IN THE MATTER OF AN ARBITRATION UNDER THE NORTH AMERICAN FREE TRADE AGREEMENT

-and-

THE ARBITRATION RULES OF THE UNITED NATIONS COMMISSION ON INTERNATIONAL TRADE LAW (1976)

-between-

ODYSSEY MARINE EXPLORATION, INC. (USA)

("Claimant")

and

THE UNITED MEXICAN STATES

("Respondent")

ICSID Case No. UNCT/20/1

AWARD

Members of the Tribunal
Mr. Felipe Bulnes Serrano, Presiding Arbitrator
Dr. Stanimir Alexandrov, Arbitrator
Prof. Philippe Sands, KC, Arbitrator

Secretary of the Tribunal
Ms. Anna Toubiana, ICSID

Date of dispatch to the Parties: 17 September 2024

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TABLE OF CONTENTS

TABLE OF SELECTED ABBREVIATIONS/DEFINED TERMS

Agrifos	Agrifos Partners LLC
AHMSA	Altos Hornos de México S.A. de C.V.
ARSIWA	International Law Commission's Articles on State Responsibility for Internationally Wrongful Acts
Boskalis Proposal	Mining proposal issued by Boskalis Offshore on 28 May 2013, entitled *Don Diego Phosphate Mining Proposal*
[redacted]	[redacted]
CAPEX	Capital expenditures
Chorzów Factory	*Case Concerning Rights of Minorities in the Factory at Chorzów* (*Germany v. Poland*) (PCIJ) Judgment, 13 September 1928
CIEL	Center for International Environmental Law
CIM	Canadian Institute of Mining, Metallurgy and Petroleum
CIMVAL	Guidelines and Standards on the Valuation of Mineral Properties of the Canadian Institute of Mining, Metallurgy and Petroleum
CONAPESCA	National Commission of Fisheries and Aquaculture (*Comisión Nacional de Acuacultura y Pesca*)
Concession	Mining concession obtained by ExO on 28 June 2012 from the Directorate General of Mines, over an extension of 2,680 km² off the coast of Baja California Sur in the Gulf of Ulloa
Counter-Memorial	Respondent's Counter-Memorial dated 23 February 2021

DCF	Discounted cash flow
DGIRA	SEMARNAT's General Directorate of Impact and Environmental Risk (*Dirección General de Impacto y Riesgo Ambiental*)
DGM	Directorate General of Mines
EIA	Environmental Impact Assessment
ExO	Exploraciones Oceánicas, S. de R.L. de C.V.
FET	Fair and equitable treatment
First Appeal	ExO's first appeal before the TFJA demanding the annulment of SEMARNAT's First Denial dated 27 January 2017
First Denial	SEMARNAT's rejection letter of ExO's New MIA dated 7 April 2016
FMV	Fair market value
FS	Feasibility study
Hearing	Hearing on Jurisdiction and Liability held virtually from 24 through 29 January, and 10 May 2022
ICSID or Centre	International Centre for Settlement of Investment Disputes
Initial MIA	Environmental Impact Statement (*Manifestación de Impacto Ambiental*) filed by ExO with SEMARNAT on 3 September 2014
LGEEPA	General Law of Ecological Balance and Environmental Protection in Environmental Impact Assessment (*Ley General del Equilibrio Ecológico y la Protección al Ambiente en Materia de Evaluación del Impacto Ambiental*) dated 5 June 2018
LGRA	General Law of Administrative Liabilities (*Ley General de Responsabilidades Administrativas*) dated 18 July 2016
Memorial	Claimant's Memorial dated 5 September 2020

Mexico or Respondent	United Mexican States
MIA	Environmental Impact Statement (*Manifestación de Impacto Ambiental*)
MINOSA	Minera del Norte, S.A. de C.V.
MONACO	Monaco Financial, LLC
Mt	Million tons
NAFTA	North American Free Trade Agreement of 17 December 1992, and in force as of 1 January 1994
New MIA	Environmental Impact Statement (*Manifestación de Impacto Ambiental*) filed by ExO with SEMARNAT on 21 August 2015
Notice of Arbitration	Notice of Arbitration submitted by Odyssey Marine Exploration, Inc. (U.S.) against the United Mexican States on 5 April 2019
Odyssey or Claimant	Odyssey Marine Exploration, Inc. (U.S.)
OED	Option expiration date
OPD	Option purchase date
OPEX	Operating expenditures
OTA	Off-take agreements
PEA	Preliminary Economic Assessment
PFS	Pre-Feasibility Study
PO1	Procedural Order No. 1 dated 23 April 2020
PO4	Procedural Order No. 4 dated 25 May 2021
PO5	Procedural Order No. 5 dated 30 August 2021
Project or the Don Diego Project	ExO's prospecting and coring campaign in the Concession area that took the initial steps to develop the engineering solution to extract ore using dredging techniques

PTU	Employee Participation in Company Profits (*Participación de los Trabajadores en las Utilidades de la Empresa*)
Request for Review	ExO's petition with SEMARNAT to review the First Denial dated 29 April 2016
Rejoinder	Respondent's Rejoinder dated 19 October 2021
Reply	Claimant's Reply dated 30 June 2021
Request for Interim Measures	Claimant's Request for Interim Measures dated 2 April 2021
ROV	Real options valuation
Second Appeal	ExO's second appeal before the TFJA demanding the annulment of SEMARNAT's Second Denial dated 19 August 2019
Second Denial	SEMARNAT's rejection letter of ExO's Second MIA dated 12 October 2018
SEMARNAT	Secretariat of Environment and Natural Resources (*Secretaría de Medio Ambiente y Recursos Naturales*)
TFJA	Federal Administrative Tribunal (*Tribunal Federal de Justicia Administrativa*)
TFJA Ruling	TFJA's ruling on ExO's appeal annulling the First Denial of the MIA dated 21 March 2018
Tribunal	Arbitral tribunal constituted on 3 March 2020 in accordance with the UNCITRAL Arbitration Rules (1976) and NAFTA Article 1123. The members of the Tribunal are: Felipe Bulnes (Chilean), President, appointed by the parties; Stanimir Alexandrov (Bulgarian), appointed by Claimant; and Philippe Sands (British/French/Mauritian), appointed by Respondent
UNCITRAL Rules	Arbitration Rules of the United Nations Commission on International Trade Law adopted by the United Nations General Assembly on 15 December 1976

VALMIN	Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists
WACC	Weighted Average Cost of Capital

I. INTRODUCTION AND PARTIES

1. The case concerns a dispute submitted under the North American Free Trade Agreement of 17 December 1992, and in force as of 1 January 1994 ("**NAFTA**") and the Arbitration Rules of the United Nations Commission on International Trade Law adopted by the United Nations General Assembly on 15 December 1976 (the "**UNCITRAL Rules**"). By agreement of the parties, the International Centre for Settlement of Investment Disputes ("**ICSID**" or the "**Centre**") serves as the Administrative Authority for this proceeding.

2. The claimant is Odyssey Marine Exploration, Inc. (U.S.) ("**Odyssey**" or "**Claimant**"), a company incorporated in the State of Nevada, United States of America. Odyssey brings this claim on its own behalf, as well as on behalf of Exploraciones Oceánicas, S. de R.L. de C.V. ("**ExO**"), a Mexican company constituted in March 2012 as the vehicle for Odyssey's investment in Mexico.

3. The respondent is the United Mexican States ("**Mexico**" or "**Respondent**").

4. Claimant and Respondent are collectively referred to as the "**parties**." The parties' representatives and their addresses are listed above on page i.

5. The summaries included in this Award are not intended to be exhaustive descriptions of the parties' submissions. The objective is instead to provide the relevant context for the Tribunal's analysis and findings. The Tribunal has nevertheless carefully considered all the submissions made by the parties.

II. PROCEDURAL HISTORY

6. On 5 April 2019, Claimant submitted its notice of arbitration ("**Notice of Arbitration**"), thereby initiating arbitration proceedings against Mexico.

7. Pursuant to NAFTA Article 1123, Claimant appointed Dr. Stanimir Alexandrov, a national of Bulgaria, and Respondent appointed Prof. Philippe Sands, a national of France and the United Kingdom,[1] as arbitrators in this case. By communication of 17 October 2019,

[1] By email dated 4 March 2021, Prof. Sands informed the parties that he was also a national of Mauritius since October 2020.

Claimant requested the appointment of the presiding arbitrator pursuant to NAFTA Article 1124(2).

8. By letter dated 18 October 2019, the Centre confirmed receipt of Claimant's request for the appointment of a presiding arbitrator pursuant to NAFTA Article 1124. On behalf of the Secretary-General, the Centre further invited the parties to consider alternative means to selecting the presiding arbitrator, including a strike-and-rank method, a ballot, or any other method agreed by the parties. Finally, pursuant to ICSID's Schedule of Fees, the Centre transmitted the instructions for the non-refundable fee of US$ 10,000 to accompany the request for appointment.

9. On 25 October 2019, Claimant informed the Centre of the parties' agreement to use a *strike-and-rank* method for appointing the presiding arbitrator. Specifically, the parties requested that the list proposed by ICSID contain seven (7) names of potential arbitrators to serve as President of the Tribunal. Further, the parties agreed that the candidates for the presiding arbitrator need not be from the ICSID Panel of Arbitrators and should possess the following qualities: (i) comply with the nationality restrictions set out in NAFTA Article 1124(3); (ii) have prior experience serving as president of an arbitral tribunal; (iii) be a lawyer (but he or she need not be currently practicing); and (iv) have sufficient command of the English and Spanish languages.

10. On 26 October 2019, Respondent confirmed its agreement with said terms.

11. On 4 November 2012, the Centre confirmed receipt of a wire transfer from Claimant of the prescribed appointment fee of US$ 10,000.

12. On 20 November 2019, in accordance with the agreed upon procedure, the Centre provided the parties with a list of seven (7) candidates for their consideration.

13. By letter dated 6 December 2019, the Centre acknowledged receipt of the parties' completed *strike-and-rank forms* dated 5 December 2019, and informed the parties that, in accordance with NAFTA Article 1123, they had agreed to appoint Prof. Jan Paulsson, a national of France and Sweden, as the presiding arbitrator in this case.

14. On 23 December 2019, the Centre informed the parties that, pursuant to the parties' agreement, the proceedings would be administered by ICSID and that Toronto, Canada

would serve as the place of arbitration. Claimant confirmed its agreement for ICSID to administer the case on 24 December 2019, and Respondent on 9 January 2020.

15. By correspondence dated 9 January 2020, the Centre accepted the request and thanked the parties for their confidence.

16. On 27 January 2020, the Centre circulated to the parties drafts of Procedural Order No. 1 and the Terms of Appointment, as approved by the Tribunal, invited the parties to confer concerning the suggestions in the drafts, modifying their contents as they saw fit, and submit a joint proposal advising the Tribunal of any agreements reached and/or of their respective positions where they are unable to reach an agreement. Further, as instructed by the President of the Tribunal, the Centre provided certain clarifications regarding the arbitrators' remuneration scheme established in the Terms of Appointment.

17. By letter dated 7 February 2020, Claimant informed the Centre of the parties' disagreement on the arbitrators' remuneration scheme and "*respectfully request*[ed] *Mr. Paulsson to confirm his position as soon as possible. In the event Mr. Paulsson ultimately chooses to withdraw, Claimant respectfully requests that ICSID expeditiously submit a new slate of potential presidents consistent with the Parties' past agreement who would be willing to accept the ICSID fee schedule*."

18. On 12 February 2020, the Centre informed the parties that in the absence of an agreement concerning the arbitrators' fees, Prof. Paulsson was withdrawing from his position as the President of the Tribunal. It further invited the parties to confer regarding their preferred method of selecting Prof. Paulsson's replacement.

19. On 27 February 2020, Claimant conveyed to the Centre the agreed-upon method of selecting a new presiding arbitrator. Specifically, the parties would "*revert to the original list of candidates previously communicated by the Secretariat and re-rank and re-strike the remaining six names, with each side retaining three strikes*" and *"[i]f that process does not result in a common candidate, then the Parties will request the Secretariat to communicate a new list of seven names and we follow the same process as before*." On 28 February 2020, Respondent confirmed its agreement with the method.

20. On 2 March 2020, the Centre confirmed receipt of the parties' completed *strike-and-rank* forms, and informed them that Mr. Felipe Bulnes, a national of Chile, was the agreed-upon candidate to serve as the presiding arbitrator in this case.

21. By letter dated 3 March 2020, the Centre informed the parties that Mr. Bulnes had confirmed his availability to serve as the President of the Tribunal and had accepted that his remuneration be based on ICSID's Memorandum on the Fees and Expenses. On the same date, the Tribunal was constituted in accordance with the UNCITRAL Arbitration Rules (1976) and NAFTA Article 1123. The members of the Tribunal are: Felipe Bulnes (Chilean), President, appointed by the parties; Stanimir Alexandrov (Bulgarian), appointed by Claimant; and Philippe Sands (British/French/Mauritian), appointed by Respondent (the "**Tribunal**"). On the same date, the parties were notified that Ms. Anna Toubiana, ICSID Counsel, would serve as Secretary of the Tribunal.

22. Following the invitation from the Tribunal on 10 March 2020, the parties transmitted their joint proposal of draft Procedural Order No. 1 on 25 March 2020.

23. On 26 March 2020, the Centre informed the parties that the Tribunal "*considers it convenient to have the opportunity to hear each Party's position on the disputed issues*" contained in the joint proposal and inquired on the parties' availability to hold a first session.

24. Accordingly, the Tribunal held a first session with the parties via videoconference on 17 April 2020.

25. Following the first session, on 23 April 2020, the Tribunal issued Procedural Order No. 1 ("**PO1**") recording the agreement of the parties on procedural matters and the Tribunal's decision on disputed issues. PO1 provided, *inter alia*, that the procedural languages would be English and Spanish, and that the place of arbitration would be Toronto, Canada. PO1 also set out the agreed procedural calendar for the proceeding.

26. On 5 September 2020, Claimant filed its Memorial accompanied by the witness statements of Alberto Villa, Alfonso Flores, Claudio Lozano, Craig Bryson, Doug Clarke, John Longley, John Oppermann, Mark Gordon, and Richard Newell; the expert reports of Colm Sheehan, Compass Lexecon, CRU, Deltares, Federico Kunz, Glenn Gruber, Héctor

Herrera, Ian Selby, Lomond & Hill, Sergio Francisco Flores Ramírez, and Vladimir Pliego; factual exhibits C-0001 through C-0227; and legal authorities CL-0001 through CL-0135 ("**Memorial**").

27. On 23 November 2020, the Tribunal issued Procedural Order No. 2 concerning the confidentiality of documents.

28. On 23 February 2021, Respondent submitted its Counter-Memorial accompanied by the witness statements of Benito Bermúdez, Rafael Pacchiano, and Salvador Hernández; the expert reports of Quadrant Economics, Solcargo-Rábago, and WGM; factual exhibits R-0001 through R-0157; and legal authorities RL-0001 through RL-0070 ("**Counter-Memorial**").

29. By email dated 4 March 2021, Prof. Sands informed the parties that he was also a national of Mauritius since October 2020.

30. On 2 April 2021, Claimant filed a request for interim measures accompanied by Mr. Juan Nascimbene's Affidavit; factual exhibits C-0228 through C-0344; and legal authorities CL-0136 through CL-0152 ("**Request for Interim Measures**"). In its Request, Claimant requested the Tribunal to (i) enjoin Respondent from contacting any of Claimant's witnesses; (ii) enjoin Respondent from disseminating any confidential information, including on the witnesses' names and identities; (iii) order Respondent to discontinue any type of administrative or other type of investigation, action or proceeding against Messrs. Villa and Flores; (iv) order Respondent to refrain from commencing any administrative or other type of investigation, action or proceeding against the witnesses; and (v) order Respondent to provide undertakings that it will take actions to prevent any retaliation against Messrs. Flores and Villa due to their participation as witnesses in this arbitration.

31. On 6 April 2021, following exchanges between the parties, the parties filed a request for the Tribunal to decide on the production of documents.

32. On 23 April 2021, pursuant to the invitation from the Tribunal, Respondent submitted its observations on Claimant's Request for Interim Measures, along with factual exhibits R-0158 and R-0159; and legal authorities RL-0071 through RL-0077. In its observations, Respondent confirmed that (i) there are no ongoing or current investigations against

Messrs. Flores and Villa that are directly related to this arbitration; and (ii) investigations before the Internal Control Body of the Secretariat of Environment and Natural Resources ("**SEMARNAT**") and the Ministry of the Public Function (Secretaría *de Función Pública*) related with them, prior to this arbitration and the filing of the Claimant's Memorial, have been concluded, except for one related to Mr. Flores. Respondent further argued that any past or present investigations involving Messrs. Flores and Villa are not related to the present arbitration and were initiated prior to it.

33. On the same date, the Tribunal issued Procedural Order No. 3 regarding the production of documents and ordered the parties to confer and propose a joint Procedural Order on Confidentiality in connection with the documents produced in response to one outstanding document request by Respondent. Claimant submitted the draft proposal for Respondent's consideration and Respondent submitted its counterproposal thereafter.

34. On 25 May 2021, the Tribunal issued Procedural Order No. 4 on Claimant's Request for Interim Measures, rejecting the Request on the grounds that, based on the evidence before it, it is not satisfied that Respondent has sought to contact Messrs. Flores and Villa or to disseminate the confidential information of the present arbitration.

35. On 30 June 2021, Claimant filed its Reply accompanied by the second witness statements of Alberto Villa, Alfonso Flores, Claudio Lozano, Craig Bryson, John Longley, and Mark Gordon; the second expert reports of Compass Lexecon, CRU, Federico Kunz, Glenn Gruber, Héctor Herrera, Ian Selby, Lomond & Hill, Sergio Francisco Flores Ramírez, Vladimir Pliego, and the expert reports of Mining Plus, and Agrifos; factual exhibits C-0345 through C-0469; and legal authorities CL-0153 through CL-0219 ("**Reply**").

36. On 11 August 2021, the parties submitted their joint proposed draft Confidentiality Order and Undertaking and asked the Tribunal to resolve the outstanding disputed provisions.

37. On 18 August 2021, pursuant to Section 18.3 of PO1, Claimant filed a request for leave to introduce into the record a press release (*tarjeta informativa*) made by SEMARNAT, along with Annexes 1 through 3.

38. On 30 August 2021, the Tribunal issued the Confidentiality Order and Undertaking in Procedural Order No. 5 concerning the confidentiality of the contracts of Messrs. Flores

and Villa which Claimant agreed to produce in response to Respondent's Document Request No. 17.

39. On the same date, Respondent filed its observations on Claimant's request to introduce the *tarjeta informativa* of 18 August 2021, accompanied by factual exhibits R-0160 through R-0170.

40. By letter dated 2 September 2021, the Tribunal issued its decision on Claimant's request of 18 August 2021, granting leave to Claimant to introduce the *tarjeta informativa* into the record. Accordingly, on 6 September 2021, Claimant introduced factual exhibits C-0470 through C-0473.

41. On 12 October 2021, the Center for International Environmental Law ("**CIEL**") and the *Sociedad Cooperativa de Producción Pesquera Puerto Chale S.C.L.* submitted a joint application for leave to file a non-disputing party submission (*amicus curiae*) pursuant to PO1, the procedural calendar and the Statement of the Free Trade Commission on Non-Disputing Party Participation dated 7 October 2003. On 13 October 2021, the Centre acknowledged receipt of the application and transmitted it to the parties and the Tribunal.

42. On 19 October 2021, Respondent filed its Rejoinder accompanied by the second witness statements of Benito Bermúdez, Rafael Pacchiano, and Salvador Hernández, the witness statements of Ernesto Acevedo, Hugo Romero, Jeffrey Seminoff, and Juan Lozano; the second expert reports of Quadrant Economics, Solcargo-Rábago, and WGM, and the expert reports of *Grupo de Expertos de Tortugas Marinas*, María Verónica Morales, Taut Solutions, and Urban Viloria; factual exhibits R-0160 through R-0211; and legal authorities RL-0078 through RL-0144 ("**Rejoinder**").

43. On 2 November 2021, pursuant to NAFTA Article 1128, the Non-Disputing Parties filed their submissions.

44. On 17 November 2021, the Centre circulated a draft procedural order concerning the organization of the hearing, and invited the parties "*to confer on the items addressed in the draft order and to modify the contents as they* [saw] *fit.*"

45. On 19 November 2021, the parties submitted their comments on the application for leave to file a non-disputing party submission (*amicus curiae*) on behalf of CIEL and the *Sociedad Cooperativa de Producción Pesquera Puerto Chale S.C.L.*

46. On 9 December 2021, the President held a pre-hearing organizational meeting with the parties to discuss any outstanding procedural, administrative, and logistical matters in preparation for the hearing.

47. On 16 December 2021, Claimant filed an application for the exclusion of the Taut Report submitted along with Respondent's Rejoinder, along with legal authorities CL-0247 through CL-0252.

48. On 20 December 2021, the Tribunal issued Procedural Order No. 6 on its Decision on the Application for Leave to File a Non-Disputing Party Submission (*amicus curiae*), denying the application for leave. Appended to the decision was Prof. Sands' dissenting opinion.

49. On the same date, the Tribunal issued Procedural Order No. 7 on the Organization of the Hearing.

50. Following the invitation by the Tribunal, Respondent submitted its observations on Claimant's request to exclude the Taut Report on 4 January 2022, along with legal authority RL-0146.

51. On 14 January 2022, the Tribunal issued Procedural Order No. 8 with its Decision on Claimant's Request to Exclude the Expert Report Submitted by Taut, rejecting the request, and granting Claimant additional hearing time to address its observations to the report.

52. By letter dated 19 January 2022, Claimant filed a request for leave to introduce an additional exhibit into the record.

53. On 20 January 2022, following invitation by the Tribunal, Respondent submitted its observations on Claimant's request.

54. On 21 January 2022, the Tribunal issued its decision on said request, partly granting Claimant's request to introduce new documents into the record.

55. The Hearing on Jurisdiction and Liability was held by videoconference from 24 through 29 January 2022 (the "**Hearing**"). The following persons participated:

***Tribunal*:**

Felipe Bulnes	President of the Tribunal
Stanimir Alexandrov	Member of the Tribunal
Philippe Sands	Member of the Tribunal

ICSID Secretariat:

Anna Toubiana	Secretary of the Tribunal

On behalf of Odyssey Marine Exploration, Inc.:

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Jason File	Cooley LLP
Juan Nascimbene	Cooley LLP
Henry G. Burnett	King & Spalding
Viren Mascarenhas	King & Spalding
Craig Miles	King & Spalding
Kevin Mohr	King & Spalding
Fernando Rodríguez-Cortina	King & Spalding
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Lorenzo Sordi	Cooley LLP
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Michael Bannon	Cooley LLP
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Heather Ford, Paralegal	Cooley LLP
Derek Cole, Litigation Technology	Cooley LLP
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Enrique Molina	King & Spalding
Arturo Oropeza	King & Spalding
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Valentina Benítez	King & Spalding
Mauricio Limón	Consorcio de Litigio Estratégico, ExO's Counsel
Enevy Elizalde Morales	Consorcio de Litigio Estratégico, ExO's Counsel

Party Representative

John Longley	Odyssey

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Claudio Lozano Guerra-Librero
Craig Bryson

Mark D. Gordon
Alfonso Flores[2]

Experts

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Lera Grandio	Agrifos Partners LLC
Pablo Spiller	Compass Lexecon
Pablo López Zadicoff	Compass Lexecon
Paola Gutiérrez	Compass Lexecon
Evan Rodríguez	Compass Lexecon
Isabel Bartmann	Compass Lexecon
Michael Seelhof	Compass Lexecon

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Counsel

Orlando Pérez Gárate	*Secretaría de Economía*
Cindy Rayo Zapata	*Secretaría de Economía*
Francisco Diego Pacheco Román	*Secretaría de Economía*
Alan Bonfiglio Ríos	*Secretaría de Economía*
Antonio Nava Gómez	*Secretaría de Economía*
Rafael Rodríguez Maldonado	*Secretaría de Economía*
Stephan E. Becker	*Secretaría de Economía*
Alejandro Barragán	*Secretaría de Economía*
Rafael Alejandro Augusto Arteaga Farfán	*Secretaría de Economía*
Virginia Isabel Pérez del Castillo Pérez	*Secretaría de Economía*
Laura Mejía Hernández	*Secretaría de Economía*
Ximena Iturriaga Cossio	*Secretaría de Economía*
Natalia García Nieto	*Secretaría de Economía*
Miguel Ángel Jiménez Carrillo	*Secretaría de Economía*

Witnesses

Rafael Pacchiano Alamán
Ernesto Acevedo Fernández
Hugo Gabriel Romero Martínez

Experts

Gustavo Carvajal Isunza	*Secretaría de Economía*
Carlos Rábago Estela	*Secretaría de Economía*
Juan Pedro Machado Arias	*Secretaría de Economía*
Carlos Federico del Razo Ochoa	*Secretaría de Economía*
Jorge Gómez de Silva	*Secretaría de Economía*
Raquel Briseño Dueñas	*Grupo de Expertos de Tortugas Marinas*
Alberto Abreu	*Grupo de Expertos de Tortugas Marinas*
Agnese Mancini	*Grupo de Expertos de Tortugas Marinas*
Bryan Wallace	*Grupo de Expertos de Tortugas Marinas*

[2] On 12 January 2022, Claimant informed the Tribunal and Respondent that Mr. Flores was not expected to be able to testify during the 24-29 January 2022 hearing dates owing to illness. His examination thus took place on the session held on 10 May 2022.

Alan Zavala	*Grupo de Expertos de Tortugas Marinas*
María Verónica Morales Zárate	*TTD SUBSEASE Centro de Investigaciones Biológicas del Noroeste*
Graham Curren	Taut Solutions
Alan Taylor	Taut Solutions
Joe Hinzer	WGM
Donald Hains	WGM
Ross MacFarlane	WGM
Kurt Breede	WGM
Daniel Flores	Quadrant Economics
Brendan Moore	Quadrant Economics
Francisco Sánchez	Quadrant Economics
Iván López	Quadrant Economics
Iván Vázquez	Quadrant Economics
David Landers	Quadrant Economics

NAFTA Non-Disputing Parties

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Julia Brower	Office of the Legal Adviser, U.S. Department of State
Nicole Thornton	Office of the Legal Adviser, U.S. Department of State
Lisa Grosh	Office of the Legal Adviser, U.S. Department of State
John Daley	Office of the Legal Adviser, U.S. Department of State
Catherine (Kate) Gibson	Office of the U.S. Trade Representative
Patrick Childress	Office of the U.S. Trade Representative

Canada

Jean-Francois Hebert	Counsel (Global Affairs/Department of Justice Canada)
Camille Bérubé-Lepage	Counsel (Department of Justice Canada)
Stefan Kuuskne	Counsel (Department of Justice Canada)

Court Reporters

David Kasdan	English Court Reporter
Dante Rinaldi	Spanish Court Reporter

Interpreters

Judith Letendre	English-Spanish Interpreter
Sonia Berah	English-Spanish Interpreter
Daniel Giglio	English-Spanish Interpreter

Technical Support

Mike Young	Sparq

56. On 24 February 2022, Respondent filed a request for leave to introduce additional exhibits into the record.

57. Following invitation by the Tribunal, on 3 March 2022, Claimant indicated that it had no objections to Respondent introducing the requested exhibits into the record.

58. In light of Claimant's communication, on 21 April 2022, the Tribunal granted Respondent's request.

59. On 10 May 2022, the Tribunal held an additional Hearing session by videoconference for the examination of Mr. Flores. The following persons participated:

***Tribunal*:**	
Felipe Bulnes	President of the Tribunal
Stanimir Alexandrov	Member of the Tribunal
Philippe Sands	Member of the Tribunal
ICSID Secretariat:	
Anna Toubiana	Secretary of the Tribunal
On behalf of Odyssey Marine Exploration, Inc.:	
Counsel	
Rachel Thorn	Cooley LLP
James Maton	Cooley LLP
Phil Bowman	Cooley LLP
Jason File	Cooley LLP
Juan Nascimbene	Cooley LLP
Henry G. Burnett	King & Spalding
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Jorge Sarmiento	Cooley LLP
Jennifer Jackson, Paralegal	Cooley LLP
Julie Ruse, Lead Senior Trial Technology Specialist	Cooley LLP
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Party Representative	
John Longley	Odyssey
Witness	
Alfonso Flores	

On behalf of Mexico:

Counsel

Orlando Pérez Gárate	*Secretaría de Economía*
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Technical Support

Mike Young	Sparq

60. By letter dated 24 May 2022, the Tribunal posed certain questions to the parties to be addressed in their post-hearing submissions.

61. On 9 June 2022, the parties submitted their joint edits to the Hearing transcripts.

62. By letter dated 27 June 2022, the Centre circulated the finalized versions of the Hearing transcripts and invited the parties to submit their post-hearing submissions by 26 August 2022.

63. On 12 August 2022, the parties jointly requested an extension of the post-hearing submissions deadline by two weeks, *i.e.*, until 9 September 2022, which was granted by the Tribunal on 15 August 2022.

64. On 31 August 2022, the parties jointly requested an additional extension until 12 September 2022 to submit their post-hearing briefs, which was granted by the Tribunal on 1 September 2022.

65. On 12 September 2022, the parties filed their post-hearing submissions.

66. By correspondence dated 16 September 2022, Respondent objected to Claimant's presentation of additional exhibits into the record along with its post-hearing brief, and respectfully requested that the Tribunal order Claimant to submit an updated version without said exhibits.

67. On 20 September 2022, Claimant filed a response to Respondent's objection, requesting leave to introduce these two exhibits into the record.

68. On 21 September 2022, Respondent filed its observations on Claimant's request, objecting to the introduction of additional evidence due to the lack of exceptional circumstances.

69. On 22 September 2022, the Tribunal denied Claimant's request to introduce new evidence into the record, and ordered Claimant to submit a revised version of its post-hearing submission without references to the two exhibits and to eliminate said exhibits from the case-designated Box folder.

70. Pursuant to the Tribunal's instructions, on 23 September 2022, Claimant filed a revised version of its post-hearing submission and eliminated the two exhibits from the Box folder.

71. On 7 November 2022, the parties jointly submitted, for the Tribunal's authorization, their agreed-upon specifications regarding their submissions on costs.

72. On 30 November 2022, the parties filed their submissions on costs.

73. On 12 December 2022, Respondent objected to the introduction of new legal authorities submitted by Claimant along with its submission on costs and requested the Tribunal order Claimant to submit a revised version of its submission on costs without reference to said legal authorities. It further requested the Tribunal take Claimant's actions into account upon its decision on costs.

74. On 13 December 2022, pursuant to the parties' agreement of 7 November 2022 regarding their submissions on costs and Section 18.3 of PO1, the Tribunal requested Claimant to resubmit its submission on costs without any reference to arguments and new legal authorities.

75. On 14 December 2022, Claimant filed a revised version of its submission on costs, pursuant to the instructions of the Tribunal.

76. On the same date, Respondent informed the Tribunal that it considers that the revised version of Claimant's submission on costs still contained arguments and requested that the Tribunal solely consider the section pertinent to the summary of Claimant's costs. It further requested that the Tribunal take Claimant's actions into account upon its decision on costs.

77. Also on 14 December 2022, Claimant responded to Respondent's communication, arguing that the latter "*did not identify the offending paragraphs or sections of Claimant's cost submission that it considered inconsistent with the parties' agreement*." Accordingly, it requested Respondent's objections be denied.

78. On 19 December 2022, upon the Tribunal's invitation, Respondent filed a response to Claimant's communication of 14 December 2022, further reiterating its request for the Tribunal to solely consider the section pertinent to the summary of Claimant's costs.

79. On 14 April 2023, the Centre informed the parties that Ms. Toubiana would take maternity leave and that, during her absence, Ms. Gabriela González Giráldez, ICSID Legal Counsel, would serve as Secretary of the Tribunal.

80. On 11 October 2023, the Centre informed the parties that Ms. Toubiana had returned from leave and would resume her functions as Secretary of the Tribunal, effective immediately.

III. FACTUAL BACKGROUND

81. Odyssey was founded in 1994 as Remarc International Inc. under the laws of the State of Nevada, United States of America. The company name was changed to Odyssey Marine Exploration, Inc. in 1997.[3]

82. Odyssey's core business has been in deep-ocean exploration, with a particular emphasis on discovering and recovering shipwrecks artifacts and cargoes in the deep ocean. With the passage of time, it decided to enter the business of the discovery, exploration, and development of marine minerals.

83. On 7 March 2012, Odyssey, with the intention to exploit the sedimentary phosphate sand deposits that were discovered off the coast of the Baja California Peninsula, Mexico, caused the incorporation of a Mexican company, ExO.[4] Odyssey holds a majority interest in ExO through intermediary holding companies.[5]

84. On 28 June 2012, ExO obtained a mining concession from the Directorate General of Mines ("**DGM**"), over an extension of 2,680 km² off the coast of Baja California Sur in the Gulf of Ulloa ("**Concession**").[6]

85. On 29 April 2014, ExO was granted another two concessions, one to the north and another to the south of the Concession granted on 28 June 2012.[7] The next year, in July 2015, ExO applied to release part of the area of the Concession, reducing its original size. Such application was granted by the DGM in February 2016.[8]

86. The Concession grants ExO the exclusive right to explore and exploit the Concession area for 50 years with the option of extending it for another 50 years at ExO's request.[9]

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3 **C-0033**, Odyssey Marine Exploration, Inc. Certificate of Incorporation, 28 August 1997.
4 **C-0052**, ExO's Articles of Incorporation, 7 March 2012.
5 **C-0057**, Amendment to ExO's Articles of Incorporation, 31 May 2013; **C-0180**, OMEX EXO Ownership Chart, 5 February 2019; **C-0183**, Certificate of the Treasurer, ExO Stock Ownership, 29 March 2019; **C-0184**, Certificate of the Treasurer, Oceánica Stock Ownership, 29 March 2019.
6 **C-0012**, Concession Title No. 240744, 27 June 2012.
7 **C-0092**, Concession Titles Nos. 242994 and 242995, 29 April 2014.
8 **C-0013**, Concession Title No. 244813, 15 February 2016.
9 **C-0012**, Concession Title No. 240744, 27 June 2012, p. 1.

87. Once ExO was granted the Concession, it commenced the prospecting and coring campaign in the Concession area and took the initial steps to develop the engineering solution to extract the ore using dredging techniques (the "**Project**" or the "**Don Diego Project**").[10]

88. For supporting the assessment and performing the assays on core samples, ExO retained the Florida Industrial and Phosphate Research Institute. It also retained Mr. Henry Lamb, President of Mineral Resource Associates, as the Technical Advisor to evaluate the ore.[11]

89. For the dredging, ExO hired Mr. Craig Bryson, an independent mining consultant with experience in terrestrial and marine mining projects. With his support, ExO prepared a request for proposals to choose a dredging company, and finally selected Boskalis Offshore (part of Royal Boskalis Westminster) to do the dredging.[12]

90. On 3 September 2014, ExO filed a *Manifestación de Impacto Ambiental* ("**MIA**") with SEMARNAT ("**Initial MIA**").[13] MIAs are the first step in the environmental impact assessment process ("**EIA**"), a procedure established by the Regulations of the Mexican General Law of Ecological Balance and Environmental Protection in Environmental Impact Assessment ("**LGEEPA**").[14] To prepare the MIA and during the EIA, ExO was advised by several experts, from different fields. Among others, Dr. Richard Newell, Senior Research Fellow at The Royal Society, Dr. Douglas Clarke, QV Gestión Ambiental SC, EA Engineering, CalScience Environmental Laboratories, Inc., the Scottish Association for Marine Science Research Services Ltd., HR Wallingford and Marine Ecological Surveys Limited advised Claimant in the process.[15]

91. On 12 September 2014, complying with Article 34(I) of LGEEPA, ExO published the information on the Project in a local newspaper called El Sudcalifornia no.[16]

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10 **C-0098**, Prospecting Authorization by SEMARNAT, 17 August 2012.

11 **C-0016**, "About Us", FIPR Institute; **C-0084**, Henry Lamb, NI 43-101 Technical Report, 30 June 2014.

12 C-Mem., ¶¶ 58-79.

13 **C-0095**, Letter No. 08157 from SEMARNAT to ExO, 28 September 2014.

14 **C-0014**, Ley General del Equilibrio Ecológico y la Protección al Ambiente, 5 June 2018 ("**LGEEPA**"); **C-0097**, Regulations of the General Law of Ecological Balance and Environmental Protection in Environmental Impact Assessment, 31 October 2014, Chapter III.

15 **C-0024**, MESL, Tender, 8 December 2014; **C-0099**, Letter from EA Engineering to Odyssey Marine Exploration, Inc., 19 November 2014; **C-0002.10**, MIA, Annex 10: HR Wallingford, "Don Diego Project: Underwater sound modelling," February 2014.

16 **R-0074**, "Proyecto Don Diego," *El Sudcalifornia no* (excerpts), 9 September 2014.

92. Starting on 19 September 2014, residents of Comondú, representatives of the Puerto Chale Fishing Production Cooperative Society, and NGOs requested the *Dirección General de Impacto y Riesgo Ambiental* ("**DGIRA**") to submit the Project to public consultation.[17]

93. On 28 September 2014, SEMARNAT notified ExO that, according to Article 34 of the LGEEPA and Article 41 of the Regulations of the LGEEPA, among others, it had declared the starting of the public consultation stage of the EIA.[18]

94. On 1 October 2014, ExO, according to the procedure set by Article 34 of LGEEPA, gave public access to the Initial MIA.[19] Starting from this date, SEMARNAT requested technical opinions from several organizations, including government authorities and academic institutions.[20]

95. On 3 November 2014, SEMARNAT's Advisory Council issued an opinion in which it recommended SEMARNAT not approve the Project in the terms proposed by ExO.[21]

96. On 5 November 2014, the public consultations of the Project were held in the municipality of Comondú, Baja California Sur.[22] At the meeting, NGOs and other organizations presented their concerns regarding the Project, including their view on its environmental impact.[23]

97. On 21 November 2014, SEMARNAT issued Letter No. SGPA/DGIRA/DG/09776, which communicated to ExO that it had identified inconsistencies in the environmental and technical information presented in the Initial MIA that prevented SEMARNAT from performing an objective evaluation of the Project. Based on that assertion, SEMARNAT

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17 **R-0099**, Communication from the Puerto Chale Fishing Production Cooperative Society to DGIRA, 19 September 2014; **R-0100**, Communication from Puerto San Carlos Community to DGIRA, 21 October 2014; **R-0101**, Communication from PRONATURA NOROESTE A.C. to DGIRA, 26 September 2014.

18 **C-0095**, Letter No. 08157 from SEMARNAT to ExO, 28 September 2014.

19 **C-0014**, LGEEPA, Article 34.

20 *See* **C-0035**, Reglamento Interior de la Secretaría de Medio Ambiente y Recursos Naturales, 21 June 2003, Article 24.

21 **R-0086**, Technical opinion of Advisory Council, 3 November 2014.

22 **R-0103**, Public consultation minute of the 2014 EIM, 5 November 2014.

23 *See* **R-0104**, Presentation of the Marine Mammal Research Program, Universidad Autónoma de Baja California Sur, *Marine Mammals and the Don Diego project*; **R-0105**, Presentation of MC. Edgardo Camacho, Sociedad Cooperativa de Producción Pesquera, Puerto Chale, *The possible effect of deep-sea mining activity on the fishing resources of the S.C.P.P. Puerto Chale*, 5 November 2014; **R-0106,** Request for presentation of Juan Trasviña, Medio Ambiente y Sociedad A.C., 3 November 2014; **R-0103,** Public consultation minute of the 2014 MIA, 5 November 2014.

requested ExO additional information to broaden, rectify or clarify the information contained in chapters II, IV, V, and VI of the Initial MIA. Until ExO complied with the request for supplemental information, SEMARNAT informed the EIA was suspended.[24]

98. On 6 March 2015, ExO responded to SEMARNAT's Letter No. SGPA/DGIRA/DG/09776 of 21 November 2014, filing additional information regarding the Project and requesting SEMARNAT to lift the suspension and continue the EIA.[25]

99. On 11 March 2015, SEMARNAT lifted the suspension on the EIA and extended the evaluation period for the Initial MIA.[26]

100. On 26 May 2015, ExO submitted supplementary information on the technical and environmental viability of the Project.[27]

101. On 19 June 2015, ExO withdrew the Initial MIA,[28] and on 22 June 2015, DGIRA terminated the EIA procedure initiated by said MIA.[29]

102. With respect to this withdrawal, Claimant states that this occurred at the request of the Secretary of SEMARNAT, Mr. Rafael Pacchiano, who would have indicated to a spokesperson of ExO before SEMARNAT, Mr. Alonso Ancira, that it was politically inconvenient for him to issue any approvals at that time. According to Claimant, Secretary Pacchiano asked Mr. Ancira to withdraw the Initial MIA and re-file at a later date, with letters of support from the *Comisión Nacional de Acuacultura y Pesca* ("**CONAPESCA**"), the government of Baja California, and representatives of local fisheries operating in the Gulf of Ulloa.[30]

103. For their part, Mexico and Mr. Pacchiano deny that the withdrawal of the Initial MIA by ExO was due to any request from the latter. According to them, it was an independent decision by ExO, for the purpose of complying with additional requirements.[31]

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24 **C-0100,** Letter No. 09776 from SEMARNAT to ExO, 21 November 2014.
25 **C-0107**, Letter from ExO to SEMARNAT Submitting Additional information, 5 March 2015; **C-0108**, Additional Information Submitted to SEMARNAT, 5 March 2015.
26 **C-0109**, Letter No. 01981 from SEMARNAT to ExO, 11 March 2015.
27 **R-0023**, Letter from ExO to SEMARNAT Submitting Additional information, 26 May 2015.
28 **C-0115**, Letter from ExO to SEMARNAT, 19 June 2015.
29 **R-0073**, Letter No. 04574 from DGIRA to ExO, 22 June 2015.
30 Mem., ¶ 130.
31 C-Mem., ¶¶ 250-251; Witness Statement of Rafael Pacchiano Alamán, ¶¶ 51-52.

Furthermore, Respondent points out, that it is a common practice for applicants to withdraw MIAs in order to reinforce them and re-file them before the DGIRA.[32]

104. On 26 June 2015, ExO filed a new request before DGIRA to obtain an environmental impact authorization.[33]

105. On 30 June 2015, DGIRA asked for amendments to ExO's 26 June 2015 request.[34]

106. On 21 August 2015, ExO filed a new MIA, replacing the request made on 26 June 2015, that, among other changes from the Initial MIA, included letters of support from CONAPESCA, the Instituto Nacional de Pesca (INAPESCA), and other entities ("**New MIA**").[35]

107. On 27 August 2015, the public consultation process of the New MIA was opened.[36] Several entities submitted requests to make presentations during the public meeting held for the consultation stage of the process.[37]

108. On 22 September 2015, Odyssey issued the business plan and valuation model, entitled [redacted].[38]

109. On 8 October 2015, the public consultations of the Project were held, where several entities presented their opinions, concerns or objections regarding the environmental impact of the Project.[39]

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32 C-Mem., ¶ 251.

33 **R-0108**, Letter from ExO to DGIRA, 26 June 2015.

34 **SOLCARGO-0031**, Letter No. 04777 from DGIRA to ExO, 30 June 2015.

35 **C-0002**, MIA, 21 August 2015.

36 **R-0112**, Letter No. 05736 from DGIRA to ExO, 27 August 2015.

37 **R-0113,** Presentation Request from the Sociedad Cooperativa de Producción Pesquera of Puerto Chale; **R-0114**, Presentation Request from the Sociedad Cooperativa de Producción Pesquera of Barranquitas; **R-0115**, Presentation Request from the Federación Regional de Sociedades Cooperativas Pesqueras of Baja California; **R-0116,** Presentation Request from Costa Salvaje, A.C.; **R-0117**, Presentation Request from the Center for Biological Diversity; **R-0118,** Presentation Request from the Asociación Interamericana para la Defensa del Ambiente.

38 **C-0134**, [redacted].

39 **C-0136**, SEMARNAT, Public consultation notes, 8 October 2015.

