccan Department of Mines constituted a continuing illegal act and thus, the court had temporal jurisdiction over its claim. The predecessor of the ICJ dismissed Italy's continuing breach arguments and held that the original decision of the Moroccan authorities constituted the breaching act, focusing on the nature of that original illegal act and distinguishing it from its consequences (Exhibit RL-157, pp. 19-20 and 23).

667. The Parties have further referred to US and English court judgments, given that these two legal systems have a well-developed case law on the issue of continuing breach.

668. On the one hand, Respondents argue that English courts, like international courts and tribunals, focus primarily on the original breaching act itself, rather than on the ongoing failure to remedy that breach. In particular, in *Green v Eadie and others*, the English High Court held that, even though the contractual duty in that case was a continuous one, it was the initial breach of that duty that mattered for time-bar purposes, irrespective of the fact that that breach remained remediable for many years, noting that the failure of the obligor to remedy its breach did not constitute a new breach (Exhibit RL-169, paras. 58-64). Similarly, in *Integral Memory plc v Haines Watts*, the English High Court held that the presence of a continuing duty did not automatically entail the presence of a continuing breach. It also held that a failure to remedy an existing breach, stemming from a continuous contractual duty, is not a further breach, given that the facts that gave rise to the original breach had not changed. Accordingly, it concluded that the claim for breach of contractual duty, even if it stems from a continuous duty, was time-barred (Exhibit RL-172, paras. 19-27).

669. On the other hand, Claimant has referred to several US and English court judgments to support its position that continuing duties can give rise to continuing breaches, which cannot be time-barred (Exhibits CL-23 – CL-25, CL-27, CL-56, CL-58 – CL-59).

670. In *Perenco Ecuador Limited v Republic of Ecuador*, the ICSID tribunal dismissed claimant's time-bar defence with respect to respondent's environmental counterclaim on the basis of "*the peremptory wording of Article 396 [of the Ecuadorian Constitution],*" which provides, among others, that "*[t]he legal proceedings to prosecute and punish those responsible for environmental damages shall be imprescriptible.*" Most importantly, the ICSID tribunal did not uphold respondent's "continuing torts" theory under Ecuadorian law (Exhibit CL-23, pp. 21-22, 38, 55-56, 58 and 114-116).

671. In *USA v Advance Machine Company*, the application of the limitation period in question related to a specific provision of the Consumer Product Safety Act, which imposed on manufacturers a continuing duty to inform the Consumer Product Safety Commission of

potential product defects. The court concluded that the action was filed within the applicable limitation period, considering that the Consumer Product Safety Commission had not been adequately informed of the defect in question (Exhibit CL-24, pp. 5-7).

672. In *Sierra Club v Simkins*, Claimant points out that the US court held the defendant liable in respect of continuing breaches of obligations arising under the applicable Clean Water Act (Exhibit CL-25, pp. 6-7).

673. In *Grefer v Alpha Technical*, the Court of Appeal for the State of Louisiana (4th circuit) decided on Exxon's failure to investigate whether a site had been contaminated with NORM, issue warnings and remove that hazard. The Court found Exxon's conduct as "*wanton and reckless*," as it failed to notify of the NORM hazard immediately after it discovered NORM (Exhibit CL-27, pp. 9-14).

674. In *Oxford Architects Partnership v Cheltenham Ladies College*, the English Technology and Construction Court held that a continuing duty and the date on which the claim, arising from a breach of that duty, first accrued should not be confused. It also held that a continuing duty does not give rise to a single and continually accruing claim, noting that a different claim accrues at various stages (Exhibit CL-56, paras. 28-29).

675. In *Kellie v. Wheatley & Lloyd*, the English Technology and Construction Court held that the existence of a continuing duty has to be assessed on the basis of the particular facts of each case and refused to apply the applicable limitation period, in the presence of a continuing duty that had not been complied with (Exhibit CL-58, paras. 105-110).

676. In *Quayle v. Rothman Pantall & Co*, the English High Court upheld claimant's argument that there was a continuing duty that had a prospect of success in the sense that defendant's limitation period defence would not eliminate it (Exhibit CL-59, paras. 25-32).

677. In light of the foregoing, the Arbitral Tribunal finds that Claimant's authorities do not contradict Respondents' position that a breach of a continuing duty does not automatically give rise to a continuing breach and is not automatically impervious to time-bar defences. In fact, they support Respondents' position that adequate knowledge of the breach in question plays an important role in applying a limitation period, even if the breach is related to a continuing duty. In any event, most of Claimant's authorities turn on their own specific facts and applicable statutes and first ascertain the nature of the claim raised, which is in agreement with the Arbitral Tribunal's approach to decide on Respondents' time-bar defence on a claim-by-claim basis.

678. Consequently, the Arbitral Tribunal finds that it first has to focus on the nature of the allegedly breaching act and determine whether the breach of even a continuous contractual

duty can give rise to a continuing breach so that the limitation periods under the UNIDROIT Principles cannot defeat Claimant's current claims. The Arbitral Tribunal will do so after taking into account the distinction between the initial wrongful act and its effects or consequences in accordance with the International Law Commission's Articles on the Responsibility of States for Internationally Wrongful Acts and after determining on a claim-by-claim basis whether the evidence produced thus far allows it to apply Respondents' time-bar defence.

E. Claims for breach at the time of handover

679. Claimant argues that all of its current claims are brought forward as claims for breach arising at the time of Block 14's handover. This argument reflects Claimant's constant complaint in this arbitration that it did not receive what it should have received upon the PSA's expiry on 17 December 2011. According to Claimant, Respondents failed to abide by their obligation to keep all materials, equipment and facilities in optimal working order and to handover Block 14 in good working order, subject to ordinary wear and tear. Given that the PSA expired on 17 December 2011 and that the Standstill Agreement was concluded on 22 March 2013, none of Claimant's current claims is time-barred under any applicable limitation period.[97]

680. Respondents maintain that Claimant's claims for breach arising at the time of Block 14's handover lack any clear contractual basis, are solely based on Claimant's expert and have been raised only to circumvent any reasonable application of the limitation periods to its aged original breach claims.[98]

681. The Arbitral Tribunal notes that Claimant has not identified any principles of law common to the laws of Yemen, Canada and Lebanon in respect of the meaning and effect of its handover claims. Claimant has also not referred to any "*principles of law normally recognized by nations in general, including those which have been applied by International Tribunals*" to support its handover claims allegations.

682. Claimant solely relies on *Oxford Architects Partnership v Cheltenham Ladies College* and *Leicester Wholesale Fruit Market Limited v Grundy* to establish that, where a project involves a handover of facilities constructed by one of the parties, there will be breaches at the time of the handover if the quality of the construction is deficient (Exhibits CL-56 and CL-57). The Arbitral Tribunal fails to see where exactly these two court judgments spell out any general theory of resuscitating previous breaches and converting them into entirely new breaches at the time of handover of facilities. In any event, the Arbitral Tribunal finds that these two

[97] Claimant's PHB, paras. 48-51 and 53.3.
[98] Respondents' PHB, paras. 33-39.

judgments turn on their own specific facts and applicable statutes and focus on the nature of the claims raised therein.

683. Moreover, the Arbitral Tribunal notes that Claimant's position on the applicable contractual basis supporting its handover claims is far from consistent.

684. In its SoC,[99] Claimant seemed to rely, among other, on Articles 8.2 (i) and 18.1 (b) of the PSA, to support its handover claims allegations. Those provisions read as follows:

> "*[O]n termination or cancellation of this Agreement [Respondents shall] plug all wells and clear the Contract Area of all buildings, facilities, installations and debris within the time frame and to the extent required by MINISTRY or, if MINISTRY so agrees in writing, deposit with MINISTRY a mutually agreed sum of money for MINISTRY to carry out such work.*"

and

> "*Title to fixed and movable assets shall by virtue of this provision transfer gradually from CONTRACTOR to MINISTRY at the end of each year in the percentage that the cost of the particular asset is recovered by CONTRACTOR pursuant to Section IX during such year. If not already vested in MINISTRY, full title to all such assets shall transfer from CONTRACTOR to MINISTRY at the time of termination of this Agreement, with all such assets being in good working order, normal wear and tear accepted. The Book Value of the Assets acquired or created during each Calendar Year shall be communicated by CONTRACTOR to MINISTRY within sixty (60) days after the end of such year.*"

685. In its SoDTLD,[100] Claimant vaguely referred to its SoC and stated in relation to its abandonment-related claims that Article 8.2 (i) of the PSA imposed an obligation that only arose upon expiry of the PSA. In its SoRjTLD,[101] Claimant relied once again on Article 8.2 (i) of the PSA, arguing that that provision covered its environmental reclamation and abandonment claims arising upon Block 14's handover.

686. In its oral closing arguments,[102] Claimant specified that its handover claims are separate from its claims for breaches of continuing duties and abandonment-related claims and that they are based on Article 8.1 of the PSA, which imposes compliance with Good Oilfield Practice and requires that "*all materials, equipment and facilities [...] are kept in optimal working order.*" In relation to Good Oilfield Practice and the handover of Block 14, Claimant's expert has

[99] SoC, paras. 121-133.
[100] SoDTLD, paras. 82-86.
[101] SoRjTLD, para. 86.
[102] TLD hearing transcript, 19 May 2016, Mr. President, Ms. Sabben-Clare, Mr. Pryles and Mr. Craig at 1019:11 until 1022:8.

asserted that "*[i]n terms of the wells, plant and machinery, production and transportation facilities, GOP [Good Oilfield Practice] would dictate that all equipment should be handed over in good working order, or with at least an explicit and agreed plan in place to achieve this objective.*" (EXR of Mr. Jewell, para. 32). In its PHB,[103] Claimant relies once again on Article 18.1 (b) of the PSA and on Article 8.1 of the PSA and Good Oilfield Practice for purposes of its handover claims.

687. In the Arbitral Tribunal's opinion, neither the above-mentioned contractual provisions nor Claimant's expert's evidence can support Claimant's handover claims theory. Articles 8.1, 8.2 (i) and 18.1 (b) of the PSA do not state, whether explicitly or implicitly, that any breach committed by Respondents during the life of the PSA would be resuscitated as a new breach upon that agreement's expiry. Claimant has not contested Respondents' argument that Article 18.1(b) of the PSA applies only to facilities and equipment that had not been cost recovered by the time of the PSA's expiry, whereas the vast majority of facilities and equipment had been cost recovered. In addition, Claimant's expert does not argue that all of Respondents' alleged breaches of their continuing duty to keep "*all materials, equipment and* facilities" in "*good working order*" in accordance with Good Oilfield Practice were reborn as new breaches on the day of Block 14's handover.

688. Consequently, the Arbitral Tribunal agrees with Respondents' position that Claimant's handover claims theory is vague and lacks any contractual basis. This is without prejudice to the Arbitral Tribunal's decision hereinabove to first assess the nature of the alleged breach and determine whether the limitation periods under the UNIDROIT Principles can be applied, even in the presence of a continuous contractual duty. However, to the extent that Claimant's handover claims are based on Article 8.2 (i) of the PSA, the Arbitral Tribunal already points out that Respondents' abandonment-related obligations thereunder have been settled through Clause 9 of the Settlement Agreement.

F. Yemeni Environment Protection Law claims

689. The Arbitral Tribunal notes that Claimant referred at the TLD hearing to the Yemeni Environment Protection Law No. 26 of 1995 (Exhibit CL-4), Article 80 of which provides that "*[e]xcluding the general rules; the cause that may arise as a result of the activities that harm the environment, shall not be barred with the elapse of specified period in the law.*"[104] Moreover, Respondents' expert on Yemeni law confirmed at the TLD hearing that there are no limitation periods under the Yemeni Environment Protection Law No. 26 of 1995.[105]

[103] Claimant's PHB, para. 53.3.
[104] TLD hearing transcript, 16 May 2016, Ms. Sabben-Clare at 160:17-25 and at 161:1-5.
[105] EXR of Mr. Al-Maqtari, paras. 54-56; TLD hearing transcript, 19 May 2016, Ms. Sabben-Clare, Mr. Luqman, Mr. Partasides and the President at 926:16 until 930:12.

690. The Arbitral Tribunal finds that Claimant's position on the Yemeni Environment Protection Law No. 26 of 1995 has been far from clear throughout this arbitration. More specifically:

- In the Request,[106] Claimant states that Respondents acted in breach of also that Yemeni statute and bases its general request for relief and specific request for relief regarding third-party claims on that Yemeni Statute;
- In the Reply,[107] Claimant does not make a single reference to that Yemeni statute;
- In the SoC,[108] Claimant does refer to that Yemeni statute in relation to its "other environmental claims," which did not include the well design and drilling claims, the well abandonment claims, the facilities and equipment claims, the documentation and data claim and the SAP claim, explaining that Respondents had to comply with that Yemeni statute by virtue of Articles 22.1 and 22.3 of the PSA and Good Oilfield Practice. Moreover, Claimant refers to Respondents' specific duties under that Yemeni statute in relation to its EIA claim and third-party claims and bases its specific request for relief regarding its third-party claims on that Yemeni Statute;
- In the SoDTLD, Claimant does not make a single reference to that Yemeni statute, despite the fact that, in the SoDC,[109] Respondents set out their position on their time-bar defence and contend that Claimant's third-party claims under that Yemeni statute fall outside the scope of this arbitration as they do not arise in connection with the PSA;
- In the SoRjTLD, Claimant also does not make a single reference to that Yemeni statute, despite the fact that, in the SoRTLD, Respondents contend that the limitation periods under Article 10.2 of the UNIDROIT Principles should be applied to Claimant's claims; and
- In its PHB,[110] Claimant makes repeated references to that Yemeni statute to support its argument that its claims for breach of that Yemeni Statute cannot be time-barred.

691. In any event, the Arbitral Tribunal finds that Claimant's reliance on Article 80 of the Yemeni Environment Protection Law No. 26 of 1995 in respect of Respondents' time-bar defence is unavailing, considering that the Arbitral Tribunal has determined hereinabove that, given the lack of commonality among the three national laws of Yemen, Canada and Lebanon on the issue of time-bar, the applicable law to Respondents' time-bar defence is the UNIDROIT Principles. Claimant has not even attempted to establish how and on which basis Article 80 of the Yemeni Environment Protection Law No. 26 of 1995 can modify or trump the terms of Article 27.2 (i) of the PSA, requiring the Arbitral Tribunal to apply "*principles of law normally recognized by nations in general, including those which have been applied by International Tribunals,*" in the absence of commonality among Yemeni, Canadian and

[106] Request, paras. 42, 118 and 122(5).
[107] Reply, paras. 23-30.
[108] SoC, paras. 251-260, 262, 318 and 379(11).
[109] SoDC, paras. 140-147 and 587.
[110] Claimant's PHB, paras. 7.3, 7.4.5, 22.4, 26.6.1, 38.3 and 44.

Lebanese law. Moreover, Claimant has not established how and on which basis Article 80 of the Yemeni Environment Protection Law No. 26 of 1995 can prevail over Article 10.2 of the UNIDROIT Principles.

692. Consequently, the Arbitral Tribunal finds that Article 80 of the Yemeni Environment Protection Law No. 26 of 1995 does not have any impact on Respondents' time-bar defence.

Sub-section 2. Application of the time-bar defence to Claimant's claims

693. As explained above, the Arbitral Tribunal will proceed to determine on a claim-by-claim basis whether the limitation periods under Article 10.2 of the UNIDROIT Principles can be applied to Claimant's current claims and, most importantly, when each of the limitation periods started running. At this juncture, it should be reminded that, for purposes of the current phase of this arbitration, Respondents accept that all of Claimant's allegations of breaches are correct. However, Respondents do not waive their defences to the underlying merits of Claimant's current claims.[111] Thus, the Arbitral Tribunal will also assume that Claimant's breach allegations have been successfully established only in order to apply Respondents' time-bar defence to Claimant's claims.

694. The Parties are in agreement[112] that the following claims of Claimant are potentially subject to Respondents' time-bar defence: (i) inadequately cemented wells claims (SoC, paras. 146-207), (ii) well abandonment claims (SoC, paras. 208-213 and 243-250), (iii) use of crude oil and other additives in water-based drilling fluids claims (SoC, paras. 214-223), (iv) LOTs and FITs claims (SoC, paras. 224-227), (v) VPS design claims (SoC, paras. 228-232), (vi) well cellars claims (SoC, paras. 233-236), (vii) NORM claims (SoC, paras. 237-241 and 266-280), (viii) injection of produced water into the Harshiyat claim (SoC, para. 242), (ix) EIA claim (SoC, paras. 261-265), (x) groundwater contamination claims (SoC, paras. 281-286), (xi) waste management claims (SoC, paras. 287-303) and (xii) seismic misfires claim (SoC, paras. 312-317).

695. Consequently, the Arbitral Tribunal will now proceed to address them in turn.

A. Inadequately cemented wells claims

(i) Introduction and Claimant's receipt-related objections

696. According to Claimant, Respondents' well designs GDP1 and GDP2 that were used until mid-2001 and their inadequately implemented subsequent well designs breached Articles 8.1 and

[111] SoRTLD, paras. 21 and 197.
[112] SoDTLD, paras. 112-132; Updated TLD Schedule.

8.2 of the PSA because the wells affected were not cemented over the full length of the 9 5/8" production casing, thereby failing to isolate and protect against pollution the Mukalla and Harshiyat aquifers (EXR of Mr. Sands, paras. 77-97). Claimant further alleges that Respondents breached their duty of good faith and good will, by failing to disclose to Claimant their non-compliance with applicable cementing standards and related corrosion issues. Under this head of claim, Claimant seeks as repair costs for 208 wells US$ 272.5 million, as costs for fitting 374 wells with downhole production packers US$ 101,728,000 and as costs of lost water approximately US$ 32 million to US$ 73 million that are increased annually at a rate of US$ 2 million to US$ 4.5 million. In the alternative, Claimant brings forward its inadequate cementing claim as also a claim for breach of duty upon the PSA's expiry and claims the cost of proper abandonment of the wells under Article 8.2 (i) of the PSA (SoC, paras. 185-213). Under this alternative head of claim, Claimant seeks US$ 124,480,000 for abandonment costs of the inadequately designed and constructed wells.

697. With respect to Claimant's first well design claims, Respondents assert that they are time-barred in accordance with the three-year and ten-year limitation period under Article 10.2 of the UNIDROIT Principles. In addition, Respondents argue that Claimant's inadequately cemented wells claims are time-barred as well in accordance with the three-year and ten-year limitation period under Article 10.2 of the UNIDROIT Principles, except for the claim in respect of one inadequately cemented well that was drilled on Block 14 after 22 March 2010.[113]

698. With respect to Claimant's alternative claim for the increased abandonment costs of the inadequately cemented wells under Article 8.2 (i) of the PSA, the Arbitral Tribunal has decided hereinabove that any abandonment-related claims of Claimant have been settled through Clause 9 of the Settlement Agreement. Therefore, the Arbitral Tribunal does not need to determine whether Claimant's claim of US$ 124,480,000 related to the abandonment costs of 311 inadequately cemented wells is time-barred in accordance with the limitation periods under Article 10.2 of the UNIDROIT Principles (EXR of Mr. Sands, para. 139). As a result, the Arbitral Tribunal will not assess the Parties' evidence on Claimant's knowledge of the facts underlying its alternative claim under Article 8.2 (i) of the PSA for the increased abandonment costs of the inadequately cemented wells.

699. Before it assesses the Parties' arguments and evidence regarding Claimant's knowledge of its first well design claims and inadequately cemented wells claims, the Arbitral Tribunal needs to address first and foremost Claimant's receipt-related allegations, which Claimant argues that they apply to all of its claims.[114]

[113] Updated TLD Schedule, Claim No. 1.
[114] Claimant's PHB, para. 142.

700. The Arbitral Tribunal notes in the first place the testimony at the TLD hearing that Respondents had to through a formal process so as to deliver documents to Claimant, where documents were hand-delivered to PEPA's offices and the PEPA personnel would often sign and stamp every document received.[115] The Arbitral Tribunal also notes that, based on the lack of signature and stamp by Claimant or PEPA, Mr. Al Humidy repeatedly denied at the TLD hearing that Claimant or PEPA had contemporaneously received documents from Respondents, which now relate to several of Claimant's current claims.[116] Mr. Al Humidy went as far as to say at the TLD hearing that there was an internal stamp used within PEPA that was not an official stamp, although it confirmed receipt of the document by Claimant.[117]

701. First, the Arbitral Tribunal understands that developing countries might have particular ways of delivering and receiving documents, especially at a time when information and communications technology was not as advanced as it is today. However, Claimant's formal process of receiving documents by hand-delivery and of signing and stamping every document received remains highly impractical.[118] Moreover, it puts Respondents in a nearly impossible position, considering that many of the documents, whose receipt is now contested by Claimant, concern the period of the early 1990s, noting that a civil war was ongoing in 1994, and that many of the transmittal letters that recorded the delivery of documents from Respondent 1's Yemen offices to PEPA were stored at Respondent 1's Sana'a office, where they were left at the expiry of the PSA's term.[119]

702. The Arbitral Tribunal further notes that, contrary to Mr. Al Humidy's continuous receipt-related objections, Mr. Bahumaish was taken to several documents during his cross-examination at the TLD hearing, including documents that do not bear Claimant's or PEPA's signature or stamp, and he did not allege even once that Claimant or PEPA did not contemporaneously receive documents from Respondents because the documents in question were not signed or stamped.

703. Most importantly, the Arbitral Tribunal notes that Mr. Al Humidy's repeated receipt-related objections are contradicted by its own testimony at the TLD hearing that Claimant or PEPA contemporaneously received documents that are not signed and stamped. For example, Mr. Al Humidy testified that he contemporaneously saw the well plan dated 5 May 1997 with respect to a well called Tawila 15 (Exhibit C-196, Tab 19).[120] The cover letter of that well plan

[115] TLD hearing transcript, 17 May 2016, Ms. Sabben-Clare and Mr. Tracy at 295:7-25 and at 296:1-25; TLD hearing transcript, 19 May 2016, Ms. Sabben-Clare and Mr. Al Humidy at 875:13 until 878:22.
[116] TLD hearing transcript, 18 May 2016 and 19 May 2016, Mr. Al Humidy at 684:21-22, 685:19-21, 693:14-17, 738:13-15, 745:2-5 and 11-13, 749:23-24, 762:21, 764:18-20, 782:4-5, 788:6-8, 789:17-18 and at 842:12-14.
[117] TLD hearing transcript, 19 May 2016, Mr. Partasides and Mr. Al Humidy, Mr. Craig and the President at 841:5 until 847:19.
[118] TLD hearing transcript, 18 May 2016, the President and Mr. Al Humidy at 782:16-23.
[119] SoRTLD, para. 92.
[120] TLD hearing transcript, 18 May 2016, Mr. Partasides and Mr. Al Humidy at 767:4-16.

simply states that "*[c]opies [were] forwarded to PEPB [predecessor of PEPA] and partners,*" but it does not bear any signature or stamp or any other form of receipt acknowledgment by Claimant or PEPA. In addition, Mr. Al Humidy testified that Respondents' presentation dated 1 April 2005, to which he refers in his 2WS, indeed took place in April 2005 and serves as a means of information for Claimant (2WS of Mr. Al Humidy, para. 71, and Exhibit C-261).[121] Once again, that document, which Claimant now describes as a mere presentation, does not bear any signature or stamp by Claimant or PEPA and is not even accompanied by a transmittal letter.

704. Furthermore, the Arbitral Tribunal notes that Mr. Al Humidy's and Claimant's receipt-related position is not consistent with Claimant's position in respect of the Parties' evidence on Respondents' Settlement Agreement defence. In particular, the Parties have referred to several contemporaneous documents that were sent by Respondents to either Claimant or PEPA and, despite not being signed or stamped by Claimant or PEPA, Claimant and Mr. Al Humidy have not raised any receipt-related objections (Exhibits C-304, C-304a, R-26, R-30, R-421, C-288, C-302 and R-285).

705. Consequently, the Arbitral Tribunal is not convinced by Claimant's and Mr. Al Humidy's repeated attempts to deny that Claimant contemporaneously received from Respondents crucial documents on the basis that those documents are not signed or stamped by Claimant or PEPA. In the Arbitral Tribunal's opinion, Claimant and Mr. Al Humidy cannot rely on the above-mentioned formal delivery procedure to deny receipt of Respondents' documents that are not in favor of Claimant's case and at the same time refer to, rely on, and even exhibit unsigned and non-stamped documents sent by Respondents to Claimant or PEPA that are favorable to its case. In any event, the Arbitral Tribunal will discuss below why Claimant's and Mr. Al Humidy's receipt-related objections are not sufficient to prove that Claimant or PEPA was not aware of the facts underlying Claimant's current claims.

(ii) Are Claimant's first well design claims time-barred?

706. With respect to Claimant's first well design claims, the Arbitral Tribunal agrees with Respondents' position that Claimant was aware or ought to be aware of the facts underlying its claims, *i.e.* that Respondents' GDP1, GDP1.1 and GDP2 did not provide for cement across the Mukalla and Harshiyat aquifers, since mid-2001 at the latest.

707. Regarding Respondents' GDP1 dated February 1992, the Arbitral Tribunal notes that it "*was intended to replace the bulk of the individual drilling programs such as were prepared for the first Yemen wells*" and that it sets out Respondents' initial cementing practice, pursuant to

[121] TLD hearing transcript, 18 May 2016, Mr. Partasides and Mr. Al Humidy at 773:12-25 and at 774:1-17.

which the 9 5/8" production casing was not cemented to surface (Exhibit R-12, pp. 30 and 31).

708. Respondents have produced an unsigned and non-stamped letter dated 25 May 1992 (Exhibit R-13), through which Respondents claim that they transmitted GDP1 to Claimant. However, Claimant denies that it contemporaneously received GDP1. It relies on Mr. Al Humidy's 2WS, in which he only refrains from commenting on Respondents' unsigned letter, which, according to him, is a mere draft (2WS of Mr. Al Humidy, para. 109).

709. The Arbitral Tribunal notes that Mr. Al Humidy admitted at the TLD hearing that he had not contacted Mr. Faisal Haitham, the recepient of Respondents' unsigned letter, to verify whether the letter was provided to him. He also testified that there could be a number of reasons, other than Respondents' failure to send GDP1, why Claimant could not locate that document that Respondents claim was sent in 1992.[122] As for Mr. Bahumaish, the Arbitral Tribunal notes that he considered Respondents' contemporaneous transmittal of GDP1 as normal and that he did not raise any receipt-related objections.[123]

710. In the Arbitral Tribunal's opinion, the fact that Claimant could not locate a 1992 document does not necessarily mean that Respondents never sent it. In light of that long lapse of time and of any evidence to the contrary adduced by Claimant, the Arbitral Tribunal is satisfied that the unsigned letter dated 25 May 1992 proves that Respondents did send their GDP1 to PEPA's predecessor in 1992. However, even if that is not the case, the Arbitral Tribunal explains hereinbelow why the non-transmittal of Respondents' GPD1 does not change the Arbitral Tribunal's conclusion on Claimant's knowledge of Respondents' initial cementing practice.

711. As for Respondents' GDP1.1 dated 19 September 1992, the Arbitral Tribunal notes that it "*replace[d] the detailed drilling programs prepared for the first Yemen wells*" and that it also sets out Respondents' initial cementing practice, according to which the 9 5/8" production casing was not cemented to surface (Exhibit R-14, pp. 1, 31 and 32). It also notes that there is no evidence that Respondents ever transmitted GDP1.1 to Claimant or PEPA. However, as shown hereinbelow, the transmittal by Respondents to PEPA of the early well plans drilled pursuant to GDP1.1 should have prompted a request by Claimant or PEPA to receive it.

712. With respect to Respondents' GDP2 dated 20 July 1998, the Arbitral Tribunal notes that it "*replace[d] the General Drilling Program dated September 1992 [i.e. GDP1.1]*" and that it continued to apply Respondents' initial cementing practice of not cementing the 9 5/8" production casing to surface (Exhibit C-196, Tab 14, pp. 3 and 20 of the PDF file). The fact

[122] TLD hearing transcript, 18 May 2016, Mr. Partasides and Mr. Al Humidy at 758:14 until 761:13.
[123] TLD hearing transcript, 18 May 2016, Mr. Partasides and Mr. Bahumaish at 570:8 until 572:19.

that GDP2 clearly shows that the wells were not cemented to surface was confirmed by both Mr. Bahumaish and Mr. Al Humidy at the TLD hearing.[124]

713. In support of their argument that they contemporaneously sent to Claimant their GDP2, Respondents rely on a draft of GDP2, which sets out the same cementing practice as in final GDP2 and the cover sheet of which is dated 20 December 1997 and lists PEPA's predecessor as a recipient (Exhibit R-385, pp. 1 and 37). Respondents also rely on the minutes of a May 2001 meeting, where PEPA's Drilling Operations Manager and Drilling Cost Manager were provided with a copy of the then current GDP, which, given the date of the meeting, would have been GDP2 (Exhibit R-403, pp. 3-4). Moreover, the minutes of the 26 May-1 June 2001 meetings show that both Mr. Thabet Abbas and Mr. Khaled Bahumaish inquired about the change of the stratigraphic well design to that of a conventional well, which suggests that they were aware of Respondents' well design at that time (Exhibits C-83 and R-403, p. 2).

714. Notwithstanding Respondents' above evidence, Claimant denies that it contemporaneously received GDP2 and states that GDP2 was not signed or stamped by Claimant and that there is no evidence that Claimant contemporaneously received or commented on the minutes of the May 2001 meeting.[125]

715. The Arbitral Tribunal notes that only Mr. Al Humidy was reluctant to admit at the TLD hearing that Claimant contemporaneously received Respondents' GDP2.[126] By contrast, Mr. Bahumaish was taken as well to the minutes of the May 2001 meeting (Exhibit R-403) and he did not deny that the drilling department of PEPA should have received a copy of those minutes, which confirm that PEPA was provided at that time with a copy of "*the Masila General Drilling Program.*"[127] By reference to those meeting minutes, Mr. Bahumaish also confirmed that PEPA was able to make recommendations to Respondents as to how certain wells should be characterized.[128]

716. The Arbitral Tribunal further notes that Respondents have produced a "Tawila 35 (P9-70) Development Well Drilling & Geological Well-Specific Program" dated 14 May 2001, which Claimant has not denied having contemporaneously received and which makes reference to the "*General Drilling Program dated July 20, 1998 [i.e. GPD2],*" pursuant to which that well would be drilled (Exhibit R-402, p. 1). Moreover, that program contains an excerpt of

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[124] TLD hearing transcript, 18 May 2016, Mr. Partasides, Mr. Bahumaish, Ms. Sabben-Clare and the President at 564:12 until 568:8; TLD hearing transcript, 18 May 2016, Mr. Partasides and Mr. Al Humidy at 745:14 until 747:13.

[125] Claimant's PHB, para. 146.1.

[126] TLD hearing transcript, 18 May 2016, Mr. Partasides and Mr. Al Humidy at 747:19 until 751:17 and at 753:5-11.

[127] TLD hearing transcript, 18 May 2016, Mr. Partasides, Mr. Bahumaish, Ms. Sabben-Clare and the President at 559:21 until 564:11.

[128] TLD hearing transcript, 18 May 2016, Mr. Partasides, Mr. Bahumaish and Mr. Pryles at 528:18 until 531:15.

Respondents' GPD2 (Exhibit R-402, pp. 21-22), which should have prompted a request by Claimant or PEPA to receive Respondents' GDP2, had it not already been delivered by Respondents.

717. Considering the above and Claimant's failure to rebut Respondents' evidence in respect of the contemporaneous transmittal of their GDP2 to Claimant or PEPA, the Arbitral Tribunal concludes that Respondents did send their GPD2 to Claimant or PEPA around mid-2001 at the latest.

718. In any event, the Arbitral Tribunal finds that the successful transmittal of Respondents' GDP3 dated 23 November 2001, which is not contested by Claimant, should have triggered a request from PEPA or Claimant to receive GDP2 as well. This is because GDP3 expressly states that it "*replace[s] the General Drilling Program dated July 20, 1998 [i.e. GDP2]*" (Exhibit C-196, Tab 15, p. 5 of the PDF file). Considering Claimant's evidence that it received GDP3 at the end of 2001 further to PEPA's request at recent technical meetings (Exhibit C-196, Tab 15, p. 2 of the PDF file, 2WS of Mr. Al Humidy, para. 107), it is rather surprising that there is no evidence of PEPA or Claimant ever requesting at any subsequent technical meetings a copy of Respondents' GDP2. It seems entirely plausible to the Arbitral Tribunal that Claimant or PEPA should have made such a request, even for record keeping purposes.

719. In addition to having received Respondents' GDP2 in mid-2001 and GDP3 in late 2001, Claimant has admitted receiving a well plan sent on 5 May 1997 that clearly depicted Respondents' initial cementing practice (Exhibits C-196, Tab 19, paras. 7.1.2 and 10.2.1, and R-378).[129] The Arbitral Tribunal notes that that well plan expressly referred to the GDP in force at that time, which was "*the General Drilling Programme dated September 19, 1992 [i.e. GDP1.1]*" (Exhibit C-196, Tab 19, para. 10.1). As indicated above, this was another opportunity for PEPA or Claimant to request a copy of that GDP, given that it now claims that it did not receive GDP1.1 during the PSA's term.

720. Moreover, Respondents have produced as additional evidence three well plans dated 26 November 1996, 6 June 1997 and 20 August 1997 that also make it plain that the 9 5/8" production casing was not cemented to surface (Exhibits R-375, paras. 8.1.2 and 11, R-379, paras. 7.1.2 and 10, and R-29, pp. 15 and 18 of the PDF file). All of these three wells were drilled "*[a]s per the General Drilling Program dated September 19, 1992 [i.e. GPD1.1],*" which should have prompted Claimant's request for a copy of that GDP. Despite Mr. Al Humidy's reluctance to admit that the well plan dated 20 August 1997 was received by PEPA[130] and Claimant's related objections,[131] Claimant's position that the unsigned and non-

[129] TLD hearing transcript, 18 May 2016, Mr. Partasides and Mr. Bahumaish at 573:9 until 579:19; TLD hearing transcript, 18 May 2016, Mr. Partasides, Mr. Al Humidy and Ms. Sabben-Clare at 761:14 until 767:16.
[130] TLD hearing transcript, 18 May 2016, Mr. Partasides and Mr. Al Humidy at 787:21 until 788:8.
[131] Claimant's PHB, para. 146.2.

stamped well plan sent on 5 May 1997 was well received by Claimant, whereas the other well plans were not appears to the Arbitral Tribunal as contradictory. In the absence of any evidence to the contrary, the Arbitral Tribunal is convinced that also the above three well plans were contemporaneously sent by Respondents, thereby informing Claimant or PEPA of Respondents' initial cementing practice.

721. Regarding the issue of corrosion, the Arbitral Tribunal finds that Respondents have successfully demonstrated that Claimant was informed in 2001 that corrosion had been found in the old wells and that cement repairs would be carried out to restore casing integrity.

722. Mr. Tracy explained at the TLD hearing that Respondents discussed with PEPA different repair options following the discovery of corrosion and that the fact that the old wells were not cemented to surface was a contributing factor, but not the only cause of corrosion.[132] Confronted with the question of why Respondents did not immediately inform PEPA of the corrosion issue, given that Respondents became aware of it in February 2001 (Exhibit C-264), Mr. Tracy also explained that Respondents' way of acting was to first identify the problem, quantify it and then agree with Claimant on a way forward based on Respondents' recommendations. In any event, Mr. Tracy was taken to two documents that were distributed to PEPA as well, the first one being a casing corrosion logging and cathodic protection evaluation programme dated 20 August 2000 and the second one being a production engineering weekly report dated 11 March 2001, where the corrosion issue was discussed and Claimant was informed that Respondents were in the process of preparing recommendations in that respect (Exhibits R-392 and R-398, p. 4).[133] Therefore, Claimant's complaint that, whereas they knew about the corrosion issue already in February 2001, Respondents informed Claimant of the same only in November 2001 does not hold water.[134]

723. Regarding the interaction between Respondents' initial well designs and the corrosion issue, although Claimant confirms that it became aware of the corrosion issue through Respondents' 11 November 2001 presentation, it denies that it was aware of the reasons for the corrosion issue and that it had a right to a claim against Respondents (2WS of Mr. Al Humidy, paras. 119 and 120). On top of that, Claimant points out that Respondents presented the corrosion issue as a routine one and not only withheld vital information from Claimant about their breaches caused by their deficient well design, but also misled Claimant about the nature of the corrosion issue (Exhibits C-253, C-255, C-264 , C-265, C-276 and C-248).[135]

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[132] TLD hearing transcript, 17 May 2016, Ms. Sabben-Clare, Mr. Tracy, Mr. Partasides and Mr. Craig at 397:1 until 399:17 and at 483:13 until 486:24.
[133] TLD hearing transcript, 17 May 2016, Ms. Sabben-Clare, Mr. Tracy and Mr. Partasides at 340:16-20, 346:20-25, 347:1-23, 371:6-13, 481:12-25, 482:1-22, 483:13-25 and at 484:1-7.
[134] Claimant's PHB, paras. 107.1 and 113.
[135] Claimant's PHB, para. 146.3.

724. The Arbitral Tribunal notes in the first place that Respondents' 11 November 2001 presentation, which, incidentally, is not signed or stamped by PEPA or Claimant, discussed in detail the corrosion issue and set out Respondents' recommendations for dealing with that issue (Exhibit R-59, pp. 12-15). In setting out the 2001 inspection results, Respondents mentioned that they "*[had] [i]mplemented cementing to surface program for all new wells*" (Exhibit R-59, p. 14).

725. In addition, the Arbitral Tribunal notes that the minutes of the 11 November 2001 meeting, which several PEPA representatives attended, confirm that the corrosion issue was related to Respondents' first well design, pursuant to which the 9 5/8" production casing was not cemented to surface, that only the old wells with corrosion problems would be repaired and that the new wells would be cemented to surface so as to attempt to prevent corrosion. Mr. Tracy testified to that effect at the TLD hearing.[136] In particular, the relevant part of the minutes reads as follows (Exhibit R-405, p. 3):

"***3. Casing Integrity Program:***

a) What sort of corrosion are we talking about?

The corrosion is primarily corrosion on the outside of the casing strings in shallow hole sections where the casing is not cemented in place. This external corrosion involves formation water and electrolytic reaction with the external casing wall.

b) Why do we not see this problem in Marib wells?

It is difficult to compare directly without knowing all the technical specifications of the Marib wells and reservoir fluids.

c) Which options will be chosen to cure and prevent the problem in Masila?

Wells with existing problems will have a 7 5/8" internal casing patch installed. New wells will all have casing cemented to surface and have cathodic protection installed. The general drilling programs will be updated to reflect this change.

d) Why do you need cathodic protection on all wells if you are cementing to surface?

Even when cementing to surface it is not guaranteed that the casing will have a complete sheath of protection as pockets of uncemented casing may remain. Cathodic protection will prevent any corrosion even in these unprotected areas, at a relatively modest cost (some US$30k per well).

e) What does the budget cost include?