110. On 19 October 2015, the Directorate General of Environmental Policy and Regional and Sectorial Integration of SEMARNAT expressed its concerns about the Project.[40] The Directorate General stated that seabed mining would have effects which would "*aggravate the risk conditions for the juvenile loggerhead sea turtle population in the long term to unacceptable levels*."[41]

111. On 30 October 2015, SEMARNAT issued Letter No. SGPA/DGIRA/DG/07592, which communicated to ExO that it had identified inconsistencies in the environmental and technical information presented in the New MIA that prevented SEMARNAT from performing an objective evaluation of the Project. Based on that assertion, SEMARNAT requested additional information from ExO to broaden, rectify or clarify the information contained in chapters II, IV, V, and VI of the New MIA. Until ExO complied with the request for supplemental information, SEMARNAT informed, the EIA was suspended.[42]

112. On 3 December 2015, ExO submitted a reply to SEMARNAT's Letter No. SGPA/DGIRA/DG/07592, presenting supplementary information on the Project.[43]

113. On 5 April 2016, ExO sent a letter to SEMARNAT explaining the mitigation measures that the Project would adopt if approved and proposing a joint environmental evaluation process of the Project between SEMARNAT and ExO.[44]

114. On 7 April 2016, SEMARNAT issued Letter No. SGPA/DGIRA/DG/2270, which denied the New MIA ("**First Denial**").[45]

115. In support of its decision, SEMARNAT expressed that in the ecosystem where the Project was intended to be executed, the natural element of greatest relevance, due to their status of endangered species, were five species of migratory sea turtles, of which *Caretta caretta* stood out due to its abundance and distribution in the Gulf of Ulloa.[46]

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40 **R-0131,** Technical opinion of the Directorate General of Environmental Policy and Regional and Sectorial Integration, 19 October 2015.

41 **R-0131,** Technical opinion of the Directorate General of Environmental Policy and Regional and Sectorial Integration, 19 October 2015, p. 2 (emphasis omitted).

42 **C-0004**, Letter No. 07592 from SEMARNAT to ExO, 30 October 2015.

43 **C-0005**, Additional Information, 3 December 2015.

44 **C-0148**, Letter from ExO to SEMARNAT, 5 April 2016.

45 **C-0008**, SEMARNAT Denial Decision, 7 April 2016.

46 **C-0008**, SEMARNAT Denial Decision, 7 April 2016, p. 218.

116. Then, SEMARNAT added that within the area of the Project, specifically, in the three first polygons, it was identified that there is an abundance of 1-28 turtles per km^2, and in polygons 4 and 5 the abundance is from 54 to 85 turtles per km^2. Based on such premises, the said authority determined that the Gulf of Ulloa was the habitat of the *Caretta caretta* species, as such species uses the Gulf of Ulloa as their physical space for the development of a portion of their biological cycle and, the total surface of the five polygons of the project was immerse in such habitat.[47]

117. Regarding the environmental impact of the Project, SEMARNAT stated that considering the dredging activity to be performed by ExO would occur in the area mentioned in the previous paragraph, and that this activity suctions sea sediment from one to seven meters from the seabed, a significant environmental impact for the species developed in such area was implied. It also added that the Project will disturb the distribution and local diversity of benthic organisms that the species feed on, disturbing the food chain and thus, altering their biological cycle.[48]

118. In addition, SEMARNAT stated that, during the phase of sediment return to the seabed, the dredging activities of ExO disturb the habitat of benthic organisms, as this deposit will not necessarily take place in the suction area, and the returned volumes would cover areas and organisms that were not initially affected.[49]

119. As regards the mitigation and compensation measures proposed by ExO for the aforementioned environmental impacts, SEMARNAT determined that such measures were relied on technical information that was not consistent with the reality of the area where the Project was to be developed.[50]

120. In connection with this rejection decision, Claimant presented the testimonies of two former officials of SEMARNAT, Mr. Alfonso Flores and Mr. Alberto Villa,[51] who served

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47 **C-0008**, SEMARNAT Denial Decision, 7 April 2016, pp. 219-220.
48 **C-0008**, SEMARNAT Denial Decision, 7 April 2016, p. 221.
49 **C-0008**, SEMARNAT Denial Decision, 7 April 2016, p. 221.
50 **C-0008**, SEMARNAT Denial Decision, 7 April 2016, p. 221.
51 Witness Statement of Alfonso Flores Ramírez, 29 July 2020; Second Witness Statement of Alfonso Flores Ramírez, 21 June 2021; Witness Statement of Alberto Villa Aguilar, 8 May 2020; Second Witness Statement of Alberto Villa Aguilar, 21 June 2021.

as Director General of the DGIRA and Director of Evaluation for the Energy and Industry Sectors at the DGIRA, respectively. These former officials stated that they were in charge of reviewing the MIAs submitted by ExO and that, in their opinion, the New MIA complied with the requirements to be approved with conditions.[52] They pointed out that when they were already working on the decision to approve the New MIA, they received instructions from the Secretary of SEMARNAT, Mr. Rafael Pacchiano, ordering them to reject ExO's Project.[53]

121. Messrs. Flores and Villa indicated that Mr. Pacchiano's motivation to adopt such determination was linked to a meeting he had with Odyssey's representatives, in which he felt insulted by one of them,[54] and also, according to Mr. Flores, due to Mr. Pacchiano's concern that the approval of the Project could damage his political standing.[55]

122. Messrs. Flores and Villa point out that given this order they received and the deadline to resolve the request, they issued the decision to reject ExO's New MIA, using as a pretext the impact that the Project would have on the *Caretta caretta* turtles. According to their account, they opted for this alternative considering the broad support concerning the protection of these turtles.[56]

123. For his part, Mr. Pacchiano categorically denied having given any such instruction and stated that he had no involvement in evaluating the MIAs submitted by ExO. He added that this was a matter of exclusive responsibility of the DGIRA and in which he did not participate, and that it was not appropriate for Messrs. Flores and Villa to distance themselves from a decision signed by them.[57]

124. On 29 April 2016, ExO filed a petition before SEMARNAT to review the First Denial ("**Request for Review**")[58] asking to amend the decision and authorize the New MIA. In

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52 Witness Statement of Alfonso Flores Ramírez, ¶ 19; Second Witness Statement of Alfonso Flores Ramírez, ¶ 14; Witness Statement of Alberto Villa Aguilar, ¶¶ 6-7.

53 Witness Statement of Alfonso Flores Ramírez, ¶ 20; Witness Statement of Alberto Villa Aguilar, ¶¶ 8-9.

54 Witness Statement of Alfonso Flores Ramírez, ¶ 20; Witness Statement of Alberto Villa Aguilar, ¶ 8.

55 Witness Statement of Alfonso Flores Ramírez, ¶ 22.

56 Witness Statement of Alfonso Flores Ramírez, ¶ 25; Witness Statement of Alberto Villa Aguilar, ¶ 10; Second Witness Statement of Alberto Villa Aguilar, ¶ 19.

57 Witness Statement of Rafael Pacchiano Alamán, ¶¶ 33-36; Second Witness Statement of Rafael Pacchiano Alamán, ¶¶ 5, 7.

58 **C-0149**, Letter from ExO to SEMARNAT, 29 April 2016.

order to support its petition, ExO offered, among other evidence, to submit technical documents, and to produce an expert report in marine biology.

125. By agreement of 6 May 2016, SEMARNAT admitted for processing the Request for Review and accepted the technical documents offered by ExO, but adopted no resolution concerning the expert report in marine biology also offered by ExO.[59]

126. On 9 June 2016, ExO submitted to SEMARNAT a set of documents, named by ExO "*Technical and Scientific Report*," that contained several papers by different authors, on the environmental impact of the Project in the Gulf of Ulloa.[60] On 27 January 2017, ExO demanded the annulment of the *negative ficta* resolution of SEMARNAT ("**Negative Ficta Denial of the Request for Review**") before the TFJA. In said request, ExO argued that given the time elapsed since the Request for Review was filed before SEMARNAT and the lack of response on the matter, said request had to be deemed rejected, and, therefore, ExO was entitled to file an appeal before the Federal Administrative Tribunal (*Tribunal Federal de Justicia Administrativa*) ("**TFJA**") ("**First Appeal**").[61]

127. On 27 February 2017, the Undersecretary of SEMARNAT, Ms. Martha García Rivas, issued a decision expressly rejecting the Request of Review and confirming the First Denial ("**Express Denial of the Request for Review**").[62] In this resolution the Undersecretary García Rivas decided to deny evidentiary value to the "*Technical and Scientific Report*" submitted by ExO due to apparent inconsistencies regarding the identity and number of people who participated in the preparation of said document.[63] With respect to the expert report in marine biology offered by ExO, the authority refused to allow the production of that evidence since the experts were foreign nationals, which would not be in accordance with Mexican regulations on the practice of professions.[64]

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59 **C-0160**, SEMARNAT Denial Resolution, 27 February 2017, p 1; **C-0170**, TFJA Ruling, 21 March 2018, p. 203.
60 **C-0151**, Technical and Scientific Report, 9 June 2016.
61 **C-0158**, Ley Federal de Procedimiento Contencioso Administrativo, 27 January 2017, Article 17.
62 **C-0160**, SEMARNAT Denial Resolution, 27 February 2017.
63 **C-0160**, SEMARNAT Denial Resolution, 27 February 2017, pp. 42-43.
64 **C-0160**, SEMARNAT Denial Resolution, 27 February 2017, p. 45.

128. On 6 June 2017, after SEMARNAT filed a response to the Express Denial of the Request for Review filed before the TFJA regarding the First Denial, ExO filed a presentation before the TFJA amending and expanding its annulment petition.[65]

129. On 21 March 2018, the TFJA concluded the annulment proceedings and issued a decision annulling the First Denial, the Negative Ficta Denial of the Request for Review, and the Express Denial of the Request for Review. The TFJA stated that the resolution through which SEMARNAT rejected the Second MIA did not provide ExO with the elements or the scientific reasoning upon which it based its conclusions ("**TFJA Ruling**").[66]

130. In relation to the environmental impact of the Project, the TFJA found, among other things, that SEMARNAT, when stating that the Project is located within the habitat of the endangered species it refers to, did not support its determination with scientific studies.[67]

131. The TFJA also stated that SEMARNAT did not offer the reasons why it considered that the dredging activities planned by ExO implied a significant impact for the species that develop there, affecting or altering the diversity of benthic organisms, nor the alleged interruption of the trophic chain or any alteration to the biological cycle. In this regard, it noted that the authority did not indicate which species of benthic organisms that develop in the dredging site would be affected, why this would be the case, and if such impact was significant, as well as why it considered that this had a direct impact on the turtle species in danger of extinction.[68]

132. The TFJA added that in the study that was done as part of the MIA and submitted for consideration under SEMARNAT, ExO argued that the dredging activities of its project would be carried out at a depth below the zone where turtles, in general, and especially the *Caretta caretta*, develop. According to the TFJA, the authority in its resolution of denial of the New MIA, only considered the habitat of the turtle species in question in a two-dimensional map (latitude and longitude), without considering that the dredging activity would be carried out on the seabed. Therefore, it failed to analyze the applicant's argument

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65 **C-0019**, Amendment to the annulment petitions of the 2016 Denial, 6 June 2017.
66 **C-0170**, TFJA Ruling, 21 March 2018.
67 **C-0170**, TFJA Ruling, 21 March 2018, p. 140.
68 **C-0170**, TFJA Ruling, 21 March 2018, p. 148.

in the sense that the dredging would be carried out at a depth greater than that in which the habitat of the turtles is located.[69]

133. The TFJA ruled that the respondent authority, by issuing the resolution that denied the New MIA in the terms already mentioned, violated the right of defense of ExO by forcing it to challenge vague facts deprived of scientific basis.[70]

134. Secondly, regarding the mitigation measures proposed by ExO, the TFJA expressed, among other criticisms, that SEMARNAT rejected them outright without specifying the reasons it took into consideration, as well as the scientific and/or environmental data on which it based such determination. It added that said authority only made a series of dogmatic statements in its attempt to justify the denial of the authorization requested by ExO.[71]

135. The TFJA also stated that it cannot be considered that the resolution through which SEMARNAT denied the environmental impact authorization requested by ExO is duly founded and motivated, since the authority failed to analyze in its entirety and answer the points contained in the New MIA. The above, according to the TFJA, denoted a lack of study on the part of the authority, since it omitted to carry out a complete evaluation of the information provided by the promoter during the MIA evaluation procedure, in relation to the Project.[72]

136. Finally, the TFJA determined that SEMARNAT's decisions to deny any probative value to the "*Technical and Scientific Report*" submitted by ExO and to reject the production of the expert report in marine biology offered by ExO were arbitrary and in violation of the rules of due process to ExO's detriment.[73]

137. The TFJA declined to order SEMARNAT to authorize the MIA on the basis of the proposed mitigation measures, citing its lack of technical ability to analyze the proposed measures, its reluctance to take over matters within the mandate and the authority of

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69 **C-0170**, TFJA Ruling, 21 March 2018, p. 167.
70 **C-0170**, TFJA Ruling, 21 March 2018, p. 150.
71 **C-0170**, TFJA Ruling, 21 March 2018, p. 166.
72 **C-0170**, TFJA Ruling, 21 March 2018, p. 168.
73 **C-0170**, TFJA Ruling, 21 March 2018, p. 186.

SEMARNAT, and concern that the project could have broader environmental impacts including on the air and water.[74]

138. However, the TFJA ordered SEMARNAT to re-analyze the New MIA and issue a new decision on the matter, duly founded and motivated, within four months from the date of the TFJA Ruling.[75] In doing so, the TFJA instructed SEMARNAT to analyze all elements of the project sponsor's request, including the proposed mitigation measures, to ground its conclusions on the most reliable scientific information available, and specifically to rule on the point that the dredging activities would take place at a depth that would not affect the habitat of the turtles.[76]

139. On 18 April 2018, five days after SEMARNAT was notified of the TFJA Ruling, it issued an informative note in which it stated that it was going to comply with the ruling "*with the firm belief*" that the Don Diego Project was a threat to the integrity of the ecosystem, and that it would reinforce the technical and scientific justification in order to confirm its original decision, *i.e.*, to deny the authorization again.[77]

140. On 12 October 2018, SEMARNAT issued Letter No. SGPA/DGIRA/DG/07852 denying the Second MIA ("**Second Denial**").[78]

141. The Second Denial states, among others, the following concerns:

a. the potential impact on the habitat of the *Caretta caretta* turtle;[79]
b. the abundance of turtles in the project site;[80]
c. the methodology of Claimant's environmental surveys, including the time of year at which they were carried out, and the impact of that methodology on the results of the surveys;[81]
d. the potential impact of the project on whales and other large marine mammals;[82]

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74 **C-0170**, TFJA Ruling, 21 March 2018, pp. 172-173.
75 **C-0170**, TFJA Ruling, 21 March 2018, pp. 193-194.
76 **C-0170**, TFJA Ruling, 21 March 2018, p. 194.
77 **C-0470**, Informational Note, 18 April 2018.
78 **C-0009**, SEMARNAT Denial Decision, 12 October 2018.
79 **C-0009**, SEMARNAT Denial Decision, 12 October 2018, pp. 464-467.
80 **C-0009**, SEMARNAT Denial Decision, 12 October 2018, pp. 469-471.
81 **C-0009**, SEMARNAT Denial Decision, 12 October 2018, pp. 469-471.
82 **C-0009**, SEMARNAT Denial Decision, 12 October 2018, pp. 471-472.

e. the impact of other marine organisms in the project site;[83] and

f. the compatibility of the project with the precautionary principle as recognized by both Mexican and international law.[84]

142. Regarding this second rejection of the New MIA, Messrs. Flores and Villa claimed that they received again instructions to deny the ExO Project, an order that came once more from Mr. Pacchiano.[85] Messrs. Flores and Villa concluded that there was no technical-environmental basis to this new denial.[86]

143. Mr. Pacchiano again rejected any intervention in ExO's MIAs evaluations and denied that he was behind any of the decisions to reject the Project.[87]

144. On 19 August 2019, ExO filed an appeal before the TFJA seeking the annulment of SEMARNAT's Second Denial ("**Second Appeal**").[88] ExO based its complaint against this decision, among others, on the following grounds:

a. Undue motivation of the Second Denial when delimiting the *Caretta caretta* turtle habitat and its population density in the Gulf of Ulloa.[89]

b. DGIRA violation of the principle of due motivation by adjudicating on the impact on the local distribution of benthic organisms and their consequences.[90]

c. The impacts of the Project do not affect the *Caretta caretta* species.[91]

d. Defective statements of reasons as to the alleged impact on species other than the *Caretta caretta* turtle.[92]

e. Improper motivation in referencing other impacts and analyzing the rest of the mitigation and compensation measures proposed by ExO.[93]

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83 **C-0009**, SEMARNAT Denial Decision, 12 October 2018, pp. 480-494.
84 **C-0009**, SEMARNAT Denial Decision, 12 October 2018, pp. 509-511.
85 Witness Statement of Alfonso Flores Ramírez, ¶ 29; Second Witness Statement of Alberto Villa Aguilar, ¶ 22.
86 Witness Statement of Alfonso Flores Ramírez, ¶ 31; Witness Statement of Alberto Villa Aguilar, ¶ 12; Second Witness Statement of Alberto Villa Aguilar, ¶ 21.
87 Witness Statement of Rafael Pacchiano Alamán, ¶ 33; Second Witness Statement of Rafael Pacchiano Alamán, ¶¶ 5, 7.
88 **C-0186**, ExO's Nullity Appeal before the TFJA, 19 August 2019.
89 **C-0186**, ExO's Nullity Appeal before the TFJA, 19 August 2019, pp. 15-28.
90 **C-0186**, ExO's Nullity Appeal before the TFJA, 19 August 2019, pp. 28-42.
91 **C-0186**, ExO's Nullity Appeal before the TFJA, 19 August 2019, pp. 42-65.
92 **C-0186**, ExO's Nullity Appeal before the TFJA, 19 August 2019, pp. 65-69.
93 **C-0186**, ExO's Nullity Appeal before the TFJA, 19 August 2019, pp. 69-81.

f. Undue interpretation of the precautionary principle.[94]

145. At the time of this Award, the TFJA has not yet ruled on this Second Appeal.

IV. MEXICO'S JURISDICTIONAL OBJECTION UNDER NAFTA ARTICLE 1117

A. CLAIMANT'S POSITION

146. Claimant submits that the Tribunal has jurisdiction over the present dispute under NAFTA Chapter 11, Part B, as the requirements for the Tribunal's material (*ratione materiae*), personal (*ratione personae*), and temporal (*ratione temporis*) jurisdiction have been met.

147. First, Claimant asserts that Odyssey is an enterprise of a Party within the meaning of NAFTA Article 1116 that has invested in Mexico and that, therefore, it is entitled to submit in the present arbitration a claim that Mexico has violated NAFTA Chapter 11, Section A. Odyssey, as a company incorporated under the laws of the State of Nevada, is a protected investor under NAFTA. Claimant notes that Mexico has not challenged or disputed Odyssey's standing under NAFTA Article 1116.[95]

148. Furthermore, Claimant contends that Odyssey, as majority shareholder of and exercising control over ExO (a company incorporated under the laws of Mexico), is also entitled to bring a claim on behalf of ExO against Mexico. Indeed, Claimant contends that NAFTA Article 1117 allows Odyssey to "*assert claims on behalf of locally-incorporated subsidiaries that the investors directly or indirectly own or control*."[96]

149. Claimant notes that NAFTA does not define the term "*control*." Claimant, therefore, refers to the findings of investment tribunals that perceived control as reflecting the concept of corporate control, shareholding, and even *de facto* control over a company.[97] According to Claimant, corporate control exists when there is ownership of more than 50% of the shares in the corporation.[98]

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94 **C-0186**, ExO's Nullity Appeal before the TFJA, 19 August 2019, pp. 163-184.
95 Mem., ¶¶ 189-192.
96 Mem., ¶¶ 194-197, citing **CL-0019**, *B-Mex, LLC and Others v. United Mexican States,* ICSID Case No. ARB(AF)/16/3, Partial Award, 19 July 2019, ¶ 205; **CL-0127**, *Mr. Joshua Dean Nelson v. United Mexican States*, ICSID Case No. UNCT/17/1, Final Award, 5 June 2020, ¶ 188; **CL-0121**, *Waste Management, Inc. v. United Mexican States II,* ICSID Case No. ARB(AF)/00/3, Award, 30 April 2004, ¶ 84.
97 Mem., ¶¶ 195-196.
98 Mem., ¶ 196.

150. As majority shareholder of Oceánica Resources S. de R.L. ("**Oceánica**") at 53.89%, the company that holds 99.99% of the shares of ExO and indirectly owns and controls ExO, Odyssey established this ownership and control through its wholly owned Bahamian and US subsidiaries (Odyssey Marine Enterprises, Ltd. and Marine Exploration Holdings, LLC). Simply put, Odyssey "*indirectly … exercises legal control over the enterprise* [ExO]".[99]

151. Claimant argues that Mexico's jurisdictional objection is premised on a flawed analysis of NAFTA Article 1117. Mexico mistakenly argues that "*Odyssey's 54% indirect shareholding in ExO is not enough to establish control for the purposes of NAFTA Article 1117*,"[100] based on an out-of-context reading of an extract of the *B-Mex v. Mexico* award interpreting the term "*owns*" and not the concept of control when stated that 50% +1 is not necessarily the requisite share ownership that confers legal control. Claimant argues that the *B-Mex* tribunal ruled that NAFTA Article 1117 does not determine the form that the necessary control must take and clearly subscribed to the *Aguas del Tunari v. Bolivia* tribunal's conclusion that, "*where an entity has both majority shareholdings and ownership of a majority of the voting rights, control as embodied in the operative phrase 'controlled directly or indirectly' exists*."[101]

152. In keeping with its argument, Claimant notes that Mexico has also overlooked the *Nelson v. Mexico* tribunal, which also concluded that majority ownership is a manner of legal control for purposes of NAFTA Article 1117.[102] Majority ownership of the share capital along with the capacity to cast a majority of votes that comes with it are constitutive of control and create the presumption of control. This presumption can be rebutted only "*if there are special elements which create doubts about the owner's control*."[103] However, in

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99 Mem., ¶¶ 197-198.

100 Reply, ¶¶ 130-133, citing C-Mem., ¶ 401.

101 Reply, ¶¶ 133-134, citing **CL-0019,** *B-Mex v. Mexico*, Partial Award, ¶¶ 212, 217; **CL-0153**, *Aguas del Tunari, S.A. v. Republic of Bolivia,* ICSID Case No. ARB/02/3, Decision on Respondent's Objections to Jurisdiction, 21 October 2005, ¶ 264.

102 Mem., ¶ 196, citing **CL-0127**, *Nelson v. Mexico*, Final Award, ¶¶ 188, 198.

103 Reply, ¶ 136, citing **CL-0180**, *Occidental Petroleum Corporation and Occidental Exploration and Production Company v. Republic of Ecuador*, ICSID Case No. ARB/06/11, Decision on Annulment of the Award, 2 November 2015, ¶ 104.

the present case, Mexico did not seriously dispute the fact that Claimant indirectly owns 54% of ExO, much less rebutted the presumption of control.[104]

153. Claimant reiterates that Odyssey indirectly controls ExO and, therefore, is entitled to bring a claim pursuant to NAFTA Article 1117. Claimant refers to the evidence in the record proving the corporate structure and confirming that ExO is indirectly owned and controlled by Claimant. Claimant also refers to its controlling voting rights in Oceánica and the fact that its total voting power rises to 58% relative to all outstanding capital. Therefore, considering the majority shareholding structure and the voting power allocated to Claimant, it is undeniable that Odyssey exercises indirect control over Oceánica and ExO.[105]

154. Claimant further points out that neither Minera del Norte, S.A. de C.V. ("**MINOSA**") nor Monaco Financial, LLC ("**Monaco**") nor Poplar Falls, LLC have ever had the authority to control ExO.[106]

155. In addition, Claimant contends that it has also exercised "de facto *control over ExO*" since Odyssey was involved in ExO's day-to-day and strategic decisions. Odyssey's CEO served as ExO's Vice President since 2013 and as Oceánica's Administrator. Similarly, Odyssey's Chairman Emeritus has sat as ExO's President since 2013, and Odyssey's Treasurer has sat as ExO's Treasurer since 2013.[107]

156. Second, Claimant argues that the two-fold test for material jurisdiction has also been met. On the one hand, the Tribunal must satisfy itself that there is an investment pursuant to NAFTA Article 1139. On the other, Claimant must show that the measures adopted by Mexico related to investments of investors of another Party.

157. Concerning the existence of investment, Claimant argues that Odyssey has invested in Mexico, and that its investment is a legally protected investment under NAFTA. Claimant's investment consists of its 53.89% shareholding in ExO, "*which is plainly 'an equity security' and an 'interest in an enterprise that entitles the owner to a share in income*

104 Reply, ¶¶ 135-136.
105 Reply, ¶¶ 137-141.
106 Reply, ¶¶ 142-143.
107 Reply, ¶ 143.

or profits of the enterprise.'"[108] Furthermore, Odyssey has funded the exploration work and concession fees by financing ExO's work and investment of resources in furtherance of the Project.[109]

158. Concerning the claims brought on behalf of ExO, Claimant notes that "*the Concession, the Don Diego Norte Concession, the Don Diego Sur Concession, and the associated rights are also covered investments*."[110] It argues that investment tribunals have regularly found that concessions fall within the notion of investment under NAFTA Article 1101.[111]

159. Claimant also argues that SEMARNAT's conduct, which forms the basis of the measures at issue in this arbitration, is attributable to Mexico.[112]

160. Odyssey's claims are based on the alleged breach of investment protections by Mexico and *ratione materiae* jurisdiction has been established since both Odyssey and ExO sustained losses arising from (i) the measures taken by Respondent, including the denials of the MIA as a result of Secretary Pacchiano's political ambitions and/or personal whims rather than applicable statutory standards and administrative law, as well as (ii) its omissions, such as the inexplicable and *ultra vires* delays suffered with respect to SEMARNAT's purported consideration of the Project's MIA.[113]

161. Third, as to the Tribunal's temporal jurisdiction, pursuant to NAFTA Article 1116(2), claimants are prevented from bringing a claim "*if more than three years have elapsed from the date on which the investor first acquired, or should have first acquired, knowledge of the alleged breach and knowledge that the investor has incurred loss or damage*."[114] Claimant argues that its claims have been brought in a timely manner pursuant to NAFTA Article 1116. Odyssey submitted the Notice for Arbitration on 5 April 2019, and

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108 Mem., ¶ 203.
109 Mem., ¶ 203.
110 Mem., ¶¶ 204-205.
111 Mem., ¶ 206, citing **CL-0067**, *Lion Mexico Consolidated L.P. v. United Mexican States,* ICSID Case No. ARB(AF)/15/2, Decision on Jurisdiction, 30 July 2018, ¶¶ 205, 207; **CL-0008**, *AIG Capital Partners Inc. and CJSC Tema Real Estate Company v. Republic of Kazakhstan,* ICSID Case No. ARB/01/6, Award, 7 October 2003, footnote. 154, citing *AMCO Asia Corporation v. Republic of Indonesia* (1984) 24 International Legal Materials (1985), 1030, ICCA Yearbook, Vol. XIV 1989, p. 92.
112 Mem., ¶ 206.
113 Mem., ¶ 200.
114 Mem., ¶ 208, citing **CL-0081**, NAFTA, Art. 1116(2).

"*SEMARNAT's wrongful denial of the MIA*," the crux of the measure at issue, was reflected in the legally binding decision issued on 7 April 2016.[115]

162. In addition, Claimant contends that the term "*measure*" in NAFTA Article 1102 encompasses the treatment accorded by SEMARNAT to "*dredging projects pursued by similarly-situated investors and/or investment enterprises*."[116] According to Claimant, the "*absolute earliest date upon which Odyssey or ExO could have learned of such disparate treatment*" and the ensuing losses would have been 7 April 2016.[117] In the same vein, more than six months have elapsed since the date of the conduct in question occurred and, therefore, the temporal requirement prescribed for in NAFTA Article 1120(1) is met. Odyssey did not seek arbitration until 5 April 2019, namely more than six months from the relevant date, 7 April 2016.[118]

163. As for its obligation to submit written notice to Mexico no less than 90 days before the filing of the claims under NAFTA Article 1119, Claimant contends that it abided by that requirement as its Notice of Intent was sent to Mexico on 4 January 2019, consultations took place at the beginning of April 2019, and the arbitration commenced on 5 April 2019.[119]

164. Moreover, Claimant takes issue with Mexico's assumption that claims pursuant to NAFTA Articles 1116 and 1117 would be mutually exclusive. Such assumption is unfounded and contradicts "*a long line of NAFTA cases wherein parties have been allowed to bring proceedings under* [those provisions] *'concurrently*.'"[120]

165. Finally, Claimant confirms that Odyssey and ExO have both waived their rights to pursue monetary relief before domestic courts in Mexico by virtue of the Notice of Arbitration. Claimant argues that ExO's appeal of SEMARNAT's Second Denial of 12 October 2018, seeking to overturn the First Denial on Mexican legal grounds, is permitted under NAFTA.

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115 Mem., ¶¶ 207-208.
116 Mem., ¶ 209.
117 Mem., ¶ 209.
118 Mem., ¶¶ 208-211.
119 Mem., ¶ 211.
120 Reply, ¶¶ 128-129.

The TFJA is only empowered to grant declaratory relief, *i.e.*, to annul or to confirm SEMARNAT's First Denial, not to award damages.[121]

B. RESPONDENT'S POSITION

166. Mexico contends that the Tribunal lacks jurisdiction to adjudicate the present case under NAFTA Article 1117 as Claimant lacks legal standing to bring a claim on behalf of ExO.

167. In essence, pursuant to NAFTA Article 1117, Claimant bears the burden of proof of its alleged direct or indirect ownership or control of ExO. Claimant must provide "*all necessary evidence regarding the circumstances of ownership and control at all relevant times, especially when reasonable doubts have been raised about actual ownership or control over the business seeking protection*."[122]

168. Mexico argues that Claimant's 54% ownership of Panamanian entity Oceánica, based on which Claimant asserts that it exerts indirect control over ExO, does not suffice to establish control or ownership. Mexico subscribes to the *B-Mex v. Mexico* tribunal's approach that the concept of ownership in NAFTA Chapter 11 requires "*full ownership or virtually full ownership of the [relevant] company*."[123] For Mexico, the threshold of NAFTA Article 1117 has not been met, and the Tribunal should not ascertain jurisdiction.

169. In addition, a jurisdictional finding of indirect control requires Claimant to show either that "*it had the legal capacity to control, i.e.,* de jure *control, or that it exercised the actual power,* de facto *control, to do so*."[124] However, Claimant has not established neither *de jure* nor *de facto* control over ExO.

170. Mexico argues that "*the self-serving assertion*" that Odyssey controls ExO "*is insufficient … and has no support in international law*."[125] Mexico further argues that, in the absence of legal control, *de facto* control has to be established, in the words of the *Thunderbird v.*

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121 Mem., ¶¶ 215-216.
122 C-Mem., ¶ 400.
123 C-Mem., ¶ 401, citing **CL-0019,** *B-Mex v. Mexico*, Partial Award, ¶ 198.
124 C-Mem., ¶ 403.
125 C-Mem., ¶ 403.

Mexico tribunal, "*beyond any reasonable doubt*."[126] Mexico contends the *Thunderbird* tribunal as well as subsequent tribunals set a particularly high threshold,[127] requiring "*a greater evidentiary challenge*" to demonstrate that such a *de facto* control indeed exists.[128] As Mexico argues, "[c]*laimant*[] *would need to demonstrate by introducing board minutes and other supporting documentation that, at all relevant times, they had the 'ability to exercise significant influence on the decision-making' or that they were the 'driving force' in the company*."[129]

171. Mexico contends that Claimant has not defeated "*prima facie evidence that others had control over ExO*."[130] In particular, Mexico refers to "*Claimant's own filings with the* [Securities and Exchange Commission, "**SEC**"] *stat*[ing] *that it has pledged the majority of its assets to MINOSA and to Monaco*," the fact that "*Claimants appear*[] *to have sold a substantial interest in this arbitration to the firm Poplar Falls LLC*," and the fact that Altos Hornos de México S.A. de C.V. ("**AHMSA**"), a Mexican company and MINOSA's parent company, and Mr. Ancira, a Mexican national, led the pursuit of approvals from SEMARNAT. According to Respondent, this evidence confirms Mexico's arguments.[131]

172. Furthermore, Mexico asserts that Claimant mischaracterizes its position regarding NAFTA Articles 1116 and 1117.[132] Mexico reiterates that there is a distinction between the damages available under NAFTA Articles 1116 and 1117, and that Claimant "*cannot separately assert damages for itself as a shareholder and damages for the value of ExO*."[133] Otherwise, Claimant would be seeking double recovery. Neither may Claimant seek damages for itself based on the portion of ExO that is owned by Mexican investors.[134]

173. Mexico further emphasizes that NAFTA Article 1105(1) imposes obligations on States with respect to foreign investments and not investors. Consequently, Claimant would be

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126 C-Mem., ¶ 404, citing **RL-0003**, *International Thunderbird Gaming Corporation v. United Mexican States*, UNCITRAL, Award, 26 January 2006, ¶ 106.
127 C-Mem., ¶ 405.
128 C-Mem., ¶ 404, citing **CL-0019**, *B-Mex v. Mexico*, Partial Award, ¶ 220.
129 C-Mem., ¶ 404, citing **RL-0003**, *Thunderbird v. Mexico*, Award, ¶ 108.
130 C-Mem., ¶ 405.
131 C-Mem., ¶¶ 405-406. *See also* Rejoinder, ¶ 310.
132 Rejoinder, ¶ 308.
133 Rejoinder, ¶ 308.
134 Rejoinder, ¶ 308.

prevented from filing a claim for a breach of Article 1105 "*as an investor under Article 1116 of NAFTA*."[135]

174. Finally, notwithstanding the above, Mexico points out that, while Claimant refrained from addressing its arguments on the ownership and/or control of ExO and the role of the Mexican investor in ExO, it "*presented additional evidence to establish his (indirect) role in the ownership and control of ExO*."[136] In these circumstances, Mexico does not believe that it is necessary for the Tribunal to rule on this issue, as there are other broad grounds for dismissing Claimant's claims.[137]

C. TRIBUNAL ANALYSIS

175. Odyssey established this Tribunal's *ratione personae* jurisdiction by alleging it is a protected investor under NAFTA and by bringing a claim against Mexico on its own behalf and on behalf of ExO pursuant to NAFTA Articles 1116 and 1117, respectively.

176. There can be no doubt that under NAFTA Article 1116, Odyssey, an investor of a Party, was entitled to submit a claim of arbitration on its own behalf. As Claimant stated, and the record shows, Odyssey is a company incorporated and constituted under the laws of Nevada, United States of America[138] that invested in Mexico.

177. However, Mexico, in its Counter-Memorial, objected to this Tribunal's jurisdiction in relation to the claim brought by Odyssey on behalf of ExO based on an alleged lack of legal standing under NAFTA Article 1117. That Article provides:

> *Article 1117: Claim by an Investor of a Party on Behalf of an Enterprise*
>
> *1. An investor of a Party, on behalf of an enterprise of another Party that is a juridical person* ***that the investor owns or controls directly***

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135 Rejoinder, ¶ 309.
136 Rejoinder, ¶ 310.
137 Rejoinder, ¶ 310.
138 Mem., ¶ 192, citing **C-0033**, Odyssey Marine Exploration, Inc. Certificate of Incorporation, 28 August 1997; **C-0094**, Odyssey Marine Exploration, Corporate Registration Statement, 8 July 2020; Witness Statement of Mark Gordon, ¶ 6.

> ***or indirectly****, may submit to arbitration under this Section a claim that the other Party has breached an obligation* […].

178. According to Odyssey, "[i]*n considering the language and purpose of Article 1117, NAFTA Tribunals have found that it permits investors to assert claims on behalf of locally-incorporated subsidiaries that the investors directly or indirectly own or control*."[139] Since NAFTA does not define the concept of control, Claimant states that tribunals have turned their attention to the concept of corporate control. Following the reasoning of the *B-Mex v. Mexico*, Odyssey argues that an investor controls an enterprise if it holds enough shares to possess the legal capacity to control the company or otherwise exercise de facto control.[140] Corporate control, as concluded by the *Nelson v. Mexico* tribunal, exists when there is "[o]*wnership of more than 50% of the shares in a corporation*."[141]

179. As stated by Claimant, ExO is a Mexican enterprise in which Odyssey holds majority ownership through intermediary holding companies.[142] Odyssey holds 53.89% of the Panamanian company Oceánica through its wholly owned US and Bahamian subsidiaries, Marine Exploration Holding, LLC and Odyssey Marine Enterprises, Ltd., respectively. Oceánica, in turn, holds 99.99% of ExO. Thus, the structure is as follows:[143]

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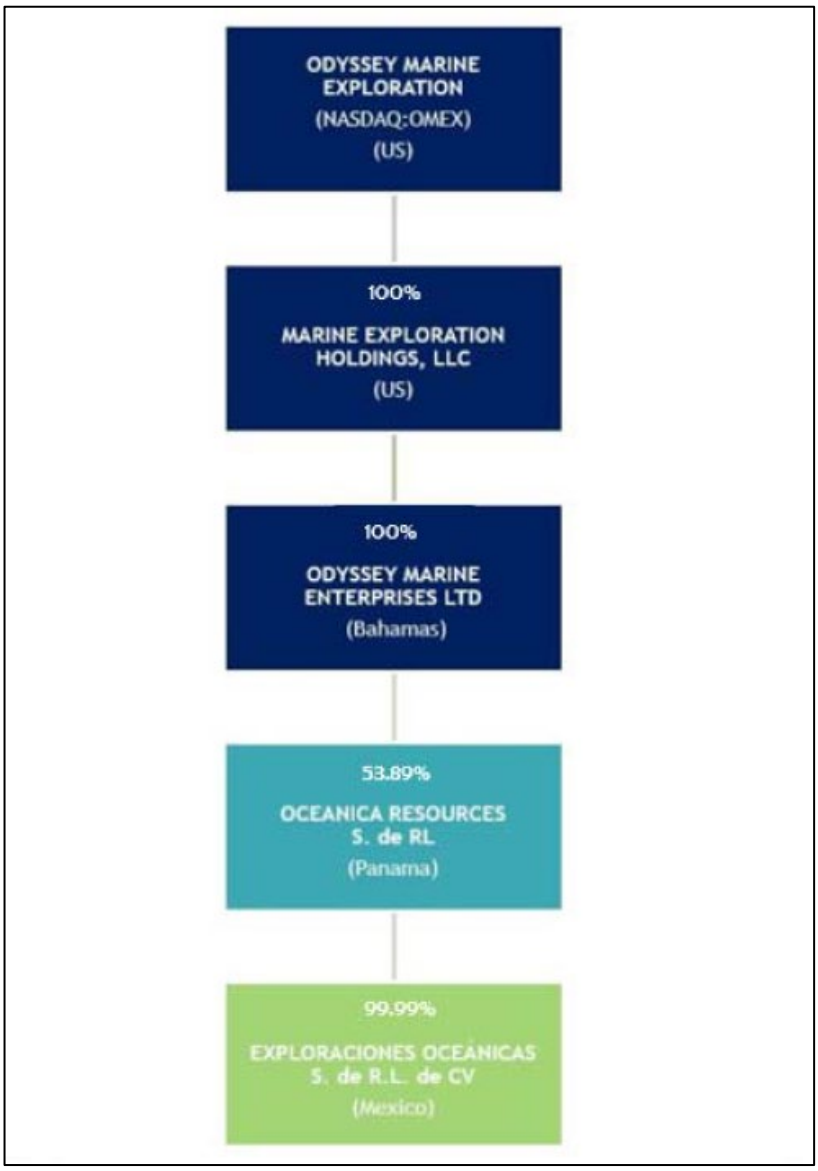
139 Mem., ¶ 194.
140 Mem., ¶ 195, citing **CL-0019**, *B-Mex v. Mexico*, Partial Award, ¶ 205.
141 Mem., ¶ 196, citing **CL-0127**, *Nelson v. Mexico*, Final Award, ¶ 188.
142 *See* **C-0183**, Certificate of the Treasurer, ExO Stock Ownership, 29 March 2019; **C-0184**, Certificate of the Treasurer, Oceanica Stock Ownership, 29 March 2019; **C-0211**, Certificate of the Treasurer, OMEX Stock Ownership, 29 March 2019; **C-0212**, Certificate of the Treasurer, OMEX Enterprises Stock Ownership, 29 March 2019.
143 Mem., ¶ 197.



180. Mexico's position, nonetheless, is that the affirmations made by Claimant do not satisfy the burden of proof required under NAFTA Article 1117 to bring a claim on behalf of an enterprise. According to Respondent, Odyssey must provide all the necessary evidence to show it either owns or controls ExO.[144] It adds that even considering Claimant's affirmations as true, owning 54% of Oceánica would not amount to controlling ExO and

[144] C-Mem., ¶ 400.

when no control *de jure* has been established, control *de facto* should be proven beyond any reasonable doubt.[145]

181. The Tribunal is of the view that, on the basis of the evidence before it in this case, the majority ownership creates a rebuttable presumption of control, and what remains to be seen is whether Mexico provided evidence to rebut that presumption.

182. Regarding the majority ownership, Respondent did not dispute the fact that Odyssey indirectly owns 53.89% of ExO. However, it raised different arguments to cast doubts about Odyssey's control over ExO. These arguments related to the fact that Claimant informed the SEC that it had pledged the majority of its assets to MINOSA and to Monaco or the circumstance that Odyssey "*appears to have sold a substantial interest in this arbitration to the firm Poplar Falls LLC*" and the fact that AHMSA, a Mexican company, and Mr. Ancira, a Mexican national, led the pursuit of approvals from SEMARNAT.[146]

183. In the view of this Tribunal, these elements invoked by Mexico are not apt to put in doubt the indirect control that Odyssey has over ExO. They are accessory circumstances, none of which, individually or jointly considered, are capable of explaining that Odyssey lacks control over ExO or that the presumption of control must, in this case, be dismantled. The existence of an asset pledge or the sale of an interest in this arbitration to a third party does not naturally entail a loss of Odyssey's control over ExO, unless it is proven that these transactions included such a specific effect, which has not been demonstrated. Moreover, the loans obtained by Odyssey with MINOSA, Monaco, and Poplar Falls, LLC are disclosed in Odyssey's Form 10-K Annual Report for 2019,[147] and there is no indication that those financial agreements gave the lenders an authority to exercise control over ExO. The same reasoning applies to the allegation made by Respondent that a Mexican company or a Mexican national had a relevant role in the pursuit of ExO's permits before the Mexican environmental authorities. To conclude from that circumstantial fact that Odyssey would not be the controller of ExO is a claim that is not supported by evidence.

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145 C-Mem., ¶¶ 403-404, citing **RL-0003**, *Thunderbird v. Mexico*, Award, ¶ 106.

146 C-Mem., ¶¶ 405-406.

147 **C-0190**, Odyssey Marine Exploration, Inc. Form 10-K for the period ending 31 December 2019, 20 March 2020, p. 3, pp. 21-24.

184. Equally significant is the fact that Claimant submitted further evidence into the record to prove that ExO is virtually fully owned by Oceánica and that the latter is indirectly majority owned and controlled by Odyssey through Odyssey Marine Exploration Holdings, LLC (US) and Odyssey Marine Enterprises, Ltd. (Bahamas).[148] Among this evidence are ExO's Minutes of its Annual General Meeting of Members, dated 17 May 2019,[149] public deeds of Oceánica of October 2015 and May 2020,[150] Odyssey Marine Enterprises, Ltd. (Bahamas)'s Certificate of Shareholding[151] and Odyssey Marine Exploration Holdings, LLC (US)'s 2013 Public Registry Deed.[152]

185. Additionally, Claimant submitted a document to prove that Odyssey Marine Enterprises, Ltd. also holds the voting rights to an additional quota of DNA Ltd., another stakeholder in Oceánica.[153] Therefore, "[b]*oth the 53.89% majority shareholding structure and the 58% voting power thus demonstrate conclusively that Odyssey exercises indirect legal control over Oceánica and, in turn, over ExO*."[154]

186. Given this further evidence produced by Claimant, Mexico appeared to have changed its position and withdrawn its jurisdictional objection by concluding that it "*does not believe it is necessary for the Tribunal to rule on this issue, because there are other broad grounds for dismissing the Claimant's claims*."[155]

187. In conclusion, given (i) the fact that Odyssey indirectly owns 53.89% of ExO is not disputed; (ii) such majority control creates a rebuttable presumption of control; (iii) Odyssey submitted sufficient evidence that it actually controls ExO; and (iv) Mexico did not provide any relevant proof to rebut either the presumption or Odyssey's evidence, the latter has legal standing to bring a claim on its behalf. Thus, the Tribunal determines it has jurisdiction over Odyssey's claim, both under NAFTA Article 1116 and Article 1117.