The budget cost includes repair of the wells that have problems already identified (4 wells) plus an amount for repairs to additional wells that are expected to be identified during the year.

f) Can PEPA get a copy of the relevant studies that support this work?

Dale Moore will collate the technical information that is available and pass to PEPA for comment."

[136] TLD hearing transcript, 17 May 2016, Mr. Partasides and Mr. Tracy at 485:1 until 488:16.

726. Whereas Mr. Al Humidy was reluctant to admit at the TLD hearing that the minutes of the 11 November 2001 meeting showed that PEPA understood the relationship between the corrosion issue and Respondents' first well design, he conceded that those minutes explained to Claimant how Respondents would deal with the corrosion occurred on "wells with existing problems."[137] As for Mr. Bahumaish, he confirmed at the TLD hearing that the minutes of the 11 November 2001 meeting made clear the relationship between the corrosion issue and Respondents' first well design and that they informed Claimant about the change in the cementing practice as a consequence of the corrosion.[138] Mr. Bahumaish also stated at the TLD hearing that the minutes of the 11 November 2001 meeting was the "*type of document that was sent to PEPA normally*" and that, despite Claimant's knowledge in respect of issues related to wells and corrosion, Claimant was still discussing with Respondents the extension of the PSA's term for a further three years.[139]

727. The Arbitral Tribunal further notes that, in 2001, Respondents were sending to PEPA well workover programs, stating that they would "*[c]onduct a cement squeeze to obtain casing integrity and also to place cement across the Mukalla formation behind the casing*" and that the cathodic protection evaluation system called "ELogI" indicated that the recommended solution of Respondents to deal with corrosion, would "*be sufficient to protect the casing in Masila wells (old cement design).*" (Exhibits R-397, p. 1, and R-407, p. 1). The fact that Claimant knew that cathodic protection was Respondents' recommended and implemented solution is not disputed by Claimant (Exhibits R-61, C-196, Tab 27, R-92, pp. 32-33, and R-110). Moreover, the production engineering weekly report dated 11 March 2001 that Claimant has not denied having received states that, in view of the corrosion issue, "*it was agreed that future injectors would attempt to be cemented fully across Mukalla and Harshyiat formations.*" (Exhibit R-398, p. 4).

728. In light of the foregoing, the Arbitral Tribunal finds that Respondents have successfully established that Claimant was aware or ought to be aware of Respondents' initial practice of not cementing the 9 5/8" production casing to surface since mid-2001 at the latest. Claimant's complaint that it was not aware that that initial cementing practice was in breach of Good Oilfield Practice is unavailing, given that the applicable knowledge test under Article 10.2 of the UNIDROIT Principles focuses on the knowledge of the facts underlying a claim and not of the legal consequences of those facts.

729. Similarly, the Arbitral Tribunal finds that Respondents have successfully established that Claimant was aware or ought to be aware of the relationship between the corrosion issue and

[137] TLD hearing transcript, 18 May 2016, Mr. Partasides, Mr. Al Humidy and Mr. Pryles at 769:7 until 772:24.
[138] TLD hearing transcript, 18 May 2016, Mr. Partasides and Mr. Bahumaish at 589:19 until 593:13.
[139] TLD hearing transcript, 18 May 2016, Ms. Sabben-Clare, Mr. Bahumaish and the President at 641:22-25, 642:5-8 and at 637:14-21.

their initial cementing practice and of Respondents' preferred solution to proceed with cathodic protection, given that cementing to surface was not in and of itself sufficient, since November 2001 at the latest. Claimant's complaint that it was not aware that it had a right to a claim against Respondents in respect of the corrosion occurred on the initial wells is equally unavailing, considering that the applicable knowledge test under Article 10.2 of the UNIDROIT Principles focuses on the knowledge of the facts underlying a claim and not of the legal consequences of those facts.

730. Therefore, considering Claimant's knowledge of the facts underlying its first well design claims since 2001 at the latest, the Arbitral Tribunal finds that the three-year limitation period under Article 10.2 of the UNIDROIT Principles started running as of that year.

731. The fact that Claimant has raised the first well design claims as claims for breach of a continuing duty of Respondents to abide by Articles 8.1 and 8.2 of the PSA, Good Oilfield Practice and good faith, by putting the wells in question into a condition that complied with the applicable cementing requirements and by disclosing to Claimant their failure to meet those requirements and that corrosion occurred due to their breach stemming from their initial well designs, does not have an impact on the Arbitral Tribunal's analysis. As stated in the Commentary on Article 14(1) of the International Law Commission's Articles on the Responsibility of States for Internationally Wrongful Acts, "*[a]n act does not have a continuing character merely because its effects or consequences extend in time. It must be the wrongful act as such which continues.*" (Exhibit RL-152, p. 60, para. 6). Here, Respondents' wrongful act was the drilling of wells, without cementing the 9 5/8" production casing to surface. That act occurred at a specific point in time and, in fact, ended on 6 June 2001, given that the 9 5/8" production casing of wells drilled after 6 June 2011 was cemented to surface (2WS of Mr. Tracy, para. 37(a), and EXR of Mr. Sands, paras. 81-83). The failure to abide by Articles 8.1 and 8.2 of the PSA, Good Oilfield Practice and good faith is only a consequence of the initial wrongful act, which does not lead to the creation of a new breach every day that the initial wrongful act is not remedied.

732. Consequently, the Arbitral Tribunal finds that Claimant's first well design claims are time-barred in accordance with the three-year limitation period under Article 10.2 of the UNIDROIT Principles, considering that Claimant was aware or ought to be aware of Respondents' initial cementing practice since mid-2001 at the latest and of the relationship between the first well design and the corrosion issue since November 2001 at the latest and that the Standstill Agreement that interrupted the running of that limitation period was concluded on 22 March 2013.

733. Moreover, the Arbitral Tribunal finds that Claimant's first well design claims are time-barred also in accordance with the 10-year limitation period under Article 10.2 of the UNIDROIT Principles, considering that it was only up to 6 June 2001 that wells were drilled pursuant to

GDP1, GDP1.1 and GPD2 and that the Standstill Agreement that interrupted the running of that limitation period was concluded on 22 March 2013.

(iii) Are Claimant's inadequately cemented wells claims time-barred?

734. Claimant has also brought forward a claim in respect of a further 105 wells that were drilled by Respondents after 6 June 2001 and that were inadequately cemented, despite having been drilled in accordance with an adequate well design (EXR of Mr. Sands, paras. 81 and 83).

735. The Arbitral Tribunal notes that Respondents assert that Claimant was aware that cementing on post-2001 wells was not 100% effective since June 2003. In particular, Respondents refer to a "2003 PEPA Visit Drilling Technology Review" presentation dated June 2003, in which Respondents explained that cementation was not 100% effective in respect of isolation between the Mukalla and Harshiyat aquifers and of corrosion mitigation (Exhibit R-80, p. 16). Moreover, Respondents contend that they informed Claimant of the effectiveness of cementation through a 3 April 2005 presentation to PEPA. Claimant itself referred to a draft of that presentation that is dated 1 April 2005 (Exhibit C-261 and 2WS of Mr. Al Humidy, para. 71). The relevant part of the 3 April 2005 presentation provides as follows (Exhibit R-116, p. 8):

"***Steps taken to prevent external corrosion from occurring :***

*1) **Cathodic Protection (CP)**: currently 426 wells are under varying degrees of CP system installation.*
*2) **Cementing off Harshiyat and Mukalla aquifers**: Since early 2001, cement has been attempted to be placed across these zones during all production casing primary cement jobs. This represents the cementing of 248 wells to the surface casing, with a success rate of 80%.*
*3) **Pumping Canola Oil in Surface Casing**: Since mid 2004 Canola Oil has been pumped into the annulus of the 9 5/8" casing and the surface casing. This acts as an interface between Oxygen and the Static Water Column. To date, 200 wells have been done (> 3.5 years of age).*
Steps taken to identify location and severity of external corrosion:
*4) **Cement Bond logs and corrosion logs**: Cement bond logs are run in all new wells to locate top of cement. Corrosion (DVRT) logs are run whenever leaks in production casing are detected, as a diagnostic tool. 39 wells have been logged with DVRT logs since 2001."*

736. The Arbitral Tribunal further notes that, after having been referred to Respondents' draft presentation of 1 April 2005, Mr. Al Humidy confirmed at the TLD hearing that Claimant knew as of April 2005 that cementing the post-2001 wells to surface was not 100%

successful, but only 80% successful.[140] Mr. Tracy testified at the TLD hearing that Claimant was aware that Respondents had decided to use canola oil to deal with the subsequent corrosion issue that arose in May 2002 (Exhibit R-81, p. 15, and R-116, p. 8).[141] Mr. Al Humidy confirmed at the TLD hearing that he was aware that there was a second corrosion issue that arose after 2001.[142]

737. In addition, Respondents point out that Claimant, by receiving their cement bond logs, which recorded the height of the cement top, was aware that cementation was not always completely achieved. To this end, Respondents have produced transmittal letters pertaining to cement bond logs that were sent in 1995 and extracts of actual cement bond logs dated December 2000 and September 2003, noting that all of these documents relate to wells that were drilled in accordance with the first well design and adding that cement bond logs for later wells included the same information (2WS of Mr. Tracy, para. 50, Exhibits R-356, R-359, R-394, p. 2, and R-426, p. 2).

738. On the other hand, Claimant contends that, by reviewing Respondents' cement bond logs, which Respondents have not proved that they ever sent to Claimant, it could not have concluded that it had rights to enforce.[143]

739. In light of the foregoing, the Arbitral Tribunal finds that Respondents have successfully established that Claimant was aware or ought to be aware since April 2005 at the latest of Respondents' failure to achieve 100% cementation with respect to the post-2001 wells. Claimant's receipt-related objections are at odds with Mr. Al Humidy's reference in his 2WS and at the TLD hearing to the unsigned and non-stamped draft presentation of Respondents of 1 April 2005 (2WS of Mr. Al Humidy, para. 71). Furthermore, Claimant's complaint that it was not aware that it had rights to enforce on the basis of that Respondents had failed to achieve 100% cementation is unavailing, given that the applicable knowledge test under Article 10.2 of the UNIDROIT Principles focuses on the knowledge of the facts underlying a claim and not of the legal consequences of those facts. Therefore, considering Claimant's relative knowledge since April 2005 at the latest, the Arbitral Tribunal finds that the three-year limitation period under Article 10.2 of the UNIDROIT Principles started running as of that month.

740. The fact that Claimant has raised the inadequately cemented wells claims as claims for breach of a continuing duty of Respondents to abide by Articles 8.1 and 8.2 of the PSA, Good Oilfield Practice and good faith, by keeping the wells in optimal working order and disclosing

[140] TLD hearing transcript, 18 May 2016, Mr. Partasides and Mr. Al Humidy at 773:12-25 and at 774:1-17.
[141] TLD hearing transcript, 17 May 2016, Ms. Sabben-Clare, Mr. Tracy and Mr. Partasides at 403:10 until 408:7 and at 488:17 until 490:5.
[142] TLD hearing transcript, 18 May 2016, Mr. Partasides and Mr. Al Humidy at 772:25 and at 773:1-11.
[143] Claimant's PHB, para. 146.4.

to Claimant their failure to do so, does not have an impact on the Arbitral Tribunal's analysis. As stated in the Commentary on Article 14(1) of the International Law Commission's Articles on the Responsibility of States for Internationally Wrongful Acts, "*[a]n act does not have a continuing character merely because its effects or consequences extend in time. It must be the wrongful act as such which continues.*" (Exhibit RL-152, p. 60, para. 6). Here, Respondents' wrongful act was the drilling of the post-2001 wells, without achieving 100% cementation. That act occurred at a specific point in time and the failure to keep those wells in optimal working order and to inform Claimant of that failure is only a consequence of the initial wrongful act, which does not lead to the creation of a new breach every day that the initial wrongful act is not remedied.

741. Consequently, the Arbitral Tribunal finds that Claimant's inadequately cemented wells claims in respect of all wells drilled prior to 22 March 2010 are time-barred in accordance with the three-year limitation period under Article 10.2 of the UNIDROIT Principles, except in relation to the one inadequately cemented well that was drilled on Block 14 after 22 March 2010,[144] considering that Claimant was aware or ought to be aware of the facts underlying its inadequately cemented wells claims since April 2005 at the latest and that the Standstill Agreement that interrupted the running of that limitation period was concluded on 22 March 2013.

742. Moreover, the Arbitral Tribunal finds that Claimant's inadequately cemented wells claims in respect of all wells drilled prior to 22 March 2003 are time-barred in accordance with the 10-year limitation period under Article 10.2 of the UNIDROIT Principles, considering that those wells were drilled up to 22 March 2003 and that the Standstill Agreement was concluded on 22 March 2013. Given that one inadequately cemented well was drilled after 22 March 2010, Claimant's claims in relation to that well are not time-barred under the 10-year limitation period.

B. Well abandonment claims

743. Under this head of claim, Claimant argues that Respondents breached Article 8.2 (i) of the PSA, by failing to properly abandon or failing to provide funds for the proper abandonment of the following categories of wells: (a) 311 inadequately cemented wells, (b) 323 adequately cemented wells, (c) 5 wells that were permanently abandoned by May 2001 and (d) 3 wells into which NORM-contaminated equipment was disposed in 2011.

744. Considering the Arbitral Tribunal's above finding that all current claims of Claimant related to Respondents' dismantlement, abandonment and reclamation obligations under the PSA have been fully settled pursuant to Clause 9 of the Settlement Agreement, the Arbitral

[144] 2WS of Mr. Tracy, para. 51, fn. 85.

Tribunal does not need to determine whether the following well abandonment claims are time-barred under the applicable limitation periods of the UNIDROIT Principles: (i) the claim of US$ 124,480,000 for abandonment costs of 311 inadequately cemented wells,[145] (ii) the claim of US$ 124,944,000 for abandonment costs of 323 adequately cemented wells,[146] (iii) the claim of US$ 9,060,000 for re-abandoning 5 improperly abandoned wells,[147] and (iv) the claim of US$ 1,309,000 for re-abandoning 3 wells into which NORM-contaminated equipment was disposed.[148] Therefore, the Arbitral Tribunal will not assess the Parties' evidence on Claimant's knowledge of the facts underlying its well abandonment claims.

C. *Use of crude oil and other additives in water-based drilling fluids claims*

745. According to Claimant, Respondents' use of crude oil and five harmful chemicals contained therein in its water-based drilling fluids for a period of over 10 years, that is, between January 1994 and May 2004 (EXR of Mr. Sands, paras. 217-226), and use of five mud additives, the three of them having been used until 2004 and the other two until the PSA's expiry (EXR of Mr. Sands, paras. 227-244), was in breach of Good Oilfield Practice and the duty of good faith. In addition, Respondents' practice of directing used drilling fluids to large mud ponds so that they would be dried out by evaporation means that there is still a potential release of crude oil and other unsuitable mud additives to the environment (EXR of Mr. Sands, para. 245). Claimant has not presented any quantifiable claim for damages under this head of claim.

746. Respondents maintain that Claimant's drilling fluids claims are time-barred in accordance with the three-year and ten-year limitation period under Article 10.2 of the UNIDROIT Principles, except for a claim in respect of the eight wells that were drilled on Block 14 after 22 March 2010.[149]

747. The Arbitral Tribunal notes in the first place that Claimant has narrowed down its drilling fluids claims to the improper use of mud additives, given that Respondents' GDP3, which Mr. Sands acknowledges that it sets out the use of crude oil, was well received by Claimant in November 2001 (EXR of Mr. Sands, para. 217).[150] Moreover, Mr. Al Humidy admitted at the TLD hearing that Claimant's drilling fluids claims were reduced to the improper use of two mud additives, the corrosion inhibitor and biocide, since Claimant was aware of the use of crude oil as of November 2001.[151]

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[145] SoC, paras. 141-142, 185-204, and, in particular, para. 247(1); EXR of Mr. Sands, para. 139.
[146] SoC, paras. 243-250, and, in particular, para. 247(2); EXR of Mr. Sands, para. 270.
[147] SoC, paras. 208-213, and, in particular, para. 247(3); EXR of Mr. Sands, paras. 156-157.
[148] SoC, paras. 237-241, and, in particular, para. 247(3); EXR of Mr. Sands, paras. 161-170.
[149] Updated TLD Schedule, Claim No. 7.
[150] SoDTLD, paras. 118-121.
[151] TLD hearing transcript, 18 May 2016, Mr. Partasides and Mr. Al Humidy at 786:13-25 and at 787:1-16.

748. However, Respondents' GDP3 also specifically included the name, concentration and function of the two mud additives that Claimant now complains of (Exhibit C-196, Tab 15, Section 3.2). This was also confirmed by Mr. Al Humidy at the TLD hearing, whereby he noted that Claimant was not aware that the use of biocide and corrosion inhibitor was harming the environment.[152]

749. It is unnecessary for the Arbitral Tribunal to assess the Parties' remaining evidence on Claimant's knowledge of Respondents' use of mud additives, because it finds that the above evidence is sufficient to establish that Claimant was aware or ought to be aware of the facts underlying its claims in respect of Respondents' improper use of mud additives in its drilling fluids since November 2001.

750. Mr. Al Humidy's complaint that Claimant was not aware that Respondents' use of mud additives was harming the environment and was in breach of Good Oilfield Practice is unavailing, given that the applicable knowledge test under Article 10.2 of the UNIDROIT Principles focuses on the knowledge of the facts underlying a claim and not of the legal consequences of those facts. Therefore, considering that Claimant was aware or ought to be aware of Respondents' use of mud additives since November 2001, the Arbitral Tribunal finds that the three-year limitation period under Article 10.2 of the UNIDROIT Principles started running as of that month.

751. With respect to Respondents' mud-pond practice, the Arbitral Tribunal notes that Mr. Al Humidy acknowledged that, from at least April 2005, PEPA inspectors regularly inspected Respondents' drilling mud ponds (2WS of Mr. Al Humidy, p. 42, fn 1, and Exhibit C-295). Mr. Al Humidy also testified at the TLD hearing that PEPA's inspectors would have noticed those mud ponds, given their size, and would have asked whether they were lined or not.[153] The Arbitral Tribunal further notes that Mr. Bahumaish personally inspected and endorsed Respondents' methods with respect to drilling mud sumps in May 2007 (Exhibit R-145).

752. In the Arbitral Tribunal's opinion, the above evidence establishes that Claimant was aware or ought to be aware of Respondents' unlined mud ponds since April 2005. Claimant's complaint that it was not aware that Respondents' unlined mud ponds were harming the environment and were in breach of Good Oilfield Practice is unavailing, given that the applicable knowledge test under Article 10.2 of the UNIDROIT Principles focuses on the knowledge of the facts underlying a claim and not of the legal consequences of those facts. Therefore, considering that Claimant was aware or ought to be aware of Respondents' unlined mud ponds since April 2005, the Arbitral Tribunal finds that the three-year limitation period under Article 10.2 of the UNIDROIT Principles started running as that month.

[152] TLD hearing transcript, 18 May 2016, Mr. Partasides and Mr. Al Humidy at 791:25 until 793:13.
[153] TLD hearing transcript, 19 May 2016, Mr. Partasides and Mr. Al Humidy at 824:17 until 825:16.