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148 Reply, ¶ 139.
149 **C-0447,** Resolutions of the Annual General Meeting of Members of Exploraciones Oceánicas, 17 May 2019, p. 1.
150 **C-0390**, Public Registry Deed for Oceánica Resources, S. de R. L., 23 October 2015, pp. 4-5.
151 **C-0368**, Marine Exploration Holdings LLC Certificate of Shares, 17 April 2013.
152 **C-0369**, Marine Exploration Holdings LLC Operating Agreement, 17 April 2013, p. 7.
153 **C-0370**, DNA Ltd., Inc. Voting Proxy, 19 August 2013.
154 Reply, ¶ 141.
155 Rejoinder, ¶ 310.

V. MERITS

A. BREACH OF THE FAIR AND EQUITABLE TREATMENT STANDARD UNDER NAFTA ARTICLE 1105

(1) Claimant's Position

a) FET standard

188. Claimant's first claim is that Mexico breached the standard of treatment under NAFTA Article 1105.

189. Claimant argues that, although SEMARNAT had initially found that the Project did not pose any unmitigable environmental risks, it was denied an environmental permit due to the interference of Mr. Pacchiano, who, in search of personal and political gain, abused his public authority, ordered "*SEMARNAT officials to 'find a reason' to permanently withhold approval for the Project*,"[156] and directed "*his officials to render a manifestly unreasonable conclusion which showed nothing but contempt for the TFJA and for the rule of law as a whole*."[157] Claimant further argues that SEMARNAT exceeded its "*statutory mandate and applicable environmental law*" and essentially "*failed to accord good faith consideration to the evidence marshalled by ExO in support of the Project*."[158] Secretary Pacchiano's "*secret marching orders*" twice forced SEMARNAT officials to ignore and mischaracterize evidence and environmental policy considerations which should have governed their work. In so doing, the denial violated principles of transparency and due process, and breached Mexican law.[159] Said denial, in Claimant's view, constitutes a breach of Respondent's obligation to accord investments of investors of another Party treatment in accordance with international law, including fair and equitable treatment ("**FET**"), pursuant to NAFTA Article 1105.

190. As to the scope of the FET standard of protection, Claimant contends that NAFTA Article 1105 "*encapsulates, and its breach can be evinced by proof of nonconformity with, <u>any</u> of the following principles: (i) transparency; (ii) good faith; (iii) treatment free from arbitrary*

156 Mem., ¶¶ 219-220.
157 Mem., ¶ 220.
158 Mem., ¶ 221.
159 Mem., ¶ 221.

and/or discriminatory conduct; (iv) due process; and (v) respect for reasonable expectations."[160] Claimant further contends that the FET and full protection and security (FPS) standards reflect the customary international law minimum standard of treatment. However, Claimant relies on the *Pope & Talbot v. Canada* award to argue that the minimum standard of protection is not "*frozen in amber*,"[161] but is relative and changes over time. The content of minimum standard should "*reflect evolving international customary law*."[162] Claimant posits this should be undisputed by Mexico.[163]

191. Claimant asks the Tribunal to assess the application of the customary rule of minimum standard of protection considering other decisions of courts and tribunals called upon to apply international law along with the views of eminent legal scholars and jurists. Claimant asserts that the Tribunal should not regard this issue in abstract terms.[164] Put differently, the Tribunal must determine the scope of NAFTA Article 1105 in conjunction with the evolution of customary international law and the impact of BITs on its evolution.[165]

192. In the same vein, Claimant alleges that this Tribunal does not have to examine whether NAFTA Article 1105(1) should be construed as an autonomous standard shying away from customary international law. Instead, Mexico's actions were egregious and could have violated even a rigorous, conservative interpretation of the standard.[166] The minimum standard of treatment should be perceived as "*an umbrella concept incorporating a set of rules that over the centuries have crystallized into customary international law in specific contexts*."[167] Therefore, it is a fact-depended concept that enables investors to formulate an argument that they have not been well-treated "*by reason of discriminatory or other unfair measures being taken against its interests*."[168]

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160 Mem., ¶ 217 (emphasis added).
161 Mem., ¶ 223, citing **CL-0091**, *Pope & Talbot Inc. v. Government of Canada*, UNCITRAL, Award in Respect of Damages, 31 May 2002, ¶ 57.
162 Reply, ¶ 176, citing **CL-0168**, *Thunderbird v. Mexico*, Award, ¶ 194.
163 Reply, ¶ 177.
164 Mem., ¶ 224.
165 Mem., ¶ 225.
166 Mem., ¶ 226.
167 Mem., ¶ 227, citing **CL-0004**, *ADF Group Inc. v. United States of America*, ICSID Case No. ARB (AF)/00/1, Post-Hearing Submission of Respondent United States of America on Article 1105(1) and *Pope & Talbot*, 27 June 2002, p. 2.
168 Mem., ¶ 227.

193. Claimant invokes the *Waste Management v. Mexico (II)* award, in which the tribunal articulated the standard as follows:

> "[T]*he minimum standard of treatment of fair and equitable treatment is infringed by conduct attributable to the State and harmful to the claimant if the conduct is arbitrary, grossly unfair, unjust or idiosyncratic, is discriminatory and exposes the claimant to sectional or racial prejudice, or involves a lack of due process leading to an outcome which offends judicial propriety—as might be the case with a manifest failure of natural justice in judicial proceedings or complete lack of transparency and candour in an administrative process. In applying this standard, it is relevant that the treatment is in breach of representations made by the host State which were reasonably relied on by the claimant.*"[169]

194. Although Claimant acknowledges that both parties agree that the standard for assessing a breach of NAFTA Article 1105 is encapsulated in the oft-quoted summary in *Waste Management v. Mexico (II)*,[170] it takes issue with Respondent's view that the threshold for demonstrating a breach of the standard would be extremely high.[171]

195. According to Claimant, NAFTA Article 1105 encompasses the principles of transparency and candor, good faith, non-arbitrary conduct, due process, and respect for investors' legitimate expectations.[172] Claimant further argues that Mexico should have been aware of this standard in light of a series of cases in which Mexico unsuccessfully attempted to disguise its unlawful actions as environmental protection measures.[173]

196. First, Claimant argues that, as the cornerstone of international law, the principle of good faith is an inherent part of the FET standard. Citing Prof. Cheng's *General Principles of Law*, Claimant further argues that the good faith principle also relates to the principle of abuse of rights since "*whenever the law leaves a matter to the judgment of the person exercising the right, this discretion must be exercised in good faith, and the law will intervene in all cases where this discretion is abused*."[174]

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169 Mem., ¶ 228, citing **CL-0121**, *Waste Management v. Mexico*, Award, ¶ 98.
170 Reply, ¶ 175; C-Mem., ¶ 449.
171 Reply, ¶ 176.
172 Mem., ¶ 229.
173 Reply, ¶ 177.
174 Mem., ¶¶ 231-232, citing **CL-0015**, B. Cheng, *General Principles of Law as Applied by International Courts and Tribunals*, 2006, pp. 132-133.

197. Claimant takes issue with Respondent's view that good faith is not a substantive rule of international law, and that lack of good faith cannot alone constitute a breach of FET. Good faith is an integral part of the minimum standard of treatment in accordance with customary international law. According to Claimant, "*[t]his is nothing more than what the* Waste Management II *tribunal recognized in holding that '[a] basic obligation of the [host] State under [the minimum standard of treatment] is to act in good faith and form, and not deliberately to set out to destroy or frustrate the investment by improper means*."[175] Similarly, as the *TECO v. Guatemala* tribunal concluded, a lack of good faith on the part of the host State or its organs should be taken into account to assess a potential breach of the minimum standard.[176]

198. Investment tribunals have also employed the theory of abuse of rights to construe the minimum standard of treatment under international law. A State that exercises "*a right for a purpose that is different from that for which that right was created*" is unlawful under customary international law and constitutes a breach of FET.[177]

199. Claimant clarifies that bad faith State actions are always constitutive of a breach of customary international law. However, it acknowledges that claimants are not mandated to prove that there was bad faith in State conduct to establish a breach of the minimum standard. This is so given that "*a State may treat foreign investment unfairly and inequitably without necessarily acting in bad faith*."[178]

200. Second, as to the legal standard associated with Respondent's obligation not to subject investors to arbitrary conduct, Claimant notes that arbitrariness is a "*wilful disregard of due process of law,*" "*something done capriciously, without reasons*" or "*a measure taken for reasons that are different from those put forward by the decision maker*."[179] An

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175 Reply, ¶ 181, citing **CL-0121**, *Waste Management v. Mexico*, Award, ¶ 138.

176 Reply, ¶ 182, citing **CL-0113**, *TECO Guatemala Holdings LLC v. Republic of Guatemala*, ICSID Case No. ARB/10/17, Award, 19 December 2013, ¶ 456.

177 Reply, ¶ 183, citing **CL-0104**, *Saipem S.p.A. v. People's Republic of Bangladesh*, ICSID Case No ARB/05/7, Award, 30 June 2009, ¶ 160.

178 Reply, ¶ 176, citing **CL-0078**, *Mondev International Ltd. v. United States of America*, ICSID Case No. ARB(AF)/99/2, Award, 11 October 2002, ¶ 116.

179 Mem., ¶ 233, citing **CL-0028**, *Case Concerning Elettronica Sicula S.p.A. (ELSI)*, Judgment, I.C.J. Reports 1989, p. 15, ¶ 128.

arbitrary measure does not follow the law or reason.[180] Claimant points out that a measure driven by political considerations or expediency rather than the legal standard is "*a classic form of arbitrary conduct*."[181] A measure aimed at responding to electoral pressure or satisfying mass interest groups does not conform with NAFTA Article 1105.

201. Therefore, arbitrariness presupposes the existence of a measure that damages the investor without serving any apparent legitimate purpose or being based on a legal standard. Instead, it is discretionary and reflects personal preference or prejudice.[182] Claimant cites a series of NAFTA awards that confirmed that arbitrariness exists when there is an ulterior motive behind the measure taken, such as protectionist intent, prejudice, not reason.[183] Claimant notes that tribunals have consistently accepted that decisions taken for political reasons are "*the epitome of arbitrary treatment*" and, thus, constitute a breach of NAFTA Article 1105.[184]

202. In Claimant's view, Respondent's argument that the *Cargill v. Mexico* tribunal would have been the only one that "*found a breach of Article 1105 based on evidence of arbitrariness alone*" is "*incoherent and irrelevant.*"[185] Claimant argues that Respondent intentionally overlooked the *Bilcon v. Canada* tribunal, which concluded that the conduct complained of was arbitrary and, therefore, in violation of NAFTA Article 1105.[186] Similarly, the *Nelson v. Mexico* and *Pope & Talbot v. Canada* tribunals have also concluded that domestic regulations to advance objectives different than those for which the relevant legal instruments were originally aimed at amounted to a breach of NAFTA Article 1105.[187]

203. Given that NAFTA Article 1105 reflects the minimum standard of treatment under customary international law, "*any tribunal interpreting arbitrary treatment in the context of the minimum standard of treatment under customary law is at least potentially*

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180 Mem., ¶¶ 236-241.
181 Mem., ¶¶ 234-235.
182 Mem., ¶ 236.
183 Mem., ¶ 237.
184 Reply, ¶ 190.
185 Reply, ¶ 185.
186 Reply, ¶ 186.
187 Reply, ¶ 187, citing **CL-0127**, *Nelson v. Mexico*, Final Award, ¶ 325; **CL-0089***, Pope & Talbot v. Canada*, Interim Award, ¶ 99.

relevant."[188] Although Respondent claims that non-NAFTA awards should be taken with a grain of salt, it has implicitly accepted Claimant's view by virtue of its reference to the ICJ *ELSI* Judgment defining arbitrariness.[189]

204. Third, Claimant contends that Mexico's public officials must respect due process and procedural propriety when treating foreign investors and investments. The existence of a fair procedure is an essential element of rule of law and the FET standard. Such rule applies to administrative, judiciary, and executive State acts. Administrative decisions should comply with due process of law, namely the State should act in a reasoned, even-handed, and unbiased manner.[190] In essence, FET encompasses administrative and judicial due process and closely relates to proper administration of justice (civil and criminal). Thus, Mexican authorities are required to "*make decisions solely based upon relevant, known, and established criteria rather than for improper purpose, and its regulatory powers—namely, its power to regulate activities such as offshore mineral dredging—cannot be used for illegitimate purposes cloaked under the guise of legitimacy*."[191]

205. Claimant notes that "*NAFTA case law shows that tribunals have, in fact, been quite demanding regarding the level of conduct required by the host State in order for it to respect its due process obligation*."[192] Although Respondent extensively cites Prof. Dumberry, it insists on claiming that the threshold for due process breach under NAFTA Article 1105 is high without considering the level of conduct required by the host State to abide by such obligation.[193]

206. Lastly, Claimant focuses on Mexico's obligation not to frustrate investors' investments if they are operated in accordance with the legitimate expectations of a foreign investor. It is Claimant's view that, pursuant to NAFTA Article 1105, a State is liable if investors have "*suffered loss because they reasonably relied, to their eventual detriment, on legitimate expectations generated by the regulatory environment maintained or any express promised*

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188 Reply, ¶ 189.
189 Reply, ¶¶ 188-189, citing C-Mem., ¶¶ 478-479.
190 Reply, ¶¶ 190-192.
191 Mem., ¶ 243.
192 Reply, ¶ 192, citing **RL-0022**, P. Dumberry, *The Fair and Equitable Treatment Standard: A Guide to NAFTA Case Law on Article 1105*, 2013, p. 259.
193 Reply, ¶ 192.

made, by the host State or by the conduct of officials attributable to that State."[194] Put differently, the relevant legal and regulatory framework existing before the measure in question may inform investors' legitimate expectations, and the investors' legitimate expectations are integral part of an "*overall analysis of whether treatment has breached the minimum standard of fairness*."[195]

207. Claimant contends that Mexico has mischaracterized Odyssey's legal and factual argument. Claimant never argued that the reasonable expectations amount to a "*standalone standard or cause of action*,"[196] but that investor's legitimate expectations are a factor to be considered by this Tribunal when analyzing whether there is a breach of the minimum standard of protection.[197] Claimant's legitimate expectation was not that it would have received the necessary approval, but that Mexico would have followed "*its own laws*" and evaluated the MIA objectively, namely "*based on its merits*."[198] Administrative due process and the rule of law mandated Mexico to do so and paved the way for Odyssey's legitimate expectation that the process would not have been subverted by political whims. Moreover, Odyssey was given express assurances that Mr. Pacchiano would approve the Project if it was withdrawn and re-submitted with the required letters of support.[199]

208. Claimant takes issue with Respondent's view that the Tribunal should not consider decisions issued by tribunals outside the NAFTA context. This view, apart from contradicting Respondent's own reference to non-NAFTA case law, does not comply with the Free Trade Commission's Interpretative Note of July 2001 conclusion that the standard prescribed for under NAFTA Article 1105 reflects customary international law. This standard is neither isolated nor treaty-specific. It is a universal standard and must be perceived as such.[200] In that regard, Claimant rejects Respondent's attempt to provide case-specific context to the minimum standard of treatment by perceiving arbitrariness, due

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194 Mem., ¶ 244.
195 Mem., ¶ 246, citing **CL-0122**, *William Ralph Clayton, William Richard Clayton, Douglas Clayton, Daniel Clayton and Bilcon of Delaware, Inc. v. Government of Canada*, UNCITRAL, Award on Jurisdiction and Liability, 17 March 2015, ¶ 282.
196 Reply, ¶ 202.
197 Reply, ¶¶ 201-205.
198 Reply, ¶ 204.
199 Reply, ¶ 205.
200 Reply, ¶¶ 177-178.

process, and good faith as different principles that constitute different causes of action. What tribunals examined was whether the treatment was fair or equitable under international standards.[201] As Claimant explains, "*these concepts are not causes of action; they are merely lenses, each grounded in canonical sources of public international law, that are available to assist tribunals in construing what 'fair and equitable treatment' means in any given context. It is also submitted that it is manifest that, regardless of which lens is chosen here, the same picture is revealed: treatment that was neither fair nor equitable as adjudged by international standards*."[202] To establish a breach of FET standard of treatment in NAFTA Article 1105, it is sufficient to show that the State has not complied with any one of these principles.[203]

209. Claimant further takes issue with Mexico's reliance on *Vento v. Mexico* and the argument that administrative decisions taken due to "*secret marching orders*" do not constitute a breach of NAFTA Article 1105. It is the reason for the denial that matters, not the mischaracterization of the measure complained of as a "*denial of environmental authorization*."[204] Claimant argues that the denial of the MIA was the result of Secretary Pacchiano's political motivations and personal interests, not legitimate environmental considerations. In that regard, the minimum standard of treatment is breached, provided that the alleged facts have been proven. According to Odyssey, "*there is nothing in* Vento *to suggest otherwise*" as the tribunal in that case endorsed the *Waste Management v. Mexico (II)* approach to the minimum standard of treatment.[205] Furthermore, this Tribunal is not bound by the factual findings of the *Vento v. Mexico* case as "*each tribunal is responsible for its own findings of fact, and they turn on the particular circumstances of each case*."[206]

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201 Reply, ¶ 179.
202 Reply, ¶ 179.
203 Reply, ¶¶ 175-192.
204 Reply, ¶ 194.
205 Reply, ¶ 195, citing **RL-0020**, *Vento Motorcycles, Inc. v. United Mexican States*, ICSID Case No. ARB(AF)/17/3, Award, 6 July 2020, ¶ 276.
206 Reply, ¶ 196.

210. In any event, the "*material factual underpinnings of the decision taken in the* Vento *case are entirely different from this case*."[207] Although Vento claimed that Mexican tax officials acted under express marching orders to halt Vento's expansion into Mexico, it was unclear who had given the alleged order and if that order had been indeed given. Conversely, in the present case, "*there is no doubt as to who was responsible for the order to deny the MIA and the circumstances in which the order was given.*"[208] Mr. Pacchiano deliberately ordered the denials for personal and political gain.[209]

b) Mexico breached the FET standard

211. Claimant argues that Mexico breached NAFTA Article 1105 because the MIA denials were manifestly arbitrary, conducted in bad faith and in blatant disregard of due process.

212. First, according to Claimant, the testimony of two formers senior SEMARNAT officials, Messrs. Villa and Flores, demonstrates so. Having been in charge of reviewing the MIA, these two former SEMARNAT officials have first-hand knowledge of the circumstances surrounding the denials.

213. Mr. Flores testified that ExO's Initial MIA was "*one of the most complete MIAs*" he had ever reviewed and that DGIRA was prepared to "*issue a resolution authorizing the MIA in a conditional manner.*"[210] Mr. Pacchiano intervened and expressed concerns that his political career could have been impacted by this authorization and "*orchestrated matters so as to require ExO to withdraw and resubmit the MIA*."[211]

214. Even after ExO resubmitted its MIA, Mr. Flores further testifies, Secretary Pacchiano felt personally insulted by a statement made by one of the ExO's representatives during their late March 2016 meeting and "*instruct*[ed] [Mr. Flores] *to 'find a reason to deny the MIA*.'"[212] Mr. Flores' witness statement further sheds light on the fact that Secretary Pacchiano resorted to a justification based on "*a purported effect on sea turtles, especially over the* Caretta caretta *species, given the broad public support for protecting it, and*

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207 Reply, ¶ 197.
208 Reply, ¶ 198.
209 Reply, ¶¶ 197-200.
210 Mem., ¶ 251, citing Witness Statement of Alfonso Flores Ramírez, ¶¶ 8, 11.
211 Mem., ¶ 251.
212 Mem., ¶ 251, citing Witness Statement of Alfonso Flores Ramírez, ¶ 20.

particularly in the context of the high mortality rate of individuals of this species by bycatch in the Bay of Ulloa."[213] In essence, Claimant argues that Mr. Flores was directed to sign the denial of ExO's MIA based on a justification that lacked scientific merit.

215. Similarly, according to Claimant, Mr. Villa's testimony confirms that ExO's MIA was about to be approved but for Secretary Pacchiano's interference. Mr. Villa also confirmed that Mr. Pacchiano felt personally insulted during the March 2016 meeting and ordered staff to find a reason to deny the Project even if there was no basis to do so or evidence that the *Caretta caretta* species would have been impacted by the Project.[214]

216. Consequently, Claimant argues that ExO's MIA was not properly and fairly evaluated. Mexico had no intention of engaging in a good faith review of the MIA. Instead, it had already decided to deny it. For instance, one month before SEMARNAT issued the Second Denial, Secretary Pacchiano held a press conference and, while he declined to predict the outcome of other applications citing the need for "*deep analysis*," he publicly stated that the Project would be denied.[215] Mr. Pacchiano even used his public Twitter account to link to a summary of the decision, touting the denial publicly, demonstrating that he perceived the denial as beneficial to his personal political image.[216]

217. Moreover, Claimant argues that Mr. Pacchiano's wife, Ms. Alejandra Lagunes, was running for Senate on a pro-environment platform, a seat which she eventually won. As such, the risk of approving the Project was obvious.[217]

218. According to Claimant, Respondent's attempts to challenge the probative value of Claimant's witnesses should be rejected.

219. On the one hand, the fact that Messrs. Flores and Villa, former SEMARNAT officials, took the risk to testify in the current political climate enhances their credibility. As does their participation as witnesses in the *Abengoa v. Mexico* case.[218]

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213 Mem., ¶¶ 249-251, citing Witness Statement of Alfonso Flores Ramírez, ¶ 25.
214 Mem., ¶¶ 252-253, citing Witness Statement of Alberto Villa Aguilar, ¶¶ 8-10, 13.
215 Mem., ¶ 256, citing **C-0176**, Los Cabos, September 2018 (Claimant's translation).
216 Mem., ¶ 257, citing **C-0177**, SEMARNAT Twitter Screenshot/R. Pacchiano Retweet, 18 October 2018; Reply, ¶ 117.
217 Reply, ¶ 111.
218 Reply, ¶ 146.

220. Respondent's accusation that Odyssey will compensate the witnesses based on the result of the case, and that therefore the witnesses would not be objective, is outrageous and preposterous. Odyssey has entered contracts with them only for the purpose of reimbursing them for the time required to prepare their witness statements. This compensation is not dependent on the dispute's outcome. In any case, reimbursement for the time required to prepare a witness statement is permissible under Mexican law and "*an accepted practice in international arbitration*."[219]

221. In this vein, Respondent's reference to Odyssey's Form 10-K is also misleading. The Form 10-K clearly states that the issuance of shares to the consultants is dependent on the "*Mexican*[] *government*['s] *approval and issuance of the Environmental Impact Assessment*."[220] The same is true of the US$ 700,000 success fee, which is owned upon the approval and issuance of the EIA. These contingency fees are not dependent on the outcome of arbitration.[221] Moreover, the 10-K consultants are not experts or witnesses in the present proceedings, and Respondent failed to adduce any evidence suggesting otherwise.[222]

222. Furthermore, for Claimant, it is not realistic to expect two civil servants to file a formal complaint against their superior and *ipso facto* jeopardize their employment. Mr. Pacchiano admitted that he possessed the power to terminate their employment. Therefore, Claimant argues that it would be shocking if this Tribunal were to link the probative value of the witness statements with the witnesses' hesitation to jeopardize their careers when the illegal order was given.[223] Even under the applicable legal regime at the time, public servants were not encouraged to denounce wrongdoing as it was impossible for the public servant to remain anonymous. The hostile culture against 'whistleblowers' in Mexico and the absence of legal protection prevented any public servant from unveiling illegal acts. This became possible only in 2019 when the Internal Regulations and Proceedings for Anonymous Whistleblowers were issued. Following their implementation, the

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219 Reply, ¶ 147.
220 Reply, ¶¶ 172-174, citing **C-0190**, Odyssey Marine Exploration, Inc. Form 10-K for the period ending 31 December 2019, 20 March 2020, p. 69.
221 Reply, ¶¶ 173-174.
222 Reply, ¶ 174.
223 Reply, ¶ 166.

Whistleblower Platform became available after October 19, 2020, and allowed for anonymous complaints to be filed.[224] However, even under this new regime, Messrs. Flores and Villa would not have been able to ensure their anonymity as the platform is "*restricted to particularly serious offenses by public servants*."[225] Even if the witnesses had decided to take such a risk, jeopardize their careers and expose themselves as "*rats*" or "*snitches*," the imposition of any sanction against Mr. Pacchiano would have had to be approved by the President, which would have been extremely unlikely.[226]

223. On the other hand, according to Claimant, the criticisms levied by Respondent against each witness individually must also be disregarded.

224. Claimant points to the fact that Mr. Flores never issued the authorization for the Cabo Cortés project, as Respondent misleadingly claims. In addition, although Mr. Flores has indeed been suspended by the Internal Control Unit's decision in 2018, he has been exonerated as such decision was declared illegal by the TFJA.[227]

225. As for Respondent's attempt to discredit Mr. Villa, Claimant argues that Mexico misleadingly claims that his testimony would be in violation of Mexican criminal law (Articles 214 and 220 of the Mexican Criminal Code). When Mr. Villa submitted his witness statement, he was not a public servant and, even if he had been, he did not benefit from the information that he disclosed. Therefore, in Claimant's view, the requirements of Articles 214 and 220 of the Mexican Criminal Code have not been met.[228]

226. In addition, Mr. Villa's witness statement cannot amount to a breach of Articles 55 and 56 of the General Law of Administrative Liabilities ("**LGRA**"), as Mexico claims.[229] These articles do not apply as witness testimonies are outside their scope. The aim of Articles 55 and 56 of the LGRA is to combat corruption and prevent public servants from benefitting at the expense of the public. Conversely, the witness statement aims at exposing the truth and facilitating the Tribunal's inquiry into the facts of the case. As for the alleged improper benefit that Mr. Villa should have received to be liable, Claimant notes that the

224 Second Expert Report by Sergio Huacuja Betancourt, ¶¶ 23-24.
225 Reply, ¶ 169.
226 Reply, ¶¶ 170-171.
227 Reply, ¶ 148.
228 Reply, ¶ 150.
229 Reply, ¶ 151, citing C-Mem., ¶¶ 411-412.

compensation that Mr. Villa received does not in any way constitute an improper benefit, especially when such compensation is a practice accepted under Mexican law. In any event, even if said law did apply to compensation for time spent giving testimony (and it plainly does not), Claimant contends that Mr. Villa received said compensation over a year after his employment with SEMARNAT had concluded.[230]

227. Even if the testimony of Mr. Villa were a crime under Mexican criminal law, his testimony would still be admissible under international law. As the *EDF v. Romania* tribunal held, the admissibility of evidence is to be determined by international law and not by state domestic law. Under international law, Mr. Villa's witness statement does not constitute illegally obtained evidence. Claimant did not obtain any evidence illegally or without the consent of those testifying, as it happened in the *EDF v. Romania* and *Methanex v. United States* cases cited by Respondent.[231]

228. Lastly, neither does Mr. Villa's failure to disclose that he was part of a group of SEMARNAT officials who acted as a contact point for technical advice and supported Respondent's legal team in this arbitration taint his credibility and validity of his testimony.[232] Under international law, "*there is no property in a fact witness*."[233] The fact that Mr. Villa, while employed by SEMARNAT, attended various meetings relating to Claimant's claims does not, *ipso facto*, prevent him from testifying. Mr. Villa never transmitted confidential information to Claimant, a fact that can be proved even by the evidence adduced by Respondent, and solely referred to administrative matters. Moreover, Mr. Villa was never addressed in the correspondence; he was only copied into a group email sent to SEMARNAT referring to the logistical organization of meetings and in the email notifying SEMARNAT's officials that Odyssey sent its Request for Arbitration.[234]

229. On 12 April 2019, Respondent's counsel forwarded an email by Claimant's counsel regarding further consultations with SEMARNAT, in which Mr. Villa was copied, but no mention was made regarding litigation strategy in the present proceedings. Finally, on 31

230 Reply, ¶ 154.
231 Reply, ¶¶ 152-159, citing C-Mem., ¶¶ 414-419.
232 Reply, ¶ 160.
233 Reply, ¶ 161.
234 Reply, ¶ 162.

May 2019, Respondent's counsel forwarded an email which was sent by Claimant's counsel to SEMARNAT public officials, including Mr. Villa. Once more, there was no discussion regarding the present proceedings.[235] In essence, Mr. Villa was not privy to any discussions regarding Claimant's case strategy and, therefore, his testimony should not be disregarded.[236]

230. Second, Claimant argues that even the contents of SEMARNAT's written decisions demonstrate that the denial was unsound, contrary to the law, and the result of an extralegal process.[237]

231. SEMARNAT's denial of the MIA was based on the purported impact of the Project on the *Caretta caretta* turtle habitat, citing Article 35.III.b of LGEEPA, which requires an impact on the species as a whole.[238] According to Claimant, this was a pretext, a mere attempt to disguise a political decision as a legal one.[239] Claimant does not deny that *Caretta caretta* is an endangered species and merits protection, but challenges the assumption that the Project would have affected the species' habitat and the species as a whole, as required by Article 35.III.b of LGEEPA.

232. Claimant contends that, pursuant to Mexican law, the Project could have been denied "*only when it materially affects an endangered species 'as a whole*.'"[240] That is why, as Claimant recalls, SEMARNAT approved projects even when a substantial proportion of the endangered and/or protected species would be affected, provided that such project would not affect the species as a whole. A denial under such ground presupposes that SEMARNAT has examined whether the impact could have been removed by appropriate mitigation measures, in which case, SEMARNAT should have conditionally approved the Project. Therefore, it seems that the denial of a project should be the *ultima ratio* course of

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235 Reply, ¶ 162, citing **R-0068**, Emails exchanged between officials of the Ministry of Economy and SEMARNAT, 1 April 2019; **R-0069**, Email sent by Respondent to SEMARNAT, 12 April 2019; **R-0070**, Emails exchanged between Respondent and SEMARNAT officials, 5 April 2019; **R-0071**, Email sent by Respondent to SEMARNAT, 31 May 2019.

236 Reply, ¶ 164.

237 Mem., ¶ 258.

238 Mem., ¶ 259.

239 Reply, ¶¶ 206-212.

240 Mem., ¶ 264.

action under Mexican law and presupposes that (i) a species is impacted as a whole; and (ii) no mitigation measures can be taken.[241]

233. Claimant argues that the Project would not have affected the *Caretta caretta* considering its location, depth, temperature, lack of food sources, and the protective measures already taken.[242] In addition, Claimant contends that "*there is no prospect that annual dredging of approximately 1 km^2 could affect* Caretta caretta *as species, whether considered at a global level, across the tropical and temperate oceans and seas that the species inhabits (such as the North Pacific population), or even as part of the population of the species specifically in the Gulf of Ulloa*."[243]

234. Thus, Claimant contends that SEMARNAT's analysis does not hold true when subjected to the slightest scrutiny, and is obviously wrong. SEMARNAT's alleged reasoning is a *post hoc* justification to achieve a predetermined result. SEMARNAT considered the *Caretta caretta*'s vulnerability to create a pretext to justify its denial, as instructed by Secretary Pacchiano. In so doing, according to Claimant, SEMARNAT misrepresented the facts of the case.[244]

235. Indeed, according to Claimant, SEMARNAT disregarded the fact that the *Caretta caretta* "*has a global distribution in temperate and tropical waters*."[245] SEMARNAT also falsely asserted that 10% to 30% of the Project area overlapped with the range or surface distribution of the turtles in the Gulf of Ulloa. Claimant argues that the "*Project area overlaps only marginally with the core distribution of* Caretta caretta."[246] SEMARNAT also ignored the distribution of the turtles by depth as the studies it relied upon "*considered only the distribution of* Caretta caretta *by longitude and latitude*."[247] In addition, Claimant notes that the Second Denial "*did not consider studies showing that the water temperature in the dredging area was typically below the turtles' optimum temperature, despite ExO*

241 Mem., ¶¶ 264-266.
242 Mem., ¶ 267.
243 Mem., ¶ 267 (emphasis omitted).
244 Mem., ¶¶ 268-269.
245 Mem., ¶ 270.
246 Mem., ¶ 271.
247 Mem., ¶ 271.

citing those studies to SEMARNAT."[248] Claimant notes that SEMARNAT also grossly inflated the population, "*overstat*[ed] *the turtle density by approximately 100 times*" and blatantly misrepresented the Peckham Study, conflating the frequency of return of *Caretta caretta* individuals to an area with the population density.[249]

236. Moreover, Claimant argues that SEMARNAT falsely asserted that dredging would have an impact on the pelagic red crab (*Pleuroncodes planipes*), which is said to be the food source for *Caretta caretta* turtles. Claimant notes that, although this remains a matter of scientific dispute, *Caretta caretta* typically eat red crab in the latter's juvenile phase found in the upper layers of the ocean, not the adults found on the seabed, and it was even beyond debate for SEMARNAT that the juveniles will not be affected by the dredging.[250]

237. Claimant also affirms that additional "*off-the-shelf*" pretexts offered by SEMARNAT in the Second Denial were invalid and could not hide its true motivations. For instance, it supported the denial by referring to the effects of deep seabed mining without focusing on whether the Project would indeed engender these effects.[251] In essence, Claimant argues that SEMARNAT's findings were based on an erroneous comparison of the Project with deep seabed mining projects that employed different mining techniques to extract different resources and on an erroneous disregard of the limited annual impact of the Project (approximately 1 km^2 area of low biodiversity and low abundance). Mexico did not pay heed to the North Sea data, the fact that seabed recovery would have taken place rapidly as indicated by experts, and the willingness of ExO to monitor and manage the seabed restoration as recommended.[252]

238. Lastly, Claimant points out that the proposed mitigation measures forced SEMARNAT to "*come up with a basis to dismiss* [them] *as well*" and, therefore, resorted to the argument that the mitigation measures proposed by ExO would have been untested and insufficient. As noted by Mr. Pliego, Claimant's expert on environmental impact, these mitigation measures were sufficiently developed and "[even] *in excess of SEMARNAT's general*

248 Mem., ¶ 271.
249 Mem., ¶ 272 (emphasis omitted).
250 Mem., ¶ 274.
251 Mem., ¶¶ 277-282.
252 Mem., ¶ 284.

expectations."[253] Claimant contends that SEMARNAT ignored evidence that these measures were, in fact, proven and falsely claimed that adaptive management was not included in the Project. Instead, Claimant argues that mitigating measures, being the product of an EIA, were proposed in generic terms, and they were supposed to be subsequently developed in further detail jointly with SEMARNAT once the MIA was authorized.[254]

239. Overall, Respondent's conduct is closely analogous to the conduct complained of in the *Tecmed v. United States* and *Abengoa v. Mexico* cases. The decision to deny the authorization was politically motivated, and adversely impacted the Project. SEMARNAT abused its regulatory powers as it used them for entirely extraneous reasons. Instead of protecting the environment, SEMARNAT's decision was used to protect Mr. Pacchiano's political capital. SEMARNAT was ordered to disregard Mexican environmental law and to shy away from the applicable legal standard. Apart from the fact that legitimate state powers cannot serve an illegitimate purpose, as noted by the *Railroad Development Corporation v. Guatemala* tribunal, SEMARNAT aimed at protecting Secretary Pacchiano's political future and not the environment.[255] In a nutshell, evidence adduced by Claimant demonstrates that the denials of the MIA by Mexico were not based on the legal standard, but were the result of an excess of discretion, prejudice, and personal preference driven by reasons external to the law.[256]

(2) Respondent's Position

a) FET standard

240. Respondent contends that NAFTA Article 1105 prescribes the customary international law minimum standard of treatment of aliens as the minimum standard of treatment to be afforded to investments of investors of another Party, and that said standard evolves.[257]

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253 Mem., ¶ 285, citing Expert Report of Vladimir Pliego, ¶¶ 179-181.
254 Mem., ¶¶ 286-287.
255 Mem., ¶¶ 288-291, citing **CL-0095**, *Railroad Development Corporation (RDC) v. Republic of Guatemala*, ICSID Case No. ARB/07/23, Award, 29 June 2012, ¶ 234.
256 Mem., ¶¶ 292-294.
257 C-Mem., ¶ 446.

However, the determination of the FET standard is not a straightforward and simple exercise, as Claimant assumes.

241. Claimant bears the burden of proving the existence and applicability of the rule of customary international law.[258] It must show that there is a general settled practice and whether such general practice is accepted as law (that is, accompanied by *opinio juris*).[259]

242. Respondent contends that "*the standard for finding governmental behavior that is incompatible with the minimum level of treatment is high*."[260] Respondent endorses the formulation of the FET standard by the *Waste Management v. Mexico (II)* tribunal, which stated:

> "*Taken together, the* S.D. Myers*,* Mondev*,* ADF *and* Loewen *cases suggest that the minimum standard of treatment of fair and equitable treatment is infringed by conduct attributable to the State and harmful to Claimants if the conduct is arbitrary, grossly unfair, unjust or idiosyncratic, is discriminatory and exposes the claimant to sectional or racial prejudice, or involves a lack of due process leading to an outcome which offends judicial propriety—as might be the case with a manifest failure of natural justice in judicial proceedings or a complete lack of transparency and candour in an administrative process.*"[261]

243. The *Cargill v. Mexico* tribunal expanded on this issue:

> "*As outlined in the* Waste Management II *award quoted above, the violation may arise in many forms. It may relate to a lack of due process, discrimination, a lack of transparency, a denial of justice, or an unfair outcome. But in all of these various forms, the 'lack' or 'denial' of a quality or right is sufficiently at the margin of acceptable conduct and thus we find . . . that the lack or denial must be 'gross,' 'manifest,' 'complete,' or such as to 'offend judicial propriety.'* […]
>
> *To determine whether an action fails to meet the requirement of fair and equitable treatment, a tribunal must carefully examine whether the complained of measures were grossly unfair, unjust or idiosyncratic; arbitrary beyond a merely inconsistent or questionable application of administrative or legal policy or procedure so as to constitute an unexpected and shocking*

258 C-Mem., ¶ 447.
259 C-Mem., ¶ 448.
260 C-Mem., ¶ 449.
261 C-Mem., ¶ 449, citing **CL-0121**, *Waste Management v. Mexico*, Award, ¶ 98. *See also* Rejoinder, ¶ 351.

> *repudiation of a policy's very purpose and goals, or to otherwise grossly subvert a domestic law or policy for an ulterior motive; or involve an utter lack of due process so as to offend judicial propriety.*"[262]

244. Further, relying on the dissenting opinion in *Eco Oro v. Colombia*, Respondent argues that the standard to be applied to the specific case is that provided for by the treaty itself (in this case NAFTA). Claimant is mistaken in indiscriminately citing to non-NAFTA awards in discussing the FET standard.[263] The fact that many FET provisions are found in numerous treaties is not enough to affect the content of customary international law.[264]

245. In this context, Respondent subscribes to the *Vento v. Mexico* tribunal's interpretation of the legal standard of NAFTA Article 1105 and concludes that international tribunals should give weight to governmental regulatory decisions taken in good faith in the interest of public morals, health, or the environment. General complaints referring to injustice or subjective expectations do not suffice to sustain a claim for a breach of the FET standard.[265] Mexico considers that Claimant has not described a conduct that constitutes a violation of the minimum standard of treatment contained in NAFTA Article 1105.

246. First, good faith is not an autonomous, stand-alone obligation under the FET standard.[266] Rather, the good faith principle adds "*only negligible assistance in the task of determining or giving content to a standard of fair and equitable treatment*."[267] Even in a non-NAFTA context, the good faith principle does not constitute "*in itself a source of obligation where none would otherwise exist*."[268] The FET standard is simply an expression of the good faith

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262 C-Mem., ¶ 450, citing **CL-0027**, *Cargill, Incorporated v. United Mexican States*, ICSID Case No. ARB(AF)/05/2, Award, 18 September 2009, ¶¶ 285, 296.

263 Rejoinder, ¶ 340.

264 Respondent's Post-Hearing Brief, ¶ 116, citing **RL-0145**, *Eco Oro Minerals Corp. v. Republic of Colombia*, ICSID Case. No. ARB/16/41, Partial Dissent Opinion of Prof. Philippe Sands, 9 September 2021, ¶¶ 5-7.

265 C-Mem., ¶¶ 451-453.

266 C-Mem., ¶ 472.

267 C-Mem., ¶ 473, citing **CL-0005**, *ADF Group Inc. v. United States of America*, ICSID Case No. ARB(AF)/00/1, Award, 9 January 2003, ¶ 191.

268 C-Mem., ¶ 473, citing **RL-0028**, *Case Concerning Border and Transborder Armed Actions (Nicaragua v. Honduras)*, Jurisdiction and Admissibility, Judgment, ICJ Reports 1988, p. 69, ¶ 94.

principle.[269] Hence, Claimant's assertion that a lack of good faith alone could establish an FET violation is plainly incorrect.[270]

247. If the denial of the environmental permit amounted to a lack of good faith, any resolution in the negative sense by the competent authority, when called upon to assess the authorization of environmental impact, would amount to a lack of the good faith principle. That is not a coherent legal standard recognized under international law or by NAFTA Article 1105.[271]

248. Second, the standard for arbitrariness under NAFTA is exceedingly demanding and seldomly met. According to the *ELSI* decision, arbitrary conduct for purposes of FET requires "*wilful disregard of due process of law, an act which shocks, or at least surprises, a sense of juridical propriety*."[272] Respondent argues, by reference to the *Glamis v. United States* case, that the standard requires "*something greater than mere arbitrariness, something that is surprising, shocking, or exhibits a manifest lack of reasoning*."[273] This standard is not intended to impede States' ability to make policy choices.[274] The measures complained of should be arbitrary beyond a merely inconsistent or questionable application of administrative or legal policy or procedure so as to constitute an unexpected and shocking repudiation of a policy's very purpose and goals or to otherwise grossly subvert a domestic law or policy for an ulterior motive.[275]

249. Even if a State breaches its own law, this will not *ipso facto* amount to a breach of the FET standard. Neither does a mistake amount to arbitrary conduct. States should not be exposed to international responsibility for minor malfunctioning of their agencies; and "*only manifest and flagrant acts of maladministration will be punished*."[276] Therefore, Respondent contends that, in the absence of a deliberate and international targeting of

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269 C-Mem., ¶ 474.
270 C-Mem., ¶ 475.
271 C-Mem., ¶ 476.
272 C-Mem., ¶ 478 citing **CL-0028**, *Case concerning Elettronica Sicula S.p.A. (ELSI) (United States v. Italy)*, ICJ Reports 1989, Judgment, July 20, 1989, p. 15, ¶ 128.
273 C-Mem., ¶ 479, **CL-0055**, *Glamis Gold, Ltd. v. United States of America*, UNCITRAL, Award, 8 June 2009, ¶ 617.
274 Rejoinder, ¶ 350.
275 C-Mem., ¶ 480.
276 C-Mem., ¶ 483.

investors, there is no breach of the standard.[277] It is non-NAFTA tribunals which have been willing to entertain lower thresholds for finding arbitrariness.[278]

250. In any case, there is no evidence of any type of arbitrariness in the present case. ExO "*participated in a well-established procedure and its request for approval was denied*."[279]

251. Third, although Claimant insists that due process is part of the FET, which Respondent disputes, it failed to explain the meaning of due process under NAFTA.[280]

252. NAFTA Article 1105 concerns a complete lack of due process or an utter lack of due process so as to offend judicial propriety.[281] Mere administrative 'irregularities' do not necessarily lead to a breach of judicial due process, as the "*administrative due process requirement is lower than that of judicial process*."[282] A violation of judicial due process may result from a denial of the opportunity to be heard or failure to give notice.[283] Tribunals are not appeal courts to review the legality of domestic measures under a Party's own domestic law. International tribunals should "*exercise caution in cases involving a state regulator's exercise of discretion, particularly in sensitive areas involving the protection of public health and the well-being of patients*."[284]

253. Claimant appears to be requesting the Tribunal review the conclusions reached by the DGIRA regardless of the review already conducted by the TFJA and the appeal that is pending.[285]

254. Finally, expectations cannot furnish a freestanding ground for liability. Such expectations, to the extent they are legitimate, may at most constitute a factor to be considered in evaluating an alleged FET breach.[286]

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277 C-Mem., ¶ 485.
278 C-Mem., ¶ 487 citing **RL-0034**, Jacob Stone, *Arbitrariness, The Fair and Equitable Treatment Standard and the International Law of Investment*, 25 Leiden J. Int'l L. 77, 2012, p. 103.
279 C-Mem., ¶ 488.
280 C-Mem., ¶ 489.
281 C-Mem., ¶ 489.
282 C-Mem., ¶¶ 489-493, citing **RL-0003**, *Thunderbird v. Mexico*, Award, ¶ 200.
283 C-Mem., ¶ 490.
284 C-Mem., ¶ 491, citing **RL-0036**, *Apotex Holdings Inc. and Apotex Inc. v. United States of America*, ICSID Case No. ARB(AF)/12/1, Award, 25 August 2014, ¶ 9.37.
285 C-Mem., ¶ 493.
286 C-Mem., ¶ 508; Rejoinder, ¶ 389.

255. Respondent argues that legitimate expectations stand or fall depending on whether specific representations have in fact been made.[287] Under NAFTA in particular, expectations must "*arise through targeted representations or assurances made explicitly or implicitly by a state party.*"[288] The scope of application of legitimate expectations under NAFTA Article 1105 is particularly narrow given that, representations must be so "*definitive, unambiguous and repeated*" as to constitute a quasi-contractual relationship.[289] The absence of specific representations is a material factor in leading to a finding that the FET standard has not been breached.

256. Yet, Claimant does not discuss assurances or guarantees by Mexico. A host State's existing law, such as legislation, cannot give rise to legitimate expectations.[290] Investors should take the law as they find it, and may not subsequently complain about the application of that law to their investments. State regulation and the application thereof cannot be expected to be applied in a perfect way or to be perfect. We do not live in a perfect world, and investors cannot have legitimate expectations to invest in a perfect legal system.[291]

257. Even if Claimant went so far as to allege – and prove – that assurances were given that would satisfy the above exacting requirements as to forming expectations, it would need to establish that those expectations were also objectively reasonable, and not by reference to the investor's subjective expectations.[292] However, when environmental regulation is at issue, approvals cannot reasonably be expected to be certain. Mining is a highly regulated industry in Mexico, the United States, and elsewhere, and any reasonable investor would have anticipated the possibility that a project, such as the one proposed by ExO, would be rejected.[293]

258. Respondent subscribes to the *Thunderbird v. Mexico* tribunal's conclusion that "*it is not up to the Tribunal to determine how* [the state regulatory authority] *should have interpreted*

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287 C-Mem., ¶ 509; Rejoinder, ¶ 390.
288 C-Mem., ¶ 510, citing **CL-0057**, *Grand River Enterprises Six Nations, Ltd., et al. v. United States of America*, UNCITRAL, Award, 12 January 2011, ¶¶ 141-142.
289 C-Mem., ¶ 510, citing **CL-0055**, *Glamis v. United States*, Award, ¶ 802 (quoting *Metalclad*).
290 C-Mem., ¶ 511.
291 C-Mem., ¶ 513.
292 C-Mem., ¶¶ 514-515.
293 C-Mem., ¶ 518.

or responded to the [proposed business operation]."[294] The role of this Tribunal "*is not to second-guess the correctness of a science-based decision making of highly specialized national regulatory agencies.*"[295] As the *Nelson v. Mexico* tribunal held, this Tribunal must grant some deference to the regulator in technical matters.[296]

b) Mexico did not breach the FET standard

259. Mexico contends that it did not fail to accord FET to Odyssey's investments.

260. First, Claimant submits in this arbitration the same claims ExO brought before national courts, which makes evident that its intention is for this Tribunal to act as an appeal body and even carry out a *de novo* review of the MIA.[297] Since NAFTA does not allow this course of action, Claimant also bases its claim on the word of two former public officials, alleging the existence of alleged "*secret marching orders*" that allegedly led them "*to act against their professional judgment.*"[298] However, Messrs. Flores' and Villa's credibility is seriously questionable.

261. Respondent argues that assuming that Messrs. Flores' and Villa's statements about Mr. Pacchiano having ordered them to deny the Project were true (which Mexico denies), such statements imply that they agreed to violate the law on two separate occasions to allegedly not put their careers at risk.[299]

262. Messrs. Flores and Villa knew that they had the obligation to act under the attributions of their positions, thus they should know and comply with the provisions established for the performance of their functions.[300] SEMARNAT's Internal Regulation establishes that the General Director is in charge of DGIRA, assumes its technical and administrative direction and is responsible before superior authorities for its correct operation.

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294 C-Mem., ¶ 520, citing **RL-0003**, *Thunderbird v. Mexico*, Award, ¶ 160.
295 C-Mem., ¶ 522, citing **CL-0033**, *Chemtura Corporation v. Canada*, UNCITRAL, Award, 2 August 2010, ¶ 134.
296 C-Mem., ¶ 522, citing **CL-0127**, *Nelson v. Mexico*, Final Award, ¶ 257.
297 Respondent's Post-Hearing Brief, ¶¶ 2-3, 113.
298 Rejoinder, ¶ 64.
299 Rejoinder, ¶ 68.
300 Rejoinder, ¶ 67.

263. Mexico also argues that it is also surprising that, in the event of having received an "*order*" from high-level officials to resolve a matter in a certain manner contrary to the law, Messrs. Flores and Villa did not even attempt to document in emails or internal notes or in an official document their technical point of view or submit complaints before the Internal Control Body of the agency that it was illegal to deny authorization to the Project.[301] The Control Body provides mechanisms to prevent, identify and punish acts of corruption and irregularities in the performance of public officials.[302] Respondent does not ignore the hierarchical relationships and chains of command that govern public administration, but does point out that Mexican law provided a procedure to substantiate complaints, including the possibility of challenging the resolution.[303]

264. Claimant cannot blame Respondent for evidence that was or should have been in the control of Messrs. Flores and Villa. Indeed, Mexico argues that Messrs. Flores and Villa could have (i) officially recorded their disagreement with the alleged orders of their superiors by means of a complaint; (ii) asked ExO representatives to file the pertinent complaint (ExO could have even acted *motu proprio* when it allegedly learned of this situation); or (iii) put their integrity and honesty first by opposing to follow alleged instructions that they considered unlawful.[304] In fact, Messrs. Flores and Villa had the legal and ethical obligation to report any alleged illegality of which they had knowledge in the exercise of their functions.[305]

265. Moreover, Respondent contends that Messrs. Flores and Villa never received an order or suggestion to deny the authorization of the Project and that, by signing and initialing the resolutions, they agreed with their content.[306]

266. Respondent further challenges the credibility of the witnesses on the basis of the investigation against Mr. Flores related to two Greenpeace complaints filed in 2012 before the Internal Control Body of SEMARNAT against him for alleged violations of the Federal Law of Responsibilities of Public Officials and the Law on Biosafety of Genetically

301 Rejoinder, ¶ 69.
302 C-Mem., ¶¶ 181-183.
303 C-Mem., ¶¶ 184-186.
304 Rejoinder, ¶ 71.
305 C-Mem., ¶¶ 187-194; Rejoinder, ¶¶ 96-99.
306 C-Mem., ¶¶ 196-198.

Modified Organisms, in particular for granting a commercial release permit of transgenic soy in various states of Mexico, as well as for granting a permit for the pilot release of genetically modified soy. Respondent argues that the Internal Control Body found "*sufficient evidence that allows presuming the existence of alleged administrative irregularities on the part of Alfonso Flores Ramírez*."[307] Respondent, based on Mr. Pacchiano's understanding, posits that Mr. Flores would have been disqualified as Director General of DGIRA for unjustifiably authorizing an MIA related with a project of genetically modified organisms.[308] Respondent argues that based on the foregoing, "*it is an uncontroversial fact*" that Mr. Flores not only knew that singing the resolutions implied his consent to, and agreement with, their content, but that he was also responsible for that act.[309]

267. Mexico also refers to the Cabo Cortés project, where Mr. Flores was again involved in a controversial situation for granting the environmental impact authorization of a tourism megaproject that placed the Cabo Pulmo National Park at serious risk, including the largest coral reef in the entire Gulf of California, which has been protected since 1995 and was declared by UNESCO as a Natural Heritage of Humanity.[310] Due to environmental campaigns and various administrative and judicial proceedings, Mr. Flores subsequently denied the authorization. Respondent also contends that in both the Cabo Cortés project and the case of genetically modified soy, Mr. Mauricio Limón, now legal representative of ExO, served as Undersecretary of Management of Environmental Protection. Respondent notes, however, that this is a fact that neither Mr. Flores nor Mr. Villa disclose in their witness statements for the sake of clarifying or ruling out a potential conflict of interest.[311]

268. Respondent criticizes Mr. Flores and Claimant for not disclosing the reason behind the former's administrative leave, months before singing the Second Denial. Mexico contends that the leave was actually a temporary suspension due to a sanction imposed on Mr. Flores

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307 C-Mem., ¶ 199, citing **R-0059**, "They file a complaint against authorization from Semarnat to transgenic crops," *La Jornada*, 14 June 2012; **R-0060**, "The SFP will investigate the director who authorized the planting of transgenic soy in 7 states; Greenpeace asks for his dismissal," *Sin embargo*, 4 July 2014.

308 C-Mem., ¶ 200.

309 C-Mem., ¶ 200.

310 C-Mem., ¶ 201.

311 C-Mem., ¶ 202.

for his administrative liability for the *Los Cardones* mining project. Although indeed unrelated to the Don Diego Project, the situation reveals that, having been sanctioned for signing the authorization, Mr. Flores was aware of the mechanisms involving administrative liability, as well as of the fact that as Director General of the DGIRA, he was legally responsible for the authorization of the Project.[312]

269. Respondent argues that Messrs. Flores and Villa were aware of the liabilities and powers related to the performance of their duties as provided by Mexican law. This is evidenced by the fact that both witnesses have been the subject of various administrative procedures for the irregular exercise of their functions, including complaints related to the receipt of bribes, and, in the case of Mr. Villa, related to recommending consulting companies to MIAs applicants with the promise that the authorizations would be granted if those companies performed the requisite studies.[313]

270. Mexico characterizes the participation of Messrs. Flores and Villa in the present arbitration as "*questionable*" since it coincides with their departure from their positions as public officials for the Mexican government. Both Messrs. Flores and Villa have participated as witnesses *for* Mexico in the *Abengoa v. Mexico* case, and by now testifying for Odyssey, they are contradicting their earlier decisions and blaming their superiors for their own actions.[314]

271. Messrs. Flores' and Villa's credibility is further undermined by the fact that they submitted witness statements in exchange for an economic benefit that neither they nor Claimant initially disclosed.[315] It was during the document production stage, and only because Mexico reasonably assumed the possible existence of agreements between Odyssey and Messrs. Flores and Villa, that Claimant had to acknowledge their existence and disclose the contractual agreements with its witnesses.[316]

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312 C-Mem., ¶¶ 203-206; Rejoinder, ¶ 144.
313 Rejoinder, ¶¶ 122-126.
314 C-Mem., ¶¶ 207-210.
315 C-Mem., ¶ 431; Rejoinder, ¶¶ 84-85; Respondent's Post-Hearing Brief, ¶¶ 36, 64.
316 Rejoinder, ¶ 85.

272. Mexico does not dispute that reimbursement for time spent preparing a witness statement is an accepted practice in international arbitration.[317] However, the contracts show that the payments to Messrs. Flores and Villa will not be limited to the time spent preparing their witness statements.[318] Their payment is subject to the content of their witness statements.[319] The contracts establish that the witness agrees to "[p]*rovide written or oral statements depending on what the OFFICE deems necessary.*"[320] Mexico contends that the conditions established in said clause imply that the payment of Messrs. Flores and Villa is subject to the content of their statements, which is subject to what Odyssey deems essential. Moreover, the contracts state that "[t]*he WITNESS will be reimbursed for all pre-approved personal expenses that he has to face related to his performance as a witness in the Arbitration Procedure.*" For Mexico, this could affect the witnesses' objectivity, especially given that the contract itself provides for the possibility that "*[a]ny of the parties may terminate the contract at any time without cause.*"[321]

273. Mexico further argues that Mr. Villa's credibility is also particularly questionable. Mr. Villa participated in meetings in which the legal strategy of Mexico for this arbitration was addressed.[322] His silence in those meetings constituted consent to what was expressed on behalf of SEMARNAT, especially considering that, due to direct involvement in the drafting of the decisions, he could and should have given his opinion if he did not agree with what was stated by his colleagues.[323] Mr. Villa also had an obligation to safeguard the privileged government information to which he had access in the exercise of his functions, pursuant to Articles 55 and 56 of the LGRA. His contract with Odyssey was signed six months after he had submitted his first witness statement, which appears to indicate that Mr. Villa will be paid retroactively for the activities he carried out within the period prohibited by law, namely, within one year after leaving SEMARNAT.[324] For Respondent, it is obvious that Mr. Villa, seeking to circumvent the limitations of said Articles, waited

317 Rejoinder, ¶ 86.
318 Rejoinder, ¶¶ 86-89.
319 Rejoinder, ¶¶ 90-91.
320 Rejoinder, ¶ 92, citing **C-0364**, A. Flores Contract, 7 July 2020, ¶ 2.a.
321 Rejoinder, ¶ 93, citing **C-0365**, A. Villa Contract, 2 November 2020, ¶ 2.a.
322 Rejoinder, ¶ 77.
323 Rejoinder, ¶ 80.
324 Rejoinder, ¶¶ 104-108; Respondent's Post-Hearing Brief, ¶¶ 39-41.

until the end of the one-year period to sign the contract and retroactively charged for the time spent preparing his first witness statement.[325]

274. In its Post-Hearing Brief, Respondent also takes issue with the hours claimed in Mr. Villa's invoices that "*have no justification that can be considered reasonable*" for the preparation of his second witness statement and his appearance during the Hearing.[326] According to Respondent, in addition to the contradictions, it is also evident that Mr. Villa "*gave his testimony in favor of the Claimant for the exorbitant economic benefit that he was able to obtain with it*," due to the fee received for his participation in the proceedings, which amounted to US$ 200/hour, *i.e.*, US$ 25,400 for 127 hours (that is, for his participation since singing his contract until his appearance at the Hearing), compared to his salary as a SEMARNAT official which was approximately US$ 42,000 annually. These inconsistencies, Respondent argues, "*reveal the limited credibility of his testimony*."[327]

275. Moreover, Respondent contends that the hierarchical structure in the chain of command is irrelevant for the purposes of determining the responsibility of an act in accordance with the attributions and powers that the law grants to public officials. The administrative responsibility procedures faced by Mr. Flores show that he was solely responsible for the decisions on EIA.[328]

276. Conversely, Mr. Pacchiano did not have any power to intervene in the assessment of applications for EIAs.[329] Respondent also denies that Mr. Pacchiano would have abused his public authority to serve his own political and personal gain.[330] Mr. Pacchiano had retired from the public sphere, and he did not have any political incentive to intervene.[331]

277. Second, Claimant has failed to describe a conduct by Mexico that amounts to a breach of the minimum standard of treatment contained in NAFTA Article 1105. Claimant failed to meet the necessary burden of proof. Claimant has not provided contemporary evidence that

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325 Respondent's Post-Hearing Brief, ¶ 41.
326 Respondent's Post-Hearing Brief, ¶¶ 42-46.
327 Respondent's Post-Hearing Brief, ¶¶ 44-49.
328 Rejoinder, ¶¶ 135-142.
329 Rejoinder, ¶ 144.
330 Respondent's Post-Hearing Brief, ¶¶ 74-76.
331 Rejoinder, ¶¶ 127-130; Respondent's Post-Hearing Brief, ¶ 79.

shows that Messrs. Flores and Villa disagreed with the sense in which the resolutions of 2016 and 2018 were issued. It was up to Claimant's witnesses to have kept evidence or a copy of their notes to support that they had to act on Mr. Pacchiano's "*orders*".[332]

278. An allegedly manifestly arbitrary, unfair treatment, contrary to good faith and due process, and expropriation based on political motivations cannot be demonstrated "*with such precarious probative material as the* [one] *offered by the Claimant*."[333] The only evidence provided by Claimant is seriously questionable, unconvincing, and does not meet the evidentiary threshold to prove the allegations that Claimant is brining against Respondent.[334] Specifically, Claimant relies on: (i) the testimonial statements of Messrs. Flores, Villa and Lozano, who are not "*first-hand*" witnesses of many of the facts that they allege (*i.e.*, "*hearsays*"); (ii) the testimonial statements of Messrs. Flores and Villa, which, in the Respondent's opinion, lack credibility and veracity, are erroneous and inconsistent with the information presented in this arbitration and are not sufficient to support the allegations of Odyssey; (iii) four emails exchanged among representatives of Odyssey, ExO and AHMSA; (iv) fragments of no more than one-minute press conference by Mr. Pacchiano that has been decontextualized by Claimant; (v) two press articles and a 2018 information note from SEMARNAT; and (vi) a "*retweet*" from Mr. Pacchiano to a "*post*" published in October 2018 on the SEMARNAT Twitter account.[335]

279. Mexico, therefore, asks this Tribunal to pay heed to the *Vento v. Mexico* case as it is similar to the present case. This Tribunal, as the *Vento* tribunal noted, should reject the existence of marching orders. The Tribunal should not disregard the checks and balances in the lines of authority or chains of command established by Mexican law. The limits and controls that domestic law itself establishes to prevent abuse by hierarchical superiors should not be undermined. In essence, the hierarchical structure of SEMARNAT prevents the Secretary or Undersecretary from interfering in a decision of a technical-scientific nature.

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332 Rejoinder, ¶¶ 109-116.
333 C-Mem., ¶¶ 494-498.
334 C-Mem., ¶ 494; Rejoinder, ¶ 306.
335 C-Mem., ¶ 494; Rejoinder, ¶ 305.

These checks and balances prevented Mr. Pacchiano from influencing or determining the outcome of the authorization.[336]

280. Respondent also rebuts that the denial was essentially a politically-driven decision. The concerns expressed by national and international authorities, fishing societies, and residents of the area regarding the environmental impact of the Project prove Respondent's defense. In essence, this Tribunal must deal with a permit denial that resulted from a peaceful EIA, as opposed to the factual backgrounds of the *Tecmed v. Mexico*, *Abengoa v. Mexico*, and *Bear Creek v. Peru* cases.[337]

281. Respondent further argues that the evidence shows that the denial of the MIA authorization was neither a political decision nor based on a political campaign against Odyssey. Don Diego was a premature mining project. Its authorization has not been denied in an environment permeated by social unrest. There was not such a thing as a politically motivated campaign to defeat the Project, and there was no group with specific interests seeking to prevent Don Diego from starting operations.[338]

282. Furthermore, in Respondent's view, Claimant has never developed a mining project, and the DGIRA statistics demonstrate how unpredictable the outcome of the process could be. Therefore, if Claimant had conducted a proper due diligence assessment of the risks, it could not possibly have legitimate expectations that it could obtain all the required regulatory approvals. Even when a concession has been obtained, it is not guaranteed that the environmental permits are to follow.[339]

283. Third, Mexican authorities never claimed that the Project did not pose any unmitigable environmental risks and should be approved, as Claimant states. On the contrary, evidence suggests that the Project had an adverse impact on the *Caretta caretta* and other species,[340] and that the information presented by Claimant in the MIA contained deficiencies and inaccuracies, meaning that SEMARNAT's resolution is correctly supported.[341]

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336 C-Mem., ¶¶ 460-463, citing **RL-0020**, *Vento v. Mexico*, Award, ¶ 291.
337 C-Mem., ¶¶ 498-501.
338 C-Mem., ¶¶ 501-506.
339 C-Mem., ¶¶ 520-526.
340 Rejoinder, ¶¶ 188-195, 210-221; Respondent's Post-Hearing Brief, ¶¶ 67-73, 86, 90-93.
341 Rejoinder, ¶¶ 222-239.

284. In accordance with Article 35.III.b of the LGEEPA, DGIRA has the power to reject the MIA of a project when its activities (i) may lead to one or more species being declared threatened or endangered; or (ii) affect a threatened or endangered species. The wording and purpose of the environmental law in Mexico is clear since it regulates two assumptions. In accordance with the first assumption, if the activity can cause the declaration of threat or danger of extinction of one or more species, then the project must be denied. In accordance with the second assumption, the mere impact on one or more threatened or endangered species is enough for the project to be susceptible of denial. A species – which is already threatened or in danger of extinction – can be impacted when the activity affects even a single individual of the species.[342]

285. ExO did not provide sufficient scientific evidence in the 2015 MIA to determine how many specimens could be affected by the activities of the Project.[343]

286. Fourth, the TFJA ordered the DGIRA to issue a new resolution with full freedom in the use of its powers. Therefore, it was not only possible but foreseeable that the MIA would be denied again since it was recognized that its determination was only subject to correcting the omissions that led to the invalidity of the 2016 Resolution. This scenario was likely considering that the TFJA itself, when using the phrases "*en su caso*" and "*para que en el caso de que,*" recognized as a mere hypothetical possibility to decide on the authorization of the Project in a conditional manner.[344]

287. Claimant's complaint is solely driven by the fact that it does not agree with the reasoning of the resolution. The Project was denied not because of political aspirations, but due to the possible damage that it would imply for the turtles and other marine species that inhabit the area and are officially declared endangered.[345]

288. As for the DGIRA resolution, the TFJA has yet to determine whether the refusal was duly justified or not. In that regard, according to Respondent, Claimant's conclusion is premature and unfounded.[346]

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342 Rejoinder, ¶¶ 151-152; Respondent's Post-Hearing Brief, ¶¶ 88-89.
343 Rejoinder, ¶ 167.
344 Rejoinder, ¶¶ 48-51, citing **C-0170**, TFJA Ruling, 21 March 2018, p. 212.
345 C-Mem., ¶ 442.
346 Rejoinder, ¶ 23.

(3) Tribunal's Analysis

289. The Tribunal's analysis and conclusions on the merits, including damages and costs, are adopted by the majority of the Tribunal, President Bulnes and arbitrator Alexandrov (the "**Majority**"). Arbitrator Sands attaches a dissenting opinion (the "**Dissent**"). The Majority regrets the tone of the Dissent, but prefers to focus on the substance and avoid engaging with the Dissent's rhetoric.

a) FET standard

290. The first breach alleged by Claimant is that Respondent infringed NAFTA Article 1105(1), specifically the FET standard contained therein, "*by unfairly and inequitably denying Claimant an environmental permit for the Project*."[347]

291. Respondent rejects Claimant's allegation by stating that Odyssey was unable to demonstrate a violation of the FET standard contemplated in NAFTA Article 1105(1) and that the denials of the MIA were carried out in an appropriate manner.

292. Article 1105(1), entitled "*Minimum Standard of Treatment*," obliges each Party to accord, *inter alia*, a fair and equitable treatment to investors of another Party. Said norm provides:

> "*Article 1105: Minimum Standard of Treatment*
>
> *1. Each Party shall accord to investments of investors of another Party treatment in accordance with international law, including fair and equitable treatment and full protection and security.*"

293. Regarding this first breach invoked and in order to assess the arguments presented by the Parties, it is necessary to determine the content of the FET standard under NAFTA.

294. In determining said standard, both Claimant and Respondent rely on the interpretation made by the Free Trade Commission in this respect, interpretation that makes explicit reference to customary international law as the framework to be applied. In this sense, the Notes of Interpretation of the Free Trade Commission state that:

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[347] Mem., ¶ 217.

> "*1. Article 1105(1) prescribes the customary international law minimum standard of treatment as the minimum standard of treatment of another Party;*
>
> *2. The concepts of 'fair and equitable treatment' and 'full protection and security' do not require treatment to or beyond that which is required by the customary international law minimum standard of treatment;*
>
> *3. A determination that there has been a breach of another provision of the NAFTA, or of a separate international agreement, does not establish that there has been a breach of Article 1105(1).*"[348]

295. Such interpretation is of great relevance to the present dispute since, as per NAFTA Article 1131(2), "[a]*n interpretation by the Commission of a provision of this Agreement shall be binding on a Tribunal established under this Section*."[349]

296. Based on the interpretation given by the Free Trade Commission, the Parties agree, and the Tribunal endorses, that the legal standard contemplated in NAFTA Article 1105(1), and particularly, the FET standard under analysis, must be understood as referring to the standard under customary international law. Consequently, in order to reach a decision in the present case, it is necessary to determine what customary international law requires to meet that standard.

297. Both parties agree that the FET standard under customary international law is that set forth by the ICSID tribunal in the *Waste Management v. Mexico* (II) case since it "*persuasively integrates the accumulated analysis of prior NAFTA Tribunals and reflects a balanced description of the minimum standard of treatment*."[350] In light of this agreement, it appears that Respondent's allegation that "*Claimant has* […] *failed to establish the content of the minimum standard of treatment under customary international law that it asks the Tribunal to apply*"[351] cannot stand.

298. The Tribunal in *Waste Management v. Mexico (II)* determined:

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348 **CL-0082**, North American Free Trade Agreement, Notes of Interpretation of Certain Chapter 11 Provisions, NAFTA Free Trade Commission, 31 July 2001, p. 2.

349 **CL-0081**, NAFTA, Art. 1131(2).

350 **CL-0095**, *Railroad Development Corporation (RDC) v. Republic of Guatemala*, ICSID Case No. ARB/07/23, Award, 29 June 2012, ¶ 219.

351 Rejoinder, ¶ 338.

> "[T]he *minimum standard of treatment of fair and equitable treatment is infringed by conduct attributable to the State and harmful to the claimant if the conduct is arbitrary, grossly unfair, unjust or idiosyncratic, is discriminatory and exposes the claimant to sectional or racial prejudice, or involves a lack of due process leading to an outcome which offends judicial propriety—as might be the case with a manifest failure of natural justice in judicial proceedings or a complete lack of transparency and candour in an administrative process. In applying this standard it is relevant that the treatment is in breach of representations made by the host State which were reasonably relied on by the claimant.*"[352]

299. The Tribunal is aware that customary international law is not "*frozen in amber*"[353] and that it may evolve over time. Nonetheless, the conclusion reached by the Tribunal is that in the present case, there are no reasons to deviate from the reasoning set out in *Waste Management v. Mexico (II)*, as the position of both parties is that the applicable customary international law standard of fair and equitable treatment is properly reflected in that award.

300. Therefore, a violation of the standard under analysis requires (i) a conduct attributable to the State in question; (ii) that the "*conduct is arbitrary, grossly unfair, unjust or idiosyncratic, is discriminatory and exposes the claimant to sectional or racial prejudice, or involves a lack of due process leading to an outcome which offends judicial propriety"*; (iii) that the conduct reaches a certain threshold; and (iv) that it is harmful to Claimant. Given that there is no dispute that the alleged conduct invoked by Odyssey is attributable to Mexico, the Tribunal will now analyze requirements (ii) and (iii). Requirement (iv) will be analyzed below in section V.A.(3)a)(iv).

301. In relation to the second requirement, Claimant, rather than subjecting itself to the parameters indicated by the *Waste Management v. Mexico (II)* tribunal, makes reference to the different principles that, in its opinion, would support or underlie said decision, which leads it to postulate that Article 1105(1) "*encapsulates, and its breach can be evinced by proof of nonconformity with, any of the following principles: (i) transparency; (ii) good*

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352 **CL-0121**, *Waste Management v. Mexico*, Award, ¶ 98.

353 **CL-0091**, *Pope & Talbot v. Canada*, Award in Respect of Damages, ¶ 57. *See also* **CL-0078**, *Mondev v. United States*, Award, ¶ 116.

faith; (iii) treatment free from arbitrary and/ or discriminatory conduct; (iv) due process; and (v) respect for reasonable expectations."[354]

302. Whether or not those principles are indeed captured by the FET standard of Article 1105(1), the question is not if those principles or elements of the FET standard are breached individually; rather, the question is if the conduct as a whole may be characterized as unfair or inequitable.

303. On the other hand, based on the fact that a violation of the FET standard may arise in many forms, and considering certain points of disagreement between the Parties in addressing the implications of the *Waste Management v. Mexico (II)* award to the present case, the Tribunal considers it useful to establish certain elements and parameters to consider when analyzing and determining whether a conduct violates the FET standard.

304. To carry out this task, it is important to note that the Tribunal does not feel constrained to consider only NAFTA tribunal decisions as Respondent has argued.[355] Both Claimant and Respondent have cited non-NAFTA tribunal decisions in analyzing the minimum standard of treatment under NAFTA. Moreover, the Tribunal, as previously stated, seeks to determine how the minimum standard of treatment should be understood according to customary international law. The standard sought is universal and not a specific concept limited to NAFTA. Therefore, non-NAFTA decisions, to the extent they seek to reflect customary international law, may be of assistance.

i) Arbitrary conduct

305. Odyssey alleges that it was entitled to receive treatment that was not arbitrary. To determine the concept of arbitrariness, which is an element of the FET standard, Claimant[356] and Respondent[357] relied on the *ELSI* case, where it was stated that it is "*something opposed to the rule of law,*" "a *wilful disregard of due process or law, an act which shocks, or at least surprises, a sense of judicial propriety*."[358] In the same sense,

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354 Mem., ¶ 217.
355 Rejoinder, ¶ 340.
356 Mem., ¶ 233.
357 Rejoinder, ¶ 350.
358 **CL-0028**, *Case concerning Elettronica Sicula S.p.A. (ELSI) (United States v. Italy)*, ICJ Reports 1989, Judgment, July 20, 1989, p. 15, ¶ 128.

Claimant adds, based on different ICSID awards, that arbitrariness is also "*a measure taken for reasons that are different from those put forward by the decision maker,*"[359] a conceptualization of which the Tribunal has taken note.

306. In Respondent's view, "*this standard is not intended to impede states' ability to make policy choices*."[360] The Tribunal agrees with Mexico's statement but does not consider it to mean that the exercise of policy choices is without limits. One of these limits is not to engage in arbitrary conduct. The Tribunal also agrees with Respondent that a mere violation of local law does not necessarily and of itself amount to arbitrariness or a breach of the fair and equitable treatment standard.[361]

307. Therefore, to determine a violation, it is necessary to analyze the conduct and the reasons the State had to reach a specific decision. Accordingly, in the present case, if the administrative decision that Respondent was entitled to make regarding the MIAs "*was not founded on reason or fact, nor on the law*"[362] or was "*clearly improper and discreditable*,"[363] then the State's conduct will be considered arbitrary under the applicable FET standard.

ii) Due Process

308. In relation to due process, both Parties agree that it forms an integral part of the FET standard. Nonetheless, they disagree on what said element entails and its limits. For Claimant, "*the principle of due process pursuant to MST requires that Mexico make decisions solely based upon relevant, known, and established criteria rather than for an improper purpose*."[364] For Respondent, it requires a complete lack of due process and "*no due process obligation arises when mere administrative 'irregularities' are committed*."[365]

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359 Mem., ¶ 233.
360 Rejoinder, ¶ 350.
361 C-Mem., ¶ 481, citing **RL-0031**, Rudolph Dolzer & Christoph Schreuer, Principles of International Investment Law (OUP 2012), p. 152.
362 **CL-0097**, *Ronald S. Lauder v. Czech Republic*, UNCITRAL, Final Award, 3 September 2001, ¶ 232.
363 **CL-0078**, *Mondev v. United States*, Award, ¶ 127.
364 Mem., ¶ 243.
365 C-Mem., ¶ 489, citing **RL-0003**, *Thunderbird v. Mexico*, Award, ¶ 200.

309. Being that due process is a central element of the FET standard, the Tribunal must first make clear that it applies not only to acts of the judiciary but also to acts of other branches of the government, including administrative decisions.

310. As the *Glencore v. Colombia* tribunal determined, due process entails that the authority "*must give each party a fair opportunity to present its case and to marshal appropriate evidence, and then must assess the submissions and the evidence in a reasoned, even-handed, and unbiased decision*."[366] The Tribunal's view is that a violation of administrative due process may occur not only when there is "*complete lack of transparency and candour,*"[367] but also, specifically to this case, when "an investor is denied a permit based on reasons that are unrelated to specific existing requirements for issuing that permit."[368]

311. Mexico alleges that Claimant's goal is to obtain a revision of the conclusions reached by the DGIRA, independently from the revision already made by the competent tribunal and that said goal is not allowed under international law, because "[a] *NAFTA claim cannot be converted into an appeal against the decisions of municipal courts*."[369] The Tribunal agrees with such exhortation. It is not the duty of arbitral tribunals constituted under NAFTA to become a court of appeal of the decisions of the State administrative authorities, or to second-guess the decisions of said authorities, nor to replace the judgment of a specialized administrative body with their own. The Tribunal's jurisdictional task, in this case, is to determine if the decisions of the DGIRA challenged by Claimant may be qualified as constituting a violation of a treaty obligation, namely the FET standard as defined in this section.

366 **CL-0165**, *Glencore International A.G. and C.I. Prodeco S.A. v. Republic of Colombia*, ICSID Case No. ARB/16/6, Award, 27 August 2019, ¶ 1318.

367 **CL-0121**, *Waste Management v. Mexico*, Award, ¶ 98.

368 **RL-0022**, P. Dumberry, *The Fair and Equitable Treatment Standard: A Guide to NAFTA Case Law on Article 1105* (2013), p. 259.

369 C-Mem., ¶ 493, citing **RL-0038**, *The Loewen Group, Inc. and Raymond L. Loewen v. United States of America*, ICSID Case No. ARB(AF)/98/3, Award, 26 June 2003, ¶ 134.

iii) Legitimate Expectations

312. Finally, based on the *Waste Management v. Mexico (II)* tribunal reasoning about the FET standard and legitimate expectations, both parties refer to the role that *"the representations made by the host State which were reasonably relied on by the claimant*"[370] play in the context of the FET standard.

313. The parties agree that legitimate expectations do not constitute a stand-alone element within the FET standard, but rather, a factor that may be part of the overall analysis in determining whether a conduct breaches that standard.[371]

314. Claimant states that legitimate expectations may arise not only from express promises made by the host State or by the conduct of officials attributable to that State, but also from the regulatory environment maintained by the host State.[372] It adds that "*the relevant legal and regulatory framework existing before the measure in question may inform the investor's legitimate expectations*."[373] Claimant also postulates that:

> "*[u]ltimately, U.S. and Canadian investors in Mexico are entitled to conduct their business, including establishing and operating their investments, in reasonable reliance upon legitimate expectations, such as the expectation that Mexican government officials will perform their duties without bias, for a proper purpose, candidly, reasonably, and in conformity with Mexican law, and that they would make good on any express assurances it has extended to the investor.*"[374]

315. Respondent, for its part, alleges that legitimate expectations must arise through "targeted representations or assurances made explicitly or implicitly by a state party."[375] It adds that "[s]uch representations must be so 'definitive, unambiguous and repeated' as to constitute

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370 **CL-0121**, *Waste Management v. Mexico*, Award, ¶ 98.
371 Mem., ¶ 246; C-Mem, ¶ 508; Reply, ¶ 202; Rejoinder, ¶ 389.
372 Mem., ¶ 244.
373 Mem., ¶ 245.
374 Mem., ¶ 247.
375 C-Mem., ¶ 510, citing **CL-0057**, *Grand River Enterprises Six Nations, Ltd., et al. v. United States of America*, UNCITRAL, Award, 12 January 2011, ¶ 141.

a quasi-contractual relationship,"[376] and contends that "[a] *host state's existing law, such as legislation, cannot give rise to legitimate expectations*."[377]

316. Furthermore, Mexico postulates that if Claimant is able to prove "*that assurances were given that would satisfy the above exacting requirements as to forming expectations, it would need to establish that those expectations were also objectively reasonable*."[378] In Respondent's view, legitimate expectations cannot be determined by reference to the investor's subjective expectations.[379]

317. The Tribunal agrees with the parties that legitimate expectations are not a stand-alone element within the FET standard under NAFTA Article 1105(1). Rather, such expectations are a factor that may be considered in determining whether a conduct violates the FET standard.

318. On the basis of the foregoing, it is evident that the more specific and repeated the guarantees or promises made by the State, the higher the likelihood of the emergence of expectations on the part of the investor. However, in the Tribunal's opinion, the signing by a State of treaties providing for the protection of foreign investments and the existence of a domestic regulatory framework governing a technical and objective assessment of the environmental effects of any relevant project, even when they are not promises specifically addressed to a particular investor, constitute elements that can reasonably be expected to give rise to the emergence of objective and legitimate expectations on the part of the investor. Perhaps such guarantees would not have the force that would be derived from a reiterated specific promise, but neither is this general legal framework of guarantees an element that should simply be ignored.

iv) Threshold of the conduct to breach the FET standard

319. In relation to the third requirement the challenged conduct must meet to infringe the FET Standard, *i.e.*, the threshold that said conduct must reach, Respondent, relying on the

376 C-Mem., ¶ 510, citing **CL-0055**, *Glamis v. United States*, Award, ¶ 802.
377 C-Mem., ¶ 511.
378 C-Mem., ¶ 514.
379 C-Mem., ¶ 515.

reasonings of *Waste Management v. Mexico (II)* and *Cargill v. Mexico* concludes that the threshold is "*high*".[380]

320. Claimant disputes such approach noting that "[n]*othing in the* Waste Management II *award itself suggests that the threshold for demonstrating a breach of the standard is 'extremely high*.'"[381]

321. In seeking to establish the limits of the threshold under analysis, the Tribunal does not consider it to be "*extremely high*." That is not the Tribunal's reading of the *Waste Management v. Mexico (II)* award, and, as determined by the *Mondev v. United States* tribunal, "*what is unfair or inequitable need not equate with the outrageous or the egregious*."[382]

322. Nonetheless, the Tribunal does not consider that the analyzed standard seeks to grant protection to investors against "*a merely inconsistent or questionable application of administrative or legal policy or procedure*"[383] or "*when mere administrative 'irregularities' are committed*."[384]

323. Following the decisions in *Waste Management v. Mexico (II)* and *Cargill v. Mexico* cases, the Tribunal considers that the infringement of the FET standard "*must be 'gross,' 'manifest,' 'complete,' or such as to 'offend judicial propriety*,'"[385] "*as might be the case with a manifest failure of natural justice in judicial proceedings or a complete lack of transparency and candour in an administrative process*."[386]

324. Therefore, the Tribunal agrees with Respondent's view to the extent that the applicable threshold requires a breach to be of a serious nature as previously stated, which is to be determined on a case-by-case basis, having regard to the evidence.

325. Finally, Respondent alleges that Odyssey is basing its claim on "*secret marching orders*" that led the DGIRA to deny the MIAs. It adds that "*there is no rule of customary*

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380 C-Mem., ¶ 449.
381 Reply, ¶ 176.
382 **CL-0078**, *Mondev v. United States*, Award, ¶ 116.
383 **CL-0027**, *Cargill v. Mexico,* Award, ¶ 296.
384 C-Mem., ¶ 489, citing **RL-0003**, *Thunderbird v. Mexico*, Award, ¶ 200.
385 **CL-0027**, *Cargill v. Mexico,* Award, ¶ 285.
386 **CL-0121**, *Waste Management v. Mexico*, Award, ¶ 98.

international law that prohibits the notion of 'marching orders' with which Claimant characterizes the conduct claimed."[387]

326. In this regard, it is important to note that the Tribunal does not consider that it must make a determination as to what is to be understood by "*marching orders*" under customary international law or to determine whether there is a specific customary international law rule that prohibits such conduct. The Tribunal understands that Claimant, by using such reference, is not alluding to a rule or violation different from its allegation that Mexico violated the FET standard when denying the MIA.

327. The reference to "*marching orders*" is clearly an expression used by Odyssey in order to characterize in a simplified manner what it understands to be an arbitrary conduct, non-transparent, and in violation of administrative due process, thereby seeking to establish a breach of the FET standard it invokes.

328. This alleged need to prove a rule regarding the proscription of marching orders under customary international law was first analyzed by the *Vento v. Mexico* tribunal in a manner that the Tribunal considers pertinent to the present case. On that occasion, it was decided that:

> "*The Respondent's argument that the Claimant would need to prove that customary international law specifically proscribes notions of so-called marching orders can be disposed of summarily. The Claimant is correct that it does not need to prove the existence of a discrete rule of customary international law that specifically prohibits particular actions that states or state agents engage in. While these types of rules may emerge, it is self-evident that this is not how international custom develops. Nor is there any process that typifies a list of specific actions under the aegis of customary international law.*
>
> *'Marching orders' is, after all, simply how this Claimant chose to characterize the Respondent's conduct about which it complains. Nevertheless, the Claimant has described that conduct in sufficient detail and it contends that it breaches the customary international law standard of treatment as articulated by the* Waste Management II *tribunal, with which both Parties agree. As noted, the Claimant*

[387] C-Mem., ¶ 454.

mainly argues that such conduct was arbitrary, discriminatory and lacking in due process."[388]

329. The foregoing should not be understood as a pronouncement on the applicability or not of the conclusions of the *Vento v. Mexico* tribunal to the facts of this proceedings, which is another argument raised by Respondent, since the existence of marching orders was also discussed in the context of the *Vento* case. Such matter is discussed in the next chapter when resolving whether there was a violation of the FET standard under NAFTA Article 1105(1). What has been resolved so far is that from a legal point of view, as decided in the *Vento* case, there is no need to prove or determine what marching orders mean under customary international law, since Claimant's allegation is not based on a violation of an alleged rule in that sense.

330. Based on the above, it is therefore determined that the FET standard to be applied will be the one defined in the *Waste Management v. Mexico (II)* case already cited, in light of the clarifications made by this Tribunal on its implications in the specific context of this case.

331. Having determined the content of the FET standard, the Tribunal is conscious of the fact that this standard must be applied to the specific circumstances of each case. Accordingly, the Tribunal cannot reach a decision in the abstract, and will proceed to make a determination based on the facts of this particular case.

b) Breach of the Fair and Equitable Treatment provided for in Article 1105(1) of NAFTA by Mexico

332. Having established the scope of the FET standard provided for in NAFTA Article 1105(1), the Tribunal will proceed to analyze the conduct invoked by Odyssey that allegedly violated the FET standard. The Tribunal's task is to determine, on the basis of the evidence before it, whether the facts alleged by Claimant occurred and, if so, whether they meet the requirements to be considered a breach of the FET standard.

333. The Tribunal, by majority, after having weighed the evidence submitted in this proceeding, has reached the conclusion that the breach alleged by Claimant did exist and that it constitutes a violation of the FET standard provided for in NAFTA, according to the interpretation that should be given to such standard of treatment. The analysis of the

[388] **RL-0020**, *Vento v. Mexico*, Award, ¶ 279.

evidence, as seen below, indicates that the DGIRA, at the request of Mr. Pacchiano, the Secretary of SEMARNAT, denied a permit that otherwise would have been granted. Specifically, there is evidence of arbitrariness, lack of transparency, and violation of administrative due process of such seriousness that the conduct meets the threshold required to establish the alleged breach.

334. As already stated in the analysis of the applicable FET standard, the Tribunal is aware that its role is not to replace the judgment of a specialized administrative body with its own or to become a court of appeal of the decisions of the former, nor to second-guess the decisions of the Mexican authorities in charge of environmental protection. This Tribunal lacks the technical competence to engage in such exercise, and more importantly, none of these approaches is in conformity with its mandate under NAFTA.

335. However, rather than ruling on the technical merit of the decision adopted by the DGIRA and criticized by Claimant, in this case, the Majority concludes that serious facts have been established that lead to the conclusion that the rejection of ExO's New MIA was not based on true environmental considerations (although environmental considerations were used as a pretext), but rather on extraneous and personal motives of Mr. Pacchiano, which can only be qualified as seriously arbitrary, lacking in transparency and contrary to the administrative due process.