753. The fact that Claimant has raised its drilling fluids claims as claims for breach of a continuing duty to disclose throughout the PSA's term the fact that the use of mud additives and the existence of unlined mud ponds was in breach of Good Oilfield Practice does not have an impact on the Arbitral Tribunal's analysis. As stated in the Commentary on Article 14(1) of the International Law Commission's Articles on the Responsibility of States for Internationally Wrongful Acts, "*[a]n act does not have a continuing character merely because its effects or consequences extend in time. It must be the wrongful act as such which continues.*" (Exhibit RL-152, p. 60, para. 6). Here, the wrongful act of Respondents was the use of mud additives in their drilling fluids, as well as the use of unlined mud ponds. That act occurred at a specific point in time and the failure to disclose to Claimant that that act was in breach of Good Oilfield Practice is only a consequence of the initial wrongful act, which does not lead to the creation of a new breach every day that the initial wrongful act is not remedied.

754. Consequently, the Arbitral Tribunal finds that Claimant's drilling fluids claims are time-barred in accordance with the three-year limitation period under Article 10.2 of the UNIDROIT Principles, except in relation to the eight wells that were drilled on Block 14 after 22 March 2010, considering that Claimant was aware or ought to be aware of the use of mud additives since November 2001 at the latest and of the existence of unlined mud ponds since April 2005 and that the Standstill Agreement that interrupted the running of that limitation period was concluded on 22 March 2013.

755. Moreover, the Arbitral Tribunal finds that Claimant's drilling fluids claims in respect of all wells drilled prior to 22 March 2003 are time-barred in accordance with the 10-year limitation period under Article 10.2 of the UNIDROIT Principles, considering that those wells were drilled up to 22 March 2003 and that the Standstill Agreement was concluded on 22 March 2013. Given that eight wells were drilled on Block 14 after 22 March 2010, Claimant's claims in relation to those wells are not time-barred under the 10-year limitation period.

D. LOTs and FITs claims

756. Claimant contends that Respondents failed to perform LOTs and FITs on wells drilled between 1992 and late 2005 in breach of the PSA and Good Oilfield Practice (EXR of Mr. Sands, para. 132). According to Claimant, this lack of testing does not give rise to any separate or identifiable damage, but increases the well abandonment costs on the affected wells (EXR of Mr. Sands, para. 134).

757. Respondents maintain that Claimant's LOTs and FITs claims are time-barred in accordance with the three-year and ten-year limitation period under Article 10.2 of the UNIDROIT Principles.[154]

758. The Arbitral Tribunal notes in the first place that Claimant has not denied that it was aware of Respondents' practices with respect to LOTs and FITs prior to the expiry of the PSA's term.[155] Claimant argues that it was unaware that it had any grounds for a claim until after the expiry of the PSA. It further contends that it was on Respondents to inform Claimant whether LOTs and FITs tests were necessary or not (2WS of Mr. Al Humidy, paras. 148).

759. In the Arbitral Tribunal's opinion, Respondents have successfully established that the initial references to LOTs and FITs in their GDP1 and GDP1.1 were removed in GDP2 that Claimant received in mid-2001 (Exhibits R-12, p. 14, para. II.A.4, p. 20, para. II.A.3, and p. 26, para. II.A.3, R-14, p. 14, para. II.A.4, p. 21, para. II.A.3, and p. 27, para. II.A.3, C-196, Tab 14, R-385 and R-403). In addition, Mr. Al Humidy testified at the TLD hearing that, by surveying the table of contents of and the actual content of Respondents' GPD3, which Claimant has admitted receiving in November 2001 and which contains "*a very detailed description of the methodology used by the Contractor in its design and its drilling of wells,*" one could confirm that there was no reference to well control/integrity testing (Exhibit C-196, Tab 15).[156]

760. Finally, the Arbitral Tribunal notes that Claimant has not contested Respondents' evidence that FITs were re-introduced in 2006 and that this is reflected in Respondents' GDP6 dated 8 June 2009 that was provided to Claimant at that time (1WS of Mr. Rasmussen, paras. 81 and 106, and Exhibit C-196, Tab 16, pp. 2-3, references to formation integrity test). Furthermore, Claimant remains silent on its LOTs and FITs claims in its PHB.

761. In light of the above, the Arbitral Tribunal finds that the factual evidence already adduced with respect to Claimant's LOTs and FITs claims is sufficient to establish that Claimant was aware or ought to be aware of the facts underlying those claims since November 2001 at the latest. Claimant's complaint that it had no knowledge of whether the LOTs and FITs should have been performed or not is unavailing, given that the applicable knowledge test under Article 10.2 of the UNIDROIT Principles focuses on the knowledge of the facts underlying a claim and not of the legal consequences of those facts. The Arbitral Tribunal notes in this respect that Mr. Al Humidy confirmed at the TLD hearing that Claimant discovered that LOTs and FITs should have been performed by Respondents after the handover of Block 14

[154] Updated TLD Schedule, Claim No. 8.
[155] SoDTLD, paras. 122-123.
[156] TLD hearing transcript, 18 May 2016, Mr. Partasides and Mr. Al Humidy at 791:25 until 792:5 and at 794:22 until 796:25.

thanks to the investigation of Claimant's expert in this arbitration.[157] Therefore, considering that Claimant was aware or ought to be aware of the lack of LOTs and FITs since November 2001 at the latest, the Arbitral Tribunal finds that the three-year limitation period under Article 10.2 of the UNIDROIT Principles started running as that month.

762. The fact that Claimant has raised its LOTs and FITs claims as claims for breach of a continuing duty to disclose the consequences of not performing those tests throughout the PSA's term does not have an impact on the Arbitral Tribunal's analysis. As stated in the Commentary on Article 14(1) of the International Law Commission's Articles on the Responsibility of States for Internationally Wrongful Acts, "*[a]n act does not have a continuing character merely because its effects or consequences extend in time. It must be the wrongful act as such which continues.*" (Exhibit RL-152, p. 60, para. 6). Here, Respondents' wrongful act of not performing LOTs and FITs occurred at a specific point in time, which Claimant admits did not continue after 2005. As for Respondents' failure to disclose the consequences of not performing those tests, the Arbitral Tribunal finds that it is only a consequence of the initial wrongful act, which does not lead to the creation of a new breach every day that the initial wrongful act is not remedied.

763. Consequently, the Arbitral Tribunal finds that Claimant's LOTs and FITs claims are time-barred in accordance with the three-year limitation period under Article 10.2 of the UNIDROIT Principles, considering that Claimant was aware or ought to be aware of the lack of those tests since November 2001 at the latest and that the Standstill Agreement that interrupted the running of that limitation period was concluded on 22 March 2013.

764. Moreover, the Arbitral Tribunal finds that Claimant's LOTs and FITs claims in respect of all wells drilled prior to 22 March 2003 are time-barred in accordance with the 10-year limitation period under Article 10.2 of the UNIDROIT Principles, considering that those wells were drilled up to 22 March 2003 and that the Standstill Agreement was concluded on 22 March 2013.

E. VPS design claims

765. According to Claimant, Respondents' VPS design that used only a single barrier, the 13 3/8" steel casing, to separate the produced water from the Umm Er Radhuma aquifer was in breach of the PSA. Claimant's VPS design claims relate to 42 wells and seek repair costs in the amount of US$ 4,943,000 (EXR of Mr. Sands, paras. 171-183).

766. Respondents maintain that Claimant's VPS design claims are time-barred in accordance with the three-year and ten-year limitation period under Article 10.2 of the UNIDROIT Principles,

[157] TLD hearing transcript, 18 May 2016, Mr. Partasides and Mr. Al Humidy at 798:13-24.

except for a claim in respect of the one VPS well that was drilled on Block 14 after 22 March 2010.[158]

767. The Arbitral Tribunal notes in the first place that Claimant does not contest Respondents' evidence that it was aware of the VPS well design as from 2001 onwards. Claimant contends that it was unaware of the grounds for a claim, as the Parties never discussed the VPS well design and Respondents never disclosed that that design breached Good Oilfield Practice and that it presented an unacceptable corrosion risk (2WS of Mr. Al Humidy, paras. 154-155).[159] In its PHB,[160] Claimant, in addressing only Respondents' waiver/estoppel threshold defence, acknowledges that it had knowledge of the VPS well design, but not of its right to raise a claim in that respect.

768. The Arbitral Tribunal further notes that Mr. Al Humidy was reluctant at the TLD hearing to concede that Respondents' VPS design, which was attached to several documents of Respondents dated 25 November 2001, September 2002 and 5 January 2004 (Exhibits R-406, R-414 and R-429), was contemporaneously communicated to PEPA and that that design showed that only a single metal barrier was used at the bottom of the VPS well, despite the fact that PEPA was either copied on that correspondence or was the one requesting the information contained therein and that the VPS design clearly depicted only one metal barrier at the bottom of the VPS.[161]

769. In any event, Claimant's counsel explained at the TLD hearing that the issue was not whether Claimant received the VPS design, but whether Claimant had knowledge of the grounds for its current claim, an argument that was repeated in Claimant's PHB, which, as indicated above, pertains only to Respondents' waiver/estoppel defence.[162]

770. In light of the above, the Arbitral Tribunal finds that the factual evidence already adduced with respect to Claimant's VPS design claims is sufficient to establish that Claimant was aware or ought to be aware of Respondents' VPS well design that used only a single metal barrier at the bottom of the VPS well since 25 November 2001. Claimant's complaint that it was not aware of its right to raise a claim is unavailing, given that the applicable knowledge test under Article 10.2 of the UNIDROIT Principles focuses on the knowledge of the facts underlying a claim and not of the legal consequences of those facts. Therefore, considering that Claimant was aware or ought to be aware of Respondents' VPS well design since 25

[158] Updated TLD Schedule, Claim No. 9.
[159] SoDTLD, para. 124.
[160] Claimant's PHB, para. 171.
[161] TLD hearing transcript, 18 May 2016, Mr. Partasides, Mr. Al Humidy, the President, Ms. Sabben-Clare and Mr. Craig at 774:22 until 785:9.
[162] TLD hearing transcript, 18 May 2016, Ms. Sabben-Clare at 779:10-21.

November 2001, the Arbitral Tribunal finds that the three-year limitation period under Article 10.2 of the UNIDROIT Principles started running as of that month.

771. The fact that Claimant has raised the VPS design claims as claims for breach of a continuing duty to discuss that design with Claimant and to disclose to it that that design breached the PSA and Good Oilfield Practice throughout the PSA's term does not have an impact on the Arbitral Tribunal's analysis. As stated in the Commentary on Article 14(1) of the International Law Commission's Articles on the Responsibility of States for Internationally Wrongful Acts, "*[a]n act does not have a continuing character merely because its effects or consequences extend in time. It must be the wrongful act as such which continues.*" (Exhibit RL-152, p. 60, para. 6). Here, Respondents' wrongful act of adopting and implementing their VPS well design occurred at a specific point in time. Respondents' failure to discuss that design with Claimant or to disclose to it that that design breached the PSA and Good Oilfield Practice is only a consequence of the initial wrongful act, which does not lead to the creation of a new breach every day that the initial wrongful act is not remedied.

772. Consequently, the Arbitral Tribunal finds that Claimant's VPS design claims are time-barred in accordance with the three-year limitation period under Article 10.2 of the UNIDROIT Principles, except in respect of the one VPS well that was drilled on Block 14 after 22 March 2010,[163] considering that Claimant was aware or ought to be aware of Respondents' VPS design since 25 November 2001 and that the Standstill Agreement that interrupted the running of that limitation period was concluded on 22 March 2013.

773. Moreover, the Arbitral Tribunal finds that Claimant's VPS design claims in respect of all VPS wells drilled prior to 22 March 2003 are time-barred in accordance with the 10-year limitation period under Article 10.2 of the UNIDROIT Principles, considering that those wells were drilled up to 22 March 2003 and that the Standstill Agreement was concluded on 22 March 2013. Given that one VPS well was drilled on Block 14 after 22 March 2010, Claimant's VPS design claims in relation to that well are not time-barred under the 10-year limitation period.

F. Well cellars claims

774. Claimant claims that Respondents breached the PSA and Good Oilfield Practice, by failing to install well cellars on all wells on Block 14. This failure has caused serious corrosion of the uppermost part of the 13 3/8" casing, as it emerges above the cement, and Claimant seeks as repair costs for 613 wells in the amount of US$ 49,040,000 (EXR of Mr. Sands, paras. 184-197).

[163] Claimant has not contested that only one VPS well was drilled after 22 March 2010.

775. Respondents maintain that Claimant's well cellars claims are time-barred in accordance with the three-year and ten-year limitation period under Article 10.2 of the UNIDROIT Principles, except for the claims in respect of five wells that were drilled on Block 14 after 22 March 2010.[164]

776. The Arbitral Tribunal notes that Respondents argue that the presence or absence of a well cellar is immediately apparent from a basic visual inspection of a well (2WS of Mr. Tracy, para. 99). Considering that PEPA secondees were assigned to every drilling rig since at least the mid-1990s and that PEPA's regular environmental inspections commenced in the late 1990s, Respondents contend that Claimant was aware of the absence of well cellars (1WS of Mr. Tracy, paras. 79-80, and 2WS of Mr. Tracy, para. 99).

777. The Arbitral Tribunal further notes that the presence of PEPA secondees on every drilling rig was confirmed by both Mr. Tracy and Mr. Al Humidy at the TLD hearing.[165] It also notes that Mr. Al Humidy confirmed at the TLD hearing that PEPA's environmental inspectors would have noticed the difference between wells with well cellars and those without cellars on the basis of their inspections of various other blocks.[166]

778. Claimant's complaint is that the Parties never discussed well cellars prior to the PSA's term's expiry and that it was not aware that it had grounds to make a claim.[167] Mr. Al Humidy further stated that "*the damaged casing was buried under sand and visual inspection would not reveal the damaged casing*" and that had Claimant been aware that well cellars were necessary and that a failure to install them was a breach of Good Oilfield Practice, it would have insisted that Respondents install them (2WS of Mr. Al Humidy, paras. 157-158). In its PHB,[168] Claimant's sole comment on its well cellars claims is that its expert has identified 8 wells that were drilled after 22 March 2010 and thus, Respondents' allegation that only 5 wells are not subject to their time-bar defence with respect to Claimant's well cellars claims is erroneous (Exhibit C-196, Tab 58).

779. The Arbitral Tribunal also notes that, despite Mr. Al Humidy's reluctance at the TLD hearing to concede that the absence of a well cellar, *i.e.* of a hole around a wellhead, was visually apparent by the PEPA secondees that were present on every drilling rig or during the PEPA environmental inspections because the PEPA personnel did not have enough experience, he admitted that what Claimant was not aware of was whether the absence of a well cellar was in

[164] Updated TLD Schedule, Claim No. 10.
[165] TLD hearing transcript, 17 May 2016, Mr. Partasides and Mr. Tracy at 472:1-8; TLD hearing transcript, 19 May 2016, Mr. Partasides and Mr. Al Humidy at 833:9-14.
[166] TLD hearing transcript, 19 May 2016, Mr. Partasides and Mr. Tracy at 818:16-23 and at 835:4-14.
[167] SoDTLD, para. 125.
[168] Claimant's PHB, para. 63.3.

compliance or not with the standards of Good Oilfield Practice and that that discovery was made through Claimant's expert following the commencement of this arbitration.[169]

780. On the basis of the foregoing, the Arbitral Tribunal finds that the factual evidence already adduced with respect to Claimant's well cellars claims is sufficient to establish that Claimant was aware or ought to be aware of the absence of well cellars since the late 1990s at the latest. Claimant's complaint that it was not aware that it had grounds to make a claim because it did not know whether well cellars should have been installed is unavailing, given that the applicable knowledge test under Article 10.2 of the UNIDROIT Principles focuses on the knowledge of the facts underlying a claim and not of the legal consequences of those facts. Therefore, considering that Claimant was aware or ought to be aware of the lack of well cellars since the late 1990s at the latest, the Arbitral Tribunal finds that the three-year limitation period under Article 10.2 of the UNIDROIT Principles started running as of that time.

781. The fact that Claimant has raised its well cellars claims as claims for breach of a continuing duty to maintain the wells in optimal working order throughout the PSA's term does not have an impact on the Arbitral Tribunal's analysis. As stated in the Commentary on Article 14(1) of the International Law Commission's Articles on the Responsibility of States for Internationally Wrongful Acts, "*[a]n act does not have a continuing character merely because its effects or consequences extend in time. It must be the wrongful act as such which continues.*" (Exhibit RL-152, p. 60, para. 6). Here, Respondents' wrongful act of drilling wells, without installing well cellars, occurred at a specific point in time. Respondents' failure to maintain the wells in optimal working order, by repairing the corroded surface casings is only a consequence of the initial wrongful act, which does not lead to the creation of a new breach every day that the initial wrongful act is not remedied.

782. Regarding the issue of how many wells were drilled after 22 March 2010, the Arbitral Tribunal notes that Respondents, in addressing their time-bar defence in respect of Claimant's drilling fluids claims, accept that eight wells and not only five were drilled on Block 14 after 22 March 2010.[170]

783. Therefore, the Arbitral Tribunal finds that Claimant's well cellars claims are time-barred in accordance with the three-year limitation period under Article 10.2 of the UNIDROIT Principles, except in relation to the eight wells that were drilled on Block 14 after 22 March 2010, considering that Claimant was aware or ought to be aware of the lack of well cellars since the late 1990s and that the Standstill Agreement that interrupted the running of that limitation period was concluded on 22 March 2013.

[169] TLD hearing transcript, 19 May 2016, Mr. Partasides and Mr. Al Humidy at 833:9-25, 834:1-25 and at 835:1-25.
[170] Respondents' PHB, para. 110(b).

784. Moreover, the Arbitral Tribunal finds that Claimant's well cellars claims in respect of all wells drilled prior to 22 March 2003 are time-barred in accordance with the 10-year limitation period under Article 10.2 of the UNIDROIT Principles, considering that those wells were drilled up to 22 March 2003 and that the Standstill Agreement was concluded on 22 March 2013. Given that 8 wells were drilled on Block 14 after 22 March 2010, Claimant's well cellars claims in relation to those wells are not time-barred under the 10-year limitation period.

G. NORM claims

785. Under this head of claim, Claimant argues that Respondents failed to give adequate warnings, training and equipment to the workforce with respect to the existence and risk of contamination from NORM-contaminated sludge and equipment, to reduce or control NORM exposure to personnel working close to the Sunnah field pipelines and to manage, clean and dispose of NORM-contaminated equipment safely in breach of Good Oilfield Practice and good faith (WS of Mr. Binnabhan, para. 78, and EXR of Mr. Larkin, pp. 48-51). Claimant has also raised a specific claim in respect of the practice of canisterisation of NORM-contaminated equipment at the end of the PSA's term, the value of which is US$ 2,000,000.

786. According to Respondents, Claimant's NORM claims are time-barred in accordance with the three-year and ten-year limitation period under Article 10.2 of the UNIDROIT Principles, with the exception of the specific claim in respect of Respondents' practice of canisterisation of NORM-contaminated equipment.[171] Considering that Claimant's specific claim in respect of Respondents' practice of canisterisation of NORM-contaminated equipment is subject to Respondents' waiver/estoppel defence, the Arbitral Tribunal will assess the Parties' evidence on that specific claim in the following section.