336. For the Majority, the preceding conclusion is supported by four essential pillars, in addition to other ancillary evidence that will be analyzed. These pillars are (i) the declarations of former DGIRA officials, Messrs. Flores and Villa, regarding the process behind DGIRA's rejection of ExO's New MIA on the two occasions that this occurred; (ii) the basis for the decision of SEMARNAT to reject the Request for Review submitted by ExO; (iii) the TFJA's decision analyzing the lack of merit of the reasons given by the DGIRA to issue the First Denial; and (iv) the swift reaction of SEMARNAT, once the TFJA's decision to annul the First Denial of ExO's New MIA was communicated, indicating that said application would be rejected again. Each of these issues will be analyzed below, complemented with additional relevant evidence in each case.

i) Assessment of the credibility of the statements of Messrs. Flores and Villa

337. Mexico has invoked in this proceeding different reasons for why the witness statements of Messrs. Flores and Villa should be disregarded or not assigned probative value. Some objections are common to both witnesses, while others are specific to one official or the other.

338. Among the objections common to both officials is the fact that they agreed to a payment contract with Odyssey in connection with their role as witnesses.[389] Based on this circumstance, Respondent makes several allegations, which are discussed below.

339. As a first consideration, it should be noted that the fact that witnesses are remunerated for the time and costs associated with their statements at trial is not a circumstance that disqualifies them as witnesses or casts doubts on their impartiality. The fact that witnesses may be remunerated for the time spent preparing their statements is something expressly provided for and accepted in various rules governing arbitration, and as far as this proceeding is concerned, a matter expressly provided for and accepted by the UNCITRAL Rules.[390] Therefore, the fact that Messrs. Flores and Villa have agreed with Odyssey to receive payment for giving their statements does not as such lead to the conclusion that the witnesses should be disqualified.

340. Furthermore, the witnesses point out,[391] as stated in their respective contracts,[392] that the payment is not related to the content of their statements but rather to the time invested in preparing them, reviewing the corresponding background, and in giving their testimony. Consequently, the nature of the agreed payment does not affect and should not affect their account of the events they witnessed or experienced.

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389 C-Mem., ¶ 431; Rejoinder, ¶ 84.

390 **CL-0152**, Article 38(d) of the 1976 UNCITRAL Arbitration Rules; **CL-0201**, David Caron and Lee Caplan, "The UNCITRAL Arbitration Rules: A Commentary" (2d. ed. 2012), pp. 844-845, citing **CL-0202**, UNCITRAL Summary Record of the 12th Meeting, 22 April 1976, UN Doc. A/CN.9/9/C.2/SR.12, ¶¶ 76-78. *See also* **RL-0010**, IBA, IBA Guidelines on Party Representation in International Arbitration, 25 May 2013, Guideline 25.

391 Second Witness Statement of Alfonso Flores Ramírez, ¶ 5; Second Witness Statement of Alberto Villa Aguilar, ¶ 3.

392 **C-0364**, A. Flores Contract, 7 July 2020; **C-0365**, A. Villa Contract, 2 November 2020.

341. In this regard, Respondent points out that there are two clauses in the contracts that lead to the conclusion that Odyssey could impose or influence the content of the statements.[393] In this context, it cites clauses 2.a and 4.[394] The first one states that "[t]*he WITNESS agrees to: provide written or oral statements depending on what the OFFICE deems necessary*"; while the second one states that "[t]*he WITNESS will be reimbursed for all pre-approved personal expenses that he has to face related to his performance as a witness in the Arbitration Proceeding*." Although Respondent claims that these clauses would allow Claimant to influence the content of the witnesses' statements,[395] the Majority disagrees that this is the interpretation that should naturally be given to such provisions and therefore considers that Mexico's allegations in this regard are unsubstantiated. In addition, as Respondent itself points out, the contracts of both witnesses are clear in stating that "*fees will in no way be subject to the content of the information provided by the WITNESS or to the result of arbitration.*"[396]

342. On the other hand, regarding the amount of the remuneration received, which, in the case of Mr. Villa, was US$31,186.68 (expenses included),[397] the Tribunal accepts the relevance of comparing such amount with the salary that Mr. Villa earned as a public official.[398] Nevertheless, the Tribunal does not find this amount to be disproportionate, improbable or constituting a payment that could be understood as compromising the independence of the witness or the credibility of his statement. Likewise, the fact that part of the payments made to Mr. Villa are for hours of work charged retroactively, that is, for periods prior to the date of the signing of the contract with Odyssey,[399] does not alter the conclusion already reached. The Majority is aware of the reasons that led Mr. Villa to sign the contract with Odyssey only on 2 November 2020[400] and does not see any reasons linked to that fact that

393 Rejoinder, ¶¶ 92-93.
394 Rejoinder, ¶¶ 92-93, citing **C-0364**, A. Flores Contract, 7 July 2020, ¶¶ 2.a, 4; **C-0365**, A. Villa Contract, 2 November 2020, ¶¶ 2.a, 4.
395 Rejoinder, ¶¶ 92-93.
396 Rejoinder, ¶ 92; **C-0364**, A. Flores Contract, 7 July 2020, ¶ 5; **C-0365**, A. Villa Contract, 2 November 2020, ¶ 5.
397 Claimant's Cost Submission, 30 November 2022, p. 4.
398 Respondent's Post-Hearing Brief, ¶ 47; Hearing Transcript, Day 2, p. 348, lines 9-19.
399 Rejoinder, ¶ 105.
400 Rejoinder, ¶ 105 citing **C-0365**, A. Villa Contract, 2 November 2020, p. 1; Hearing Transcript, Day 2, p. 438, lines 2-7; p. 337, lines 3-5.

would raise doubts about the veracity of his statement. In the view of the Majority, it is not within the Tribunal's competence to determine whether this retroactive charging decision violates any provision of Mexican law.

343. With respect to Mr. Flores, Respondent alleges that his statement that he did not know whether or not he would ask for payment for the hours of work he was entitled to be compensated,[401] left a cloak of doubt that disqualified him as a witness.[402] The Majority does not share this conclusion and must reiterate that with respect to the payments agreed between Odyssey, Messrs. Flores and Villa, it does not find any extraordinary or abnormal circumstances in this respect that would justify disregarding their statements or undermining their credibility.

344. Finally, the Majority does not accept Mexico's assertions that the witnesses concealed the existence of their contracts with Odyssey.[403] Although the witnesses referred to them only in their second written statements,[404] everything indicates that they did not initially disclose the fact because they understood or were informed that it was lawful for Claimant to pay them for the time invested in their statements and, that this did not generate a link with that party that would impose a special obligation of disclosure.

345. A second group of Mexico's objections aimed at disqualifying or undermining the credibility of the statements of Messrs. Flores and Villa is related to the participation of the witnesses in the events that underlie this proceeding.[405] In this regard, Respondent, apart from criticizing them for having "*switched sides*,"[406] points out that both participated in and signed the two decisions rejecting ExO's New MIA, a matter that should be understood as their agreement with such determinations.[407] Thus, the argument goes, it is not credible that the witnesses now oppose those decisions that they previously approved.[408]

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401 Hearing Transcript, Day 7, p. 1648, line 12-p. 1649, line 6.
402 Respondent's Post-Hearing Brief, ¶ 64.
403 C-Mem., ¶ 426; Rejoinder, ¶¶ 84-85.
404 Second Witness Statement of Alfonso Flores Ramírez, ¶ 5; Second Witness Statement of Alberto Villa Aguilar, ¶ 3.
405 Rejoinder, ¶¶ 74-75.
406 C-Mem., ¶¶ 208, 210, 421.
407 C-Mem., ¶¶ 195, 198, 343, 371, 372.
408 C-Mem., ¶ 210.

346. In this regard, the Majority does not agree with Mexico's criticism since the statements of both witnesses, Messrs. Flores and Villa, are clear in that they did not agree with the rejection of ExO's New MIA and that they had to adopt a decision to that effect because they were instructed to do so by their superiors.[409] Therefore, the fact that they appear to be the ones who rejected the New MIA does not exclude the possibility that they disagreed with that determination, nor can their participation as witnesses for Claimant be understood as an unexplained change of opinion. Their testimony is that they never agreed with the decision to deny ExO's New MIA and that their decisions to reject the Project are explained solely by the fact that Secretary Pacchiano ordered them to do so.

347. Mexico also criticizes Messrs. Flores and Villa for not immediately denouncing the alleged instructions to reject the MIA, issued by Secretary Pacchiano, if they believed this to be illegal conduct that they were obliged to report.[410] In this regard, it is not being judged in this proceeding whether or not the witnesses complied with Mexico's internal regulations on this matter, nor whether they should have resisted their superior's instructions that they did not agree with; the issue here is instead the admissibility and the reliability of their witness statements. Furthermore, the fact is that the potential violation of Mexican law in this regard or their decision not to confront their superior does not affect either the admissibility or the credibility of what they stated. Additionally, the Majority takes into consideration that it is uncontroversial that Secretary Pacchiano had the power to dismiss Messrs. Flores and Villa,[411] which makes it clear that a complaint or resistance on their part could have meant losing their jobs; and on the other hand, it has to be pointed out that it was only in 2020, that is, after the events had occurred, that a whistleblower system with protection of the identity of the complainant began to function in Mexico.[412]

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409 Witness Statement of Alfonso Flores Ramírez, ¶¶ 20, 29, 32; Witness Statement of Alberto Villa Aguilar, ¶ 9; Second Witness Statement of Alfonso Flores Ramírez, ¶ 26; Second Witness Statement of Alberto Villa Aguilar, ¶ 22.

410 C-Mem., ¶ 195; Rejoinder, ¶¶ 96, 97, 317.

411 Reply, ¶ 166; Second Expert Report by Héctor Herrera Ordóñez, ¶¶ 15, 39; Witness Statement of Rafael Pacchiano Alamán, ¶ 20.

412 Reply, ¶¶ 168-169; Second Expert Report by Sergio Huacuja Betancourt, ¶¶ 23-24.

348. Mexico further points out that Messrs. Flores and Villa were subject to different administrative sanctions,[413] which also calls into question their credibility as witnesses. With respect to Mr. Flores, Mexico says that he was sanctioned on two occasions: the first, when authorizing a MIA related to a genetically modified organisms project,[414] when SEMARNAT found that there was "*sufficient evidence that allows presuming the existence of alleged administrative irregularities on the part of Alfonso Flores Ramírez*"[415] and the second, when "*deciding on the application for environmental impact authorization of the controversial project called Cabo Cortés*."[416] However, it has been demonstrated in this proceeding that the first sanction was reversed by the TFJA[417] and, with regard to the second sanction, that Mr. Flores had no participation in the authorization of the project in question since he was not the General Director of the DGIRA at that time.[418] In turn, with regards to Mr. Villa, Mexico stated that he had been accused of (a) receiving bribes from a former official in order to facilitate environmental procedures, as well as providing information in an unofficial manner; (b) receiving bribes from various mining companies, with which he was associated, for the submission of MIA applications that lacked legal grounds; and (c) recommending consulting firms to MIA applicants, assuring them that, if the corresponding studies were carried out, they would be granted the authorizations.[419]

349. However, in the view of the Majority, those assertions do not constitute sufficient grounds to disqualify the witness or undermine his credibility because, as can be seen from the documents submitted by Respondent, the Internal Control Organ ordered that the aforementioned proceedings be closed because it did not find evidence of any wrongdoing

413 C-Mem., ¶¶ 410-411; Rejoinder, ¶ 124.
414 C-Mem., ¶ 199, citing **R-0059**, "They file a complaint against authorization from Semarnat to transgenic crops," *La Jornada*, 14 June 2012; C-Mem., ¶ 200; Witness Statement of Rafael Pacchiano Alamán, footnote 1.
415 C-Mem., ¶ 199, citing **R-0060**, "The SFP will investigate the director who authorized the planting of transgenic soy in 7 states; Greenpeace asks for his dismissal," *Sin embargo*, 4 July 2014.
416 C-Mem., ¶ 201.
417 Reply, ¶ 148 b, citing **C-0334**, TFJA's Decision, 23 November 2018, p. 16; Second Witness Statement of Alfonso Flores Ramírez, ¶ 7.
418 Reply, ¶ 148 a; Second Witness Statement of Alfonso Flores Ramírez, ¶ 6.
419 Rejoinder, ¶ 124, Table 4. Procedures against Messrs. Flores and Villa for irregular exercise of their functions.

by Mr. Villa.[420] This matter was clarified by Mr. Villa when Mexico cross-examined him[421], and, significantly, this issue was not raised again by Respondent in its Post-Hearing Brief.

350. In addition, both Messrs. Flores and Villa were presented by Mexico itself as witnesses in the *Abengoa v. Mexico* case.[422] Apparently, Mexico considered them suitable to be witnesses in that case; therefore, the Majority fails to understand why Mexico would consider them credible witnesses in one case but not credible in another case.

351. With respect to Mr. Villa, Respondent also alleges that he was present during the initial deliberations on Mexico's defense in this case, implying that he should be disqualified from acting as Claimant's witness.[423] However, there is no evidence that Mr. Villa obtained sensitive information from Respondent at that initial stage, and his testimony does not relate to Mexico's defense strategy or its deliberations in that regard. Mexico also notes that during those initial stages of Mexico's defense preparation, Mr. Villa did not state that he disagreed with Odyssey's MIAs rejection decisions.[424] However, in the view of the Majority, Mr. Villa's silence in this context cannot be understood as hiding that fact, since other officials were also present at these meetings (Ms. Luz Aurora Lenka Ruiz Colín, Undersecretary Martha García Rivas, Mr. Amado Ríos, Ms. Consuelo Juárez) who, according to his description of the facts, were also perfectly aware of Mr. Pacchiano's instructions.[425]

352. In another line of challenging the statements of Messrs. Flores and Villa, Mexico points out that their witness statements contain a series of contradictions, which again casts doubts on their credibility.[426] In this regard, Respondent posits, for example, that Mr. Flores' statements "*were shown to be unreliable by entering into an irremediable contradiction with Mr. Villa regarding whether he was the one who transmitted Mr. Pacchiano's alleged*

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420 Ruling issued by the ICO in file 2014/SEMARNAT/DE447 initiated against Mr. Alberto Villa Aguilar, **R-0177**; Ruling issued by the ICO in file 2015/SEMARNAT/DE762 initiated against Mr. Alberto Villa, **R-0178**; Ruling issued by the ICO in file 2016/SEMARNAT/DE385 initiated against Mr. Alberto Villa, **R-0179**.

421 Hearing Transcript, Day 2, pp. 282 lines 16-19.

422 C-Mem., ¶¶ 208, 408.

423 C-Mem., ¶¶ 209, 388-392; Rejoinder, ¶¶ 78, 83.

424 C-Mem., ¶¶ 209, 394; Rejoinder, ¶¶ 79, 80, 321, 322.

425 Claimant's Post-Hearing Brief, ¶ 30.

426 Respondent's Post-Hearing Brief, ¶¶ 57-60.

order."[427] However, upon analysis of the various contradictions invoked, both with respect to this issue and the other issues raised by Respondent, it is the opinion of the Majority that they lack materiality, to the point that they are not capable of casting reasonable doubt on the veracity of the witnesses statements.

353. Lastly, by resorting to the hierarchical structure of SEMARNAT, Mexico questions the statements of Messrs. Flores and Villa, stating that it was up to them to decide ExO's MIAs since Mr. Pacchiano lacked the authority to intervene in this type of decisions.[428] Although this issue will be reviewed in greater depth when analyzing Mr. Pacchiano's declarations, for now it suffices to say that the independence or autonomy of the DGIRA with respect to the Secretary of SEMARNAT is not something that is established as such in the regulations that govern SEMARNAT, as will be seen below; and more importantly, that the subordination of Messrs. Flores and Villa to Mr. Pacchiano as Secretary of SEMARNAT is evident since it is not disputed that Mr. Pacchiano had the authority to relieve them of their duties and, therefore, to influence their decisions. Hence, in the view of the Majority, the credibility of the statements of Messrs. Flores and Villa is not affected by the fact that Mr. Pacchiano did not formally exercise his powers to intervene or because, as alleged by Mexico, it was not within the scope of his responsibilities to resolve ExO's MIAs.

354. In sum, the Majority considers that Mexico has not presented a compelling reason to justify disregarding or denying the value of the statements of Messrs. Flores and Villa. Instead, it has attempted various arguments of the most varied nature but lacking in relevance or pertinence, which are rather demonstrative of its interest in eliminating such relevant evidence for the case that Claimant has brought before this Tribunal.

355. Finally, the Majority cannot conclude its analysis of the value of the statements of Messrs. Flores and Villa without taking into account the *Vento v. Mexico* decision invoked by Mexico.[429] In Respondent's opinion, that decision constitutes a precedent that should be followed in this case, denying value to the statements of Messrs. Flores and Villa for the same reasons considered by the *Vento* tribunal.

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427 Respondent's Post-Hearing Brief, ¶¶ 56, 58.
428 C-Mem., ¶¶ 197, 198, 344, 461; Rejoinder, ¶¶ 67, 117, 124, 128, 313.
429 C-Mem., ¶ 455; Rejoinder, ¶ 316.

356. While Mexico's position is not that the Tribunal should be bound by the decision of another NAFTA tribunal, it argues that the similarities between the two cases should lead to a similar result.[430]

357. In the *Vento* case, the tribunal found that the former public officials who testified on behalf of claimant were not credible based on several factors, some of which are present in this case and some of which are not.

358. The first thing to clarify is that the *Vento* tribunal did not rule that a former public official turned whistleblower can never be trusted. The *Vento* tribunal concluded that a former official who testified in that case lacked credibility on the basis of the specific circumstances and the particular context of the case.

359. The second thing to clarify is that the determination of the credibility of a witness is a task to be performed by each tribunal exclusively according to the specific context of the case before it, and extrapolations from one case to another, when it comes to assessing the evidence, are usually misleading, since it is impossible to know whether a tribunal, in this case, the *Vento* tribunal, would have ruled the same way, had the specific circumstances of this case been present before it. It should be noted, for example, that in the *Vento* case, the former official who claimed to have received orders from his superiors was not able to identify the name of the person who had given the alleged instructions.[431] Also, in the *Vento* case, the challenged resolutions were confirmed as valid by different Mexican courts, unlike what occurs in this case.[432]

360. Finally, notwithstanding the similarities (or lack thereof) between the two cases, the Majority does not necessarily share all the reasoning of the *Vento* tribunal. In particular, while the *Vento* tribunal's criticism of the former public official for not denouncing the instructions he claimed to have received is understandable, it is not certain that such a reproach justifies denying credibility to the witness in all circumstances. It is one thing to evaluate his actions, that is, whether his failure to report is justifiable under the circumstances of the case, but it is a different matter whether the criticism in this regard

430 C-Mem., ¶¶ 456-457.
431 **RL-0020**, *Vento v. Mexico*, Award, ¶¶ 306-307**.**
432 **RL-0020**, *Vento v. Mexico*, Award, ¶ 286.

can be translated into denying the veracity of his testimony. The Majority has reservations as to the reasoning of the *Vento* tribunal in this regard and, in any case, considers that the credibility of a witness is a question of fact that is not directly associated with the approval or disapproval of the witness's actions.

361. In short, for the various reasons indicated above, the Majority does not consider that the Vento case has any real bearing on the credibility that should be assigned to the statements of Messrs. Flores and Villa. The Majority's general conclusion is that the statements made by these former officials give a genuine description of the events that occurred in this case. Their testimony has not been credibly rebutted by the opposing statements made by Mr. Pacchiano, and is consistent with the rest of the evidence submitted in this proceeding.

ii) The statements of Messrs. Flores and Mr. Villa

362. The first thing that should be noted is that Claimant's case, in its different chapters or allegations, rests to a significant extent on the statements of Messrs. Flores and Villa, as such statements would prove that the New MIA of ExO was rejected for considerations unrelated to the environmental reasons invoked by the DGIRA but linked to Mr. Pacchiano's personal decisions.

363. In order to fully understand the scope of these statements, it is appropriate to point out who Messrs. Flores and Villa are, the role they played in the analysis of the MIAs of ExO, and then the facts that they recount, which explain the rejection of ExO's application.

364. Mr. Alfonso Flores Ramírez is a chemical engineer who worked in SEMARNAT from 2002 to 2018. His last position in that organization was Director General of the DGIRA from 2011 to 2018, a department within SEMARNAT in charge of evaluating the MIAs and issuing the corresponding resolutions.[433] In relation to Mr. Flores, there are two written witness statements: the first dated 29 July 2020 and the second dated 21 June 2021. There is also his oral statement given during the hearing held on 10 May 2022.

365. Regarding ExO's Don Diego Project that is analyzed in this proceeding, Mr. Flores declared the following main facts:

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[433] Witness Statement of Alfonso Flores Ramírez, ¶ 2; Second Witness Statement of Alfonso Flores Ramírez, ¶ 10.

i. As Director General of the DGIRA, he coordinated the team that reviewed the two MIAs presented by ExO for the Don Diego Project. The first one was the Initial MIA for the Don Diego Project presented by ExO on 3 September 2014 and withdrawn on 19 June 2015,[434] and the second one was the New MIA presented by ExO on 21 August 2015, replacing the one submitted on 26 June 2015 named "*Dredging of black phosphates sands at the Don Diego deposit*." Additionally, he signed SEMARNAT's resolutions of 7 April 2016 and 12 October 2018, denying ExO's New MIA successively.[435] Thus, Mr. Flores had direct and continuous participation in the facts that underlie this proceeding. The sequence of his participation is as indicated below.

ii. Mr. Flores, as an initial contextual element, points out that even though the team he led was in charge of carrying out the technical, legal, and scientific analysis of the MIAs, the ones who had the ultimate authority over the approval of proposed projects were the Secretary of SEMARNAT and the Undersecretary of Management for Environmental Protection of SEMARNAT. At the time in which both of ExO's MIAs were submitted, those positions were held by Mr. Juan José Guerra Abud (Secretary) and Mr. Rafael Pacchiano Alamán (Undersecretary).[436]

iii. The Initial MIA submitted by ExO was, in Mr. Flores' opinion, one of the most complete MIAs he had ever reviewed, with never-before-seen studies such as the effect of noise on whales. Nevertheless, given the concerns expressed by certain local NGOs over the possible effects of the project on whales and fishing activities, he required additional information from ExO.[437] The company provided ample and detailed information that, after being reviewed, convinced the DGIRA that, the Project would neither affect whales nor fishing activities.[438]

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434 Mem., ¶ 132.
435 Witness Statement of Alfonso Flores Ramírez, ¶ 3.
436 Witness Statement of Alfonso Flores Ramírez, ¶ 4.
437 Witness Statement of Alfonso Flores Ramírez, ¶ 8; Second Witness Statement of Alfonso Flores Ramírez, ¶ 15.
438 Witness Statement of Alfonso Flores Ramírez, ¶ 9.

iv. With those issues satisfactorily addressed, Mr. Flores declares that, as of May 2015, the DGIRA was prepared to issue a resolution conditionally authorizing the Initial MIA.[439] However, Undersecretary Pacchiano indicated to Mr. Flores that he was reluctant to approve the *Don Diego* Project for reasons that had nothing to do with environmental impacts. His concerns were that the approval of the project could affect his political position in Baja California Sur.[440] In this context, Mr. Pacchiano told Mr. Flores that he had met with ExO representatives and that he requested that they submit letters of support from CONAPESCA, local fishermen in the Gulf of Ulloa, and the government of the State of Baja California Sur as a condition for the approval of the Project.[441] Additionally, Mr. Flores points out that Mr. Pacchiano also explained that he suggested that ExO withdraw its Initial MIA in order to obtain the aforementioned letters[442] and that the Project otherwise presented no legal or scientific problems for its authorization.[443]

v. ExO agreed to withdraw the Initial MIA and, on 26 June 2015, presented a new MIA, now named "*Dredging of black phosphate sands at the Don Diego deposit*."[444] It should be noted that on 27 August 2015, Mr. Pacchiano was appointed as SEMARNAT's Secretary, and he named Ms. Martha García Rivas as the new Undersecretary.[445]

vi. The procedure of the new MIA followed its due course, including the Public Information Meeting, where ExO's representatives answered all questions satisfactorily and where none of the points raised were a genuine concern that could prompt the denial of the New MIA.[446] Additionally, more information was required from ExO based on specific questions raised by the National Commission for

439 Second Witness Statement of Alfonso Flores Ramírez, ¶ 16.
440 Witness Statement of Alfonso Flores Ramírez, ¶ 11.
441 Witness Statement of Alfonso Flores Ramírez, ¶ 13.
442 Second Witness Statement of Alfonso Flores Ramírez, ¶ 17.
443 Witness Statement of Alfonso Flores Ramírez, ¶ 13.
444 Witness Statement of Alfonso Flores Ramírez, ¶ 14.
445 Witness Statement of Alfonso Flores Ramírez, ¶ 15.
446 Witness Statement of Alfonso Flores Ramírez, ¶ 16.

Protected Natural Areas (CONANP); questions that according to what Commissioner Del Mazo told Mr. Flores, were also satisfactorily addressed.[447]

vii. In March 2016, the DGIRA was prepared to conditionally approve the New MIA, requiring, among other things, the implementation of the mitigation measures proposed by ExO. Said approval was communicated to Secretary Pacchiano with an informative note.[448] While drafting the final version of the decision, in late March 2016, they received an order from Secretary Pacchiano, through Undersecretary García Rivas, instructing them to "*find a reason to deny the MIA*," because he had felt personally "*insulted*" by the comments of one of ExO's representatives in a meeting held during those days.[449]

viii. In Mr. Flores' opinion, Secretary Pacchiano's directive to deny the New MIA, beyond the alleged insult mentioned, stemmed from his belief that approving the Project would jeopardize his political standing.[450] According to Mr. Flores, Secretary Pacchiano did not want his image to be associated with the approval of a project that the media in Baja California Sur had characterized as "*mining*," projects to which the population of said state has always been fervently opposed to.[451]

ix. Given that the DGIRA was drafting a resolution that anticipated the authorization of the New MIA, and given that there were only a few more days to meet the deadline to resolve the request, they had to change courses abruptly to find a plausible justification to deny the project, which is why they resorted to a justification based on a purported effect on sea turtles, especially the *Caretta caretta* species, given the broad public support for its protection. Mr. Flores explains that he always knew that the Project did not affect the turtles, less so the entire species, and that the justification was merely a pretext.[452]

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447 Witness Statement of Alfonso Flores Ramírez, ¶ 18.
448 Witness Statement of Alfonso Flores Ramírez, ¶ 19; Second Witness Statement of Alfonso Flores Ramírez, ¶ 14.
449 Witness Statement of Alfonso Flores Ramírez, ¶ 20.
450 Witness Statement of Alfonso Flores Ramírez, ¶ 22.
451 Witness Statement of Alfonso Flores Ramírez, ¶ 23; Second Witness Statement of Alfonso Flores Ramírez, ¶ 12.
452 Witness Statement of Alfonso Flores Ramírez, ¶ 25.

x. Then, Mr. Flores explains that he learned that the TFJA had annulled SEMARNAT's decision rejecting the New MIA, mandating SEMARNAT to issue a new resolution within four months considering the most reliable and updated scientific information available concerning the *Caretta caretta* and their habitat.[453] He adds that a couple of days later while reading a news article, he found out that SEMARNAT would again deny the Project, which was profoundly surprising to him since they had not even started to re-evaluate the best possible scientific information as the TFJA had ordered.[454]

xi. The witness then points out that during July 2018 he was on administrative leave from his job and that upon his return he learned from Mr. Alberto Villa that Secretary Pacchiano, through Undersecretary García Rivas, had ordered the DGIRA staff to deny the New MIA again.[455] The final draft of the Second Denial was, mainly, prepared by Mr. Villa,[456] and on this occasion, the Project was denied because of its purported effects on turtles and other reasons, none of which had been seen as valid arguments to deny the Project by the DGIRA when initially evaluated.[457]

xii. Based on the fact that Secretary Pacchiano ordered that the New MIA be denied immediately after the TFJA Ruling, it is Mr. Flores' view that the Second Denial was again politically motivated and that the arguments related to the protection of the environment were not valid.[458] He adds that Undersecretary García Rivas directed him to sign the denial of the MIA in October 2018, even though Mr. Flores disagreed with its legal and scientific conclusions.[459]

xiii. He finally adds that, throughout his more than seven years as the DGIRA's Director General, he was not aware of Article 35.III.b LGEEPA ever being used as grounds

453 Witness Statement of Alfonso Flores Ramírez, ¶ 27.
454 Witness Statement of Alfonso Flores Ramírez, ¶ 28.
455 Witness Statement of Alfonso Flores Ramírez, ¶ 29.
456 Second Witness Statement of Alfonso Flores Ramírez, ¶ 32.
457 Witness Statement of Alfonso Flores Ramírez, ¶ 31.
458 Witness Statement of Alfonso Flores Ramírez, ¶ 32.
459 Witness Statement of Alfonso Flores Ramírez, ¶ 33.

to deny another project.[460] It was surprising to him that the legal argument of affecting an entire species was raised, especially in relation to the *Caretta caretta*, because even though over the years individual members of this species could eventually be affected by the Project, this would not have affected the entire species. Indeed, the Federal Government itself had allowed a mortality limit of 90 turtles as a consequence of bycatch.[461]

366. For his part, Mr. Alberto Villa Aguilar is a biochemical industrial engineer who worked in SEMARNAT for 21 years up to September 2019. In his last position in the DGIRA, as the Director of Evaluation for the Energy and Industry Sectors, he evaluated the MIAs presented by ExO.[462] In relation to Mr. Villa, there are two written witness statements: the first dated 8 May 2020 and the second dated 21 June 2021. There is also his oral statement given during the hearing held on 25 January 2022.

367. The various statements of Mr. Villa present an account that essentially coincides with what was stated by Mr. Flores. Thus, Mr. Villa recalls the following main facts, in line with what Mr. Flores declared:

i. As the DGIRA's Director of Evaluation for the Energy and Industry Sectors, he reviewed the MIAs presented by ExO. During the process of the MIAs EIA, there was a change of Secretary of SEMARNAT, *i.e.*, Secretary Juan José Guerra Abud was replaced by the Undersecretary of Management for Environmental Protection Mr. Rafael Pacchiano. For her part, Ms. Martha García Rivas was appointed as the new Undersecretary replacing Mr. Pacchiano.[463]

ii. Mr. Villa states that, for several months, he and his colleagues reviewed the extensive information provided by ExO with its MIAs. He adds that they held several work meetings, and after receiving the additional information requested from the company, they formed the tentative conclusion that the Project was technically and environmentally viable subject to conditions.[464]

460 Witness Statement of Alfonso Flores Ramírez, ¶ 34.
461 Witness Statement of Alfonso Flores Ramírez, ¶ 35.
462 Witness Statement of Alberto Villa Aguilar, ¶ 2.
463 Witness Statement of Alberto Villa Aguilar, ¶ 5.
464 Witness Statement of Alberto Villa Aguilar, ¶¶ 6, 7.

iii. He also recalls that notwithstanding the conclusion reached, in late March 2016, approximately two weeks before the expiration of the period set by law for SEMARNAT to issue its resolution on the New MIA, Secretary Pacchiano announced that the Project would not be approved. The reason he gave was that one of the people related to the ExO Project had, in a recent meeting with him, "*breached an implicit agreement of cordiality*."[465]

iv. Mr. Villa adds that Secretary Pacchiano ordered them to "*find a reason*" to deny the Project.[466] After receiving this order, they relied on the Project's possible effect on the sea turtles *Caretta caretta* even though their opinion was that there was not enough scientific evidence that the species or its habitat would be affected by the Project.[467]

v. Furthermore, Mr. Villa recalls that immediately following the TFJA's resolution declaring the nullity of SEMARNAT's decision rejecting the New MIA in 2018, they were instructed once again to prepare a new decision denying the Project. This time, Ms. Martha García Rivas, SEMARNAT's Undersecretary, and Mr. Amado Ríos Valdez, her chief advisor, verbally relayed Secretary Pacchiano's decision.[468] Beyond the fact that on this occasion, Mr. Villa and his team had more time to prepare the decision to deny ExO's New MIA, his conclusion remained that there was no technical-environmental basis to deny it.[469]

vi. He, lastly, states that in the case of fishing activities, the Mexican Government issued an agreement that allows incidental killing by fishermen in the Gulf of Ulloa, *i.e.*, as a result of their activity, of up to 90 individual turtles of the *Caretta caretta* species, because the Government considered that this does not jeopardize the viability of the *Caretta caretta* population and much less of the whole species. That demonstrates that the denial of ExO's Project received discriminatory treatment compared to fishing activity.[470]

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465 Witness Statement of Alberto Villa Aguilar, ¶ 8.
466 Witness Statement of Alberto Villa Aguilar, ¶ 9.
467 Witness Statement of Alberto Villa Aguilar, ¶ 10; Second Witness Statement of Alberto Villa Aguilar, ¶ 19.
468 Second Witness Statement of Alberto Villa Aguilar, ¶ 22.
469 Witness Statement of Alberto Villa Aguilar, ¶ 12; Second Witness Statement of Alberto Villa Aguilar, ¶ 21.
470 Witness Statement of Alberto Villa Aguilar, ¶ 13.

368. Thus, based on the above statements of Messrs. Flores and Villa, the Majority draws the following main conclusions:

i. There are two SEMARNAT officials who had direct participation and responsibility in the analysis of ExO's MIAs and in the decisions to deny them in 2016 and 2018, who declare that there were no technical nor environmental reasons to justify these refusals.

ii. Both officials state that the Project's environmental assessment justified its approval, subject to mitigation measures, and that the first draft of the resolution to be issued on ExO's New MIA had been written in that direction.

iii. Both officials declare that the decision to reject the New MIA in 2016 is explained in an instruction by SEMARNAT's Secretary, Mr. Rafael Pacchiano, who had the authority to instruct Messrs. Flores and Villa in this regard, and that the reasons for Mr. Pacchiano's decision to deny the Project were not linked to environmental concerns. Both refer to an incident that occurred between Mr. Pacchiano and an ExO representative. Mr. Flores adds that the ultimate motivation for denying the MIAs was Mr. Pacchiano's concern that the approval of the Project would have a negative impact on his political image.

iv. In the case of the Second Denial of the New MIA, by a decision that was issued on 12 October 2018, both witnesses declare that it was again Mr. Pacchiano who gave the instruction to deny the Project, an instruction that was transmitted almost immediately after the TFJA issued its decision annulling the resolution of 7 April 2016 that rejected the New MIA for the first time.

v. Both witnesses state that the Second Denial of the New MIA also lacked environmental justification beyond the arguments used to give the impression that it did.

vi. In summary, Messrs. Flores and Villa are direct witnesses of the facts that are analyzed in this proceeding, and their accounts coincide in pointing out that ExO suffered the rejection of its MIAs on the two occasions when they were denied, as a result of a decision of SEMARNAT's Secretary, Mr. Pacchiano, which was not

based on environmental considerations but rather on personal motivations unrelated to technical criteria; and that if Mr. Pacchiano had not instructed the DGIRA to reject the Don Diego Project, it would have been approved with conditions.

vii. Such conduct amounts to an action attributable to the government of Mexico, given the functions of SEMARNAT's Secretary carried out by Mr. Pacchiano, which constitutes a seriously arbitrary action and alien to an administrative due process that should have prevailed in the analysis of Claimant's application. Therefore, it constitutes an infringement of the FET standard provided for in NAFTA Article 1105(1) as said provision has been previously interpreted in this Award.

369. It must be pointed out that the foregoing conclusion is preliminary because, prior to giving it a definitive character, it is necessary to analyze, first of all, the credibility of Messrs. Flores and Villa, and in particular, to consider the objections raised by Mexico in this regard insofar as it argues that the Tribunal must dispense with their statements for the various reasons that will be analyzed below. Once the foregoing has been done, and if it is concluded that their statements deserve to be considered, it is appropriate to assess them against the remaining evidence in these proceedings.

iii) Mr. Pacchiano's statements

370. In his written statements of 23 February and 11 October 2021, and also in his oral statement given during the hearing held on 25 January 2022, Mr. Rafael Pacchiano contradicts the declarations of Messrs. Flores and Villa, denying any intervention on his part in relation to the rejections of ExO's New MIA. As far as this matter is concerned, his most relevant declarations are those listed below.

i. First, Mr. Pacchiano states that it is not true that he had political aspirations, as Mr. Flores points out, and consequently, that his work at SEMARNAT has been influenced by that factor.[471] Likewise, he rejects Claimant's allegation regarding the fact that his wife's candidacy for the Senate of the Republic of Mexico could have influenced his supposed decision to reject the Don Diego Project. He explains that the election mechanism by which his spouse was nominated for Senator is

[471] Witness Statement of Rafael Pacchiano Alamán, ¶¶ 9-11; Second Witness Statement of Rafael Pacchiano Alamán, ¶¶ 17-20.

plurinominal, and therefore, her nomination and designation as such did not require campaigns to promote the citizen vote nor to appear on the election ballot, which excludes the possibility that the approval of the Don Diego Project could have affected her nomination and designation.[472]

ii. He then states that the DGIRA is the only specialized body empowered to suspend, modify, cancel, deny, or authorize a MIA request and that when dealing with resolutions of a technical-scientific nature, neither the Undersecretary nor the Secretary of SEMARNAT has any involvement in the final decision that the DGIRA adopts.[473]

iii. Mr. Pacchiano alleges that what was stated by Messrs. Flores and Villa is false since he never gave an order or instruction, neither explicit nor tacit, for the DGIRA to decide whether to authorize or reject the Don Diego Project. He adds that the technical and scientific considerations to deny said project came exclusively from the DGIRA and, therefore, from Mr. Flores.[474] In the same sense, he adds that Mr. Flores was the only one responsible for the resolutions he signed and criticizes him for disavowing any responsibility for them by invoking the alleged instructions on the part of Mr. Pacchiano.[475] Likewise, Mr. Pacchiano states that both Messrs. Flores and Villa were obliged to report any illegality and if they did not do so, it is because such illegality did not exist.[476]

iv. Moreover, Mr. Pacchiano states that it is not true that Mr. Flores informed him that the Don Diego Project was going to be conditionally authorized or that Mr. Flores gave him an "*informative note*" with such information.[477] On the contrary, Mr. Pacchiano points out that the oral communications he received from Mr. Flores

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472 Second Witness Statement of Rafael Pacchiano Alamán, ¶ 20.
473 Witness Statement of Rafael Pacchiano Alamán, ¶¶ 23-30.
474 Witness Statement of Rafael Pacchiano Alamán, ¶ 33; Second Witness Statement of Rafael Pacchiano Alamán, ¶¶ 5, 7.
475 Witness Statement of Rafael Pacchiano Alamán, ¶¶ 34-36.
476 Witness Statement of Rafael Pacchiano Alamán, ¶¶ 36-39; Second Witness Statement of Rafael Pacchiano Alamán, ¶ 13.
477 Witness Statement of Rafael Pacchiano Alamán, ¶ 41; Second Witness Statement of Rafael Pacchiano Alamán, ¶ 11.

in relation to the Don Diego Project always indicated that the Project was not technically or legally feasible.[478]

v. Then, in relation to the meetings that he held with ExO's representatives, Mr. Pacchiano states that it is not true that he asked them to withdraw the Initial MIA presented on 3 September 2014.[479]

vi. Mr. Pacchiano testifies that he held meetings with ExO's representatives in August 2014, on 10 June 2015, and on 18 June 2015. In those meetings he was asked to support the Don Diego Project, to which he replied that the Project would be analyzed carefully and authorized only if it complied with the law and if it was shown that it would not affect the environment.[480] He points out that it is false that he gave instructions to deny ExO's New MIA because he felt personally insulted by one of ExO's representatives at the meeting on 18 June 2015.[481]

vii. In relation to the meetings of March and May 2016 referred to by Claimant, Mr. Pacchiano expresses doubts that any such meetings were held.[482]

viii. Then he refers to a meeting at the end of January 2017, where he insisted before ExO's representatives that they should present technical and scientific information to the DGIRA to obtain approval of the Project.[483]

ix. Regarding the meeting held on 7 June 2017, he points out that on that occasion, he informed ExO's representative, Mr. Fernández de Cevallos, that the Project had been rejected by the DGIRA.[484]

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478 Witness Statement of Rafael Pacchiano Alamán, ¶¶ 41-42; Second Witness Statement of Rafael Pacchiano Alamán, ¶¶ 10, 12, 15.

479 Witness Statement of Rafael Pacchiano Alamán, ¶ 51; Second Witness Statement of Rafael Pacchiano Alamán, ¶ 14.

480 Witness Statement of Rafael Pacchiano Alamán, ¶¶ 54-65.

481 Witness Statement of Rafael Pacchiano Alamán, ¶ 60; Second Witness Statement of Rafael Pacchiano Alamán, ¶ 29.

482 Witness Statement of Rafael Pacchiano Alamán, ¶¶ 66-67; Second Witness Statement of Rafael Pacchiano Alamán, ¶ 30.

483 Second Witness Statement of Rafael Pacchiano Alamán, ¶ 31.

484 Witness Statement of Rafael Pacchiano Alamán, ¶¶ 68-72.

x. Lastly, Mr. Pacchiano refers to the public statements he made after the TFJA's ruling was issued declaring the nullity of the decision that rejected ExO's New MIA, a matter that will be reviewed later.[485]

371. Thus, Mr. Pacchiano's statements entirely contradict the statements by Messrs. Flores and Villa, who testify that he intervened and ordered that ExO's New MIA be rejected by the DGIRA on the two occasions in which this occurred.

iv) Assessment of the credibility of Mr. Pacchiano's statements

372. At this point, it is appropriate to review the arguments that Claimant makes to cast doubt on the credibility of Mr. Pacchiano's statements. A first objection is that Mr. Pacchiano's assertion that he had no involvement in the review of ExO's MIAs is inconsistent with the fact that ExO's representatives met at least six to seven times with Mr. Pacchiano during the evaluation process of the Don Diego Project.[486] In Claimant's opinion, this interaction is meaningless if, indeed, Mr. Pacchiano, as Secretary of SEMARNAT, had no power or influence with respect to the authorization of the MIAs.[487]

373. In this regard, the Majority agrees with the first objection raised by Claimant, since it makes little sense that Mr. Pacchiano would agree to meet on several occasions with ExO's representatives, and they would continue asking him for further meetings, if what was discussed over and over again during those meetings were mere formalities, which had no impact on the decisions regarding the MIAs. If, as Mr. Pacchiano states, he believed and indicated to ExO's representatives that he had no role to play in the evaluation of the Project's MIAs, it is implausible that ExO's representatives would continue seeking his intervention, especially if, as Mr. Pacchiano alleges, he warned them that their requests were outside of the scope of his duties, if not inappropriate. Nor is it plausible that ExO's representatives insisted on meeting with Mr. Pacchiano had he told them from the very beginning, as he claims, that he had no involvement in the matter.

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485 Witness Statement of Rafael Pacchiano Alamán, ¶¶ 74-76; Second Witness Statement of Rafael Pacchiano Alamán, ¶ 35.

486 Claimant's Post-Hearing Brief, ¶ 50; Hearing Transcript, Day 2, p. 507, lines 15-19.

487 Claimant's Post-Hearing Brief, ¶ 50.

374. Moreover, while Mr. Pacchiano states that he lacked the power to intervene in the evaluation of the MIAs and to influence the outcome, the Majority finds that the legal provisions that regulate the matter do not establish the separation or "*wall*" that Mr. Pacchiano alleges exists between the Secretary of SEMARNAT and the Director of the DGIRA. First, nowhere in the regulation governing SEMARNAT, that is, in the Internal Regulations of SEMARNAT, is the fully autonomous or independent nature of the DGIRA established.[488] On the contrary, there are several provisions in the Regulations that state that the Secretary of SEMARNAT is the highest-ranking official in SEMARNAT and is responsible for all matters that correspond to that Secretariat and its Directorates, including the one in charge of EIAs, regardless of whether he is assisted in his functions by other public servants, such as the Director of the DGIRA.[489]

375. Likewise, as stated by Claimant's expert, the analysis of the Regulations leads to the conclusion that there is an institutional relationship among the Secretary of SEMARNAT, the Undersecretary of Management for Environmental Protection, and the Director of the DGIRA, and that the first two possess a series of functions and powers that allow them to supervise the work of the units of SEMARNAT, such as the DGIRA, the most relevant of which for the purposes of the present analysis being the power to dismiss the heads of the General Directorates.[490]

376. Furthermore, Article 19, Chapter VI of the Regulations states the following:

> "*Article 19: The general directors shall have the following generic powers:*
>
> *[…]*
>
> *II. Agree with his immediate hierarchical superior the resolution of relevant matters whose processing is within the scope of his competence and keep him informed in relation to the acts of authority issued by him.*"[491]

488 Second Expert Report by Héctor Herrera Ordóñez, ¶ 36.
489 Second Expert Report by Héctor Herrera Ordóñez, ¶¶ 24-25.
490 Second Expert Report by Héctor Herrera Ordóñez, ¶¶ 27-29.
491 **HH-0001**, RI-SEMARNAT, Article 19 (free translation of the expert).

377. The Tribunal has carefully analyzed the expert reports submitted by the parties, in which each of them argues whether it is possible or impossible for Mr. Pacchiano to interfere with the work of the DGIRA and with DGIRA's decisions.[492]

378. In the view of the Majority, the question goes beyond the formal regulations that frame the scope of action of the Secretary of SEMARNAT and the Director of the DGIRA with respect to the evaluation of a MIA.[493] For the Majority, the question is not who is to be considered legally responsible or competent under Mexican administrative law for the decisions to reject a MIA. The question is different: whether the institutional framework of SEMARNAT made it possible for the Secretary to influence or determine the outcome of the DGIRA Director's decision. In this sense, the Majority concludes that the hierarchical superiority of the Secretary of SEMARNAT with respect to the Director of the DGIRA, including, in particular, the power of the former to remove the latter, does not support Respondent's defense that it was not possible for Mr. Pacchiano to have influenced the decision adopted by the Director of the DGIRA, Mr. Alfonso Flores.

379. Furthermore, the Majority cannot overlook the fact that Respondent did not present as witnesses any of the other officials mentioned by Messrs. Flores and Villa as involved in the process of the assessment of the MIAs. Indeed, if the testimony of Messrs. Flores and Villa was an *ex post facto* fabrication, and therefore it was false that (i) the DGIRA considered approving ExO's MIAs, and (ii) Mr. Pacchiano was the one who instructed them to reverse course and reject the MIAs, one would expect that Mexico would obtain the testimony of the remaining public officials involved in the assessment, who should have had no difficulty in disproving the allegedly false accounts presented by Messrs. Flores and Villa.

380. However, the Undersecretary of Management for Environmental Protection, Ms. Martha García Rivas, who, according to the testimony of Messrs. Flores and Villa, was the person

[492] Second Expert Report by Héctor Herrera Ordóñez, ¶¶ 13-44; Second Expert Report by Solcargo-Rábago, ¶¶ 19-35.

[493] Second Expert Report by Solcargo-Rábago, ¶¶ 26-31.

who transmitted Secretary Pacchiano's instruction to reject ExO's New MIA, did not appear to testify in these proceedings.[494]

381. Mr. Amado Ríos, Undersecretary García Rivas' chief advisor, who was, according to Mr. Villa's statement, the person who transmitted Mr. Pacchiano's order to draft the Second Denial decision of ExO's New MIA, also failed to testify in these proceedings.[495]

382. Likewise, Ms. Consuelo Juárez, attorney at SEMARNAT, to whom Mr. Villa stated that he had expressed his objections to Mr. Pacchiano's instruction to reject the New MIA, also failed to testify.[496]

383. Finally, Ms. Luz Aurora Lenka Ruiz Colín, who had participated in the evaluation of the Don Diego Project together with Messrs. Flores and Villa, and who continues to be an official of SEMARNAT, did not testify either.[497]

384. Thus, of the various people mentioned by Messrs. Flores and Villa as participating in the execution of Mr. Pacchiano's instructions (Ms. García Rivas, Mr. Ríos, and Ms. Juárez), none appeared to support Mr. Pacchiano's version that the statements of Messrs. Flores and Villa were false. Furthermore, the official who worked with Messrs. Flores and Villa on the evaluation of ExO's MIAs and who remains at SEMARNAT (Ms. Luz Aurora Lenka Ruiz Colín) did not appear either to deny the statements by Messrs. Flores and Villa that the DGIRA intended to approve the Don Diego Project.

385. The Majority is conscious that the absence of statements by the individuals referred to above is not conclusive evidence in and of itself, but such absence of rebuttal testimony, in the context of the entirety of the evidence on the record, is at a minimum surprising and undermines the credibility of Mr. Pacchiano's testimony.

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494 Witness Statement of Alberto Villa Aguilar, ¶ 12; Second Witness Statement of Alberto Villa Aguilar, ¶ 22; Hearing Transcript, Day 2, p. 272, lines 9-19; Witness Statement of Alfonso Flores Ramírez, ¶¶ 20, 29; Second Witness Statement of Alfonso Flores Ramírez, ¶ 32; Hearing Transcript, Day 7, p. 1626, lines 9-19; p. 1629, lines 1-3.

495 Witness Statement of Alberto Villa Aguilar, ¶ 12; Second Witness Statement of Alberto Villa Aguilar, ¶ 22; Hearing Transcript, Day 2, p. 273, lines 4-9; p. 331, lines 3-6.

496 Hearing Transcript, Day 2, p. 272, line 14-p. 273, line 9; p. 299, line 19-p. 300, line 8; p. 317, line 16-p. 318, line 1.

497 **C-0008**, SEMARNAT Denial Decision, 7 April 2016, p. 235; **C-0009**, SEMARNAT Denial Decision, 12 October 2018, p. 516 (showing Ms. Ruiz Colín's initials and signature, indicating her participation in the drafting).

386. Finally, while Mr. Pacchiano states that he has no influence on, and cannot interfere with, the evaluations of the MIAs, and, specifically, that he did not participate or intervene in the assessment of ExO's New MIA, the evidence is inconsistent with Mr. Pacchiano's testimony. First, an informative note ("*nota informativa*") was issued by SEMARNAT just five days after the first rejection decision was annulled by the TFJA, announcing that the Project would be rejected again. This publication will be analyzed below, but it is important to note here that the informative note was issued or at least authorized by Mr. Pacchiano. Second, Claimant submitted a video[498] and its transcription[499] showing Mr. Pacchiano giving a press conference one month before the second decision of the DGIRA regarding ExO's New MIA was issued. During the press conference, Mr. Pacchiano states that the New MIA would be rejected again. This conduct by Secretary Pacchiano of publicly announcing the rejection of ExO's New MIA, before the decision was even issued, is inconsistent with his statements on the independence and the autonomy of the DGIRA and his alleged inability to intervene in or influence the DGIRA's decisions.

387. Therefore, the Majority concludes that there are sufficient reasons to doubt the credibility of the statement given by Mr. Pacchiano. Moreover, there are sufficient reasons to conclude that the testimony of Messrs. Flores and Villa is credible. Given that the testimony of Mr. Pacchiano is directly opposed to the testimony of Messrs. Flores and Villa and that it is impossible to accept both versions of the facts, it is the opinion of the Majority that the account of Messrs. Flores and Villa is credible and that of Mr. Pacchiano is not; and that the version of the facts presented by Messrs. Flores and Villa is plausible while the version presented by Mr. Pacchiano is not. Thus, the Majority accepts as truthful the testimony of Messrs. Flores and Villa.

388. The remaining evidence available in the record of this proceeding is fully consistent with the accounts of Messrs. Flores and Villa, as discussed below.

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498 **C-0176**, Los Cabos, September 2018; **C-0174**, Transcript of Mr. Pacchiano Public Statements, September 2018.

499 **C-0174**, Transcript of Mr. Pacchiano's Public Statements, September 2018.

v) The decision of the TFJA

389. A second central pillar that helps to confirm the existence of the facts as alleged by Claimant is the ruling of the TFJA, which, upon reviewing the first DGIRA decision rejecting ExO's New MIA, made factual and legal determinations that are relevant to the present case. This ruling strongly criticizes the DGIRA's decision, both concerning the alleged environmental risks identified by DGIRA and its rejection of the mitigation measures proposed by ExO. Those criticisms, by Mexico's own courts, are consistent with Claimant's assertions and the statements of Messrs. Flores and Villa that the DGIRA decision was not based on scientific and legal grounds but rather on mere pretexts.

390. Indeed, among the various criticisms made by the TFJA on how DGIRA's rejection decision addressed the risks and the environmental impact of the Don Diego Project, a series of pronouncements stand out. Those pronouncements by the TFJA demonstrate that the decision rejecting the New MIA clearly lacked proper analysis and substantiation.

391. The TFJA begins by analyzing the risks identified in the DGIRA's rejection decision. The TFJA notes that one of those risks, according to the environmental authority, was that the Don Diego Project would be located in a significant area of the habitat of the *Caretta caretta* sea turtle as well as four other species of sea turtles that are in danger of extinction. The TFJA also points out that the environmental authority, in order to support its conclusion of the probable damage to the habitat referred to above, cited geographic and statistical data which, in the opinion of that authority, demonstrated the existence of that risk. Finally, the TFJA indicates that the rejection decision refers to the reproductive cycle of the *Caretta caretta* turtle and its presence in the area of Ulloa Bay.

392. The TFJA's ruling criticizes those statements as follows:

> "*[I]t should be noted that this Court finds that such statements are* ***inaccurate and insufficient*** *to consider the requirement of substantiation that the authority's decision shall observe as fulfilled, since they lack any scientific support to corroborate its assertions.*"[500]
>
> "*Therefore, in this case, the defendant authority was obliged not only to express the reasons why it considered that the project 'Dredging of Black Phosphate Sands in the Don Diego Deposit' is*

[500] **C-0170**, TFJA Ruling, 21 March 2018, p. 138 (emphasis in the original).

> *located within the habitat of the endangered species it refers to, but also to* ***support its decision with scientific studies that denoted the veracity of its expressions****, which did not occur in that way.*"[501]
>
> "*Therefore, if, as in this specific case, when the defendant authority issued the resolution through which it denied the environmental impact authorization requested by the plaintiff, it did not provide the defendant with the elements or the scientific reasoning on the basis of which it reached the conclusion that its specific act complies exactly with the provisions of the legal articles it claimed as the basis for its action, its decision* ***becomes unlawful****.*"[502]

393. The TFJA's ruling proceeds to note that ExO indicated in its New MIA and in subsequent instances that the *Caretta caretta* turtles are located mainly in surface waters and that finding a turtle at a depth of 80 meters, which is where the Don Diego deposit is located, would be exceptional, so that the Don Diego site does not affect the habitat for *Caretta caretta* turtles.[503] Yet, the administrative authority "***did not make any pronouncement on such arguments in the contested resolution*** *… and it only stated that the project area is located within the habitat of the turtles in question*."[504]

394. Further, regarding the dredging activity and the alleged impact that, according to the administrative authority, it would have on the species that develop in that area, the TFJA's decision, accepting Claimant's arguments that there is no justification to support these conclusions, stated the following:

> "*[I]t is noted that* ***the authority does not specify which species of benthic organisms that develop in the dredging site would be affected****, why this would be the case, and if such impact is significant, as well as why it considered that this impact is direct on the turtle species in danger of extinction, for which reason this Court considers that the plaintiff is also* ***right****.*"[505]

395. The TFJA also criticized the environmental authority's conclusion in its rejection decision regarding the environmental impact of subsequent return of the suctioned sediment to the seafloor. The TFJA's decision criticized the reasons and grounds given by the authority to support that conclusion, pointing out that:

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501 **C-0170**, TFJA Ruling, 21 March 2018, p. 140 (emphasis in the original).
502 **C-0170**, TFJA Ruling, 21 March 2018, p. 141 (emphasis in the original).
503 **C-0170**, TFJA Ruling, 21 March 2018, p. 148.
504 **C-0170**, TFJA Ruling, 21 March 2018, p. 148 (some emphasis added).
505 **C-0170**, TFJA Ruling, 21 March 2018, p. 148 (emphasis in the original).

> "*In the opinion of this Collegiate Court, the foregoing statements are vague, imprecise and insufficient to consider that the contested resolution complies with the due motivation that shall be observed in the decision of the environmental authority, since said official simply stated that the suction of the marine sediment, under the terms stated by the plaintiff, implies a significant environmental impact for the species developed therein, without specifying in any way, what, in its opinion, the environmental impact referred to consists of, why it considered such impact to be significant, or to which species it refers to.*"[506]
>
> "*In addition to the foregoing, it should be noted that the defendant, when issuing the resolution originally appealed, decided that the aforementioned dredging, in its phase of returning sediments to the seafloor, disrupts the habitat of benthic organisms, without expressing the* ***reasons or scientific studies on which it based its hypothesis****, and only justified its assertion by stating that, in its opinion, the deposit of such sediments does not necessarily take place in the suction area and the volumes that are returned cover areas and organisms not initially affected, without providing any additional element* ***to explain the scientific information it used or on which it was based*** *to arrive at such conclusion.*"[507]

396. Finally, the TFJA discussed how the unsubstantiated conclusions in the rejection decision regarding the alleged existence of environmental risks affected Claimant and the Don Diego Project. In that regard, the TFJA points out the following:

> "*[I]t is clear that the defendant authority, by issuing the originally appealed resolution under the aforementioned terms, violated the right of defense of the plaintiff by not providing it with sufficient elements on which it based the denial of environmental impact that is contested in this proceeding, thus leaving it in a state of defenselessness by forcing it to fight inaccurate facts lacking a scientific basis, hence the* ***GROUNDS*** *of the arguments of the plaintiff under study [are founded]*."[508]

397. The TFJA's ruling also criticizes the manner, in which the administrative authority weighed and dismissed the mitigation measures proposed by ExO. The TFJA concludes that the rejection decision did not provide adequate justification as to why the mitigation

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506 **C-0170**, TFJA Ruling, 21 March 2018, p. 149 (emphasis omitted).

507 **C-0170**, TFJA Ruling, 21 March 2018, p. 149 (emphasis in the original).

508 **C-0170**, TFJA Ruling, 21 March 2018, p. 150 (emphasis in the original). The words "*are founded*" are missing in the English version but contained in the original Spanish version.

activities proposed by ExO in its New MIA would not be sufficient to protect the habitat of the *Caretta caretta* turtles.[509]

398. The TFJA further criticized the rejection decision for determining that the "*Marine Turtle Protection Program in Ulloa Bay*" proposed by ExO as a mitigation measure was based on a baseline that was not supported by quantitative data. According to the environmental authority, the applicant acknowledged the existence of five species of sea turtles but only provided data on one species without submitting data on the rest, particularly the *Caretta caretta* turtle.[510] The TFJA pointed out, however, that:

> "*the statements made by the judge in the appealed resolution are obscure, confusing and contradictory, inasmuch as from the review of the various documents comprising the file of this claim, this Collegiate Court notes that* ***both in the MIA, and in the additional information, as well as in its appeal, claim and extension of claim, the plaintiff in this claim did refer to the existence of*** **Caretta caretta** ***(loggerhead) sea turtles in the project area****, and even provided statistical and quantitative data in this regard.*"[511]

Thus, the TFJA emphasized that ExO actually provided in its New MIA information and statistical and quantitative data about the Loggerhead sea turtle or *Caretta caretta*, which the environmental authority ignored.[512]

399. The TFJA further stated that this failure of the environmental authority to assess the information actually submitted by the applicant:

> "***denotes the lack of study by the defendant authority, who in the resolution originally appealed, provided insufficient substantiation in connection with this point****, since it omitted to fully assess the information provided by the plaintiff during the MIA assessment procedure, in connection with the project of Dredging of Black Phosphate Sands at the Don Diego Deposit, hence the aforementioned* ***resolution also becomes illegal, for the reasons previously mentioned****.*"[513]

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509 **C-0170**, TFJA Ruling, 21 March 2018, p. 151.
510 **C-0170**, TFJA Ruling, 21 March 2018, p. 151.
511 **C-0170**, TFJA Ruling, 21 March 2018, p. 151 (emphasis in the original).
512 **C-0170**, TFJA Ruling, 21 March 2018, pp. 151-162.
513 **C-0170**, TFJA Ruling, 21 March 2018, p. 165 (emphasis in the original).

400. The TFJA then analyzed the different mitigation measures proposed by ExO and the reasons given by the environmental authority in its rejection decision questioning the viability and effectiveness of those measures.[514] In this regard, the TFJA stated that:

> "*this Collegiate Court considers that in this case, the defendant authority, in the contested resolution, dismissed outright the mitigation measures proposed by the plaintiff,* ***without specifying the reasons it took into consideration, as well as the scientific and/or environmental data on which it based such decision****, thus making only a series of dogmatic statements in its attempt to justify the denial of the authorization of the MIA, requested by the plaintiff company.*"[515]

401. The TFJA reiterated that the environmental authority failed to analyze ExO's information and arguments set forth in the New MIA, since although the company pointed out in its application that the *Caretta caretta* turtles are located on the surface and therefore not at the depth of the Don Diego deposit, this circumstance was not considered in the rejection decision.[516] In this regard, the TFJA added the following:

> "*[T]his Judge notes that* ***the authority in its resolution of denial of the MIA, only considered the habitat of the turtle species in question in a two-dimensional plane*** *(latitude and longitude), i.e, the authority only limited itself to locating the dredging area of the project on a map of Ulloa Bay in Baja California Sur, where - so considered - it is evident that the turtle habitat is indeed located; the foregoing,* ***without considering that the dredging activity would be carried out on the seabed, which involves considering that the habitat of said species is spatially located in three dimensions*** *(latitude, longitude and* ***depth****), and therefore, it failed to analyze the petitioner's argument in the sense that the dredging would be carried out at a depth greater than that in which the habitat is located, which in general corresponds to the turtle species that develop there.*"[517]

402. Finally, the TFJA, commenting on the various omissions in the decision, reiterates its criticisms of the rejection decision in the following terms:

> "*It should be noted that all of the above* ***denotes a lack of study by the environmental authority with respect to the issues raised in the Environmental Impact Statement****, which according to Article 35 of*

514 **C-0170**, TFJA Ruling, 21 March 2018, pp. 165-166, 141.
515 **C-0170**, TFJA Ruling, 21 March 2018, p. 166 (emphasis in the original).
516 **C-0170**, TFJA Ruling, 21 March 2018, pp. 166-167.
517 **C-0170**, TFJA Ruling, 21 March 2018, p. 167 (emphasis in the original).

> *the General Law of Ecological Balance and Environmental Protection, it is required to analyze, prior to issuing of its final resolution, which can only be issued by the environmental authority* ***when it has previously assessed the document which contains the respective statement****, therefore,* ***in order to consider the resolution that denies the execution of the work or activity requested as duly grounded and reasoned, the aforementioned manifestation shall be previously assessed.***"[518]

> "*[i]t cannot be considered that the contested resolution, through which the defendant authority denied the environmental impact authorization requested by the plaintiff,* ***is duly based or reasoned,*** *if as in this case, the authority* ***failed to analyze in its entirety and answer the points contained in*** *the* ***Environmental Impact Statement***."[519]

403. The pronouncements of the TFJA discussed and quoted above, and the conclusions it reached, are quite relevant to the analysis performed by this Tribunal. Indeed, the decision of this Mexican federal judicial body, which was adopted unanimously by its 11 members and which declared the nullity of the decision to reject the New MIA, concludes that the environmental authority decided to deny the Project: (i) based on inaccurate, vague, and imprecise statements; (ii) lacking scientific support; (iii) without indicating the studies on which it based its assumptions; (iv) omitting to refer to essential arguments put forward by ExO; (v) without specifying the alleged harmful environmental impact or why such impact would be significant; (vi) failing to review the information provided by the applicant; (vii) without indicating its reasons to reject the mitigation measures proposed by the applicant; and (viii) formulating dogmatic statements in its attempt to justify the denial.

404. In sum, the TFJA explicitly, and unanimously concluded that the rejection decision was of poor quality and had serious flaws from a scientific and environmental perspective. Thus, the DGIRA's decision was not the result of a reasoned, diligent and thoughtful study of the information on the Don Diego Project submitted for evaluation; it was not the product to be expected of an evaluation by environmental officials with years of experience in the field. On the contrary, all the evidence demonstrates that it was a swift decision, devoid of scientific bases that only arrived at the conclusion of rejecting the Project through dogmatic

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518 **C-0170**, TFJA Ruling, 21 March 2018, p. 168 (emphasis in the original).
519 **C-0170**, TFJA Ruling, 21 March 2018, p. 170 (emphasis in the original).

and unsubstantiated statements. It is significant that this decision was not able to survive the scrutiny of an independent judicial body, such as the TFJA, which was compelled to criticize it in the very severe terms indicated above.

405. In this context, it is also significant that the analysis and the conclusions of the TFJA are consistent with the testimony of Messrs. Flores and Villa. To recall, Messrs. Flores and Villa testified that the rejection decision was prepared in a hasty manner, at the last minute, that the rejection lacked any scientific basis and was merely pretextual. By contrast, if the rejection decision was the result of a technical, objective analysis and was the product of a study by a specialized technical and scientific body that was not affected by any extraneous circumstances or influence, which is Mr. Pacchiano's version of events, it is highly implausible that the decision would contain such a high level of errors, omissions, and biases, as determined by the TFJA.

406. Finally, it should be remembered that according to Mexico's account, the testimony of Messrs. Flores and Villa is false and their version that Mr. Pacchiano instructed them to reject ExO's MIAs is nothing more than an ex post facto invention. Mexico's account of the events, however, is flatly contradicted by an independent judicial body, |Mexico's own federal court, which analyzed the rejection decision as issued and concluded that the decision was fraught with severe errors and omissions. The TFJA's ruling is entirely coherent with Claimant's narrative and the testimony of Messrs. Flores and Villa.

vi) SEMARNAT's rejection of ExO's Request for Review

407. A further episode confirms the testimony of Messrs. Flores and Villa and the facts as asserted by Claimant. As discussed earlier, the First Denial was issued by the DGIRA on 7 April 2016. Faced with the rejection, ExO filed a Request for Review before SEMARNAT on 29 April 2016.[520]

408. In support of its petition, ExO submitted a document called "*Technical and Scientific Report*," which contained a series of different papers prepared by Dr. Richard Newell, Dr. Douglas Clarke, Boskalis, Merello Marine Consulting, and others. The document sought

[520] **C-0149**, Letter from ExO to SEMARNAT, 29 April 2016.

to address the analysis and conclusions contained in the rejection decision.[521] ExO also offered an expert report in marine biology to be prepared by Dr. Newell, Dr. Clarke, and Dr. Espósito.[522]

409. On 27 February 2017, the Undersecretary of SEMARNAT, Ms. Martha García Rivas, issued a resolution rejecting the Request for Review and maintaining the decision to reject the New MIA.[523] The reasons the authority gave for rejecting the evidence provided and offered by ExO with its Request for Review speak volumes. These reasons are striking in terms of the arbitrariness or capriciousness they involve.

410. In the case of the "*Technical and Scientific Report*," Undersecretary García Rivas decided not to assign to it any evidentiary value because of some formal discrepancies regarding the identity and the number of people who participated in the preparation of that document.[524]

411. First, the environmental authority noted that on page 1 of the "*Technical and Scientific Report*," there was a person named John Oppermann, who was listed as the Vice President and Director of Research and Scientific Services of Odyssey Marine Exploration, Inc. The authority pointed out, however, that the certification by the Deputy Consul of Mexico in Orlando, Florida, which ExO attached to its Request for Review, stated that the person who appeared before the Deputy Consul and claimed to have signed the "*Technical and Scientific Report*" was not Mr. John Oppermann, but Mr. John Michael Oppermann. Moreover, the Undersecretary adds that Mr. Oppermann's signature on the aforementioned report is different from what appears on the certificate.[525]

412. Further, in support of her decision to deny any evidentiary value to the "*Technical and Scientific Report*," Undersecretary García Rivas indicated that the introduction to the Report stated that ten different comments written by different experts were made available to SEMARNAT and the DGIRA, which is different from the cover letter to the Report, where only eight persons are mentioned. The resolution thus stated: "[i]*n other words,*

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521 **C-0151**, Technical and Scientific Report, 9 June 2016.
522 *See* **C-0170**, TFJA Ruling, 21 March 2018, p. 186.
523 **C-0160**, SEMARNAT Denial Resolution, 27 February 2017.
524 **C-0160**, SEMARNAT Denial Resolution, 27 February 2017, pp. 41-42.
525 **C-0160**, SEMARNAT Denial Resolution, 27 February 2017, p. 42.

the[re] are different scientists in each of these documents, which is sufficient reason to not give it probative value."[526]

413. Likewise, in the case of the expert report in marine biology, Undersecretary García Rivas refused to allow the production of the said report as evidence because the experts were foreign nationals, which allegedly would be inconsistent with Mexican regulations on the practice of certain professions.[527] The rejection of this expert report offered by ExO with its Request for Review was only communicated to it in the final resolution rejecting the said appeal.

414. It was based on these reasons that Undersecretary García Rivas decided to discard and refused to analyze the evidence that ExO submitted and offered in support of its Request for Review. It is impossible to characterize those "*reasons*" as anything other than pretextual and arbitrary.

415. The TFJA's decision also reviewed and analyzed the above determinations of the environmental authority and it, too, found arbitrary the actions of the Undersecretary rejecting the Request for Review.

416. Specifically, after quoting the Denial Resolution in the part where it rejects the evidence provided and offered by ExO for the aforementioned reasons,[528] the TFJA states the following:

> "*Having stated the foregoing, this Court finds that the* ***plaintiff is right*** *in pointing out that* ***such actions of the defendant authority constitute an arbitrariness that violates the norms of due process****, to its detriment.*"[529]

417. Then, focusing on the reasons given by Undersecretary García Rivas for rejecting the "*Technical and Scientific Report*," the TFJA explains its conclusion that the rejection was arbitrary in the following terms:

> "*The foregoing is said, since, on the one hand, the decision of the defendant authority is inappropriate since it does not grant any evidentiary value to the private documentary evidence that the appellant submitted under number '1', which it called*

526 **C-0160**, SEMARNAT Denial Resolution, 27 February 2017, p. 43.
527 **C-0160**, SEMARNAT Denial Resolution, 27 February 2017, p. 45.
528 **C-0170**, TFJA Ruling, 21 March 2018, pp. 181-186.
529 **C-0170**, TFJA Ruling, 21 March 2018, p. 186.

> *'**TECHNICAL AND SCIENTIFIC REPORT**', under the argument that the name of the person who signed such report, in its capacity as Vice President and Director of Scientific and Research Services of Odyssey Marine Exploration, Inc. namely: **John Oppermann**, is not the same person named **John Michael Oppermann**, who was referred to in the Certification at the Request of a Party carried out by the appointed Consul of Mexico in Orlando, Florida, USA, order ORL/02/16, dated June 6, 2016, as the petitioner of the certification of said report, from which (its signature) is identical to that of the copy of the passport of the latter.*"[530]
>
> "*This, since the defendant authority avoided analyzing such evidence, by dogmatically determining that they were different persons, pointing out as the only element for its actions, an alleged difference between the names and signatures contained in the aforementioned documents.*"[531]
>
> "*Likewise, the inconsistency, which according to the authority, it found in the number of persons that participated in the preparation of the 'Technical and Scientific Report', regarding which it states that it noted that in said document 10 persons were mentioned as responsible for its authorship, and that nevertheless, in the submission of said evidence made in the writ of revocation of the appellant, now plaintiff, it was stated that the elaboration of said report would be in charge of only 8 persons, and that the authority considered this to be a sufficient reason to not give it any evidentiary value; is likewise inappropriate.*"[532]

418. Likewise, regarding the rejection of the expert report in marine biology, the TFJA points out, first, that the authority "***should have ruled regarding the expert opinion evidence provided by the plaintiff, during the evidence stage of such appeal, and not as it did, until the resolution of the merits of the appeal***."[533]

419. Then, the TFJA supplements its criticism by pointing out that:

> "*[i]n addition to the foregoing, it should be emphasized that the dismissal made by the defendant authority with respect to the expert opinion evidence on marine biology, in itself is illegal, since the defendant authority, in providing the reasons and grounds on which it based such dismissal, stated that its decision was due to the fact that the experts appointed by the plaintiff are of **foreign nationality**, and therefore, lack the requirements set forth in articles 15, 17, 23,*

530 **C-0170**, TFJA Ruling, 21 March 2018, pp. 186-187 (emphasis in the original).
531 **C-0170**, TFJA Ruling, 21 March 2018, p. 187.
532 **C-0170**, TFJA Ruling, 21 March 2018, p. 187.
533 **C-0170**, TFJA Ruling, 21 March 2018, p. 188 (emphasis in the original).

> *24, 25 first paragraph, 26 and 29 of the Regulatory Law of Article 5 of the Constitution, to be able to exercise the profession referred to,* ***without providing the reasoning that led it to conclude that said persons, in effect had foreign nationality****, and that for that reason they did not comply with the requirements for the exercise of the profession involved in the matters on which such expert opinion evidence is subject.*"[534]

420. The pretextual and arbitrary nature of the decision to reject ExO's Request for Review further supports the conclusion that the evaluation of ExO's MIA and the procedure followed by SEMARNAT and the DGIRA in that regard was contaminated by considerations alien to a technical, scientific and objective analysis of the actual environmental risks of the Project. All the evidence indicates that the process was aimed at finding pretexts and excuses to reject the arguments and the evidence submitted by Claimant.

421. Finally, it is significant that Ms. García Rivas, Undersecretary of SEMARNAT, who rejected the evidentiary value of the evidence submitted by ExO in the arbitrary manner described above, is the same SEMARNAT official who, according to Mr. Flores, ordered twice the rejection of ExO's New MIA, invoking the instructions given by Mr. Pacchiano.

vii) SEMARNAT's statements after the TFJA's ruling was issued

422. A fourth episode further confirms the above conclusions. The TFJA's ruling on the DGIRA's decision to reject ExO's New MIA not only declared the nullity of that decision but also gave specific instructions to the environmental authority to reassess the information available.

423. Specifically, the ruling of the TFJA states as follows:

> "*In view of the foregoing, in accordance with the provisions of Articles 51, section III and 52, section IV and second paragraph, of the Federal Law of Administrative Contentious Procedure, in view of the illegality observed and given that this is an instance of the individual that cannot remain unanswered, it is appropriate to declare the* ***NULLITY of the contested resolution, as well as the one originally appealed, for the purpose that the authority, within a period of four months from the date this ruling is final, issues a new resolution, that resolves the request for authorization of the***

[534] **C-0170**, TFJA Ruling, 21 March 2018, p. 191 (emphasis in the original).

> ***MIA of the plaintiff in terms of Article 35, fourth paragraph, of the General Law on Ecological Balance and Environmental Protection****, in which it analyzes each and every one of the aspects that were exposed in the application and its scope by the plaintiff, including the mitigation measures proposed by the petitioner in the MIA, and that are detailed in the amended claim of this claim, as well as also analyze, where appropriate, other additional prevention and mitigation measures, so that environmental impacts likely to produce with the project subject to authorization are avoided, mitigated or compensated, so that in the event that the authority determines to authorize the project in a conditional manner— determination that must furnish the legal basis and grounds— in terms of section II of the aforementioned legal provision, the authority conditions said authorization to the compliance of said prevention and mitigation measures; and having done so, the defendant authority adequately furnishes the legal basis and grounds of its determination, based on the most reliable scientific data available, with full freedom in the use of its powers and attributions, the aspects already discussed and specified in this ruling, specifically that it rules on the argument of the plaintiff in the sense that the dredging activities of the project submitted for its consideration would be carried out at a depth that would not affect the habitat of the sea turtles in question, leaving safe the powers of the Secretariat of Environment and Natural Resources (SEMARNAT) to resolve what in law corresponds.*"[535]

424. Based on this judicial instruction, the environmental authority was bound to reassess in a reasoned manner, with adequate factual, scientific, and technical support the alleged environmental risks that it had identified initially, as well as the mitigation measures proposed by ExO and any other additional measures it deemed appropriate. On that basis, the environmental authority had to decide whether to maintain the earlier denial or authorize the Project. The environmental authority was instructed that this time it must specify, "*the legal basis and grounds of its determination, based on the most reliable scientific data available.*"[536] It was reasonable to expect that this process would require a substantial amount of time.

425. However, only five days (corresponding to three business days) after SEMARNAT was notified of the TFJA's ruling, it issued an informative note ("*nota informativa*") in which,

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535 **C-0170**, TFJA Ruling, 21 March 2018, pp. 193-194 (some emphasis omitted).

536 **C-0170**, TFJA Ruling, 21 March 2018, p. 194.

while recognizing that the TFJA's ruling requited it to issue a new resolution, SEMARNAT stated the following:

> "*In this regard, SEMARNAT will comply with the ruling with the firm belief that that project represents a threat to the integrity of the ecosystem, and therefore it* ***will reinforce the technical and scientific justification to confirm the original decision****, that is to say,* ***to deny the authorization***."[537]

426. This was yet another confirmation that the environmental authority was determined to act arbitrarily, in violation of due process and without respect for ExO's rights. While the TFJA's mandate was that SEMARNAT must do its job properly this time, correct its errors, abandon the dogmatic statements on which it had based its rejection of the Don Diego Project, and perform a proper analysis of any environmental risks that might exist and of the mitigation measures proposed by Claimant, as well as any other measures that might be necessary, SEMARNAT's response was to state almost immediately after the TFJA's decision was communicated to it that it would once again reject ExO's New MIA. It is not feasible that in the course of three business days only SEMARNAT carried out the analysis ordered by the TFJA. It is thus evident that this communication by SEMARNAT simply reflected a decision already made at the top of SEMARNAT to reject the Project again, without any further analysis. This is entirely consistent with the testimony of Mr. Villa.

427. Importantly, the informative note was produced by Respondent during the document production phase at Claimant's request.[538] Prior to document production the informative note was not available to Claimant and the Tribunal; there were only references to its existence in some newspapers submitted by Claimant.[539] Accordingly, Mr. Pacchiano indicated in his First Witness Statement that the information in those newspapers was inaccurate and that these articles "*only reflect the journalistic practice of both newspapers*."[540]

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537 **C-0470**, Informational Note (emphasis added).

538 Procedural Order No. 3, 23 April 2021, Annex A, (Request 9); **C-0473**, Reply by SEMARNAT's Transparency Unit, 5 July 2021.

539 **C-0171**, E. Méndez, "Negarán dragado de arenas de Ulloa; resolución de la Semarnat," *Excelsior*, 19 April 2018; **C-0173**, A. Cruz, "Insistirá Semarnat en frenar proyecto minero submarino en BCS," *Crónica Jalisco*, 20 April 2018.

540 Witness Statement of Rafael Pacchiano Alamán, ¶ 73.

428. However, once Mr. Pacchiano was confronted with the actual document, he denied having knowledge of it and referred to a series of circumstances that, according to him, demonstrated that he had nothing to do with the informative note.[541] However, none of those explanations are persuasive: it is not plausible that a SEMARNAT communication of this relevance and significance would have been issued if the Secretary had not given instructions for its issuance or at least approved it.

viii) Third-party opinions and submissions

429. Further, the Majority is compelled to discuss briefly the opinions and submissions made by government agencies and third parties in opposition to the Don Diego Project during ExO's MIA public consultation process. This is necessary because Respondent and, in particular, the dissenting opinion of Prof. Sands assign significant weight to them to explain the rejection of ExO's MIA.

430. The Majority notes that, while referring to the existence of these opinions and submissions, neither Respondent nor Prof. Sands explain what role they played in, or how they contributed to, the analysis performed by the DGIRA when adopting the decision to reject the MIA on the two occasions when the DGRA did so.

431. The Majority also notes that these submissions and third-party opinions are not binding on the DGIRA[542] and, more importantly, that Messrs. Flores and Villa testified that they had considered them during the process of deciding to approve ExO's MIA on the condition that ExO adopted the mitigation and protection measures it had proposed.[543]

432. Finally, and perhaps most tellingly, these submissions and opinions do not appear to have played a role in the rejection of ExO's MIA. As Claimant correctly points out, none of them is cited in "*the analysis portion of either the 2016 or 2018 Denials*." [544]

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541 Second Witness Statement of Rafael Pacchiano Alamán, ¶ 37; Hearing Transcript, Day 2, pp. 481:2-484:18.

542 Second Expert Report by Héctor Herrera Ordóñez, ¶ 70.

543 Hearing Transcript, Day 7, pp. 1625:18-1626:5, 1684:13-1685:9, 1689:3-16; Hearing Transcript, Day 2, pp. 312:2-314:1; Witness Statement of Alfonso Flores Ramírez, ¶¶ 8-11; Second Witness Statement of Alfonso Flores Ramírez, ¶¶ 13, 15-25; Witness Statement of Alberto Villa Aguilar, ¶¶ 6-7, 12; Second Witness Statement of Alberto Villa Aguilar, ¶¶ 15-17.

544 Claimant's Post-Hearing Brief, ¶ 44.

ix) Conclusions on the existence of a violation of the FET Standard

433. On the basis of the above, the Majority agrees with Claimant's account of the facts and concludes that the decisions to reject ExO's New MIA lacked technical, scientific and objective reasons, and instead were taken pursuant to the instruction of Secretary Pacchiano to reject the Project.

434. The Majority reaches this conclusion after analyzing (i) the statements of Messrs. Flores and Villa, which the Majority considers credible; (ii) the statements of Mr. Pacchiano, which lack credibility; (iii) the patently arbitrary reasons given by Undersecretary García Rivas to reject the probative value of the evidence submitted by ExO together with its Request for Review, which confirms that the real reason to reject the Project was an instruction or an order from the top management of SEMARNAT; (iv) the TFJA Ruling of 21 March 2018, which makes clear in an explicit and categorical manner that the first decision rejecting ExO's New MIA was not based on objective and scientific grounds, that it had serious errors and omissions, and based its conclusions on merely dogmatic and pretextual statements; all of which demonstrated that the environmental authority had decided to reject the Don Diego Project regardless of its real impact on the environment and irrespective of the proposed mitigation measures; and (v) the April 2018 informative note, which makes it manifest that SEMARNAT, after the first rejection was overturned by the TFJA, was nevertheless determined to reject again the Don Diego Project, once again refusing to perform the objective and scientific analyses ordered by the TFJA.

435. Based on this background, the Majority concludes that Mr. Pacchiano gave instructions for the rejection of ExO's New MIA on the two occasions that DGIRA had to rule on it; and that those instructions were based on considerations entirely unrelated to environmental concerns, but were driven instead by Mr. Pacchiano's personal or idiosyncratic reasons and his own personal interest. Implausibly, and for lack of any other arguments, Mr. Pacchiano had to deny any involvement in this matter.

436. The Majority does not need to determine whether Mr. Pacchiano's reasons were due to personal interests related to his or his spouse's political career, to personal differences and sour relationship with ExO's representatives, or to fears of public criticism or political pressure, which are the theories suggested by Claimant. Mr. Pacchiano's precise

motivation is irrelevant. What is relevant is that his instruction to reject the Don Diego Project was not driven by technical, scientific or objective considerations of the sort that would have been of concern to the DGIRA, the technical body in charge of evaluating the Project, but rather by his own undisclosed personal reasons; and that his intervention sealed the fate of the Project, which the DGIRA was about to approve (albeit with conditions).

437. Thus, Mr. Pacchiano's conduct, and the conduct of SEMARNAT's top management, which is attributable to Mexico and, therefore, the consequences of which must be assumed by Mexico, amounts to a breach of the standard set forth in NAFTA Article 1105(1). Indeed, Mr. Pacchiano's conduct and, ultimately, the rejection of the Project to which ExO was subjected on two occasions was seriously arbitrary and non-transparent, manifestly unreasonable and capricious, and conduct that did not respect the administrative due process to which Claimant and ExO were entitled.

438. It should be recalled that the FET standard is understood to be

> "*infringed by [a] conduct attributable to the State and harmful to the claimant if the conduct is arbitrary, grossly unfair, unjust or idiosyncratic, is discriminatory and exposes the claimant to sectional or racial prejudice, or involves a lack of due process leading to an outcome which offends judicial propriety—as might be the case with a manifest failure of natural justice in judicial proceedings or a complete lack of transparency and candour in an administrative process.*"[545]

439. The Majority has also specified that the infringement must meet a certain standard, in the sense that it must be a serious, gross, manifest violation and not refer to a mere administrative error.

440. In this case, the Majority concludes that the decision to reject ExO's New MIA was not the result of a mere administrative error or a questionable assessment of the potential environmental impact of the Project and its mitigation measures. Instead, it was the direct result of a manifestly and grossly arbitrary decision by Mr. Pacchiano, who decided that the MIA should be rejected for personal reasons, resulting in a rejection based on pretextual and arbitrary reasons rather than on objective scientific and technical evidence and the law. It was an improper and discreditable decision, lacking transparency and candor and

[545] **CL-0121**, *Waste Management v. Mexico*, Award, ¶ 98.

violating the administrative due process so as to offend judicial propriety. The Majority's conclusions are supported by the harsh criticism of the rejection decision by Mexico's own TFJA, which characterized the decision in very similar terms and ultimately invalidated it.

441. The Majority also makes the following observations regarding Claimant's expectations, to the extent that they may be considered as part of the overall analysis of the FET standard. It is highly plausible that Mr. Flores informed the ExO's representatives that the MIA would be approved,[546] particularly because this is consistent with the positive opinion he had of ExO's application.[547] Much more important, however, is the point that ExO was entitled to expect from Mexico that the EIA procedure for the approval of its project would be conducted in an objective and reasonable manner, in compliance with SEMARNAT's mandate and with due process requirements, and would not be affected by seriously arbitrary and capricious conduct by the environmental authority. This is a legitimate and objective expectation that Claimant was entitled to rely on. As a foreign investor protected by a treaty such as NAFTA and considering also that Mexico has a domestic regulatory framework that requires a scientific, technical and objective assessment of the projects subject to environmental evaluation, it was reasonable for Claimant to expect that its Project would be evaluated in a fair manner and not in an arbitrary and idiosyncratic way. In any event, Claimant's legitimate expectations do not play a central role in the Majority's analysis as Mexico's arbitrary and idiosyncratic conduct constitutes a violation of the FET standard regardless of Claimant's expectations.

442. The Majority does not accept Mexico's defense that the rejection of the MIAs was a legitimate exercise of its regulatory powers.[548] The Majority has already concluded that the rejection of the Project was not driven by objective environmental considerations that Mexico sought to enforce, but rather by personal reasons related to Mr. Pacchiano's own interests. Such action cannot fall under the rubric of legitimate exercise of regulatory powers.

443. Furthermore, this is not a case where the head of the environmental authority of the respondent state alleges that the action to reject the Project was taken on the basis of

546 Witness Statement of Claudio Lozano Guerra-Librero, ¶ 39.
547 Witness Statement of Alfonso Flores Ramírez, ¶ 8.
548 C-Mem., ¶¶ 127-152; Rejoinder, ¶¶ 147-169.

environmental considerations. Instead, Mr. Pacchiano, the head of the environmental authority, denies having had any intervention in the process. The allegation that Mexico legitimately exercised its regulatory powers is also belied by the actions of the DGIRA, which ignored its own objective assessment of the Project in order to comply with Mr. Pacchiano's orders.

444. Finally, the Majority is sensitive to the "*challenges and complexities of taking decisions that may have significant impacts on the environment,* […] *as the fragility of our marine environment is increasingly understood*" as stated in Prof. Sands' dissent.[549] A genuine attempt to regulate for the purposes of protecting the marine environment is to be encouraged.

445. In the view of the Majority, however, in this case, there was no attempt at genuine regulation to protect the marine environment. As discussed in some detail above, the rejection of the Don Diego Project was pretextual, arbitrary and in violation of due process; it was driven by extraneous, personal or political interests. There is no evidence that the rejection was based on objective, technical and scientific studies; on the contrary, the evidence demonstrates that such studies presented by Claimant were ignored or summarily dismissed.