787. With respect to Claimant's remaining NORM claims, the Arbitral Tribunal notes Respondents' evidence that their NORM management policies and procedures were all in place by 23 November 2003 and that Claimant was aware of the existence of NORM at least as of November 2000 (1WS of Mr. Tracy, para. 141, 2WS of Mr. Tracy, para. 102, and Exhibits R-54, R-57 and R-58). Mr. Bahumaish testified at the TLD hearing that Respondents' letter of 17 November 2000, informing Claimant of the presence of NORM and setting out Respondents' contemporaneous NORM management practice (Exhibit R-54), would have been sent to the environmental departments of PEPA and Claimant.[172] Mr. Bahumaish also confirmed at the TLD hearing that he was unaware of any complaints in relation to Respondents' management of NORM, prior to the canisterisation issue that arose

[171] Updated TLD Schedule, Claim No. 11.
[172] TLD hearing transcript, 18 May 2016, Mr. Partasides and Mr. Bahumaish at 599:12-25, 600:1-25 and at 607:10-16.

in 2010 and that, despite Claimant's knowledge in respect of NORM, Claimant was still discussing with Respondents the extension of the PSA's term for a further three years.[173]

788. Moreover, the Arbitral Tribunal notes Respondents' evidence that appropriate training on NORM handling was provided to personnel on Block 14 as of 2000 (Exhibit R-99) and that, in September 2006, Respondents invited an external NORM expert, Mr. Stuart Hunt, to visit Block 14 and provide training. Mr. Hunt subsequently prepared NORM management guidelines for Block 14 (Exhibits R-138 and R-129, p. 1). In that respect, Mr. Bahumaish confirmed at the TLD hearing that Claimant was informed of Mr. Hunt's work on NORM in 2006.[174] Respondents also show that Mr. Hunt provided extensive NORM-related training courses to Block 14 employees, including Yemeni nationals (Exhibits R-129 and R-334), and that they had established procedures to deal with the exposure of Block 14 employees to NORM-contaminated equipment (Exhibits R-158, R-138, pp. 7, 25-29 and 33-35, and R-335).

789. Regarding the Sunnah field pipelines, the Arbitral Tribunal notes that Respondents took specific measures to address the high NORM reading on those pipelines in 2009, including investigations into the extent of NORM contamination, regular pigging of the pipelines and regular follow-up surveys (Exhibit R-103). In addition, warning signs were put in place around the Sunnah pipelines to alert employees about the presence of NORM. Finally, Respondents undertook a number of NORM surveys in other relevant areas and on relevant facilities throughout the term of the PSA (Exhibits C-194, Tab 21, p. 11, and R-275)

790. On the other hand, Claimant states that the issue of NORM disposal was brought to Claimant's attention only in mid-2010 and that the Parties never agreed on the method of NORM disposal (2WS of Mr. Al Humidy, paras. 159-164).[175] In its PHB,[176] Claimant specifies that its NORM claims are for the costs of remediating the consequences of NORM, including clearing up NORM waste that was created during the PSA's term and was left behind at the end of the PSA.

791. On the basis of the foregoing, the Arbitral Tribunal finds that the factual evidence already adduced with respect to Claimant's NORM claims is sufficient to establish that Claimant was aware or ought to be aware of Respondents' NORM management practices since November 2000 at the latest. Claimant does not even complain that it was unaware of the presence of NORM or of Respondents' NORM management practices. In any event, the applicable knowledge test under Article 10.2 of the UNIDROIT Principles focuses on the knowledge of the facts underlying a claim and not of the legal consequences of those facts. Therefore,

[173] TLD hearing transcript, 18 May 2016, Mr. Partasides and Mr. Bahumaish at 608:19-25, 609:1-2 and at 637:14-21.
[174] TLD hearing transcript, 18 May 2016, Mr. Partasides and Mr. Bahumaish at 597:5-25 and at 598:1-18.
[175] SoDTLD, para. 126.
[176] Claimant's PHB, para. 65.III(2), referring to SoC, para. 279.

considering that Claimant was aware or ought to be aware of Respondents' NORM management practices since November 2000 at the latest, the Arbitral Tribunal finds that the three-year limitation period under Article 10.2 of the UNIDROIT Principles started running as of that month.

792. The fact that Claimant has raised its NORM claims as claims for breach of a continuing duty to remove NORM waste throughout the PSA's term does not have an impact on the Arbitral Tribunal's analysis. As stated in the Commentary on Article 14(1) of the International Law Commission's Articles on the Responsibility of States for Internationally Wrongful Acts, "*[a]n act does not have a continuing character merely because its effects or consequences extend in time. It must be the wrongful act as such which continues.*" (Exhibit RL-152, p. 60, para. 6). Here, Respondents' wrongful act of implementing inadequate NORM management practices occurred at a specific point in time. Respondents' failure to remove NORM waste is only a consequence of the initial wrongful act, which does not lead to the creation of a new breach every day that the initial wrongful act is not remedied.

793. Therefore, the Arbitral Tribunal finds that Claimant's NORM claims are time-barred in accordance with the three-year limitation period under Article 10.2 of the UNIDROIT Principles, except for Claimant's specific claim in respect of Respondents' practice of canisterisation of NORM-contaminated equipment, considering that Claimant was aware or ought to be aware of Respondents' NORM management practices since November 2000 and that the Standstill Agreement that interrupted the running of that limitation period was concluded on 22 March 2013.

794. Moreover, the Arbitral Tribunal finds that Claimant's NORM claims in respect of Respondents' NORM management practices implemented prior to 22 March 2003 are time-barred in accordance with the 10-year limitation period under Article 10.2 of the UNIDROIT Principles, considering that those practices were implemented up to 22 March 2003 and that the Standstill Agreement was concluded on 22 March 2013. Given that Respondents' practice of canisterisation of NORM-contaminated equipment occurred at the end of the PSA's term, Claimant's NORM claims in that respect are not time-barred under the 10-year limitation period.

H. Injection of produced water into the Harshiyat claim

795. Claimant contends that Respondents breached the PSA, as they disposed of produced water by injecting it in the Harshiyat formation from 1994 to 1999 (EXR of Mr. Sands, paras. 253-265). Claimant has not presented any quantifiable claim for damages under this head of claim.

796. Respondents maintain that Claimant's injection of produced water into the Harshiyat claim is time-barred in accordance with the three-year and ten-year limitation period under Article 10.2 of the UNIDROIT Principles.[177]

797. The Arbitral Tribunal notes in the first place that it is not contested by the Parties that the practice of disposing of produced water by injection into the Harshiyat commenced in 1994 and ended in 1999 (1WS of Mr. Tracy, paras. 107-114, and 2WS of Mr. Tracy, paras. 73-74 and 77). Mr. Al Humidy confirmed at the TLD hearing that Claimant was aware of Respondents' practice as of 1994.[178]

798. The Arbitral Tribunal further notes that, in April 1994, Claimant was presented with Respondents' external water management plan, in the form of the Stanley report that included an assessment of the risks of Respondents' proposal (1WS of Mr. Tracy, paras. 104-105, 2WS of Mr. Tracy, para. 75, and Exhibit R-18, p. ii). In addition, Claimant has not contested Respondents' evidence that, between 1994 and 1997, it approved six injection wells used to inject produced water into the Harshiyat (1WS of Mr. Tracy, paras. 104-107, and 2WS of Mr. Tracy, para. 75).

799. Moreover, Mr. Al Humidy confirmed at the TLD hearing that, in 1997, in response to concerns specifically raised by the Hadhramout Welfare Society in respect of potential contamination of the Harshiyat, Claimant formed a technical committee to assess the impact of the produced water injection (1WS of Mr. Tracy, para. 108).[179] Respondents further show that, further to a field visit and meetings with the Parties' representative, an expert from the International Development Research Centre of Canada prepared a report, the outcome of which was that the injection of produced water into the Harshiyat posed no threat to the environment (Exhibit R-141, p. v.).

800. Respondents also point out that an update of the Stanley report was prepared, at Claimant's request, and was presented to it in April 1997 and that Claimant subsequently met with Stanley and Dr. Gideon Kruseman, an external expert, and a further updated version of the Stanley report was presented to Claimant in September 1997 (1WS of Mr. Tracy, paras. 109-110, and 2WS of Mr. Tracy, para. 76).

801. The Arbitral Tribunal also notes that Mr. Al Humidy testified at the TLD hearing that Claimant knew that Respondents ceased the practice of injecting produced water into the Harshiyat in 1999, at Claimant's request.[180] Mr. Al Humidy also confirmed at the TLD

[177] Updated TLD Schedule, Claim No. 6.
[178] TLD hearing transcript, 18 May 2016, Mr. Partasides and Mr. Al Humidy at 702:19-23.
[179] TLD hearing transcript, 18 May 2016, Mr. Partasides and Mr. Al Humidy at 718:4-7.
[180] TLD hearing transcript, 18 May 2016, Mr. Partasides and Mr. Al Humidy at 702:24-25, 703:1-2, 734:25 and at 735:1-9.

hearing that Claimant was aware of the risk analyses undertaken both at the commencement and at the conclusion of that practice.[181] Further, Claimant has not contested Respondents' evidence that it was heavily involved in the process throughout its duration and that it publicly endorsed Respondents' approach (Exhibits R-331, R-388, and R-47, p. 50).

802. Claimant's sole complaint is that it was not aware until after the expiry of the PSA that it had any ground for a claim in relation to the disposal of produced water and that Respondents had failed to carry out any form of risk assessment (2WS of Mr. Al Humidy, para. 166).[182] In its PHB,[183] Claimant confirms that its claim is not for the practice of injection itself, but for Respondents' failure to adequately monitor the groundwater situation throughout the PSA's term.

803. In light of the above, the Arbitral Tribunal finds that the factual evidence already adduced with respect to Claimant's injection of produced water into the Harshiyat claim is sufficient to establish that Claimant was aware or ought to be aware of Respondents' practice as of 1999 at the latest. Claimant's complaint that it was not aware that it had grounds to make a claim and that Respondents had failed to undertake any risk assessments is unavailing, given that the applicable knowledge test under Article 10.2 of the UNIDROIT Principles focuses on the knowledge of the facts underlying a claim and not of the legal consequences of those facts. Therefore, considering that Claimant was aware or ought to be aware of Respondents' practice of injecting produced water into the Harshiyat since 1999 at the latest, the Arbitral Tribunal finds that the three-year limitation period under Article 10.2 of the UNIDROIT Principles started running as of that year.

804. The fact that Claimant has raised its injection of produced water into the Harshiyat claim as a claim for breach of a continuing duty to adequately monitor the groundwater situation throughout the PSA's term does not have an impact on the Arbitral Tribunal's analysis. As stated in the Commentary on Article 14(1) of the International Law Commission's Articles on the Responsibility of States for Internationally Wrongful Acts, "*[a]n act does not have a continuing character merely because its effects or consequences extend in time. It must be the wrongful act as such which continues.*" (Exhibit RL-152, p. 60, para. 6). Here, it is undisputed that Respondents' wrongful act of injecting produced water into the Harshiyat occurred at a specific point in time, starting in 1994 and ending in 1999. Respondents' failure to adequately monitor the groundwater situation throughout the PSA's term is only a consequence of the initial wrongful act, which does not lead to the creation of a new breach every day that the initial wrongful act is not remedied.

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[181] TLD hearing transcript, 18 May 2016, Mr. Partasides and Mr. Al Humidy at 715:2-23, 717:23-25 and at 718:1-3.
[182] SoDTLD, para. 127.
[183] SoRjTLD, para. 116.2; Claimant's PHB, para. 3, fn 3.

805. Therefore, the Arbitral Tribunal finds that Claimant's injection of produced water into the Harshiyat claim is time-barred in accordance with the three-year limitation period under Article 10.2 of the UNIDROIT Principles, considering that Claimant was aware or ought to be aware of Respondents' practice since 1999 and that the Standstill Agreement that interrupted the running of that limitation period was concluded on 22 March 2013.

806. Moreover, the Arbitral Tribunal finds that Claimant's injection of produced water into the Harshiyat claim is time-barred in accordance with the 10-year limitation period under Article 10.2 of the UNIDROIT Principles, considering that Respondents' practice ceased in 1999 and that the Standstill Agreement was concluded on 22 March 2013.

I. EIA claim

807. Claimant contends that Respondents breached Articles 8.1 and 8.2 of the PSA and Good Oilfield Practice and good faith, by failing to produce a complete EIA prior to and during operations and failing to conduct and produce a detailed environmental assessment upon the PSA's expiry (EXR of Mr. Larkin, pp. 15-20). Moreover, under Article 40(1) of the Environmental Protection Law of 1995, Respondents had to submit an EIA "*to the competent body within a year at most beginning once this law comes into force*" (EXR of Mr. Al-Maqtari, para. 56). Whereas "*it is not possible to conduct a retrospective EIA,*" Claimant seeks as costs for performing an assessment to establish a current baseline of environmental conditions relating to the oilfield facilities the amount of US$ 150,000 to US$ 300,000 (EXR of Mr. Larkin, Section 3.5).

808. Respondents maintain that Claimant's EIA claim is time-barred in accordance with the three-year and ten-year limitation period under Article 10.2 of the UNIDROIT Principles.[184]

809. The Arbitral Tribunal notes in the first place that Mr. Al Humidy did not deny at the TLD hearing, although he did not expressly concede, that Respondents had produced EIAs in 1993 and that, as a result, Mr. Larkin's statement that "*an EIA should have been undertaken between [1990 and 1993]*" was necessarily incorrect.[185] Moreover, Mr. Al Humidy did not contest that Respondents' evidence showed that the EIAs had been provided to Claimant in 1993.[186]

810. It is noted here that Respondents commissioned Komex International Ltd. and VSO Canada, Inc. to conduct an EIA, covering potential land-based and marine impacts prior to the commencement of oil production and that their EIA reports, totaling 476 pages, were completed in March 1993 and were provided to Claimant and the Environment Protection

[184] Updated TLD Schedule, Claim No. 13.
[185] TLD hearing transcript, 19 May 2016, Mr. Partasides and Mr. Al Humidy at 836:1 until 839:5.
[186] TLD hearing transcript, 19 May 2016, Mr. Partasides and Mr. Al Humidy at 839:6-25 and at 840:1-4.

Agency in 1993 (1WS of Mr. Tracy, paras. 83-84, 2WS of Mr. Tracy, para. 111, and Exhibits R-16 and R-148). The existence of an EIA dated 1993 was also confirmed by Mr. Binnabhan, Claimant's witness (WS of Mr. Binnabhan, para. 75).

811. Furthermore, the Arbitral Tribunal notes that both the existence and breadth of Respondents' EIAs were acknowledged by the former Yemeni Deputy Oil Minister, Dr. R. Ba-Rabaa, in 2000 (Exhibit R-52, pp. 2-3).

812. Claimant does not deny that an EIA was provided to it in 1993. In fact, Claimant refrained from referring to its EIA claim in both the SoDTLD[187] and SoRjTLD.

813. Despite Mr. Al Humidy's testimony at the TLD hearing that he discussed Claimant's EIA claim in his 2WS,[188] the Arbitral Tribunal could not find a single reference to that claim therein. During his re-direct examination at the TLD hearing,[189] Mr. Al Humidy was referred to Claimant's letter dated 5 April 2010, where Claimant requested from Respondents "*to provide the competent department with the complete data on the environmental impact assessment studies.*" (Exhibit C-130). A similar request had also been sent on 27 September 2007 (Exhibit C-113).

814. In its PHB,[190] Claimant specifies that its claim is not just for failure to produce a proper EIA at the start of oil operations, but also during operations. However, upon a careful examination of Claimant's expert report, it appears that Claimant is complaining only about the adequacy of Respondents' subsequent EIA reports, which Claimant's expert cites, given the erroneous assumption of Claimant's expert that a complete EIA prior to oil operations had not been undertaken (EXR of Mr. Larkin, pp. 18-19, Section 3.3).

815. In light of the above, the Arbitral Tribunal is not sure if Claimant pursues its claim that no EIA had been undertaken by Respondents prior to oil operations. In any event, the Arbitral Tribunal finds that the factual evidence already adduced with respect to that claim is sufficient to establish that Claimant was aware or ought to be aware of Respondents' EIA undertaken prior to oil operations as of 1993. Therefore, considering that Claimant was aware or ought to be aware of Respondents' EIA undertaken prior to oil operations since 1993, the Arbitral Tribunal finds that the three-year limitation period under Article 10.2 of the UNIDROIT Principles started running as of that year.

[187] Whereas Claimant makes specific comments as to its knowledge of the facts underlying all of its other claims (SoDTLD, paras. 108-132).
[188] TLD hearing transcript, 19 May 2016, Mr. Partasides and Mr. Al Humidy at 836:14-25.
[189] TLD hearing transcript, 19 May 2016, Ms. Sabben-Clare and Mr. Al Humidy at 869:10-25 and at 870:1-16.
[190] Claimant's PHB, para. 65.III(1).

816. The fact that Claimant has raised its EIA claim as a claim for breach of a continuing duty to update the EIAs throughout the PSA's term does not have an impact on the Arbitral Tribunal's analysis. As stated in the Commentary on Article 14(1) of the International Law Commission's Articles on the Responsibility of States for Internationally Wrongful Acts, "*[a]n act does not have a continuing character merely because its effects or consequences extend in time. It must be the wrongful act as such which continues.*" (Exhibit RL-152, p. 60, para. 6). Here, Respondents' wrongful act of not undertaking an EIA prior to oil operations occurred at a specific point in time. Respondents' failure to update the early EIA throughout the PSA's term is only a consequence of the initial wrongful act, which does not lead to the creation of a new breach every day that the initial wrongful act is not remedied.

817. Furthermore, the Arbitral Tribunal notes that Claimant has failed to address Respondents' argument that its expert's statement that "*it is not possible to carry out a retrospective EIA*" (EXR of Mr. Larkin, p. 20, Section 3.5) means that there cannot be any continuing breach.[191] In the Arbitral Tribunal's opinion, it would be contradictory to find that Respondents' alleged failure to update its 1993 EIA throughout the PSA's term was a continuous breach, although Respondents could not have undertaken a retrospective EIA.

818. Therefore, the Arbitral Tribunal finds that Claimant's EIA claim is time-barred in accordance with the three-year limitation period under Article 10.2 of the UNIDROIT Principles, considering that Claimant was aware or ought to be aware of Respondents' EIA undertaken prior to oil operations since 1993 and that the Standstill Agreement that interrupted the running of that limitation period was concluded on 22 March 2013.

819. Moreover, the Arbitral Tribunal finds that Claimant's EIA claim is time-barred in accordance with the 10-year limitation period under Article 10.2 of the UNIDROIT Principles, considering that Respondents' EIA was undertaken in 1993 and that the Standstill Agreement was concluded on 22 March 2013.

820. The Arbitral Tribunal's above conclusion is without prejudice to Claimant's claim that Respondents "*appear[] not to have commissioned or conducted any detailed environmental assessment at handover*" (EXR of Mr. Larkin, pp. 19-20, Sections 3.4 and 3.5). By definition, this claim cannot be time-barred, given that the PSA's term expired on 17 December 2011 and that the Standstill Agreement was concluded on 22 March 2013. Finally, the Arbitral Tribunal finds that Respondents complied with the requirement under Article 40(1) of the Environmental Protection Law of 1995 to submit an EIA "*to the competent body within a year at most beginning once this law comes into force*" (EXR of Mr. Al-Maqtari, para. 56), by undertaking an EIA in 1993 and transmitting it to Claimant.

[191] SoRTLD, para. 337.

J. Groundwater contamination claims

821. Claimant claims that Respondents breached Good Oilfield Practice, as they (i) lacked a groundwater monitoring plan, (ii) failed to monitor and assess groundwater quality and marine impacts resulting from produced water disposal into unlined ponds, soakaways and an infiltration gallery at the Terminal, (iii) failed to investigate oil contamination in at least four monitoring wells at the Terminal, (iv) lacked groundwater monitoring wells around various facilities at the CPF and at the Terminal and (v) lacked groundwater monitoring records and reports, as well as information on groundwater levels and quality around potentially-contaminating activities, such as oil wells (EXR of Mr. Larkin, pp. 21-32). Claimant's quantifiable claims for damages under this head of claim range from US$ 400,000 to US$ 600,000.