446. The evidence to support the above conclusion is overwhelming. The statement in Prof. Sands' dissent that the Majority's view "*is pure speculation, unsupported by evidence. It is a finding that shocks, the wishful thinking of a couple of arbitrators who have substituted their personal views for the evidence*"[550] ignores the detailed, painstaking, and thorough review of the evidence by the Majority. Moreover, the Majority's views and conclusions are entirely consistent with the rulings and conclusions of Mexico's own federal courts, which have criticized harshly SEMARNAT's rejection decision using language that is very similar and often identical to the characterizations articulated by the Majority in this Award. In that sense, Prof. Sands' statement that the Majority's "*approach […] disrespects*

[549] Dissenting Opinion of Professor Philippe Sands KC, ¶ 59.
[550] Dissenting Opinion of Professor Philippe Sands KC, ¶ 52.

the proceedings before the Mexican courts, and undermines the proceedings which are ongoing,"[551] is surprising to say the least.

447. In sum, attempts to legitimately exercise regulatory powers should be encouraged; conduct that constitutes an abuse of regulatory powers should be sanctioned.

B. OTHER BREACHES CLAIMED BY ODYSSEY

448. As to Odyssey's remaining allegations that the same conduct already discussed in the previous chapter would also constitute (i) a failure to provide full protection and security to Odyssey's and ExO's Investment, violating NAFTA Article 1105(1); (ii) an indirect expropriation of Claimant's and ExO's investments in violation of NAFTA Article 1110(1); or (iii) a violation of NAFTA Article 1102, in that Mexico would have given less favorable treatment to ExO and Odyssey than that accorded to domestic investors, the Majority considers it unnecessary to rule on them.

449. The Majority has already concluded that Respondent is in violation of the FET standard established in NAFTA Article 1105(1), which places Claimant in a position to claim the damages it seeks on its own behalf and on behalf of ExO. It is therefore unnecessary to determine whether there are additional grounds for compensation, given that Claimant's damages claims are not dependent on the type of breach to be found but rather on the existence of any of the breaches it claims.

VI. DAMAGES

A. CLAIMANT'S POSITION

(1) Legal Standard

a) Full Reparation Principle and Fair Market Value

450. Claimant asserts that Respondent's wrongful act caused significant and direct harm to Odyssey and ExO by preventing any exploitation of ExO's concession rights. Claimant argues that the applicable legal standard is that of full reparation as prescribed for in the

[551] Dissenting Opinion of Professor Philippe Sands KC, ¶ 52.

Case Concerning Rights of Minorities in the Factory at Chorzów ("***Chorzów Factory***").[552] Claimant notes that under the full reparation standard, the situation, which would in all probability have existed if the unlawful act had not been committed, should be re-established and the consequences of the wrongful act wiped out. Claimant adds that a monetary award must also wipe out all the consequences of Mexico's unlawful act, which led to the demise of the Project.[553]

451. In addition, Claimant points out that, pursuant to NAFTA Article 1110(2), lawful expropriation is premised upon the provision of compensation equivalent to the fair market value ("**FMV**") of the expropriated investment payable without delay in a freely transferable G7 currency. Claimant further states that the NAFTA does not provide for a specific standard of compensation for breaches of other provisions of Chapter 11, Part A. However, NAFTA tribunals have consistently applied the customary international law standard of full reparation. This standard has been prescribed for in the International Law Commission's Articles on State Responsibility for Internationally Wrongful Acts ("**ARSIWA**"), which mandate that States make full reparation, *i.e.*, compensate all damages, whether material or moral. Claimant further notes that compensation shall cover any financially assessable damage including loss of profits. Therefore, compensation for damages should not be limited to the value of the enterprise on the date when the illegal act occurred but consider any greater value that the enterprise has gained up to the date of the award, plus consequential damages.[554]

452. Furthermore, Claimant refers to the *ADC v. Hungary* and *ATA v. Jordan* cases and asserts that the value of compensatory damages must reflect the contemporaneous value of a wrongfully frustrated investment in light of the host State's commitments. Those State commitments comprise a bundle of rights and legitimate expectations that are integrated with the fundamental value of the frustrated investment.[555]

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552 Mem., ¶ 363, citing **CL-0029**, *Case Concerning Rights of Minorities in the Factory at Chorzów* (*Germany v. Poland*) (PCIJ) Judgment, 13 September 1928, p. 47.

553 Mem., ¶ 371; Reply, ¶ 322.

554 Mem., ¶¶ 361-365, 371.

555 Mem., ¶ 368, citing **CL-0003**, *ADC Affiliate Limited and ADC & ADMC Management Limited v. Republic of Hungary*, ICSID Case No. ARB/03/16, Award, 2 October 2006, ¶ 493; **CL-0012**, *ATA Construction, Industrial and Trading Company v. Hashemite Kingdom of Jordan*, ICSID Case No. ARB/08/2, Award, 18 May 2010, ¶ 96.

453. Claimant contends that the appropriate standard for compensation is the FMV standard. It adds that compensation should reflect the FMV of the entirety of its investment in Mexico as encapsulated in the contemporaneous value of ExO. Citing the *Starrett Housing v. Iran* case, Claimant defines FMV as "*the price that a willing buyer would pay to a willing seller in circumstances in which each had good information, each desired to maximize his financial gain, and neither was under duress or threat*."[556] Moreover, Claimant asserts that the FMV standard has been extensively used by investment tribunals when called upon to calculate damages, both in the context of expropriations and for other violations of international obligations.[557] The FMV standard, as investment tribunals have accepted, enables the injured party to be restored to the situation that would have existed in the absence of the unlawful act. In that regard, Claimant concludes that NAFTA Articles 1102, 1105, and 1110 require Respondent to compensate Claimant as a result of the conduct that breached international law, "*giving full effect to the principle of full reparation*."[558]

b) Valuation Date

454. Claimant argues that the Valuation Date is 7 April 2016, *i.e.*, when SEMARNAT denied the environmental permit for the first time. Claimant adds that "*Compass Lexecon has calculated the compensation payable for Mexico's breaches based on the project's fair market value at a date immediately before SEMARNAT denied the MIA and eviscerated the value of Odyssey's investment*."[559] The denial of the MIA was an unlawful act under NAFTA Articles 1102, 1105 and 1110 and, according to the full reparation standard, the situation that would in all probability have existed if that act had not been committed shall

556 Mem., ¶¶ 373-374; **CL-0109**, *Starrett Housing Corporation, Starrett Systems, Inc. and Others v. Government of the Islamic Republic of Iran, Bank Markazi Iran and Others*, IUSCT Case No. 24, Final Award No. 314-24-1, 14 August 1987, ¶ 277.

557 Mem., ¶ 375, citing **CL-0042**, *Crystallex International Corporation v. Bolivarian Republic of Venezuela*, ICSID Case No. ARB(AF)/11/2, Award, 4 April 2016, ¶ 850; **CL-0071**, *Metalclad Corporation v. United Mexican States*, ICSID Case No. ARB(AF)/97/1, Award, 30 August 2000, ¶ 118; **CL-0017**, *Bernardus Henricus Funnekotter and others v. Republic of Zimbabwe*, ICSID Case No. ARB/05/6, Award, 22 April 2009, ¶ 124; **CL-0056**, *Gold Reserve Inc. v. Bolivarian Republic of Venezuela*, ICSID Case No. ARB(AF)/09/1, Award, 22 September 2014, ¶¶ 674, 681; **CL-0014**, *Azurix Corp. v. Argentine Republic*, ICSID Case No. ARB/01/12, Award, 14 July 2006, ¶ 424; **CL-0035**, *CMS Gas Transmission Company v. Argentine Republic*, ICSID Case No. ARB/01/8, Award, 12 May 2005, ¶ 410; **CL-0037**, *Compañía de Aguas del Aconquija S.A. and Vivendi Universal S.A. v. Argentine Republic*, ICSID Case No. ARB/97/3, Award, 20 August 2007, ¶ 8.2.7.

558 Mem., ¶¶ 375-376.

559 Mem., ¶ 380 (emphasis added).

be re-established. Therefore, it must be assumed that the MIA was granted in the 'but-for' scenario for valuation purposes, and the Valuation Date has to be fixed at the moment immediately before a State's wrongful act to avoid having the value of the investment reduced by those acts.[560]

c) Legally Relevant Damages, Burden of Proof and Standard of Proof

455. The legally relevant damages, Claimant asserts, are all the losses in future profitability that Odyssey would have incurred had the MIA been endorsed, together with the Project's strategic value and ExO's lost opportunity to further explore and develop the phosphate deposit. Claimant suggests that, on the Valuation Date, actual market participants would have calculated the value of the Project using an income approach. Claimant states that Respondent's argument regarding the principle of 'reasonable certainty' does not change this conclusion. A reasonably informed hypothetical buyer would have assessed any uncertainty related to the Project through the calculation of the expected future benefits and the application of a discount rate to these cash flows.[561]

456. As for the burden of proof, Claimant contends that it only needs to provide a basis upon which the Tribunal can reasonably estimate the extent of the loss provided that causation and future profitability have been established. In the same vein, Claimant asserts that it is not required to establish the amount of damages claimed with 100% certainty. Furthermore, Claimant asserts that, firstly, it has met its burden of proof and established that Mexico has indeed caused the damages suffered; and, secondly, that Respondent failed to acknowledge that it has the burden of proving the facts on which its defenses to Odyssey's claims for compensation rest.[562]

457. As for the standard of proof, Claimant asserts that the balance of probabilities should be the applicable standard. Claimant notes that it has met the necessary standard since it was objectively foreseeable that if the MIA was denied, Odyssey would be prevented from exploiting the Concession.[563]

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560 Reply, ¶¶ 341-342.
561 Claimant's Post-Hearing Brief, ¶¶ 206-207.
562 Mem., ¶ 372; Reply, ¶ 334.
563 Reply, ¶ 335.

(2) Calculation of Damages

458. Claimant's opinion is that the damages caused by Respondent's breach of international law consist of (i) the FMV of the investment (which Claimant calls the base valuation), as calculated and explained in the report prepared by Compass Lexecon ("**Compass Lexecon Report**"); (ii) the strategic value of ExO; and (iii) the value of lost opportunity. Thus, in its Post-Hearing Brief, Claimant requests damages amounting to (i) US$ 1,355.0 million (gross of taxes), plus compound interest of 13,95% through 12 September 2022, for a total of US$ 3,137.6 million, plus compound interest of 13,95% through the date when the Tribunal issues its final award, plus post-award interest through the date the award is paid; or alternatively, (ii) US$ 1,065.4 million (net of taxes) plus compound interest of 13,95% through 12 September 2022, for a total of US$ 2,467.06 million, plus compound interest of 13.95% through the date when the Tribunal issues its final award, plus post-award interest through the date the award is paid, declaring that the award in this case is net of applicable Mexican taxes.[564]

459. Claimant proposes an income approach to calculate the *quantum* of damages, suggesting the application of the discounted cash flow ("**DCF**") and the real options valuation ("**ROV**") methods for two different phases within the Project. As a result, Claimant estimated the FMV of the Project at [redacted] prior to a gross-up for Mexican taxes on the Award.[565] Additionally, Claimant is of the view that neither the DCF method nor the ROV method suffice as they lead to a base valuation and, consequently, the Tribunal has to take into consideration the strategic value of the Project as a function of the deposit's size, location, its low-cost profile and world class multi-generational resource along with the lost opportunity to explore and develop the Project and the Don Diego deposit.[566]

460. As an alternative to the income approach, Claimant suggests the application of the comparable transactions method around the Valuation Date. Claimant engaged Agrifos Partners LLC ("**Agrifos**") to estimate the value of the Project using such methodology,

564 Claimant's Post-Hearing Brief, ¶ 374.
565 Claimant's Post-Hearing Brief, ¶¶ 252, 374.
566 Mem., ¶ 414; Reply, ¶ 330.

which estimated that the aggregate value of the Project is ranging from [redacted].[567]

461. Finally, Claimant points out that the market capitalization method and the cost approach proposed by Respondent are not appropriate to calculate the *quantum* of damages. Claimant affirms the use of the market capitalization method is inadequate as a primary valuation methodology and should be considered only and fundamentally to confirm the reasonableness of Compass Lexecon's DCF valuation. Claimant also rejects a cost approach since Respondent has not properly and timely advanced such approach in the arbitration, and since it has explicitly stated that the use of a cost approach would contravene the applicable compensation legal standard.[568]

462. In sum, Claimant asserts that actual market participants would (i) value the Project primarily using the income approach; (ii) consider ExO's strategic value as part of the value of the investment; (iii) consider the lost opportunity to develop the Project as part of the value of the investment; (iv) alternatively to the income approach, value the Project using the comparable transactions method; (v) would not use the market capitalization method as a primary method (and would only use it as a secondary method with sufficient adjustments appropriate to address the method's significant weaknesses); and (vi) would not use the cost approach at all.

a) Income Approach: DCF (Phase I) and ROV (Phase II)

463. Concerning the application of the income approach, Claimant explains that Compass Lexecon quantified the damages using two methods, each applicable to different phases of the Project. [redacted][569] [redacted], Compass Lexecon used the ROV method.[570] Briefly, the Project includes the production of two grades of phosphate product with different concentration (high and low concentration), each to be sold in different markets. [redacted]

567 Reply, ¶ 329.
568 Mem., ¶¶ 377-432; Reply, ¶ 330; Claimant's Post-Hearing Brief, ¶ 209.
569 **C-0084**, Henry Lamb, NI 43-101 Technical Report, 30 June 2014.
570 Mem., ¶ 378.

[redacted][571]

464. Compass Lexecon defines the DCF method as "*the main tool used by valuators and market participants because it allows for the use of tailored market-based assumptions that can best reflect the particularities of the asset under consideration*."[572] Compass Lexecon tested the reasonableness of the assumptions driving that model and made any necessary adjustments, identifying the following as the key drivers of value affecting Phase I of the Project: (i) permitting; (ii) resources and production; (iii) phosphate prices; (iv) operating costs; (v) capital investments; (vi) income taxes, royalties and dividend tax; and (vii) the discount rate (13.95%).[573]

465. Moreover, Claimant defines the ROV method as the valuation procedure that recognizes the buyer's real option, *i.e.*, the right, but not the obligation, to develop Phase II.[574] In this case, "*the real option refers to Odyssey's economically valuable right to further develop the Don Diego concession during Phase II of the Project, assuming that the market conditions and the results of further exploration would have been sufficiently favorable*."[575] Having the inputs needed to determine cash flow and expenses, Compass Lexecon goes on to define other elements needed for a ROV, namely assumptions in relation to (i) the resources; (ii) the phosphate prices; (iii) offshore dredging and processing costs; (iv) onshore flotation plant; (v) the discount rate (15.5%);[576] (vi) the option term; and (vii) the option volatility.[577]

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571 Mem., ¶¶ 381, 385; First Compass Lexecon Expert Report, 4 September 2020, ¶ 3.
572 First Compass Lexecon Expert Report, ¶ 8.
573 Reply, ¶ 489; Claimant's Post-Hearing Brief, ¶¶ 314-324; First Compass Lexecon Expert Report, ¶ 8.
574 Mem., ¶ 400; Reply, ¶¶ 497-507; First Compass Lexecon Expert Report, ¶ 11.
575 Reply, ¶ 497.
576 Reply, ¶ 489. According to Claimant, the discount rate for Phase II is comprised of the same components of Phase I, but the pre-operational risk premium is increased to 5.5%, for a total discount rate of 15.5%. *See* First Compass Lexecon Expert Report, ¶ 115(b).
577 First Compass Lexecon Expert Report, ¶ 12.

466. In selecting and applying these methods, Compass Lexecon relied on (i) the Canadian Institute of Mining, Metallurgy and Petroleum ("**CIM**") guidelines and standards on the valuation of mineral properties ("**CIMVAL**"); (ii) the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists ("**VALMIN**") Code for Public Reporting of Technical Assessments and Valuations of Mineral Assets; (iii) the Project's stage of exploration and development; and (iv) the testimony of other relevant experts.[578]

467. Claimant states that Phase I of the Project has been properly classified as a project in a development stage and it should be valued using an income approach.[579] Claimant considers that the valuation guidelines and definitions of the mining industry and the characteristics of the Project mandate the application of an income approach because the Project met the standard of a *PFS confidence level*. Such level is what is required by the CIMVAL guidelines G4.5 and G4.6, and not necessarily the performance of a formal Pre-Feasibility Study ("**PFS**").[580]

468. Compass Lexecon considered the fact that Odyssey and ExO were not planning to divest the Project when SEMARNAT denied the MIA and they did not package "*the information that would otherwise feed into a formal Pre-Feasibility Study*."[581] However, Claimant asserts that the collective view of the industry and technical experts was that the Project was indeed at a PFS level. Moreover, Claimant contends that Respondent failed to address Odyssey's evidence of technical feasibility, production rates, capital expenditures ("**CAPEX**") and operating expenditures ("**OPEX**"). All these factors would demonstrate the feasibility of the Project.[582] Hence, the evidence of feasibility fits the definition of a development project. Furthermore, Claimant stresses that the CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines for Industrial Minerals provides that "*where production has not yet commenced, … the lack of a formal pre-feasibility or*

578 Mem., ¶ 382; Claimant's Post-Hearing Brief, ¶¶ 215-218.
579 Mem., ¶¶ 388-390; Claimant's Post-Hearing Brief, ¶¶ 219-222.
580 Reply, ¶¶ 373-375; Claimant's Post-Hearing Brief, ¶¶ 223-224.
581 Mem., ¶ 386.
582 Reply, ¶ 357.

feasibility study with respect to a venture should be clearly communicated to current and potential stakeholders as this may be considered a risk factor."[583]

469. Even if the Tribunal considers the Project were not at a PFS level of development at the Valuation Date, Claimant affirms that it was at least in a pre-development stage or in a *Mineral Resource Property* stage.

470. In case the Project is characterized as a mineral resource property, Claimant asserts that the income approach could still be an adequate valuation method.[584] CIMVAL and VALMIN indicates that, "*in some cases*," it is appropriate to apply an income approach in such stage of development.[585] While CIMVAL and VALMIN do not define what is understood by "*in some cases*," Claimant argues that such case occurs when all of the information necessary to prepare a formal PFS exists, but the owner is waiting to receive its gating permit before it commissions a formal PFS or feasibility study ("**FS**"), as was the case here.[586]

471. In sum, Claimant proposes that the Tribunal should characterize the Project as being in a development stage. Nevertheless, if it defines it as a Mineral Resource Property, the income approach would still be appropriate to value damages in any of these scenarios.

472. Given that the Project is technically and economically viable, Claimant argues that both the drivers of project value and income in mining projects can be forecasted with a reasonable degree of certainty. Claimant asserts that the Project's profitability can be reasonably expected by showing that (i) the methods for quantifying and characterizing resources is well established, the quantity and quality of the minerals can be estimated independently, and provide a reliable basis for input assumptions; (ii) the mining and processing engineering, the production plan for the Project and technology to be used are reasonable and can be independently validated; (iii) in relation to costs and market considerations, the output is sold in developed international markets reducing revenue uncertainty, market information informs future pricing and provides an objective basis for future cash flows and detailed information about anticipated CAPEX and OPEX, and

583 **WGM-0002**, CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines for Industrial Minerals, 23 November 2003, p. 6 (emphasis added).
584 Reply, ¶ 382; Second Compass Lexecon Expert Report, 29 June 2021, ¶ 46.
585 **C-0196**, CIMVAL Standards and Guidelines 2003, pp. 21-22; **C-0195**, VALMIN Code 2015, p. 29.
586 Claimant's Post-Hearing Brief, ¶ 246.

production schedules have been developed and can be independently validated; and (iv) the market for phosphate products, particularly of the Project's flotation feed product, could likely be developed.[587] Additionally, Claimant affirms that commodity-based business lends itself more easily to a lost profits analysis because of the success of the Project's exploration campaign, which is the major risk of such an investment; the very commodity nature of the product at stake; and the previous detailed mining cashflow analysis. Claimant states that these conclusions, among other decisions, have been endorsed by the tribunal in *Gold Reserve v. Venezuela*.[588]

473. Compass Lexecon addressed the expected total production of Phase I, estimating it at [redacted].[589] Based on that figure, Claimant asserts that after implementing the DCF model and making necessary adjustments, the value for Phase I of the Project is [redacted] as of the Date of Valuation prior to a gross-up for Mexican taxes on the Award.[590]

474. Concerning Phase II of the Project, Compass Lexecon applied the ROV method. For Compass Lexecon, as Claimant explains, the earlier stage of development of Phase II compared to Phase I was based on substantial resources and, in relation to operational considerations, Phase II would be based on the same offshore technology as Phase I. Such technology guarantees a low extraction cost and the sale of the product.[591] Compass

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587 Mem., ¶¶ 390, 394; Reply, ¶¶ 471-488; Claimant's Post-Hearing Brief, ¶¶ 256-313.

588 Mem., ¶¶ 391-395, citing **CL-0056**, *Gold Reserve v. Venezuela*, Award, ¶ 830: "*[a]lthough the Brisas Project was never a functioning mine and therefore did not have a history of cashflow which would lend itself to the DCF model, the Tribunal accepts [. . .] that a DCF method can be reliably used in the instant case because of the commodity nature of the product and detailed mining cashflow analysis previously performed.*"

589 Mem., ¶ 401. For this estimation, Compass Lexecon made the following assumptions: [redacted]

590 Claimant's Post -Hearing Brief, ¶ 252.

591 Mem., ¶ 399.

Lexecon also addressed the expected total production of Phase II, estimating it at [redacted].[592] Based on Compass Lexecon conclusions, Claimant estimates the FMV of Phase II at [redacted].[593-594] Thus, by adding the FMV expressed by Claimant for Phases I and II, Claimant calculates the FMV of the Project at [redacted].[595]

475. In its Reply, Claimant takes issue with Respondent's objections to its valuation. Claimant argues that Respondent disregarded its evidence, mischaracterized its position and misapplied legal and industry standards.[596] Claimant also objects the factual considerations advanced by Respondent arguing that (i) the Project was at a significantly more advanced stage than Respondent seeks to portray and that, in any case, the MIA was the *gateway permit* whose approval would naturally have caused the admission of the other permits of the authority; (ii) there is sufficient evidence to establish a *presumption of continuity* from the geological formation of the deposit and that the observation that *other* offshore phosphate deposits have not entered into commercial productions is causally disconnected from the MIA denial; (iii) Claimant's personal expertise or ability to develop and exploit the phosphate deposits is not a factor on which the FMV is based; (iv) the Project does not

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592 Mem., ¶¶ 401-405; First Compass Lexecon Expert Report, September 4, 2020, ¶¶ 96-100. For this estimation, Compass Lexecon introduced several assumptions, such as: [redacted] Mem., ¶ 406.

593 [redacted] as of the option purchase date as stated in the First Compass Lexecon Expert Report, ¶ 13.

594 Claimant's Post-Hearing Brief, ¶ 252.

595 Claimant's Post-Hearing Brief, ¶ 252.

596 Reply, ¶¶ 322-325, 358-384.

use a novel and unproven technology, but conventional and proven dredging methods; and (v) ExO would have been able to profitably sell the Project output.[597]

476. Claimant further stresses the fact that the forward-looking income valuation approach is the appropriate methodology to calculate the Project's FMV regardless of the lack of sufficient track record of profitable operations to project cash flow. Claimant points out that Odyssey is not required to establish the amount of damages claimed with scientific certainty since approximations are inevitably accepted. Thus, Claimant states that Odyssey has met the necessary burden of proof and Respondent, by contrast, has failed to address its evidence of production feasibility and cost-effectiveness. Claimant highlights that there is a substantial body of investment treaty cases where tribunals have used the DCF even if they referred to projects without a track record of profitability. Moreover, Claimant affirms that the investment cases cited by Respondent are inapposite because (i) they are fact-specific; (ii) there is no basis under the NAFTA to reject the DCF method; and (iii) Respondent mischaracterized the Project as it relies on cases which do not involve extractive industries.[598]

b) Project Strategic Value

477. Claimant notes that the Project's strategic value is determined by the size of is deposit, is location, and its cost. Claimant adds that the large amounts of phosphate associated with the Project and the relatively easy access to the Pacific Rim countries suggest that Don Diego could have been one of the lowest cost producers of phosphate rock in the world. Furthermore, Claimant argues the success of the Project is increased by its intrinsic features, such as the inexistence of fixed infrastructure, top-soil, vegetation or material to clear, reclamation or remediation costs, along with the mobile nature of the Project that allows for selective dredging and easy expansion into new areas of resource. Moreover, Claimant argues that specific market participants such as Agrium would likely have been

[597] Reply, ¶¶ 325-327, 336, 385-488; Claimant's Post-Hearing Brief, ¶¶ 225-251.

[598] Reply, ¶¶ 326-357, citing especially **CL-0056**, *Gold Reserve v. Venezuela*, Award, ¶ 686; and **CL-0042**, *Crystallex v. Venezuela*, Award, ¶¶ 865-876; Reply, ¶¶ 343-353.

investors in the Project. For Claimant, the strategic value of the Project should increase the valuation of Phases I and II by 15%.[599]

478. In its Reply, Claimant affirms that the Project's strategic value is a premium that is not captured in the DCF of Phase I and the ROV of Phase II,[600] as "*it would involve calculations by the purchaser of value elements outside cash flow parameters [that] could include the anticipated value of what would essentially be insurance against certain global price shocks through the advantages of vertical integration in a geographically advantageous region, or the value of denying a regional competitor access to such a resource*."[601]

c) ExO's and Odyssey's Lost Opportunity

479. Claimant affirms that Odyssey and ExO had just begun to quantify and characterize the deposit, but the denial of the MIA prevented them from commencing a new coring campaign to further explore, quantify and characterize the resource. Claimant asserts that only 18% of the Concession area was assessed in the NI 43-101 Technical Report's resource assessment, [redacted].[602] Claimant argues that the damages arising out of Odyssey's and ExO's lost opportunity were not included in the NI 43-101 Technical Report. Thus, Claimant asserts they are outside the FMV of the Project and should be compensated in addition to the FMV. For Claimant, the value of ExO's lost opportunity is [redacted].[603]

480. Claimant adds that, even if valuing a lost opportunity claim is inherently complex, "*it is enough for the judge to be able to admit with sufficient probability the existence and extent*

599 Mem., ¶¶ 408, 411-415; Reply, ¶¶ 554-555; Claimant's Post-Hearing Brief, ¶¶ 365-366.
600 Reply, ¶¶ 556-557; Claimant's Post-Hearing Brief, ¶¶ 362, 365-366.
601 Reply, ¶ 556.
602 Mem., ¶ 419, citing Witness Statement of John D. Longley, Jr., 4 September 2020, ¶ 38.
603 Mem., ¶¶ 416, 420-421; Reply, ¶¶ 332, 558-568; Claimant's Post-Hearing Brief, ¶¶ 362-364; Witness Statement of John D. Longley, Jr., ¶¶ 36-39, 47.

of the damage."[604] It adds that these type of valuation exercises have been endorsed by other international tribunals.[605]

d) Market Approach: Comparable Transactions to the Don Diego Project

481. If the Tribunal considers the income approach not appropriate for valuation purposes, Claimant alternatively requests the Tribunal to value the Project using the comparable transactions method. Such method should apply because it is described as a primary valuation method in the CIMVAL Standards, in contrast to the market capitalization method proposed by Respondent that is described as a secondary valuation method by the industry usages.[606]

482. Once Claimant received the Counter-Memorial, it asked Compass Lexecon to address Quadrant Economics' criticism to its DCF method. In its second report, Compass Lexecon did not change its approach. In addition, in order to reaffirm the utilization of the DCF method, Claimant adds that it engaged Agrifos to estimate the value of the Project by identifying and studying comparable transactions to the Project around the Date of Valuation.[607]

483. Claimant describes that "*Agrifos evaluated nine comparable companies and public transactions and calculated the value of the underlying phosphate resource implied in the transaction or market capitalization, expressed as US$/mt of contained P_2O_5.*"[608] Agrifos concluded that the Project's estimated value was [redacted] to [redacted], an estimation that corroborates the reasonableness of the DCF method because of the proximity of the valuation using either of these two methods.[609]

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604 Reply, ¶ 565, citing **CL-0185**, *Sapphire International Petroleums Ltd. V. National Iranian Oil Company* (Ad hoc Arbitration), Arbitral Award, 15 March 1963, pp. 44-45.

605 Reply, ¶¶ 558-568. **CL-0054**, *Gemplus S.A., SLP S.A. and Gemplus Industrial S.A. de C.V. v. United Mexican States*, ICSID Case No. ARB(AF)/04/3 and ARB(AF)/04/4, Award, 16 June 2010, Part XIII, ¶ 13-99; **CL-0123**, *William Richard Clayton, Douglas Clayton, Daniel Clayton and Bilcon of Delaware, Inc. v. Government of Canada*, PCA Case No. 2009-04, Award on Damages, 10 January 2019, ¶¶ 280-299; among others.

606 Reply, ¶¶ 546-553; Claimant's Post-Hearing Brief, ¶¶ 216, 339-340; **C-0196**, CIMVAL Standards and Guidelines 2003, Table 2, pp. 22-23.

607 Reply, ¶¶ 546-553; Claimant's Post-Hearing Brief, ¶¶ 328-339.

608 Reply, ¶ 329.

609 Reply, ¶ 329; Claimant's Post-Hearing Brief, ¶¶ 328, 331.

484. Claimant asserts that Quadrant Economics' objections to Agrifos report are unreasonable because (i) the omission to include documentation of the prices supporting the comparable analysis is not relevant considering that all but one of the transaction values are publicly available, common knowledge in the industry and easily verifiable; (ii) the arguments advanced by Quadrant Economics to prove the *Baobab* and *Hinda* transactions are not comparable to the Project actually confirm Claimant's position; (iii) WGM makes fundamental errors in its analysis, particularly contesting that the inclusion of the northern extension resource volumes in the total resources for valuation purposes was justified; and (iv) Agrifos used reasonable, if not conservative premiums when estimating the Project's value.[610]

e) Market Approach: Odyssey's Market Capitalization

485. Claimant rejects Respondent's suggestion that Odyssey's market capitalization is the appropriate method for the calculation of damages.

486. In its First Report, Compass Lexecon stated that the stock market capitalization of Odyssey was used only to reconcile the results of its valuation using the DCF method, but that it would be inappropriate to use Odyssey's market capitalization as the primary valuation methodology because a number of factors could depress Odyssey's stock price. Specifically, Compass Lexecon stated that Odyssey's market capitalization did not adequately reflect the value of its equity interest in the Project on a non-controlling and pre-permit basis because of (i) the continuing negative impact of Odyssey's shipwreck-salvaging business; (ii) the heightened levels of short selling since mid-2011; and (iii) Odyssey's liquidity constrains and its financial distress. Claimant added that such valuation method would be unsuitable because (i) the asset being valued is not the only asset or business of the company whose shares are the bases for the valuation; and (ii) the valuation of the Project must be in a 'but-for' scenario in which the MIA was granted, while Odyssey's shares were traded in the actual scenario in which the MIA was never granted.[611]

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610 Claimant's Post-Hearing Brief, ¶¶ 332-339.

611 Reply, ¶¶ 508-509; Claimant's Post-Hearing Brief, ¶¶ 210, 340; First Compass Lexecon Expert Report, ¶¶ 118-119.

487. In any case, if the Tribunal considers that the market capitalization method has to be applied for valuation purposes, it must make four adjustments to account for the differences between Odyssey's share price in the actual scenario and the Project in the 'but-for' scenario, and must disregard Quadrant Economics' adjustments and recalculations regarding Odyssey's market capitalization as they lead to an incorrect valuation.[612]

488. Compass Lexecon stated that, in order to reconcile Odyssey's market capitalization with the DCF method, any comparison should adjust Odyssey's value to reflect (i) its asset value and not its share price ("enterprise value"); (ii) the impact of the MIA being granted ("permit premium"); and (iii) the value that investors place on controlling the operation of Odyssey ("control premium").[613] The fourth adjustment consists in accounting for Odyssey's ownership percentage in the Project and for dividend taxes. Since Odyssey owned 56.46% of the Project on the Valuation Date, Claimant asserts that if the market capitalization method were to be endorsed the value of Odyssey's interest in the Project has to be increased proportionately to arrive at the value of the Project. In addition, because Odyssey's interest in the Project derives from this entitlement to dividend payments that are subject to a 9.75% tax, the pre-tax value of the Project must be increased proportionately. With those adjustments made, namely calculating the value of the Project implied by Odyssey's share price – and not the actual shareholding Odyssey has in ExO–, Claimant estimates the Project's value at [redacted].[614]

f) Cost Approach: Sunk Costs

489. Lastly, Claimant rejects a cost valuation approach mainly for four reasons.[615]

490. First, both Respondent in its Counter-Memorial and Quadrant Economics in its report have admitted that sunk costs are not an indicator of the FMV of the Project, and such statement

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612 Reply, ¶¶ 508-545; Claimant's Post-Hearing Brief, ¶ 340. In brief, Claimant contends that (i) the market capitalization should be calculated as of 7 April 2016 (the Date of Valuation) and not as 29 February 2016; (ii) Odyssey's share price rose in March 2016 because investors anticipated that a favorable decision on the MIA was imminent, and that such price fell on 11 April 2016 because the MIA was denied; and (iii) Claimant's calculation of the acquisition and permit premiums are appropriate.

613 First Compass Lexecon Expert Report, ¶¶ 118, 121-122; Reply, ¶ 510; Claimant's Post-Hearing Brief, ¶¶ 341, 348.

614 Claimant's Post-Hearing Brief, ¶¶ 347-349; First Compass Lexecon Expert Report, ¶ 85.

615 Claimant's Post-Hearing Brief, ¶¶ 207-208, 355-360.

represents an explicit rejection of a cost approach. Since the FMV standard is the applicable legal standard of compensation, a cost approach must be rejected.[616]

491. Second, Respondent has waived its right to submit to the Tribunal a cost approach for the assessment of damages as it was not included in its Counter-Memorial. The first time Respondent suggested Odyssey's sunk costs as the method for calculation of damages was in its Rejoinder[617] and, consequently, Claimant did not have an opportunity to submit a responsive pleading and evidence.

492. Third, from the principle of reasonable certainty invoked by Respondent, it does not follow that the Tribunal should use a cost approach or discard an income approach. Claimant points out that the Tribunal may take notice of the international investment jurisprudence, but it "*should be critically aware of differences in the factual context in such cases (such as the industry involved and the time period in relation to market participants' growing acceptance of addressing valuation uncertainty using the Income Approach)*."[618]

493. Fourth, if the Tribunal were to use a cost approach, it would create an incentive for host States to take unlawful measures or actions "*as soon as it becomes clear that the prospective value of a project significantly exceeds its historical investment costs*."[619]

(3) Interest

494. Claimant affirms that full reparation under customary international law requires the award of interests.[620] Claimant invokes NAFTA Article 1135 and ARSIWA Article 38(1) as relevant provisions in this matter. To compensate fully the investor, Claimant argues that the Tribunal must "*issue an award with pre-award interest at a rate equivalent to the* [weighted average cost of capital ("**WACC**")] *of a typical investor in a pre-operational mining project in Mexico*."[621] As Compass Lexecon concluded, the relevant WACC is 13.95%, which is equivalent to the WACC of a typical investor in a pre-operational mining

616 Claimant's Post-Hearing Brief, ¶ 356.
617 Claimant-s Post-Hearing Brief, footnote 793, citing Rejoinder, ¶ 457.
618 Claimant's Post-Hearing Brief, ¶ 207.
619 Claimant's Post-Hearing Brief, ¶ 208.
620 Mem., ¶ 423.
621 Mem., ¶¶ 425-426.

project in Mexico.[622] In addition, according to Claimant, full reparation mandates the Tribunal issue an award with compound interest (pre-award and post-award interest).[623] Moreover, pre-award interest should compound annually. This is supported by "*a form of 'jurisprudence constante.* "'[624]

495. Claimant affirms that Respondent's interest submission should be rejected because (i) the purpose of pre-award interest is compensatory, it is a type of injury that manifests in the cost of capital and WACC is the expected return for investors who invested monies into the Project; and (ii) the utilization of a risk-free rate would undercompensate Claimant and contravene the full reparation standard.[625]

(4) Tax

496. Claimant notes that the Compass Lexecon valuation is net of Mexican tax and, consequently, any taxation by Mexico on an eventual award in these proceedings would result in Claimant being effectively taxed twice for the same income, which affects the possibility to put Claimant in the financial position it would have been in had Mexico not breached its obligations under the Treaty.[626] Such outcome is inadmissible in light of international *jurisprudence constante*.[627] Thus, Claimant requests the Tribunal (i) declare that any award is net of all applicable Mexican taxes and that Mexico may not tax or attempt to tax the Award; and (ii) order Mexico to indemnify Claimant with respect to any Mexican taxes imposed on the Award.[628]

497. Finally, Claimant stresses that the tax-gross up is appropriate because (i) the DCF method is applicable to this dispute; (ii) ExO's operating losses have been properly considered in

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622 Reply, ¶¶ 570, 573; Claimant's Post-Hearing Brief, ¶ 367.
623 Mem., ¶¶ 427, 431.
624 Mem., ¶¶ 428-430, citing **CL-0054**, *Gemplus v. Mexico*, Award, Part XVI, ¶ 16-26.
625 Reply, ¶¶ 573-579; Claimant's Post-Hearing Brief, ¶¶ 369-371.
626 Mem., ¶ 432; Reply, ¶ 580; Claimant's Post-Hearing Brief, ¶ 372.
627 **CL-0099**, *Rusoro Mining Limited v. Bolivarian Republic of Venezuela*, ICSID Case No. ARB(AF)/12/5, Award, 22 August 2016, ¶¶ 852-855; **CL-0088**, *Phillips Petroleum Company Venezuela Limited and ConocoPhillips Petrozuata B.V. v. Petróleos de Venezuela, S.A.*, ICC Case No. 16848/JRF/CA, Final Award, 17 September 2012, ¶¶ 313, 333(1)(vii); among others.
628 Mem., ¶ 432; Claimant's Post-Hearing Brief, ¶ 373.

Compass Lexecon's model; and (iii) the mandatory 10% Worker's Profit Share ("**PTU**") is not applicable to Claimant.[629]

B. RESPONDENT'S POSITION

(1) Legal Standard

498. Respondent contests the very existence of damages. Nevertheless, Respondent makes submissions on damages and notes that its analysis should not be interpreted as an admission of liability on behalf of Mexico or as a waiver of any of the defenses on the merits.[630]

499. Before Respondent examines the legal principles applicable to damages, it points out that (i) Claimant failed to specify whether the damages it claims are under NAFTA Articles 1116 or 1117; and (ii) Claimant failed to identify the investment underlying its claim for damages.

500. First, Respondent argues that any potential damages suffered by Odyssey as indirect shareholder in ExO are not equivalent to the damages suffered by ExO itself.[631] Damages under NAFTA Article 1116 are paid directly to the investor, whereas under NAFTA Article 1117 to the enterprise. Respondent notes that a claim under Article 1116 cannot coexist with a claim under Article 1117 as they would overlap, and this may lead to double recovery. Therefore, Claimant should clarify which legal basis it brings its claims under.[632]

501. Second, Respondent argues that Claimant failed to identify the investment underlying its claim for damages. Although Claimant identified that the entirety of ExO's concessions and Claimant's investments in Mexico is at issue, it argued that (i) compensation should reflect the FMV of the entirety of Claimant's investment in Mexico as "*encapsulated in the contemporaneous value of ExO*"; and later that (ii) the FMV of the Don Diego Project is at stake.[633] However, it is Respondent's view that the value of ExO's concessions, the

629 Reply, ¶¶ 581-584.
630 C-Mem., ¶ 614.
631 Rejoinder, ¶¶ 454, 458-461.
632 C-Mem, ¶¶ 619-622; Rejoinder, ¶¶ 458-461; Respondent's Post-Hearing Brief, ¶¶ 147-149.
633 C-Mem., ¶¶ 623-624, citing Mem., ¶¶ 373, 376.

value of ExO and the value of the Project are not the same. Such a failure amounts to a failure to meet the burden of proving damages and prevents Respondent from properly defending its case. Finally, Respondent adds that the Project *per se* is not a protected investment under NAFTA Article 1139, and therefore, Respondent proceeds under the assumption that the investment at issue is ExO.[634]

a) Full Reparation Principle and FMV

502. Respondent affirms that NAFTA Article 1110(2) defines the measure of compensation applicable in expropriation cases which, in the circumstances of the present dispute, is consistent with the standard of full reparation.[635]

503. Respondent agrees with Claimant that the standard of compensation applicable to the dispute is the FMV of the investment determined immediately before the expropriation. However, Respondent accepts the relevance of the FMV analysis only if the Tribunal finds that the investment involved rights capable of being expropriated, and Respondent indeed expropriated the investment or, alternatively, that "*Respondent breached Articles 1102 and/or 1105 and those violations had an effect tantamount to expropriation*."[636]

b) Valuation Date

504. Pursuant to NAFTA Article 1110(2), Respondent argues that the date immediately before the denial of the MIA approval is 6 April 2016. On 6 April 2016, as Respondent notes, no decision on the MIA had been issued yet. The MIA approval was a mere possibility on 6 April 2016 (or on 7 April 2016, but before the decision on the MIA), and this should be reflected in the value of ExO. Respondent states that the determination of the FMV of an investment is an *ex ante* analysis and, consequently, the information that was not available on the Valuation Date cannot be used. Otherwise, the application of the FMV analysis of a fully operational and profitable ExO, *i.e.*, assuming the MIA's approval and valuating the damages in such scenario, would put Claimant in a far better position than the position it enjoyed as of 7 April 2016. Respondent adds that a reasonably informed hypothetical buyer

634 C-Mem., ¶ 625; Rejoinder, ¶ 459.
635 Respondent's Post-Hearing Brief, ¶¶ 150-152.
636 C-Mem, ¶ 632; Respondent's Post-Hearing Brief, ¶ 150.

would have taken into account the risks existing at that time, which includes the risk that the MIA would be denied.[637]

c) Legally Relevant Damages, Burden of Proof and Standard of Proof

505. Respondent points out that States are responsible only for the injuries caused by illegal acts. Therefore, (i) the fact of loss must be proven; (ii) a sufficient causal link between the alleged breach and the damages is required; and (iii) the burden of proof for both issues lies with Claimant. In addition, Respondent notes that the concept of causation is an integral part of the concept of full reparation as it has been implied in the *Chorzów Factory* case and in ARSIWA Article 31. Thus, Respondent is only obliged to make reparation for an injury caused by the act or acts that the Tribunal finds to be inconsistent with the NAFTA.[638]

506. Another aspect of the assessment of the legally relevant loss or damages is the *principle of reasonable certainty*, which applies to both the fact and the amount of the loss.[639] Although absolute certainty is not required, Respondent notes, international tribunals have consistently held that claims that are too uncertain, speculative, or unproven are to be rejected.[640]

507. Contrary to what Claimant suggests and based on the report prepared by its expert Quadrant Economics ("**Quadrant Economics Report**"), Respondent proposes that a reasonably informed hypothetical buyer would not have assessed the value of the Project using the DCF method or any other income approach methodology. First, because this would have ignored that the Project was in an early stage of development and, consequently, many other conditions would have to be fulfilled in order to assure the future profitability of the Project. Second, because in order to comply with the principle of reasonable certainty,

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637 C-Mem., ¶¶ 635-636; Rejoinder, ¶¶ 454, 497-506; Respondent's Post-Hearing Brief, ¶¶ 141-142, 157, 160; Witness Statement of Alfonso Flores Ramírez, ¶ 19; First Compass Lexecon Expert Report, ¶ 8(a).