822. Respondents argue that Claimant's groundwater contamination claims are time-barred in accordance with either the three-year or ten-year limitation period under Article 10.2 of the UNIDROIT Principles.[192]

823. The Arbitral Tribunal notes that Mr. Al Humidy did not contest at the TLD hearing Mr. Tracy's evidence that Respondents' groundwater monitoring facilities and practices were all in place by 23 November 2003, apart from the produced water infiltration gallery system that was installed in 2004 (2WS of Mr. Tracy, paras. 107-108).[193] Moreover, Mr. Al Humidy confirmed at the TLD hearing that Respondents' groundwater monitoring facilities were the subject of regular PEPA environmental inspections.[194]

824. Furthermore, Mr. Bahumaish did not deny at the TLD hearing that PEPA conducted an environmental inspection on 5 August 2000 (Exhibit R-391).[195] As for Mr. Al Humidy, he did not deny the accuracy of the contemporaneous note of PEPA's environmental inspection of 5 August 2000, but he specified that that note was not signed and that the PEPA representative in charge of that inspection could not speak English very well.[196] According to Respondents, the contemporaneous note shows that PEPA inspected the CPF landfill and was informed of the measures taken to protect groundwater and how to obtain water samples from the wells (2WS of Mr. Tracy, para. 108(a), and Exhibit R-391, pp. 2-3).

825. The Arbitral Tribunal further notes Mr. Al Humidy's testimony at the TLD hearing that the Terminal produced water facilities, the sewage treatment facilities and the landfill were precisely the kind of facilities that PEPA's environmental inspectors were expected to

[192] Updated TLD Schedule, Claim No. 12.
[193] TLD hearing transcript, 19 May 2016, Mr. Partasides and Mr. Al Humidy at 812:6-25 and at 813:1-20.
[194] TLD hearing transcript, 19 May 2016, Mr. Partasides and Mr. Al Humidy at 813:21-25 and at 814:1-18.
[195] TLD hearing transcript, 18 May 2016, Mr. Partasides and Mr. Bahumaish at 605:9-25 and at 606:1-3.
[196] TLD hearing transcript, 18 May 2016, Mr. Partasides and Mr. Al Humidy at 683:10 until 686:1.

inspect.[197] In that respect, Respondents show that PEPA inspected those facilities in January 2003, April 2005 and January 2008 (Exhibits R-416, R-117, R-438 and R-151). Mr. Al Humidy also testified at the TLD hearing that PEPA's environmental inspectors would be expected to compare the practices of the different operators on the different blocks in Yemen that they inspected.[198]

826. On the other hand, Claimant contends that it became aware that Respondents did not have an adequate groundwater monitoring plan after Block 14's handover. Claimant's complaint is not about the lack of a groundwater monitoring plan, but about the lack of adequate data (2WS of Mr. Al Humidy, paras. 170-173).[199] In its PHB, Claimant confirms that its claim is for Respondents' failure to properly monitor groundwater throughout the PSA's term and the cost of installing proper monitoring systems now.[200]

827. In light of the foregoing, the Arbitral Tribunal finds that the factual evidence already adduced with respect to Claimant's groundwater contamination claims is sufficient to establish that Claimant was aware or ought to be aware of Respondents' groundwater monitoring facilities and practices as of January 2008 at the latest. Claimant's complaint that it became aware that Respondents' groundwater monitoring facilities and practices were inadequate after the PSA's expiry is unavailing, given that the applicable knowledge test under Article 10.2 of the UNIDROIT Principles focuses on the knowledge of the facts underlying a claim and not of the legal consequences of those facts. Therefore, considering that Claimant was aware or ought to be aware of Respondents' groundwater monitoring facilities and practices since January 2008 at the latest, the Arbitral Tribunal considers that the three-year limitation period under Article 10.2 of the UNIDROIT Principles started running as that month.

828. The fact that Claimant has raised its groundwater contamination claims as claims for breaches of a continuing duty to properly monitor groundwater throughout the PSA's term does not have an impact on the Arbitral Tribunal's analysis. As stated in the Commentary on Article 14(1) of the International Law Commission's Articles on the Responsibility of States for Internationally Wrongful Acts, "*[a]n act does not have a continuing character merely because its effects or consequences extend in time. It must be the wrongful act as such which continues.*" (Exhibit RL-152, p. 60, para. 6). Here, Respondents' wrongful act of implementing inadequate groundwater monitoring facilities and practices occurred at a specific point in time. Respondents' failure to have proper groundwater monitoring facilities and practices throughout the PSA's term is only a consequence of the initial wrongful act, which does not lead to the creation of a new breach every day that the initial wrongful act is not remedied.

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[197] TLD hearing transcript, 19 May 2016, Mr. Partasides and Mr. Al Humidy at 814:19-25 and at 815:1-24.
[198] TLD hearing transcript, 19 May 2016, Mr. Partasides and Mr. Al Humidy at 818:3-23.
[199] SoDTLD, para. 129.
[200] Claimant's PHB, para. 65.III(3).

829. Consequently, the Arbitral Tribunal finds that Claimant's groundwater contamination claims are time-barred in accordance with the three-year limitation period under Article 10.2 of the UNIDROIT Principles, considering that Claimant was aware or ought to be aware of Respondents' groundwater monitoring facilities and practices since January 2008 at the latest and that the Standstill Agreement that interrupted the running of that limitation period was concluded on 22 March 2013.

830. Moreover, the Arbitral Tribunal finds that Claimant's groundwater contamination claims are time-barred in accordance with the 10-year limitation period under Article 10.2 of the UNIDROIT Principles, except for the claim in respect of the Terminal produced water infiltration gallery system that was installed in 2004, considering that Respondents' groundwater facilities and practices were in place prior to 2003 and that the Standstill Agreement was concluded on 22 March 2013.

K. Waste management claims

831. According to Claimant, the lack of proper incinerators, the practice of open burning of hazardous waste and dumping/uncontrolled disposal of waste and the fact that four unlined sludge ponds at the CPF and four lined sludge ponds at the Terminal remained on Block 14 on the expiry of the PSA breached Articles 8.1 and 8.2 of the PSA, Good Oilfield Practice and good faith (EXR of Mr. Larkin, pp. 33-43). Claimant also argues that Respondents breached their duty of good faith, by denying the fact that the sludge ponds at the CPF were unlined in May 2010. Claimant's quantifiable claims for damages are in the amount of US$ 20,250,000, including US$ 2,850,000 in relation to the remediation of the sludge ponds (EXR of Mr. Larkin, Appendix B).

832. Considering the Arbitral Tribunal's above finding that Claimant's current claims related to Respondents' dismantlement, abandonment and reclamation obligations under the PSA have been fully settled pursuant to Clause 9 of the Settlement Agreement, the Arbitral Tribunal does not need to determine whether Claimant's claim of US$ 2,850,000 for the remediation of the sludge ponds[201] and related good-faith claim are time-barred in accordance with the applicable limitation periods under Article 10.2 of the UNIDROIT Principles. Therefore, the Arbitral Tribunal will not assess the Parties' evidence on Claimant's knowledge of the facts underlying its claims related to sludge ponds.

[201] SoC, paras. 287-303; EXR of Mr. Larkin, Section 5.2 and Appendix B, items 8 and 9.

833. With respect to the remaining waste management claims, Claimant specifies that they include the lack of proper incinerators, the unsuitable open burning of hazardous waste and the dumping/uncontrolled disposal of waste.[202]

834. According to Respondents, these remaining claims are time-barred in accordance with either the three-year or ten-year limitation period under the UNIDROIT Principles, except for the claim in relation to the CPF incinerator that was installed in 2009.[203]

835. The Arbitral Tribunal notes Respondents' evidence that all of their waste management facilities and practices were in place since the mid-1990s, apart from the incinerator at the CPF that was installed in 2009 and that PEPA started to undertake frequent environmental inspections of their waste management facilities at the Terminal and the CPF since the late 1990s (1WS of Mr. Tracy, paras. 77-79, 2WS of Mr. Tracy, paras. 30 and 67 and fn 122, and Exhibits R-391, R-78 and R-117).

836. Respondents further show that, from as early as 2000, PEPA visually inspected the landfill and was aware of Respondents' waste disposal practices, including filter burning (2WS of Mr. Tracy, para. 67(a), and Exhibits R-391, pp. 1-2, R-440, p. 1, and R-151, p. 3). In that respect, Mr. Bahumaish did not deny at the TLD hearing that PEPA conducted an environmental inspection on 5 August 2000 (Exhibit R-391).[204] As for Mr. Al Humidy, he did not deny the accuracy of the contemporaneous note of PEPA's environmental inspection of 5 August 2000, but he specified that that note was not signed and that the PEPA representative in charge of that inspection could not speak English very well.[205] Mr. Al Humidy further acknowledged at the TLD hearing that the reports prepared by PEPA inspectors that he had seen were "*almost the same*" as Respondents' and also confirmed that Claimant's environmental inspectors would be expected to compare the practices of the different operators on the different blocks that they inspect.[206]

837. In addition, Respondents show that, from as early as April 2007 and January 2008, PEPA's inspections included the following: (i) the landfill, the hazardous materials area and the sludge ponds at the Terminal, (ii) the landfill, the sludge ponds, the scrap yard and the recycling area at the CPF and (iii) the filter disposal in the field (2WS of Mr. Tracy, para. 67(c), and Exhibits R-443 and R-151). Claimant was also provided with operational documents that included details covering installation of the incinerator and sludge ponds, among other waste

[202] Claimant's PHB, para. 65.III(4).
[203] Updated TLD Schedule, Claim No. 3.
[204] TLD hearing transcript, 18 May 2016, Mr. Partasides and Mr. Bahumaish at 605:9-25 and at 606:1-3.
[205] TLD hearing transcript, 18 May 2016, Mr. Partasides and Mr. Al Humidy at 683:10 until 686:1.
[206] TLD hearing transcript, 18 May 2016, Mr. Partasides and Mr. Al Humidy at 681:14-20; TLD hearing transcript, 19 May 2016, Mr. Partasides and Mr. Al Humidy at 814:1-4; TLD hearing transcript, 19 May 2016, Mr. Partasides and Mr. Al Humidy at 829:7-19.

management facilities, from at least as early as April 2008 (2WS of Mr. Tracy, para. 70, and Exhibits R-448, p. 21, and R-458, pp. 17 and 20).

838. Respondents further point out that, from at least July 2010, PEPA inspected the incinerator at the CPF (2WS of Mr. Tracy, para. 67(a), and Exhibit R-453, p. 1).

839. On the other hand, Claimant focused its waste management claims on the four unlined sludge ponds at the CPF and the four lined sludge ponds at the Terminal.[207] In his 2WS, Mr. Al Humidy concedes that PEPA's inspectors noticed some of Respondents' waste management practices during their health and safety inspections and that Respondents were informed of Claimant's objections to those practices, whereas it was only following the expiry of the PSA's term that Claimant discovered the scale of Respondents' breaches in that respect (2WS of Mr. Al Humidy, paras. 174-176). In its PHB, Claimant stresses that its waste management claims are for the costs of remediating the waste left behind at the end of the PSA.[208]

840. In light of the above, the Arbitral Tribunal finds that the factual evidence already adduced with respect to Claimant's waste management claims is sufficient to establish that Claimant was aware or ought to be aware of Respondents' waste management facilities and practices since January 2008 at the latest. Claimant's complaint that it discovered the scale of Respondents' breaches regarding their waste management practices only upon the PSA's term's expiry is unavailing, given that the applicable knowledge test under Article 10.2 of the UNIDROIT Principles focuses on the knowledge of the facts underlying a claim and not of the extent of the legal consequences of those facts. Therefore, considering that Claimant was aware or ought to be aware of Respondents' waste management facilities and practices since January 2008 at the latest, the Arbitral Tribunal considers that the three-year limitation period under Article 10.2 of the UNIDROIT Principles started running as that month.

841. The fact that Claimant has raised its waste management claims as claims for breaches of a continuing duty to remediate the waste left behind at the end of the PSA's term does not have an impact on the Arbitral Tribunal's analysis. As stated in the Commentary on Article 14(1) of the International Law Commission's Articles on the Responsibility of States for Internationally Wrongful Acts, "*[a]n act does not have a continuing character merely because its effects or consequences extend in time. It must be the wrongful act as such which continues.*" (Exhibit RL-152, p. 60, para. 6). Here, Respondents' wrongful act of implementing inadequate waste management facilities and practices occurred at a specific point in time. Respondents' failure to remediate the waste left behind at the end of the PSA's term is only a consequence of the initial wrongful act, which does not lead to the creation of a new breach every day that the initial wrongful act is not remedied.

[207] SoDTLD, para. 130.
[208] Claimant's PHB, para. 65.III(4).

842. Consequently, the Arbitral Tribunal finds that Claimant's waste management claims are time-barred in accordance with the three-year limitation period under Article 10.2 of the UNIDROIT Principles, except for the claim in relation to the CPF incinerator that PEPA inspected only in July 2010, considering that Claimant was aware or ought to be aware of Respondents' waste management facilities and practices since January 2008 at the latest and that the Standstill Agreement that interrupted the running of that limitation period was concluded on 22 March 2013.

843. Moreover, the Arbitral Tribunal finds that Claimant's waste management claims are time-barred in accordance with the 10-year limitation period under Article 10.2 of the UNIDROIT Principles, except for the claim in respect of the CPF incinerator that was installed in 2009, considering that Respondents' waste management facilities and practices were in place prior to 2003 and that the Standstill Agreement was concluded on 22 March 2013.

L. Seismic misfires claim

844. Claimant asserts that Respondents left hundreds of unexploded seismic charges in place and failed to identify to Claimant or the populace the precise location of the charges in breach of the PSA, Good Oilfield Practice and good faith (EXR of Mr. Larkin, pp. 51-52). Claimant has not presented any quantifiable claim for damages under this head of claim.

845. Respondents contend that Claimant's seismic misfires claim is time-barred, whether on account of the three-year or ten-year limitation period under the UNIDROIT Principles.[209]

846. The Arbitral Tribunal notes in the first place that Claimant has not contested Respondents' evidence that the seismic misfires occurred in the course of Respondents' seismic survey acquisition programs that were conducted between 1995 and 2001 (1WS of Mr. Tracy, para. 200).

847. The Arbitral Tribunal further notes that Claimant received and approved a seismic misfires investigation contract on 8 January 2008 (Exhibit R-446) and that that approval was also reflected in the 2008 WP&B (Exhibit R-445, pp. 53 and 62).

848. Moreover, Mr. Bahumaish, the recipient of Respondents' letter of 8 January 2008, enclosing the seismic misfire investigation contract, testified at the TLD hearing that, despite the fact that he had not seen and signed that contract due to his temporary absence from the role of chairman of the OpCom, both the replacement chairman of the OpCom and PEPA had

[209] Updated TLD Schedule, Claim No. 5.

received and approved that contract.[210] Mr. Bahumaish also testified that he did not know if PetroMasila, the new operator of Block 14, had undertaken any work since the PSA's expiry in relation to seismic misfires and that, despite Claimant's knowledge of the seismic misfires issue, Claimant was still discussing with Respondents the extension of the PSA's term for a further three years.[211]

849. Claimant argues that it only learned of the extent and possible consequences of unexploded seismic misfires in 2013, which led to the discovery of Respondents' internal minutes of a meeting in Athens on 23 September 2010, where Respondents decided that Respondent 1 would develop a revised mitigation plan for seismic misfires (2WS of Mr. Al Humidy, paras. 177-178, and Exhibit C-72, tab 11, pp. 351-352). Mr. Tracy testified at the TLD hearing that the question of how to deal with seismic misfires was an ongoing one as at 2011, noting that related investigation had been undertaken earlier, and that further risk assessment was a logical solution to that question.[212] In its PHB,[213] Claimant contends that its seismic misfires claim is for the failure to clear up the seismic misfires, not for their creation.

850. On the basis of the foregoing, the Arbitral Tribunal finds that the factual evidence already adduced with respect to Claimant's seismic misfires claim is sufficient to establish that Claimant was aware or ought to be aware of the presence of seismic misfires as of 8 January 2008. Claimant's complaint that it discovered the extent and possible consequences of the unexploded seismic misfires only in 2013 is unavailing, given that the applicable knowledge test under Article 10.2 of the UNIDROIT Principles focuses on the knowledge of the facts underlying a claim and not of the legal consequences of those facts. Therefore, considering that Claimant was aware or ought to be aware of the presence of seismic misfires since 8 January 2008, the Arbitral Tribunal considers that the three-year limitation period under Article 10.2 of the UNIDROIT Principles started running as that date.

851. The fact that Claimant has advanced its seismic misfires claim as a breach of a continuing duty to clear up the seismic misfires upon the PSA's expiry does not have an impact on the Arbitral Tribunal's analysis. As stated in the Commentary on Article 14(1) of the International Law Commission's Articles on the Responsibility of States for Internationally Wrongful Acts, "*[a]n act does not have a continuing character merely because its effects or consequences extend in time. It must be the wrongful act as such which continues.*" (Exhibit RL-152, p. 60, para. 6). Here, Respondents' wrongful act of creating seismic misfires occurred at a specific point in time, noting that Respondents' seismic survey acquisition work that triggered those misfires ended in 2001. Respondents' failure to clear up the seismic misfires at the end of the PSA's term is only a consequence of the initial wrongful act, which

[210] TLD hearing transcript, 18 May 2016, Mr. Partasides and Mr. Bahumaish at 631:5 until 634:15.
[211] TLD hearing transcript, 18 May 2016, Mr. Partasides and Mr. Bahumaish at 637:14-21 and at 638:9-22.
[212] TLD hearing transcript, 17 May 2016, Ms. Sabben-Clare and Mr. Tracy at 455:10-25 and at 456:1-6.
[213] Claimant's PHB, para. 65.III(6).

does not lead to the creation of a new breach every day that the initial wrongful act is not remedied.

852. Consequently, the Arbitral Tribunal finds that Claimant's seismic misfires claim is time-barred in accordance with the three-year limitation period under Article 10.2 of the UNIDROIT Principles, considering that Claimant was aware or ought to be aware of the presence of seismic misfires as of 8 January 2008 and that the Standstill Agreement that interrupted the running of that limitation period was concluded on 22 March 2013.

853. Moreover, the Arbitral Tribunal finds that Claimant's seismic misfires claim is time-barred in accordance with the 10-year limitation period under Article 10.2 of the UNIDROIT Principles, considering that Respondents' seismic survey acquisition work that triggered the seismic misfires ceased in 2001 and that the Standstill Agreement was concluded on 22 March 2013.

Section 4. Waiver/estoppel defence

Sub-section 1. Applicable law

854. The Arbitral Tribunal notes that, with respect to waiver, the Parties are in agreement that there are common principles among the three national laws of Yemen, Lebanon and Canada. The Parties further agree that those common principles are set out in the expert reports of Respondents' legal experts.[214] The relevant parts of those expert reports read as follows (EXR of Mr. Luqman, paras. 79 and 83, EXR of Ms. Comair-Obeid, paras. 44-46, and EXR of Mr. Lindsay, paras. 40-44):

- Under Yemeni law, "*the defence of waiver is based on the [] Sharia principle [that] '[s]ilence when expression is required is a declaration'*" and "*[i]f a person (A) recognises and has the opportunity to exercise certain rights, yet fails to do so, and another person (B) proceeds to conduct himself in a certain manner in the light of A's not exercising those rights, A will not be permitted to later resuscitate those same rights nor exercise them as against B.*"
- Under Lebanese law, "*[...] if a party acts in a manner that clearly and unequivocally demonstrates (at the time at which it has an opportunity to exercise a right) that it does waive its right, it will not in the future be permitted to exercise it,*" whereas "*[a] waiver can be implicit or explicit*" and "*[t]he general test for a 'waiver by conduct' or an implied waiver under Lebanese law is that it should be 'clear and unequivocal'.*"
- Under Canadian law, "*waiver will be found 'where the evidence demonstrates that the party waiving had (1) a full knowledge of rights; (2) an unequivocal and conscious*

[214] SoDTLD, paras. 137, 142-143, and 145; SoRTLD, paras. 155-156.

intention to abandon them[,]' [where] [t]he overriding consideration is whether 'one party communicated a clear intention to waive a right to the other party," noting that "*[a] waiver can be express, or implied through a party's conduct.*"

855. In light of the above, the Arbitral Tribunal decides that, pursuant to Article 27.2 (i) of the PSA, it shall apply "*principles of law common to the PDRY, Canada and Lebanon*" with respect to Respondents' waiver defence and that the following two questions must be answered in the present case: (i) whether Claimant had an opportunity to exercise a right and (ii) if yes, whether Claimant evinced a clear intention, expressly or by conduct, not to exercise that right. In assessing those questions, the Arbitral Tribunal agrees with Respondents' position that the evidential burden is higher for the waiver test than it is for the time-bar test and that waiver requires an unequivocal relinquishment of the right to bring a claim.[215]

856. With respect to estoppel, the Arbitral Tribunal notes that the Parties agree that there are common elements among Yemeni, Lebanese and Canadian law, stressing, however, that the principles of estoppel under international law adopt a consistent or analogous approach.[216] As far as the principle of estoppel under the three national laws is concerned, the evidence of Respondents' legal experts is as follows (EXR of Mr. Luqman, paras. 78 and 81-82, EXR of Ms. Comair-Obeid, paras. 49-52, and EXR of Mr. Lindsay, paras. 45-52):

- Under Yemeni law, "*Sharia law expresses the principle of estoppel in the following terms: 'He who attempts to refute himself, his attempts shall be denied.*'" Moreover, "*the general duty of good faith that exists under Yemeni law [...] requires, for example, that a party not act in a manner that is inconsistent with its previous representations or conduct.*" Thus, "*estoppel prohibits inconsistent conduct. If a party makes a representation by words or conduct as to a certain state of affairs and, later, attempts to make a representation that is inconsistent with that prior representation, it will be 'estopped' from doing so. This is particularly true if the inconsistency suggests that the party was not acting in good faith.*"
- Under Lebanese law, "*Article 100 of the Majallah (akin to the good faith principle) provides that 'whoever tries to undo what he previously undertook, such act on his part shall be turned against him'.*"
- Under Canadian law, there are three main elements of estoppel: "*1) a representation or conduct amounting to a representation, [which has to be truthful, unambiguous and material,] intended to induce a course of conduct on the part of the person to whom the representation is made, 2) an act or omission resulting from the representation, whether actual or by conduct, by the person to whom the representation is made, and 3) detriment to such person as a consequence of the act or omission.*"

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[215] Respondents' PHB, para. 41.
[216] SoDTLD, paras. 144-146; SoRTLD, paras. 171 and 175-176.

857. Thus, whereas Yemeni and Lebanese law focus on a party's inconsistent behaviour, which is assessed from a good faith perspective, Canadian law has a more developed content on estoppel, also requiring detrimental reliance on the part of the representee. Considering that the content of the principle of estoppel is not entirely common among those three national laws, the Arbitral Tribunal will apply "*principles of law normally recognized by nations in general, including those which have been applied by International Tribunals.*"

858. As far as principles of law recognized by nations in general are concerned, the Parties are not in serious disagreement about the content of estoppel.[217] Though Claimant has not expressly agreed on the application of the UNIDROIT Principles in this arbitration, the Arbitral Tribunal finds that Claimant's estoppel test under international law[218] is very similar to the one established under Article 1.8 of the UNIDROIT Principles, which reads as follows (Exhibit RL-151):

"*A party cannot act inconsistently with an understanding it has caused the other party to have and upon which that other party reasonably has acted in reliance to its detriment.*"

859. The Arbitral Tribunal reiterates here that the UNIDROIT Principles can be applied as a source and reference of "*principles of law normally recognized by nations in general, including those which have been applied by International Tribunals.*" The Arbitral Tribunal further notes that the Commentary to Article 1.8 of the UNIDROIT Principles states in relevant part that (Exhibit RL-151, Comment 2 to Article 1.8):

"*There is a variety of ways in which one party may cause the other party to have an understanding concerning their contract, its performance, or enforcement. The understanding may result, for example, from a representation made, from conduct, or from silence when a party would reasonably expect the other to speak to correct a known error or misunderstanding that was being relied upon.*
So long as it relates in some way to the contractual relationship of the parties, the understanding for the purposes of this Article is not limited to any particular subject-matter. It may relate to a matter of fact or of law, to a matter of intention, or to how one or other of the parties can or must act.
The important limitation is that the understanding must be one on which, in the circumstances, the other party can and does reasonably rely. Whether the reliance is reasonable is a matter of fact in the circumstances having regard, in particular, to the

[217] SoRjTLD, para. 103-106; SoRTLD, paras. 176-180.
[218] SoDTLD, para. 146: "*[...] three elements have to be met: (i) a representation must be made by one party to another; (ii) the representation must be unequivocal, clear and unambiguous; and (iii) the recipient of the representation must rely on it in bona fide*"; Exhibit CL-33.

communications and conduct of the parties, to the nature and setting of the parties' dealings and to the expectations they could reasonably entertain of each other."

860. In light of the above, the Arbitral Tribunal decides that, pursuant to Article 27.2 (i) of the PSA, it shall apply "*principles of law normally recognized by nations in general, including those which have been applied by International Tribunals*" in respect of Respondents' estoppel defence and, in particular, Article 1.8 of the UNIDROIT Principles and that the following questions must be answered in the present case: (i) whether Claimant has caused an understanding, through a representation, conduct or silence, in Respondents in relation to their performance under the PSA, (ii) whether Respondents have reasonably acted in reliance on that understanding, (iii) whether Claimant has acted inconsistently with its prior understanding and (iv) whether Respondents have detrimentally relied on that prior understanding. In assessing those questions, the Arbitral Tribunal agrees with Respondents' position that the evidential burden is higher for the estoppel test than it is for the time-bar test and that estoppel requires an unequivocal relinquishment of the right to bring a claim.[219]

Sub-section 2. Application of the waiver/estoppel defence to Claimant's claims

861. In light of the Arbitral Tribunal's above findings on Respondents' Settlement Agreement defence and time-bar defence, Claimant's claims that are subject to Respondents' waiver/estoppel defence are the following:[220] (i) inadequately cemented wells claims in relation to the one inadequately cemented well drilled on Block 14 after 22 March 2010, (ii) use of crude oil and other additives in water-based drilling fluids claims in relation to the eight wells that were drilled on Block 14 after 22 March 2010, (iii) VPS design claims in relation to the one VPS well that was drilled after 22 March 2010, (iv) well cellars claims in relation to the eight wells that were drilled on Block 14 after 22 March 2010, (v) NORM claims in relation to the canisterisation of NORM-contaminated equipment (SoC, paras. 266-280), (vi) facilities and equipment claims in respect of items 1-8, 11, 13, 18, 27 and 28, as set out in Annex 2 to the 1WS of Mr. Tracy (SoC, paras. 322-331).

862. The Arbitral Tribunal reiterates here that, for purposes of the present award, it will assume that Claimant's breach allegations have been successfully established, without prejudice to Respondents' defences to the underlying merits of Claimant's current claims.

A. Inadequately cemented wells claims in respect of the one well drilled on Block 14 after 22 March 2010

[219] Respondents' PHB, para. 41.
[220] Updated TLD Schedule.

863. The Arbitral Tribunal reiterates here that Respondents have successfully established that Claimant was aware or ought to be aware since April 2005 at the latest of Respondents' failure to achieve 100% cementation with respect to the post-2001 wells.

864. Respondents contend that Claimant has waived, and is estopped from bringing, its inadequately cemented wells claims.[221] They argue that Claimant's long-standing silence and ongoing approval of well packages evinced a clear intention not to exercise its rights in respect of Respondents' inadequately cemented wells and that, in reliance on that conduct, Respondents continued their practices to their detriment, as they were deprived of the opportunity to cost recover further remedial cementation of the wells.[222]

865. On the other hand, Claimant submits that very little, if any, effort was devoted by Respondents at the TLD hearing to establish their waiver/estoppel defence. In any event, Respondents have failed to establish that Claimant was aware of its right to make a claim prior to the PSA's expiry and that it ever represented to Respondents that it would not make such a claim. With respect to the WP&Bs and well packages, Claimant contends that Claimant's review and approval of the same only meant that it was agreeing that the costs could be recovered from cost oil.[223]

866. The Arbitral Tribunal agrees with Claimant's position that Respondents have failed to discharge their burden of proof that, by remaining silent over a number of years and repeatedly approving well packages, Claimant unequivocally relinquished its right to bring a claim for Respondents' failure to achieve 100% cementation on post-2001 wells. With respect to waiver, the Arbitral Tribunal finds that Claimant's knowledge of the cementing issues on post-2001 wells did not allow Claimant to have the opportunity to exercise a right to bring a claim against Respondents. With respect to estoppel, the Arbitral Tribunal finds that Claimant has not caused an understanding, through a representation, conduct or silence, in Respondents that it would not bring a claim against them regarding the cementing issues on post-2001 wells.

867. Accordingly, the Arbitral Tribunal finds that Claimant has not waived, and is not estopped from bringing, its inadequately cemented wells claims in respect of the one well that was drilled on Block 14 after 22 March 2010.

B. Use of crude oil and other additives in water-based drilling fluids claims in relation to the eight wells drilled on Block 14 after 22 March 2010

[221] Updated TLD Schedule, Claim No. 1.
[222] Respondents' PHB, para. 88(c); SoRTLD, paras. 213-215.
[223] Claimant's PHB, paras. 167 and 170; SoDTLD, para. 153(b).

868. The Arbitral Tribunal reiterates here that Respondents used crude oil and five harmful chemicals contained therein in its water-based drilling fluids until May 2004 (EXR of Mr. Sands, paras. 217-226) and used five mud additives, the three of them until 2004 and the other two until the PSA's expiry (EXR of Mr. Sands, paras. 227-244). The Arbitral Tribunal further recalls that Respondents have successfully established that Claimant was aware or ought to be aware of the use of those two mud additives since November 2001 at the latest. Thus, Claimant's use of crude oil and other additives in water-based drilling fluids claims relate only to the use of the two mud additives, biocide and corrosion inhibitor, in drilling the eight wells after 22 March 2010.

869. Respondents contend that Claimant has waived, and is estopped from bringing, its use of crude oil and other additives in water-based drilling fluids claims.[224] They argue that Claimant's long-standing silence and approval of a drilling fluids contract dated 1 April 2002 (Exhibit R-408), which repeatedly referred to the use of biocide and corrosion inhibitor (Exhibit R-411, pp. 47-48 and 63-66), evinced a clear intention not to exercise its rights in respect of Respondents' use of mud additives and that, in reliance on that conduct, Respondents continued their practices to their detriment, as they were deprived of the opportunity to cost recover the use of alternative additives and remedial work.[225]

870. On the other hand, Claimant submits that very little, if any, effort was devoted by Respondents at the TLD hearing to establish their waiver/estoppel defence. In any event, Respondents have failed to establish that Claimant was aware of its right to make a claim prior to the PSA's expiry and that it ever represented to Respondents that it would not make such a claim. With respect to the OpCom's approvals of contracts, Claimant contends that Respondents' own memorandum confirm that they were mostly concerned with budget considerations (Exhibit C-90).[226]

871. The Arbitral Tribunal agrees with Claimant's position that Respondents have failed to discharge their burden of proof that, by remaining silent over a number of years and by approving, through the OpCom, the drilling fluids contract dated 1 April 2002, Claimant unequivocally relinquished its right to bring a claim for Respondents' use of biocide and corrosion inhibitor in their drilling fluids throughout the PSA's term. With respect to waiver, the Arbitral Tribunal finds that Claimant's knowledge of the use of biocide and corrosion inhibitor in Respondents' drilling fluids did not give Claimant the opportunity to exercise a right to bring a claim against Respondents in relation to that practice.

872. With respect to estoppel, Mr. Tracy testified at the TLD hearing that Claimant's silence over the use of crude oil was not understood by Respondents as an unequivocal approval of that

[224] Updated TLD Schedule, Claim No. 7.
[225] Respondents' PHB, para. 110(c); SoRTLD, paras. 283 and 286.
[226] Claimant's PHB, paras. 167 and 170; SoDTLD, para. 155.

practice.[227] Moreover, Respondents have not established that Claimant's approval, through the OpCom, of the drilling fluids contract dated 1 April 2002 caused an understanding in Respondents that it would not bring a claim against them in relation to the use of biocide and corrosion inhibitor in their drilling fluids.

873. Accordingly, the Arbitral Tribunal finds that Claimant has not waived, and is not estopped from bringing, its use of biocide and corrosion inhibitor claims in relation to the eight wells that were drilled on Block 14 after 22 March 2010.

C. VPS design claims in relation to the one VPS well drilled after 22 March 2010

874. The Arbitral Tribunal reiterates here that Respondents have successfully established that Claimant was aware or ought to be aware of the VPS well design since 25 November 2001.

875. Respondents contend that Claimant has waived, and is estopped from bringing, its VPS design claims.[228] They argue that Claimant's long-standing silence evinced a clear intention not to exercise its rights in respect of Respondents' implementation of the VPS design and that, in reliance on that conduct, Respondents continued implementing that design to their detriment, as they were deprived of the opportunity to cost recover alternative pumping system designs.[229]

876. On the other hand, Claimant submits that very little, if any, effort was devoted by Respondents at the TLD hearing to establish their waiver/estoppel defence. In any event, Respondents have failed to establish that Claimant was aware of its right to make a claim prior to the PSA's expiry and that it ever represented to Respondents that it would not make such a claim. With respect to Claimant's knowledge of Respondents' VPS design, Claimant points out that Respondents did not even attempt to establish at the TLD hearing that Claimant had knowledge of its right to complain about that VPS design.[230]

877. The Arbitral Tribunal agrees with Claimant's position that Respondents have failed to discharge their burden of proof that, by remaining silent over a number of years, Claimant unequivocally relinquished its right to bring a claim for Respondents' VPS well design. With respect to waiver, the Arbitral Tribunal finds that Claimant's knowledge of Respondents' VPS well design did not allow Claimant to have the opportunity to exercise a right to bring a claim against Respondents. With respect to estoppel, the Arbitral Tribunal finds that Claimant has not caused an understanding, through a representation, conduct or silence, in Respondents that it would not bring a claim against them in relation to their VPS well design.

[227] TLD hearing transcript, 17 May 2016, Ms. Sabben-Clare and Mr. Tracy at 445:5-25 and at 446:1-17.
[228] Updated TLD Schedule, Claim No. 9.
[229] Respondents' PHB, para. 118(c); SoRTLD, paras. 304-305.
[230] Claimant's PHB, paras. 167, 170 and 171.

878. Accordingly, the Arbitral Tribunal finds that Claimant has not waived, and is not estopped from bringing, its VPS design claims in respect of the one VPS well that was drilled on Block 14 after 22 March 2010.

D. Well cellars claims in relation to the eight wells drilled on Block 14 after 22 March 2010

879. The Arbitral Tribunal reiterates here that Respondents have successfully established that Claimant was aware or ought to be aware of the lack of well cellars since the late 1990s.

880. Respondents contend that Claimant has waived, and is estopped from bringing, its well cellars claims.[231] They argue that Claimant's long-standing silence evinced a clear intention not to exercise its rights in respect of the lack of well cellars and that Respondents relied on that conduct to their detriment, as they were deprived of the opportunity to recover the costs of installing well cellars.[232]

881. On the other hand, Claimant submits that very little, if any, effort was devoted by Respondents at the TLD hearing to establish their waiver/estoppel defence. In any event, Respondents have failed to establish that Claimant was aware of its right to make a claim prior to the PSA's expiry and that it ever represented to Respondents that it would not make such a claim. Claimant further adds that it was unaware that it grounds to make a claim.[233]

882. The Arbitral Tribunal agrees with Claimant's position that Respondents have failed to discharge their burden of proof that, by remaining silent over a number of years, Claimant unequivocally relinquished its right to bring a claim for the lack of well cellars. With respect to waiver, the Arbitral Tribunal finds that Claimant's knowledge of the lack of well cellars did not allow Claimant to have the opportunity to exercise a right to bring a claim against Respondents. With respect to estoppel, the Arbitral Tribunal finds that Claimant has not caused an understanding, through a representation, conduct or silence, in Respondents that it would not bring a claim against them in relation to the lack of well cellars.

883. Accordingly, the Arbitral Tribunal finds that Claimant has not waived, and is not estopped from bringing, its well cellars claims in respect of the eight wells that were drilled on Block 14 after 22 March 2010.

E. NORM claims in relation to the canisterisation of NORM-contaminated equipment

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[231] Updated TLD Schedule, Claim No. 10.
[232] Respondents' PHB, para. 122(c); SoRTLD, paras. 314-315.
[233] Claimant's PHB, paras. 167 and 170; SoDTLD, para. 125.

884. The Arbitral Tribunal reiterates here that Respondents have successfully established that Claimant was aware or ought to be aware of Respondents' NORM management practices since November 2000.

885. Respondents contend that Claimant has waived its NORM claims in relation to the canisterisation of NORM-contaminated equipment.[234] They argue that Claimant's refusal to approve Respondents' earlier proposal for the de-contamination of the NORM-contaminated equipment evinced a clear intention not to exercise its rights in respect of Respondents' ultimate alternative practice of canisterisation of NORM-contaminated equipment.[235]

886. On the other hand, Claimant submits that very little, if any, effort was devoted by Respondents at the TLD hearing to establish their waiver/estoppel defence. In any event, Respondents have failed to establish that Claimant was aware of its right to make a claim prior to the PSA's expiry and that it ever represented to Respondents that it would not make such a claim. Claimant further adds that the Parties never reached an agreement on the method of NORM disposal.[236]

887. Regarding the evidence on Claimant's refusal to approve Respondents' earlier de-contamination proposal, the Arbitral Tribunal notes that, on 18 July 2010, Respondents prepared an internal memorandum, requesting the approval for the award of a contract for NORM remediation services to be provided by UNICO (Exhibit R-207). In his WS, Mr. Bahumaish confirms that Claimant became aware of Respondents' proposal for the award of the UNICO contract on 17 August 2010 (WS of Mr. Bahumaish, para. 30). Further to Claimant's request, Respondents provided a brief description of the proposed de-contamination method on 1 September 2010 (Exhibit R-211).

888. The minutes of an OpCom meeting held on 15 February 2011 set out the chronology of the Parties' discussions and Claimant's requests for information over the proposed UNICO contract (Exhibit C-235, p. 2). On 22 February 2011, Respondents made a detailed presentation to Claimant, addressing its request for further information over the proposed UNICO contract (Exhibits R-228 and C-238). It was decided at that meeting that PEPA/OpCom representatives would do a field visit and subsequently meet with the National Atomic Energy Commission ("NATEC") representatives to discuss their findings, following which the PEPA/OpCom/NATEC representatives would prepare a draft proposal for discussion with Respondents on how to deal with the NORM-contaminated equipment (Exhibit C-238, p. 3).

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[234] Updated TLD Schedule, Claim No. 11.
[235] Respondents' PHB, para. 126(c) and (d); SoRTLD, para. 324.
[236] Claimant's PHB, paras. 167 and 170; SoDTLD, para. 126.

889. On 19 May 2011, Respondents informed Claimant that NORM disposal was delayed due to PEPA's failure to grant approval (Exhibit C-210, p. 4). On 23 June 2011, Respondents informed Claimant that it had decided to cancel the request for approval of the UNICO contract and that it was considering alternative options (Exhibit R-240). On 15 September 2011, Respondents confirmed internally that there was still no agreement on how to dispose of NORM-contaminated equipment (Exhibit R-252).

890. On 18 October 2011, Respondents invited PEPA to participate in a NORM safety training that would take place prior to the commencement of NORM disposal work (Exhibit R-270). On 30 October 2011, Respondents informed Claimant that they could not accommodate its request for a field visit by PEPA/NATEC representatives made through its letter dated 25 October 2011 and that, immediately after the NORM safety training mentioned in their letter of 18 October 2011, they would start disposing of NORM-contaminated equipment (Exhibits R-272 and C-240).

891. Mr. Bahumaish confirmed at the TLD hearing that the UNICO contract proposed by Respondents was a decontamination contract.[237] He further confirmed that, despite having agreed on a field visit on 22 February 2011, it was only in late October 2011 that PEPA finally proposed conducting that field visit.[238] Mr. Bahumaish also testified that, despite the alleged importance of the NORM issue, he had no idea what had been done by PetroMasila, the current operator of Block 14 with respect to the NORM-contaminated material, following the PSA's term's expiry.[239]

892. In the Arbitral Tribunal's opinion, the above evidence does not corroborate Respondents' position that Claimant's refusal to approve the UNICO contract evinced a clear intention not to exercise its rights in respect of Respondents' practice of canisterisation of NORM-contaminated equipment that was different from the UNICO de-contamination proposal and on which Claimant never agreed. Despite Claimant's eight-month delay to send a team for the NORM-related field visit, there is no evidence that Claimant ever agreed on Respondents' adopted method of canisterisation that Claimant unequivocally relinquished its right to bring a claim in that respect.

893. Accordingly, the Arbitral Tribunal finds that Claimant has not waived its NORM claims in respect of Respondents' practice of canisterisation of NORM-contaminated equipment.

F. Facilities and equipment claims in respect of items 1-8, 11, 13, 18, 27 and 28

[237] TLD hearing transcript, 18 May 2016, Mr. Partasides and Mr. Bahumaish at 612:14-25 and at 613:1-12.
[238] TLD hearing transcript, 18 May 2016, Mr. Partasides and Mr. Bahumaish at 627:8 until 629:14.
[239] TLD hearing transcript, 18 May 2016, Mr. Partasides and Mr. Bahumaish at 629:21-25 and at 630:1-22.

894. Claimant submits that Respondents neglected to address the matters set out in the Facilities and Equipment Schedule in breach of Articles 8.1 and 8.2 of the PSA, Good Oilfield Practice and good faith, failed to handover the assets referred to in that schedule in good working order, normal wear and tear accepted, in breach of Article 18.1(b) of the PSA, Good Oilfield Practice and good faith and avoided informing Claimant of the matters set out in that schedule in breach of their duty of good faith (WS of Mr. Binnabhan, para. 71, Exhibit C-72, Tabs 1-30, and EXR of Mr. Jewell, para. 65).

895. Respondents contend that Claimant has waived, and is estopped from raising, its facilities and equipment claims in respect of items 1-8, 11, 13, 18, 27 and 28, as set out in Annex 2 to Mr. Tracy's 1WS, the total claimed amount of which is US$ 14,215,411.55.[240] They argue that Claimant's long-standing silence evinced a clear intention not to exercise its rights in respect of the maintenance of certain facilities and equipment and that Respondents relied on that conduct to their detriment, as they were deprived of the opportunity to recover the costs of prioritizing the maintenance of those items prior to the PSA's expiry.[241]

896. On the other hand, Claimant submits that very little, if any, effort was devoted by Respondents at the TLD hearing to establish their waiver/estoppel defence. In any event, Respondents have failed to establish that Claimant was aware of its right to make a claim prior to the PSA's expiry and that it ever represented to Respondents that it would not make such a claim. Claimant further adds that Respondents failed identify what knowledge it had in relation to any particular item under its facilities and equipment claims, still less that there was a representation that Claimant would make no claim in that respect.[242]

897. The Arbitral Tribunal notes in the first place that Respondents' evidence only shows that Claimant was aware of the facts underlying its facilities and equipment claims in respect of items 1-8, 11, 13, 18, 27 and 28 prior to the PSA's expiry (Exhibits C-232, p. 3, R-444, R-448, pp. 7, 9-11, 13, 19 and 23, R-458, pp. 8, 19 and 20, R-456, pp. 8-9, 11, 17 and 20, R-457, pp. 4, 8 and 9, R-464, pp. 12-13, R-461, R-462, R-451, pp. 117-138, R-454, pp. 3 and 5, R-447, R-450, R-449, and C-112, p. 5). In fact, Respondents state so in their submissions.[243] And, upon a closer review of Respondents' position on items 1-8, 11, 13, 18, 27 and 28 (2WS of Mr. Tracy, Annex 2, and Exhibit R-282), the Arbitral Tribunal notes that what Respondents allege is that Claimant was aware that certain equipment had not been replaced/installed prior to the PSA's expiry (items 5-7, 13 and 18) or that certain work/inspections had not been completed prior to the PSA's expiry (items 1-4, 8, 11, 27 and 28).

[240] Updated TLD Schedule, Claim No. 14.
[241] Respondents' PHB, para. 138; SoRTLD, paras. 352 and 353.
[242] Claimant's PHB, paras. 167, 170 and 177; SoDTLD, paras. 152-153.
[243] SoRTLD, paras. 349 and 350; Respondents' PHB, para. 138.

898. However, Respondents' evidence does not satisfy even Respondents' own test that "*[t]ime-bar requires simple knowledge of the facts underlying the claims; waiver and estoppel require an unequivocal relinquishment of the right to bring a claim.*"[244] In the Arbitral Tribunal's opinion, Respondents' evidence does not establish that Claimant had an opportunity to exercise a right to bring a claim against Respondents in relation to the maintenance of the facilities and equipment in question. In addition, Respondents' evidence does not establish that Claimant has caused an understanding, through a representation, conduct or silence, in Respondents that it would not bring a claim against them in relation to the maintenance of the facilities and equipment in question.

899. Accordingly, the Arbitral Tribunal finds that Claimant has not waived, and is not estopped from bringing, its facilities and equipment claims in respect of items 1-8, 11, 13, 18, 27 and 28.

Section 5. Conclusion on the impact of Respondents' threshold legal defences

900. To conclude, the Arbitral Tribunal finds that the following claims of Claimant have not been defeated by Respondents' threshold legal defences of settlement, time-bar and waiver/estoppel:

- Inadequately cemented wells claims in relation to the one inadequately cemented well that was drilled on Block 14 after 22 March 2010;
- Use of biocide and corrosion inhibitor in Respondents' water-based drilling fluids claims in relation to the eight wells that were drilled on Block 14 after 22 March 2010;
- VPS design claims in relation to the one VPS well that was drilled after 22 March 2010;
- Well cellars claims in relation to the eight wells that were drilled on Block 14 after 22 March 2010;
- NORM claims in relation to the practice of canisterisation of NORM-contaminated equipment;
- EIA claim in relation to Claimant's allegation that Respondents "*appear not to have commissioned or conducted any detailed environmental assessment at handover*";
- Waste management claim in respect of the CPF incinerator that was installed in 2009; and
- Facilities and equipment claims in respect of items 1-8, 11, 13, 18, 27 and 28.

901. Therefore, the following claims and counterclaim are to be heard at the subsequent phase of this arbitration:

[244] Respondents' PHB, para. 41.

- The above-mentioned claims of Claimant that have not been defeated by Respondents' threshold legal defences, as listed in para. 900 above;
- Claimant's third-party claims (SoC, paras. 318-320);
- The entirety of Claimant's facilities and equipment claims (SoC, paras. 322-331);
- Claimant's documentation and data claim (SoC, paras. 332-345);
- Claimant's Asset Register claim (SoC, paras. 346-355); and
- Claimant's SAP claim (SoC, paras. 356-369); and
- Respondents' counterclaim (SoDC, paras. 697-723).

CHAPTER X. COSTS

902. The Parties agreed at the TLD hearing[245] that the issue of costs would be addressed after the issuance of the present partial award on Respondents' threshold legal defences. Therefore, the Arbitral Tribunal decides to defer its decision on the costs of the arbitration until the present award has been issued and the Parties have filed their cost submissions.

903. For the record, in its communication of 30 April 2015, the ICC Secretariat informed the Parties and the Arbitral Tribunal that the ICC Court had increased the advance on costs, which is meant to cover the fees and expenses of the Arbitral Tribunal and the ICC administrative expenses in accordance with Article 36(2) of the ICC Rules, to US$ 1,160,000. This advance on costs has been paid by the Parties in equal shares, as notified by the ICC Secretariat on 3 June 2015.

[245] TLD hearing transcript, 19 May 2016, the President, Ms. Sabben-Clare and Mr. Partasides at 1064:1-11.

CHAPTER XI. PARTIAL DISSENTING OPINION

904. The majority of the Arbitral Tribunal regrets that Mr. W. Laurence Craig was not able to agree with the entire present award and has found it necessary to dissent in part, although the majority of the Arbitral Tribunal readily recognises his right to do so. Ordinarily, the majority of the Arbitral Tribunal would not comment on a dissenting opinion. The dissenting opinion should be evaluated and speak for itself, as should the majority award. However, on this occasion, the majority of the Arbitral Tribunal feels compelled to make a few brief comments on the dissenting opinion. This is because Mr. Craig appears to have gone beyond disagreeing with some of the substantive decisions reached in the present award and challenges the procedure followed up to the issuance of the present award.

905. In particular, Mr. Craig challenges "*[t]he manner in which the majority has accepted to render a partial award on the 'Threshold Legal Defenses' [that] risks prejudicing the ability of the Claimant to get a full and fair hearing on the merits after it will have obtained adequate document production and had the opportunity to present oral evidence and expert testimony [...]*." He further adds that "*[i]t is important that we as an arbitral tribunal and the ICC as an arbitral institution be careful to protect the rights of a party to fully present its case. While we may seek to pursue the goals of efficiency, speed and cost savings by procedural devices such as bifurcated proceedings, as in the present case, we must be careful not to sacrifice the rights of a party to fully present its case.*"

906. The majority of the Arbitral Tribunal responds that what was done in this bifurcated part of the proceedings was to determine Respondents' threshold legal defences, which, if established, would provide a defence in whole or part, even if Respondents were otherwise in breach of their contractual obligations. Mr. Craig has described this phase of the arbitration as "*a preliminary and procedural phase.*" However, it was much more than that. The majority of the Arbitral Tribunal has examined Respondents' threshold legal defences which, if established, as several were, would substantially reduce the scope of the matters remaining to be decided. The procedure adopted up to the issuance of the present award is clearly set out in the chapter containing the procedural history of this arbitration.[246] None of the Parties has raised objections to the procedure followed in this phase of the proceedings nor have they asserted that their right to be heard was not respected or was otherwise compromised.

907. In the course of deciding Respondents' threshold legal defences considered in this phase of the proceedings, it was necessary to make some findings of fact. The Arbitral Tribunal accorded the Parties an adequate opportunity to provide evidence on these limited factual matters. Prior to the hearing, the Parties filed extensive written submissions, the Arbitral Tribunal made document production orders with respect to Respondents' threshold legal

[246] Chapter IV of the present award.

defences, statements were provided by fact and expert witnesses from both sides and a great deal of factual and legal exhibits were filed. At the hearing, each Party was given the opportunity to cross-examine the other Party's fact and expert witnesses and there was also some direct examination by the Parties of their own witnesses. Additionally, the Parties were afforded the opportunity to make oral closing arguments and file PHBs. The majority of the Arbitral Tribunal made its decisions on the limited factual matters in dispute after a careful examination and evaluation of all evidence produced by the Parties. As the majority of the Arbitral Tribunal found it necessary to make limited factual findings in order to determine Respondents' threshold legal defences and as the Parties were accorded a reasonable opportunity to provide evidence and did so, the majority of the Arbitral Tribunal cannot agree with Mr. Craig that it was premature or inappropriate to make these limited factual findings.[247]

908. Finally, although Mr. Craig agrees with the majority of the Arbitral Tribunal that the Settlement Agreement is a valid agreement and that it was duly ratified, he appears to disagree with the majority of the Arbitral Tribunal that it in fact settled "*any and all claims and demands of any kind and nature whatsoever, at law or in equity, or under any statute relating to the carrying out the work necessary upon termination or cancellation under the Masila Block (14) PSA with respect to dismantlement, abandonment, and reclamation.*" This appears to be a question of construction of the Settlement Agreement itself. The majority of the Arbitral Tribunal finds some inconsistency in the views expressed by Mr. Craig. If the Settlement Agreement is valid, as the entire Arbitral Tribunal has found, it must have an operation according to its terms. The majority of the Arbitral Tribunal regards the terms of the Settlement Agreement as perfectly clear and the majority of the Arbitral Tribunal refers to para. 598 hereof, which reproduces those terms that provide in effect that Respondents are "*forever release[d] and discharge[d]*" "*from any and all*" dismantlement, abandonment and reclamation obligations.

909. To conclude, while Mr. Craig is fully entitled to disagree with any decision taken in the present award, the majority of the Arbitral Tribunal regrets that he intimated in his dissenting opinion that the procedure followed in this phase of the arbitration was deficient, improper or otherwise prevented the Parties from fully presenting their cases on Respondents' threshold legal defences that are addressed herein.

[247] See also Chapter IX, Section I of the present award.

CHAPTER XII. DECISIONS

910. For the foregoing reasons:

(i) The Arbitral Tribunal unanimously decides that the Settlement Agreement was a concluded agreement on the terms of Exhibit R-1 and that it was duly ratified by the three resolutions of the Supreme Economic Council and of the Council of Ministers of 25 and 26 June 1996;

(ii) The majority of the Arbitral Tribunal decides that Clause 9 of the Settlement Agreement released Respondents from any dismantlement, abandonment and reclamation claims regarding the period up to the expiry of the PSA's term on 17 December 2011 and that, as a result, the following claims of Claimant have been settled through the Settlement Agreement:

(a) The claim of US$ 124,480,000 related to the abandonment costs of 311 "inadequately cemented wells" (SoC, paras. 141-142);
(b) The claims of US$ 124,944,000 related to the abandonment costs of 323 "adequately cemented wells" (SoC, paras. 243-250), US$ 9,060,000 related to the re-abandonment costs of 5 "improperly abandoned wells" (SoC, paras. 208-213) and of US$ 1,309,000 related to the re-abandonment of 3 wells into which NORM-contaminated equipment was disposed (SoC, paras. 237-241);
(c) The claim of US$ 2,850,000 related to the remediation of sludge ponds; and
(d) The claim of US$ 15,550,000 related to the cost of abandoning sections of the MOL, redundant flow lines, surface facilities and disused borrow pits.

(iii) The Arbitral Tribunal unanimously dismisses Claimant's abandonment-related claim in respect of the 10 off-block wells on the basis that this claim falls outside the scope of the Arbitral Tribunal's jurisdiction;

(iv) The Arbitral Tribunal unanimously decides that the UNIDROIT Principles are applicable in respect of Respondents' time-bar defence;

(v) The majority of the Arbitral Tribunal decides that the following claims of Claimant are time-barred in accordance with the limitation periods under Article 10.2 of the UNIDROIT Principles:

(a) Inadequately cemented wells claims (SoC, paras. 146-207), except in relation to the one inadequately cemented well that was drilled on Block 14 after 22 March 2010;

(b) Use of crude oil and other additives in water-based drilling fluids claims (SoC, paras. 214-223), except in relation to the use of biocide and corrosion inhibitor in Respondents' water-based drilling fluids claims regarding the eight wells that were drilled on Block 14 after 22 March 2010;
(c) LOTs and FITs claims (SoC, paras. 224-227);
(d) VPS design claims (SoC, paras. 228-232), except in respect of the one VPS well that was drilled on Block 14 after 22 March 2010;
(e) Well cellars claims (SoC, paras. 233-236), except in respect of the eight wells drilled on Block 14 after 22 March 2010;
(f) NORM claims (SoC, paras. 237-241 and 266-280), except in relation to the specific claim regarding Respondents' practice of canisterisation;
(g) Injection of produced water into the Harshiyat claim (SoC, para. 242);
(h) EIA claim (SoC, paras. 261-265), except in relation to Claimant's claim that Respondents "*appear not to have commissioned or conducted any detailed environmental assessment at handover*";
(i) Groundwater contamination claims (SoC, paras. 281-286);
(j) Waste management claims (SoC, paras. 287-303), except in respect of the claim regarding the CPF incinerator that was installed in 2009; and
(k) Seismic misfires claim (SoC, paras. 312-317).

(vi) The Arbitral Tribunal unanimously decides that "*principles of law common to the PDRY, Canada and Lebanon*" are applicable with respect to Respondents' waiver defence and that the UNIDROIT Principles are applicable with respect to Respondents' estoppel defence;

(vii) The Arbitral Tribunal unanimously dismisses Respondents' time-bar and waiver/estoppel defences in relation to the following claims of Claimant:

(a) Inadequately cemented wells claims in relation to the one inadequately cemented well that was drilled on Block 14 after 22 March 2010 (SoC, paras. 146-207);
(b) Use of biocide and corrosion inhibitor in Respondents' water-based drilling fluids claims in relation to the eight wells that were drilled on Block 14 after 22 March 2010 (SoC, paras. 214-223);
(c) VPS design claims in relation to the one VPS well that was drilled after 22 March 2010 (SoC, paras. 228-232);
(d) Well cellars claims in relation to the eight wells that were drilled on Block 14 after 22 March 2010 (SoC, paras. 233-236);
(e) NORM claims in relation to the practice of canisterisation of NORM-contaminated equipment (SoC, paras. 237-241 and 266-280);

(f) EIA claim in relation to Claimant's allegation that Respondents "*appear not to have commissioned or conducted any detailed environmental assessment at handover*" (SoC, paras. 261-265);
(g) Waste management claim in respect of the CPF incinerator that was installed in 2009 (SoC, paras. 287-303); and
(h) Facilities and equipment claims in respect of items 1-8, 11, 13, 18, 27 and 28 (SoC, paras. 322-331).

(viii) The majority of the Arbitral Tribunal decides to reserve for the subsequent phase of this arbitration the determination of only the Parties' following claims and counterclaim:

(a) The above-mentioned claims of Claimant that have not been defeated by Respondents' time-bar and waiver/estoppel defences, as listed in decision (vii);
(b) Claimant's third-party claims (SoC, paras. 318-320);
(c) Claimant's remaining facilities and equipment claims (SoC, paras. 322-331);
(d) Claimant's documentation and data claim (SoC, paras. 332-345);
(e) Claimant's Asset Register claim (SoC, paras. 346-355); and
(f) Claimant's SAP claim (SoC, paras. 356-369); and
(g) Respondents' counterclaim (SoDC, paras. 697-723).

(ix) The Arbitral Tribunal unanimously decides to reserve its decision on the costs of the arbitration for the final award.

Place of arbitration: Paris (France)

Date: 06 February [illegible]

The Arbitral Tribunal:

[illegible]

Mr. William Laurence Craig
Arbitrator
(Dissenting)

Professor Michael Pryles
Arbitrator

Professor Bernard Hanotiau
President