638 C-Mem., ¶¶ 639-642.

639 Rejoinder, ¶ 467.

640 C-Mem., ¶ 644, citing **RL-0067**, *Amoco International Finance Corporation v. Government of the Islamic Republic of Iran, National Iranian Oil Company, National Petrochemical Company and Kharg Chemical Company Limited*, IUSCT Case No. 56, Partial Award, 14 July 1987, ¶ 238; **CL-0054**, *Gemplus v. Mexico*, Award, Part XII, ¶ 12-56; **RL-0068**, *BG Group Plc. V. Republic of Argentina*, UNCITRAL, Final Award, 24 December 2007, ¶ 428; among others.

contemporaneous evidence of future profitability of the investment must be proven; proof that has not been demonstrated in the present case since the Project was at least two years away from launching operations and demonstrating profitable transactions. In this sense, the use of an income approach would contradict the principle of reasonable certainty and the practice of international tribunals in similar cases.[641]

508. In relation to the burden of proof, Respondent emphasizes the well-established principle that the party alleging the facts has the burden of proving them. At the damages stage, Claimant, who alleges that it suffered losses, bears the burden of proof. Additionally, in its Rejoinder, Respondent asserts that Mexico cannot be required to disprove facts whose burden of proof falls on Claimant and which it has failed to prove.[642]

509. Finally, as for the standard of proof, Respondent submits in its Rejoinder that Claimant does not specify whether the balance of probabilities applies (i) to the fact of loss or damage; (ii) to the existence of the necessary causal link between the breach and the damages; (iii) to the *quantum* of damages; or (iv) to all three elements.[643] Respondent is of the view that the balance of probabilities is a standard which may be appropriate in the context of the fact of the loss, but not feasible in the context of *quantum* of damages. This affirmation stems from multiple sources, including international jurisprudence,[644] the Commentaries to the ARSIWA, and the UNIDROIT Principles of International Commercial Contracts. To address the proof of future losses, all these sources do not mention the balance of probabilities as the applicable standard but state that losses have to be proven with "*sufficient certainty*," "*sufficient degree of probability*," "*some level of certainty*," "*comparative likelihood*," "*reasonable degree of certainty*," or that the damages must be "*probable and not merely possible*."[645] Thus, Respondent asseverates that the

641 Respondent's Post-Hearing Brief, ¶¶ 139-140, 167.
642 C-Mem., ¶ 627; Rejoinder, ¶ 465.
643 Rejoinder, ¶ 466.
644 Rejoinder, ¶¶ 472-474, citing **CL-0169**, *Ioannis Kardassopoulos and Ron Fuchs v. Republic of Georgia*, ICSID Case Nos. ARB/05/18 and ARB/07/15, Award, 3 March 2010, ¶ 229; **CL-0167**, *Impregilo S.p.A. v. Argentine Republic*, ICSID Case No. ARB/07/17, Award, 21 June 2011, ¶ 371; **CL-0189**, *Suez, Sociedad General de Aguas de Barcelona S.A., and Vivendi Universal S.A. v. Argentine Republic (II)*, ICSID Case No. ARB/03/19, Award, 9 April 2015, ¶ 30.
645 Rejoinder, ¶¶ 475-476, citing **RL-0065**, Sergey Ripinsky & Kevin Williams, *Damages in International Investment Law* (2008), p. 164.

applicable standard of proof regarding *quantum* is not the balance of probabilities, and that, instead, Claimant failed to prove that the future flows on which it bases its claim for damages have a sufficient degree of certainty.[646]

(2) Calculation of Damages

510. As stated above, Respondent affirms that Claimant failed to meet its burden of proof with respect to the very fact of loss and/or damage and, consequently, no damages should be granted by the Tribunal. Respondent argues that "*no reasonably informed willing buyer would take a 'low-level technical and economic assessment' at face value and be prepared to use it as the basis for determining the price he would be willing to pay for the Project*."[647] Thus, the Tribunal should dismiss the claim for damages in its entirety.

511. Should the Tribunal determine that Claimant suffered damages, Respondent argues that Claimant failed to establish the causal link between the alleged breach and the loss, both in relation to its legal arguments and to the *quantum* of damages. Then, if the Tribunal nevertheless were to find damages are causally attributable to Mexico, Respondent asserts that Claimant's approach to calculation of damages is flawed and must be rejected.

512. In relation to the application of the income approach proposed by Claimant, *i.e.*, the use of the DCF method for Phase I and the ROV for Phase II of the Project, Respondent affirms that Claimant's damages assessment is wholly speculative.[648] The FMV of the Project, Respondent asserts, cannot be calculated using an income approach. In relation to ExO's strategic value and the Project's value of lost opportunity, Respondent argues that, in case any of these premiums exist, there is no justification for not including them in the FMV of the investment. In relation to the comparable transactions method, Respondent affirms that Agrifos made a series of adjustments and introduced assumptions that, similarly to the income approach, make the valuation highly speculative.[649] Finally, Respondent argues that the application of the market capitalization method or using a cost approach are both appropriate to value damages. On the one hand, Respondent asserts that the market

646 Rejoinder, ¶¶ 466, 470-477.
647 C-Mem., ¶ 661.
648 C-Mem., ¶¶ 665-666; Rejoinder, ¶ 634.
649 Rejoinder, ¶¶ 698-700.

capitalization method should be used considering that Odyssey is a publicly-traded company; on the other hand, the cost approach is adequate in accordance with the principle of full reparation and international investment jurisprudence.[650]

513. In sum, Respondent asserts that the Tribunal (i) should not value the Project using an income approach; (ii) should neither consider ExO's strategic value; (iii) nor the value of lost opportunity of the Project as part of the value of the investment; (iv) should not value the Project using the comparable transactions method; and, instead, (v) should use the market capitalization method; or, (vi) alternatively, should use a cost approach to calculate damages.

a) Income Approach: DCF (Phase I) and ROV (Phase II)

514. Respondent posits that Claimant has not met its burden of proof in relation to the causal link between any potential international law breaches and the damages claimed. It adds that, even if the MIA had been approved, there is no reasonable certainty that the Project would have been profitable. In other words, "[t]*he approval of the MIA was a necessary but not a sufficient condition for the Project becoming a profitable business*."[651] Granting the MIA does not constitute sufficient factual basis to ensure the Project's transition from a pre-production stage to a highly profitable mining operation. Respondent asserts that the MIA's denial, at most, deprived Claimant of a business opportunity.[652]

515. Respondent advocates for the application of the principle of reasonable certainty to *quantum*, as several international tribunals have rejected the use of the DCF method on the grounds that its use would be too speculative if there is no sufficient track record of profitable operations of the Project.[653] Respondent further argues that the available case law does not support the use of DCF in projects at the state of development of the Don Diego Project. Respondent notes that, after it has researched all publicly known awards in investor-State cases involving disputes in the mining sector, it concluded that there is no

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650 Rejoinder, ¶ 676.
651 Rejoinder, ¶ 454.
652 C-Mem., ¶ 664; Rejoinder, ¶ 481.
653 C-Mem., ¶ 645, citing **CL-0071**, *Metalclad v. Mexico*, Award, ¶¶ 120-121; **CL-0054**, *Gemplus v. Mexico*, Award, Part XIII, ¶ 13-72; **RL-0070**, *Cengiz İnşaat Sanayi ve Ticaret A.Ş. v. State of Libya*, ICC Case No. 21537/ZF/AYZ, Award, 7 November 2018, ¶¶ 602-603, 616; among others.

precedent where an international tribunal has awarded damages adopting an income approach where the project did not have a FS, or probable or proven mineral reserves. Respondent identifies 12 cases in which the tribunal awarded damages to claimant parties in investor-State mining cases.[654] Apart from *Quiborax v. Bolivia*, a mine property that was in the production phase, all cases involve pre-production projects. Among these 11 pre-production mines, the DCF analysis to determine damages was used in only two cases (*Gold Reserve v. Venezuela* and *Tethyan v. Pakistan*). Furthermore, in these two cases, claimant had completed a FS and demonstrated the existence of probable or proven mineral reserves.[655] Finally, in the same vein, Respondent contends that the case law cited by Claimant does not support its position, as each case in which the DCF method was used is factually and legally different from the Don Diego Project.[656]

516. Thus, the use of the DCF methodology is inappropriate as there is no reasonable certainty of the Project's future profitability. Respondent points out different factual considerations and factors to demonstrate the DCF method is unsuitable to calculate damages: (i) the Project was at an initial pre-production phase and, thus, it lacks studies establishing the economic viability of the Project; (ii) the mere existence of phosphate deposits is insufficient to demonstrate its capacity of being mined and commercialized as a profit; (iii) Claimant has experience neither in exploring developing and commercially exploiting offshore phosphate deposit nor generally in the mining sector; (iv) Claimant intended to purse a mining operation particularly novel in nature; (v) the market for phosphate products

654 Rejoinder, ¶¶ 514-519, citing **RL-0141**, *Quiborax S.A. and Non Metallic Minerals S.A. v. Plurinational State of Bolivia*, ICSID Case No. ARB/06/2, Award, 16 September 2015; **CL-0123**, *Clayton/Bilcon v. Canada*, Award on Damages; **CL-0056**, *Gold Reserve v. Venezuela*, Award; **CL-0042**, *Crystallex v. Venezuela*, Award; **CL-0099**, *Rusoro v. Venezuela*, Award; **RL-0140**, *Khan Resources Inc., Khan Resources B.V. and CAUC Holding Company Ltd. v. Government of Mongolia and MonAtom LLC*, PCA Case No. 2011-09, Award on the Merits, 2 March 2015; **CL-0116**, *Tethyan Copper Company Pty Limited v. Islamic Republic of Pakistan*, ICSID Case No. ARB/12/1, Award, 12 July 2019; **CL-0108**, *South American Silver Limited (Bermuda) v. Plurinational State of Bolivia*, PCA Case No. 2013-15, Award, 22 November 2018; **CL-0016**, *Bear Creek Mining Corporation v. Republic of Peru*, ICSID Case No. ARB/14/21, Award, 30 November 2017; among others.

655 Rejoinder, ¶¶ 515-516, citing **RL-0141**, *Quiborax v. Bolivia*, Award; **CL-0056**, *Gold Reserve v. Venezuela*, Award; **CL-0116**, *Tethyan v. Pakistan*, Award.

656 Rejoinder, ¶¶ 507-552; C-Mem., ¶¶ 690-695, citing Reply, Section V.C.1; **CL-0056**, *Gold Reserve v. Venezuela*, Award; **CL-0042**, *Crystallex v. Venezuela*, Award; **CL-0177**, *Mohammad Ammar Al-Bahloul v. Republic of Tajikistan*, SCC Case No. V (064/2008), Final Award, 8 June 2010; **CL-0099**, *Rusoro v. Venezuela*, Award; **CL-0116**, *Tethyan v. Pakistan*, Award.

is fully supplied and its nature implies difficulties to develop a customer base, among others.[657] These considerations will be addressed in the same order below.

517. First, Respondent argues that Claimant tries to justify the reclassification of the Project as a development stage project to justify the use of an income approach. This reclassification would lead to measure "*the damages caused by the denial of an environmental permit for an undersea exploration as if that project were in full commercial production and future profits were a reality*."[658] However, Respondent points out that the Project is accurately characterized as being at an early exploratory stage with several crucial stages ahead. Since the Project is at an early exploratory stage, Claimant failed to demonstrate its economic viability and, consequently, an income approach should not be used to value damages.[659]

518. Claimant mischaracterizes the Project, Respondent affirms, because (i) Claimant expressly accepted that it did not have a PFS or a FS at the Valuation Date; (ii) stating that the Project is in a development stage is contradictory to the mining industry standards, guidelines and definitions (CIMVAL and VALMIN).

519. At the time of the Valuation Date, Claimant did not have a FS or even a PFS. Respondent asserts that Claimant essentially relies on three pieces of evidence that it seeks to re-interpret and re-cast as proof of pre-feasibility of the Project: (i) the Boskalis Phosphate Mining Proposal ("**Boskalis Proposal**"), issued on 28 May 2013;[660] (ii) the NI 43-101 Technical Report, issued on 30 June 2014;[661] [redacted].[662] These three documents were prepared before the Valuation Date. The contemporaneous evidence, however, is insufficient to prove that the Project was advanced enough to apply the DCF method. Respondent believes that, to overcome this obstacle, Claimant also seeks to rely on *post hoc* expert reports as most of the evidence to establish

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657 C-Mem., ¶¶ 663, 667.

658 C-Mem., ¶ 663 (emphasis omitted).

659 C-Mem., ¶ 663; WGM Expert Report, 23 February 2021, ¶ 40, third bullet.

660 Rejoinder, ¶¶ 588, 592-612; **C-0059**, Boskalis Offshore, *Don Diego Phosphate Mining Proposal*, 28 May 2013.

661 Rejoinder, ¶¶ 588, 613-617; **C-0084**, Henry Lamb, NI 43-101 Technical Report, 30 June 2014.

662 Rejoinder, ¶¶ 588, 618-626; **C-0134**, Odyssey Marine Exploration, Inc., *Don Diego: A Strategic Phosphate Resource*, 22 September 2015.

the economic and technical feasibility of the Project had not been performed by the Valuation Date.[663]

520. By the Valuation Date, the [redacted] was the only document that reflected an estimation of the Project's production targets. In Respondent's view, the [redacted] can be considered, at best, an internal scoping study because such document does not comply with regulatory disclosure requirements and, consequently, it cannot be used for a financial analysis. The BRBP has been prepared by Claimant itself and was not verified by an independent expert. Additionally, the [redacted] cannot be considered as a Preliminary Economic Assessment ("**PEA**") or scoping study, since this type of analysis is performed [redacted][664] Scoping studies are used to prove the Project's potential to advance towards a PFS, and the [redacted] was designed for 'concept screening' and cannot be used to support an economic analysis.[665] Thus, according to Quadrant Economics, Claimant stated in the [redacted] that it estimated the Project's net present value at [redacted] because, in this way, it would encourage investors to invest quickly. Thus, the [redacted] contains "*marketing material prepared by Claimant to raise capital for the Project in 2015.*"[666] However, the [redacted] was not, as Claimant seeks to portray it, an instrument prepared for valuation purposes. Rather, it contains an overestimation of the income the company could obtain.[667]

521. Respondent also argues that the Boskalis Proposal is the basis used for the preparation of the [redacted]. In Respondent's view, the Boskalis Proposal is "*a conceptual description of the mining and processing works*"[668] replete with cautionary statements and disclaimers. Thus, it should only be considered as a preliminary work that shows the necessity for further

663 Rejoinder, ¶¶ 585, 589.
664 C-Mem., ¶ 658 (emphasis omitted).
665 C-Mem., ¶¶ 79, 657-662; Rejoinder, ¶¶ 619-622; **C-0134**, Odyssey Marine Exploration, Inc., *Don Diego: A Strategic Phosphate Resource*, 22 September 2015.
666 Second Quadrant Economics Expert Report, 19 October 2021, ¶ 192.
667 Rejoinder, ¶¶ 624-626. According to the BRBP, Dr. Spiller valuated Phase I at [redacted] and Phase II at [redacted]. **C-0134**, Odyssey Marine Exploration, Inc., *Don Diego: A Strategic Phosphate Resource*, 22 September 2015, p. 9; Respondent's Post-Hearing Brief, ¶¶ 217-218.
668 **C-0059**, Boskalis Proposal, p. 12.

planning, analysis, development and testing. Therefore, neither the BRBO nor the Boskalis Proposal constitute a firm basis for a DCF analysis.[669]

522. Additionally, Respondent argues that using an income approach in the present dispute would contravene mining industry guidelines. Respondent argues that CIMVAL and VALMIN recognize three main approaches to valuation, namely the cost, market and income approaches, and provide recommendations and guidance on the applicable approach depending on the stage of the project. Respondent highlights that a plain reading of the definition of "*development property*" leads to the conclusion that the Project was not in a development stage.[670]

523. Even if the Tribunal were to characterize the Project as a mineral resource property or considers that the Project is in a pre-development stage, as Claimant suggests as a subsidiary argument, Respondent argues that it is not possible to calculate the FMV of the investment using an income approach since the conditions required by mining industry best practices to apply a DCF analysis in relation to *Mineral Resources* are not met in the case of the Project. In other words, Respondent considers the Project is not within the clause "*in some cases*" expressed in CIMVAL and VALMIN valuation recommendations.[671] Respondent refers to Guidelines G4.4 and G4.5 to argue that CIMVAL's conditions were not fulfilled. Guideline G4.4 states the following:

> ***G4.4.*** *It is generally acceptable to use Mineral Resources in the Income Approach if Mineral Reserves are also present and if, in general, mined ahead of the Mineral Resources in the same Income Approach model, provided that in the opinion of a Qualified Person the Mineral Resources as depicted in the Income Approach model are likely to be economically viable.*[672]

524. According to the terms of Guideline G4.4, Respondent stresses that Claimant neither proved it had mineral reserves (as it can only be demonstrated by a PFS or a FS) nor had an opinion of a "*Qualified Person*" stating that the mineral resources –as identified in the BRBP or in the NI 43-101 Technical Report– were likely to be economically viable. Thus,

669 Rejoinder, ¶¶ 594, 620-621.
670 Rejoinder, ¶ 570.
671 Rejoinder, ¶ 571; **C-0196**, CIMVAL Standards and Guidelines 2003, p. 22; **C-0195**, VALMIN Code 2015, p. 29.
672 **C-0196**, CIMVAL Standards and Guidelines 2003, p. 24 (emphasis added by Respondent).

the income approach cannot be used irrespective of whether the Project is considered to be in a development stage or a pre-development stage (*i.e.*, mineral resource property).[673]

525. Furthermore, Mexico notes that Compass Lexecon's timeline is unrealistic as it is excessively short. It assumes that other necessary milestones will be achieved within seven months. These requirements include securing other permits, off-take agreements ("**OTA**"), obtaining the necessary financing for the Project and completing the procurement and construction arrangements. Respondent asserts that this is speculative and unrealistic, since each of these milestones can only be achieved subsequent to, rather than during, the Project's design finalization. In addition, financing would probably be granted only with a finalized construction contract and OTAs.[674] Independently from the proposed timetable, Respondent maintains that Claimant failed to demonstrate that (i) it completed the engineering of the Project; (ii) it secured the necessary funding for the Project; and (iii) it achieved securing other necessary permits to put the Project into operation.[675]

526. Accordingly, as the Project is not at a development stage, let alone at a production stage, Respondent argues that the absence of a track record renders the application of the DCF method moot.[676]

527. Second, the phosphate deposits which Claimant intended to extract are not proven to be commercially exploitable. Respondent comments on the size of the Don Diego deposit and the classification of the mineral resources, arguing that the NI 43-101 Technical Report makes assumptions about (i) the estimated distribution and thickness of the mineral deposit; and (ii) the phosphate industry in the field of early-stage projects undertaken for the purposes of capital and operating cost estimates and the economic analysis.[677] Respondent affirms that these assumptions are unsupported and flawed.

528. Respondent also claims that the NI 43-101 Technical Report's classification of the mineral resources fails to meet the industry guidelines. For instance, and particularly taking into consideration the CIM guidelines and definitions, (i) mineral resources are insufficiently

673 Rejoinder, ¶ 572.
674 C-Mem., ¶ 696, ninth bullet, citing First Quadrant Economics Expert Report, ¶ 120.
675 Rejoinder, ¶¶ 485, sixth, seventh and ninth bullets, 574, 660-662.
676 C-Mem., ¶¶ 683-689.
677 C-Mem., ¶ 663; Rejoinder, ¶¶ 635-639; Second WGM Expert Report, 19 October 2021, ¶ 50.

defined to qualify as measured or indicated resources; (ii) the classification of resources as inferred resources (the lowest confidence level) is questionable due to significant missing sample data (24%); (iii) the classification of resources as measured or indicated fails to recognize the associated requirements and conditions related to such classifications; and (iv) Claimant failed to demonstrate these mineral resources are mineral reserves, since it did not perform a PFS or a FS. At best, Respondent argues that the Project's deposit can be classified as an *Exploration Target* as per the definition in the CRIRSCO standards.[678]

529. The preliminary nature of the estimation of mineral resources is further confirmed, Respondent asserts, in BRBP's Cautionary Note to U.S. Investors.[679] It shows that Claimant accepted that inferred resources involve a high level of uncertainty. Consequently, it is not possible to assume that inferred mineral resources will be necessarily upgraded to a higher category.[680]

530. In sum, Respondent argues that the contemporaneous evidence at the Valuation Date shows that the economic and marketable potential of the mineral resources of the Project cannot be assessed with sufficient certainty.

531. Third, Respondent argues that Claimant does not have the relevant expertise to develop a venture with the characteristics of the Project. While underwater phosphate deposits exist in several parts of the world, Respondent contends that only experienced mining companies have been able to exploit such resources and that Claimant failed to demonstrate that it would be able to develop and implement the new extraction and production techniques it intended to use.[681]

532. Fourth, concerning the complexity of the Project, Respondent claims that the Don Diego Project involves novel production concepts and unproven technology compared to conventional phosphate mining, which makes it impossible to establish an offshore mining operation, such as that envisaged by the Project. As Respondent argues, the lack of any testing, any significant basic engineering in its design, and any operating plans has left the

678 C-Mem., ¶ 696, second bullet; Rejoinder, ¶ 639, citing Second WGM Expert Report, ¶ 63.
679 Rejoinder, ¶¶ 621-622, citing **C-0134**, Odyssey Marine Exploration, Inc., *Don Diego: A Strategic Phosphate Resource*, 22 September 2015, p. 29.
680 C-Mem., ¶ 680.
681 C-Mem., ¶ 667; Rejoinder, ¶¶ 479-481.

Project with major exposure to technical issues that could impact capital expenditures, operating costs and potential project feasibility. In addition, the projected time frame for project development to production, as outlined in the BRPS, does not reflect the level of geological understanding, the status of metallurgical test work, and the basic engineering of the process design or start-up requirements as of the Valuation Date.[682] Furthermore, Respondent highlights that the Don Diego deposit has been known for more than 50 years and, to date, there have been multiple attempts to exploit the mineral resources through similar offshore and near shore concessions granted by Mexico. All of these concessions never materialized into a commercial operation and, instead, were abandoned for economic and technical reasons.[683]

533. Fifth, on the estimated demand and other market considerations, Respondent points out that Claimant did not provide any evidence to support its assumption that ExO would rapidly capture a very significant market share [redacted]. Respondent further argues that (i) Claimant's expert CRU incorrectly puts the total market for phosphate rock in 2015 at [redacted] and, consequently, overstates the size of the available importation market for the *sized product* that the Project intended to produce; and (ii) the market share that Claimant would have to secure to achieve the overestimated market volumes it projected is unrealistic [redacted] especially because of the existence of multiple large-scale, export-oriented and far more advanced projects that were being developed at the same time.[684]

534. Respondent also states that Claimant's assertion that the Project could secure markets and sell the volumes of product used in Claimant's DCF analysis are unsupported and based on speculation. It is not possible to assert that the Project would have been competitive with high-level products from other sources, because it is based exclusively on an assumed

682 C-Mem., ¶ 696, seventh and eighth bullets; Rejoinder, ¶¶ 663-669; Respondent's Post-Hearing Brief, ¶¶ 184-194.

683 Rejoinder, ¶¶ 577, 671-674; Second WGM Expert Report, ¶ 39.

684 Respondent refers to the Hinda project and the Baobab project as examples. C-Mem., ¶ 696, third bullet; Rejoinder, ¶¶ 640-643.

and imprecise price differential. Neither Odyssey nor ExO have demonstrated the existence of a market for its products or interest from major mining companies.[685]

535. As for the prices, Quadrant Economics affirms that as of the Date of Valuation "*no potential buyers for the Don Diego's products were found, and CRU's opinions about who those buyers could be are entirely speculative.*"[686] In addition, WGM considered that the appropriate basis of comparison in relation to price assessment was the Egyptian FOB Price for phosphate rock due to its closer similarity with the characteristics of the Project's intended product, and not the higher price of Moroccan K10.[687]

536. In sum, Respondent argues that Claimant failed to demonstrate it would establish an adequate customer base, failed to fully define its product, and failed to show that it would gain a significant market share as its experts assume.[688]

537. Lastly, Respondent objects the appropriateness of the ROV method to calculate damages. Based on the Quadrant Economics Report, it argues that (i) the application of valuation models to real options which are designed for financial purposes presents technical difficulties; (ii) using the ROV method always results in a value larger or equal to zero, since an option cannot lead to a negative valuation; and (iii) the volatility parameter for real options is difficult to estimate with a reasonable degree of accuracy.[689]

b) Project Strategic Value

538. Respondent does not deny that the Project may have strategic value, but argues that such a premium would have already been included in Odyssey's market capitalization.[690] Nevertheless, Respondent takes issue with Claimant's calculation of the Project's strategic value. Respondent points out that the only evidence submitted by Claimant in support of a 15% increase of Compass Lexecon's valuation of the investment is Mr. Longley's witness statement. Mr. Longley is neither a damages expert nor has the necessary credentials to

685 C-Mem., ¶ 696, third and fourth bullets; Rejoinder, ¶¶ 644-646, 656-658; Second Quadrant Economics Expert Report, ¶ 36.
686 C-Mem., ¶ 696, sixth bullet, citing First Quadrant Economics Expert Report, ¶ 135.
687 Rejoinder, ¶¶ 652-653.
688 Rejoinder, ¶ 454.
689 First Quadrant Economics Expert Report, ¶ 167.
690 C-Mem., ¶ 707; Respondent's Post-Hearing Brief, ¶ 145.

provide a damages valuation, and, as an employee of Claimant, is not an independent expert. Respondent notes that "*Mr. Longley's views on the strategic value of the Project are insufficient evidence to support a* [redacted] *increase (plus interest and taxes) in Claimant's own valuation of the Project*."[691] Respondent adds that Claimant's speculation that Agrium or other would-be buyers would have paid the 15% premium is speculative and inconsistent with the principle of reasonable certainty.[692]

c) ExO's Lost Opportunity

539. Likewise, Respondent does not deny that Claimant may have lost a business opportunity but asserts that the value of ExO's lost opportunity would be similarly included in the market approach of Odyssey's market capitalization.[693] Respondent stresses that, if there were indeed any value for such alleged lost opportunity, there would be no reason not to reflect it in the FMV of the investment immediately before the MIA denial.[694] However, Respondent again takes issue with Claimant's calculation and states that Claimant has speculated about the profitability, characteristics, costs, technical and economic feasibility of the operation along with the existence, volume and value of additional resources within its concessions. In the same vein, Claimant submits as evidence in support of the lost opportunity premium only the witness statement of Mr. Longley, who is not an independent expert and whose calculation is based on simple conjecture and inconclusive evidence. Respondent also stresses that Compass Lexecon did not consider ExO's lost opportunity as an additional source of value. As a final consideration, Respondent notes that the case law cited by Claimant offers no support for compensating ExO's lost opportunity, as in all of these cases the arbitral tribunals awarded such compensation in the context of the rejection of the DCF method.[695]

691 C-Mem., ¶¶ 705-706; Rejoinder, ¶¶ 708-709.
692 Rejoinder, ¶¶ 710-714.
693 C-Mem., ¶ 707; Rejoinder, ¶¶ 717-721; Respondent's Post-Hearing Brief, ¶ 145.
694 C-Mem., ¶ 709.
695 Rejoinder, ¶¶ 718-721.

d) Market Approach: Comparable Transactions to the Don Diego Project

540. Respondent objects to Claimant's suggestion that, alternatively to the income approach, the Tribunal should value the Project using the comparable transactions method. Respondent states that this argumentation should have been submitted with the Memorial but, nevertheless, it asked its damages expert to analyze the merits of the newly-submitted valuation by Agrifos.[696]

541. Respondent characterizes the valuation made by Agrifos stating that it "*first derives an implicit price per ton that it obtains from two 'comparable' transactions, and then derives the Project's value by multiplying the price obtained by the volume of Measured, Indicated and Inferred Resources identifies in the* [redacted]."[697] It further identifies four main issues with the proposed method: (i) it is based on the assumption that the MIA would have been approved and as such, Agrifos' valuation is incompatible with the compensation legal standard proposed by Claimant; (ii) Claimant did not meet the burden of proving the valuation according to the comparable transactions method since Agrifos did not submit supporting evidence for its analysis and, consequently, incomplete and uncorroborated data from private transactions cannot be invoked as it hampers Respondent's possibility to challenge Agrifos' report; (iii) Agrifos did not consider nine different transactions to determine the FMV investment, but only selected two transactions (the Baobab and Hinda transactions) which, in any case, are not comparable to the Don Diego Project; and (iv) Agrifos applied several subjective, unjustified and unsupported premiums to its result.[698]

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696 Rejoinder, ¶ 696.

697 Rejoinder, ¶ 697.

698 Rejoinder, ¶¶ 699-707; Respondent's Post-Hearing Brief, ¶¶ 199-216. Respondent argues that Agrifos made the following unjustified adjustments and assumptions: (i) it increased the volume of mineral resources of the Project by including the northern expansion area that was not considered in the NI 43-101 Technical Report; (ii) it included inferred resources in the financial analysis; (iii) it assumed a [redacted] for the selected comparable transaction with no substantive support to justify such value; (iv) it assumed additional [redacted] to arrive, respectively, at the high and low values that delineate the range of value of the Don Diego Project with no substantive support; (v) it assumed a significantly longer mine life for Phase I of the Project in contradiction to the [redacted] and, generally, (vii) it introduces similar assumptions Compass Lexecon used in its DCF valuation.

According to Respondent, these problems show the inappropriateness of the comparable transactions method to value the FMV.[699]

e) Market Approach: Odyssey's Market Capitalization

542. Alternatively, Respondent advocates the utilization of the market capitalization method for calculating damages. Respondent argues that this approach is adequate considering that Odyssey is a publicly-traded company and, consequently, "*any movements in its share price before and after the denial of the MIA are a good indicator of the value of Odyssey's participation in ExO*."[700] Respondent also points out that the market capitalization method is approved by the CIMVAL standards and guidelines applicable to the valuation of minerals in exploration stages.[701]

543. Respondent contends that the applicable methodology must consider and be based on (i) the economic and technical viability and feasibility of the Project; (ii) the actual stage of the Project; (iii) the industry standards; (iv) the technical opinion of WGM; (v) Claimant's contemporary evidence; (vi) the absence of a history of profitable operations; (vii) the lack of declaration of mineral reserves; (viii) the failure to secure a market for its product; (ix) the fact that the Project was not a going concern, among other considerations. Respondent affirms that, based on its expert report, "*the market attributed a certain value to the Project because the possibility for success, but that value was modest precisely because the Project was at a very early stage of development and had not demonstrated its future profitability*." By contrast, an income approach overestimates the real value of the investment.[702]

544. Respondent forewarns that Odyssey's market capitalization is the same approach used by Compass Lexecon in its *reasonability analysis.* Respondent further argues that Quadrant Economics adopts the analysis made by Claimant's expert, but rejecting several assumptions and adjustments; *inter alia*: (i) the distortion of the price of Odyssey's shares at the Valuation Date; (ii) the 50% premium added to account for the MIA approval; (iii) the 32.3% premium added on account of the controlling interest; (iv) the short-selling of

699 Rejoinder, ¶¶ 698-707; Respondent's Post-Hearing Brief, ¶¶ 144, 200-208, 212, 215.
700 Rejoinder, ¶ 676.
701 C-Mem., ¶ 698; Respondent's Post-Hearing Brief, ¶ 222.
702 Rejoinder, ¶¶ 454, 478, 677 (emphasis omitted).

the stock and liquidity constrains faced by Odyssey; and (v) the inclusion of any perceived strategic or lost opportunity value in the FMV of the investment.[703]

545. After further adjustments in its second report, Quadrant Economics concluded that the FMV of Odyssey's interest in ExO using the market capitalization approach on the Valuation Date is US$ 43.2 million.[704] Respondent states that such value can be confirmed in light of (i) the US$ 37.1 million reduction in Odyssey's market capitalization immediately after the MIA's denial on 11 April 2016; and (ii) the US$ 37.7 million increase in Odyssey's market capitalization after the decision of the TFJA on 21 March 2018.[705]

f) Cost Approach: Sunk Costs

546. If the Tribunal determines that the appropriate valuation method is not Odyssey's market capitalization, Respondent proposes the calculation of damages based on Claimant's sunk costs under the principle of full reparation and in accordance with the international investment jurisprudence, as the cost approach is the most widely used approach to determine damages in the cases Respondent analyzed.[706]

547. Quadrant Economics made adjustments to Claimant's valuation of sunk costs. In its second report, Compass Lexecon affirmed the existence of [redacted] in sunk costs plus an additional [redacted] in financial costs as of 31 December 2020. Quadrant Economics pointed out several issues with Compass Lexecon's valuation: (i) Claimant's financial statements are not audited; (ii) the calculation of expenditure relies on income

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703 C-Mem., ¶¶ 699-707; Rejoinder, ¶¶ 680-684; Respondent's Post-Hearing Brief, ¶ 220.

704 In its Counter-Memorial, Respondent argues that Quadrant Economics estimated Odyssey's market capitalization on 29 February 2016 at US$ 19.1 million for Claimant's 53.89% share and US$ 39.2 million for the entire Project. In its second report, Quadrant Economics acknowledged that the news articles published after the Valuation Date cited by Compass Lexecon in its second report pointed out that Odyssey's market capitalization by the Valuation Date incorporated market expectations of a MIA approval. Thus, considering that on the Valuation Date Odyssey's market capitalization was US$ 60.6 million, Quadrant Economics adjusted the FMV suggesting such value should be the difference between Odyssey's market capitalization on 29 February 2016 and 6 April 2016, *i.e.*, US$ 41.5 million. Furthermore, to take into consideration short-term fluctuations, Respondent proposes that the FMV of Odyssey's interest in ExO is the average of the estimation of US$ 41.5 million and US$ 44.8 million ("*the value can be obtained as the difference between the average market capitalization in the month of April, prior to the Valuation Date, and the average market capitalization in the four days before February 29, 2016*.") C-Mem., ¶ 618; Rejoinder, ¶¶ 683-685; Second Quadrant Economics Expert Report, ¶ 122.

705 Rejoinder, ¶¶ 685-686; Respondent's Post-Hearing Brief, ¶¶ 222-223; Second Quadrant Economics Expert Report, ¶¶ 124-125.

706 Rejoinder, ¶¶ 457, 496, 514; Respondent's Post-Hearing Brief, ¶¶ 164, 224.

statements and is not based on actual cash disbursements; (iii) 87% of the total expenditure, excluding financing costs, relates to inter-company management fees or administration payments; (iv) the [redacted] in financial costs lack support; (v) costs after the MIA's Second Denial were included.[707] Based on Quadrant Economics' reports, Respondent argues for the exclusion of inter-company payments, *"mark-ups*" between companies, financing costs, and expenses incurred after the Valuation Date to calculate the final value of Claimant's sunk costs.[708]

548. Respondent concludes that the amount of compensation based on Claimant's sunk costs is US$ 13.0 million as of 6 April 2016 or US$ 14.6 million as of 12 October 2018 according to Quadrant Economics' calculation.[709]

(3) Interest

549. With these exclusions, Respondent points out that the calculation of pre- and post-award interest at a rate of 13.95% is unfounded and unprecedented in international investment jurisprudence. Respondent highlights that approximately 44% of the damages requested by Claimant are attributable to interest. As explained by Respondent's damages expert, setting the WACC as the pre-award interest rate would compensate Claimant for risks it never took, *i.e.*, operating the Project. Instead, Respondent considers that the appropriate rate should be a short-term risk-free rate, such as the yield one-year U.S. Treasury Bill. Respondent also advances that, pursuant NAFTA Article 1110(4), the Project's WACC is "*neither a 'commercial' rate nor is it a 'reasonable' rate for USD denominated amounts*."[710]

(4) Tax

550. Respondent objects the tax gross-up requested by Claimant on the grounds that (i) the tax gross-up would be calculated based on the DCF method; (ii) Claimant would have failed to properly account for ExO's operating losses which it could use to offset taxes payable

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707 Rejoinder, ¶ 689; Respondent's Post-Hearing Brief, ¶¶ 224, 228; Second Quadrant Economics Expert Report, ¶ 156.

708 Rejoinder, ¶¶ 690-693; Respondent's Post-Hearing Brief, ¶¶ 229-230.

709 Rejoinder, ¶¶ 457, 694; Respondent's Post-Hearing Brief, ¶¶ 224, 227, 231. Respondent estimates Claimant's sunk costs at US$ 14.6 million as of the date of the Second Denial of the MIA.

710 C-Mem., ¶¶ 714-716; Rejoinder, ¶¶ 722-725; Respondent's Post-Hearing Brief, ¶ 146.

on a potential award; and (iii) Compass Lexecon artificially increased its damages calculation by omitting from its cash flow analysis the PTU.[711]

C. TRIBUNAL'S ANALYSIS

(1) Legal Standard

a) Full Reparation Principle and Fair Market Value

551. The Majority has determined that Respondent breached the FET standard contained in NAFTA Article 1105(1). Therefore, the Tribunal must decide the issue of compensation, considering both Odyssey's and Mexico's arguments.

552. Before analyzing the character, type and extent of the damages claimed and the compensation sought by Claimant, matters that will be addressed in subsequent sections, the Tribunal needs to decide on the legal principles to be followed when ruling on the damages requested by Claimant.

553. NAFTA Article 1135 sets forth the general criteria to be observed by the Tribunal when rendering an award against a Party. In this regard, it states, *inter alia*, that:

> ***NAFTA Article 1135: Final Award***
>
> *1. Where a Tribunal makes a final award against a Party, the Tribunal may award, separately or in combination, only:*
>
> *(a) monetary damages and any applicable interest;*
>
> *(b) restitution of property, in which case the award shall provide that the disputing Party may pay monetary damages and any applicable interest in lieu of restitution.*

554. In turn, while NAFTA establishes compensation guidelines for lawful expropriations, it does not provide a specific standard of compensation for breaches of other provisions contained in Chapter 11, Part A, such as the breach of the FET standard under NAFTA Article 1105(1). Thus, the Tribunal must apply the rules of customary international law to fill this void.

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[711] C-Mem., ¶¶ 712-713.

555. Against this background, both parties state,[712] and the Tribunal agrees, that the full reparation standard as prescribed for in the case *Chorzów Factory*[713] is the appropriate standard to be observed regarding compensation in the present dispute. The same standard is contemplated in ARSIWA Article 31, which states that Respondent is obliged "*to make full reparation for the injury caused by the internationally wrongful act*."[714]

556. Regarding the scope of the damages to be compensated, it is undisputed that the function of damages is to correct and repair the harmful consequences derived from an unlawful act. To achieve such a goal, as stated by the *Chorzów Factory* tribunal, the compensation must "*as far as possible, wipe out all the consequences of the illegal act and reestablish the situation which would, in all probability, have existed if that act had not been committed.*"[715]

557. Both parties agree that to give effect to the principle of full reparation, the damages awarded in this case should reflect the FMV of Claimant's investment.[716]

558. The Tribunal notes that the FMV standard has been used by investment tribunals when called upon to calculate damages, both in the context of expropriations and for other violations of international obligations, either in the context of NAFTA disputes or non-NAFTA disputes.

559. Therefore, the Majority endorses the parties' position that the assessment of the damages due to Respondent's violation of the FET standard established in NAFTA Article 1105(1) should be based on the FMV of the investment, to the extent such value is ascertainable.

560. In this respect, seeking to give precise content to the FMV concept, the Majority adheres to the formulation made by the *Starrett Housing v. Iran* tribunal, which defined FMV as "*the price that a willing buyer would pay to a willing seller in circumstances in which each had good information, each desired to maximize his financial gain, and neither was under duress or threat*." [717]

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712 Mem., ¶ 363; Respondent's Post-Hearing Brief, ¶¶ 150-152.
713 **CL-0029**, *Chorzów Factory.*
714 **CL-0059**, ILC Draft Articles on State Responsibility, with Commentaries (2001).
715 **CL-0029**, *Chorzów Factory*, p. 47.
716 Mem., ¶¶ 373-374; Respondent's Post-Hearing Brief, ¶¶ 150-152.
717 **CL-0109**, S*tarrett Housing v. Iran*, Final Award, ¶ 277.

561. The Majority notes that the FMV standard does not mandate the use of a specific valuation method. Put differently, there is no generally preferable valuation method for calculating the FMV of an investment, since the selection of one method over another by the Tribunal will depend on the circumstances of the specific case and the persuasiveness of the evidence presented.

b) Valuation Date

562. Although both parties agree on the use of the FMV of the investment, they disagree on the date on which the valuation should be performed. Whereas Claimant alleges that the Valuation Date should be 7 April 2016, that is, the day when SEMARNAT denied the environmental permit for the first time, Respondent argues that the Valuation Date should be 6 April 2016, since this is the day immediately before the denial, when no decision on the MIA had been issued yet.

563. The real difference underlying this disagreement does not lie in the dates advocated by the parties because both agree that the assessment must be done at a time prior to SEMARNAT's First Denial of the MIA, whether the date chosen is 6 April or 7 April 2016. The discrepancy is that while Claimant argues that the valuation must assume that the MIA would be granted in the "*but-for*" scenario,[718] Respondent considers this to be inappropriate because, in valuations of this type, it is incorrect to consider the effects of the State's actions breaching its obligations.

564. The Majority, in light of the arguments raised by Respondent, understands that its allegation that ExO's FMV assessment must be made in a context of uncertainty as to whether the MIA would have been approved or not, is based on the following syllogism.

565. First, Respondent states that when Claimant asserts that the FMV must be used to assess the damages in this case, it is proposing, for all practical purposes, the measure of compensation established in NAFTA Article 1110(2) for lawful expropriations.[719] This provision states that "[c]*ompensation shall be equivalent to <u>the fair market value</u> of the expropriated investment immediately <u>before the expropriation took place</u> ('date of*

[718] Reply, ¶ 341.
[719] C-Mem., ¶ 631.

expropriation'), and shall not reflect any change in value occurring because the intended expropriation had become known earlier."[720]

566. Second, Respondent concludes that since NAFTA Article 1110(2) expressly establishes that the State's act (the expropriation) cannot be considered when determining the FVM of the investment, it is not appropriate for Claimant to argue that the State act (any decision on the MIA) should be considered in this case. Such a result would imply disregarding the rule under analysis which excludes taking into account the State acts and their effects by imposing to use "*the fair market value of the expropriated investment immediately before the expropriation took place.*"

567. In the Majority's opinion, Respondent's approach is incorrect. In the case of an expropriation, it is appropriate to disregard the consequences of the expropriation when determining the FMV of the investment since it is that act that causes harm to it. If the FMV were determined incorporating the effect of the expropriation, the resulting value would be lower to the disadvantage of the investor, and the State would benefit from its own breaching act.

568. In the case of a breach of the FET standard resulting from the wrongful conduct of the State, it is also appropriate to disregard the State Act in breach of the Treaty (in this case, the decision to reject the MIA). Instead, the FMV should be calculated on the basis of the State's conduct that would not be wrongful, in this case, the proper State's decision, *i.e.*, the approval of the MIA. If this were not done, the State would benefit from its wrongful act (not having approved the MIA), and the investor would see the FMV of its investment lowered as a result of the State's violation of the Treaty. In other words, the underlying breach the Majority found in this case is that Mexico rejected rather than approved ExO's MIA. The consequences of this breach must be "*wiped out*" by assuming that Mexico would have approved the MIA for the purposes of calculating the FMV.

569. Assessing ExO's FMV under a scenario of uncertainty, without assuming the MIA were granted, which is what Respondent postulates, means eliminating only part of Mexico's harmful conduct (its rejection decision) but not addressing or eliminating –to the detriment

[720] **CL-0081**, NAFTA, Art. 1110(2) (emphasis added).

of the investor– the rest of its illegal conduct (its failure to approve the MIA). Therefore, the Majority agrees with Claimant that it must assume that the MIA would have been granted for valuation purposes.

570. Regarding the Valuation Date to be considered when determining the FMV of the investment, the Majority will choose 7 April 2016, at the moment immediately before ExO received the First Denial of the MIA, to ensure that the value of the investment is not reduced by such act.

571. Finally, the Majority must note two circumstances: (i) the assumption that the MIA would have been granted, and the Valuation Date are fundamental factors when analyzing the FMV of the investment according to any of the approaches proposed by the parties (income approach and market approach). However, these factors lose their relevance if the criterion chosen by the Majority to assess the damages is that of sunk costs. In such case, assuming that the MIA would have been granted does not affect the calculation of sunk costs associated with the investment since they are not altered by the assumption that the Project would have been approved; (ii) likewise, the Valuation Date does not apply if the method chosen to calculate the damages is the sunk cost approach. In such hypothesis, rather than looking for the appropriate date on which to value the investment (*i.e.*, the date or moment immediately prior to Respondent's breach), what matters is the period during which the investor spent resources for the development of the investment.

c) Legally Relevant Damages, Burden of Proof and Standard of Proof

572. The Majority makes a distinction between determining the causal link between the breaching act and the alleged damage, on the one hand; and deciding on the existence and *quantum* of damages, on the other hand.

573. Regarding the causal link, the Tribunal agrees with Mexico that there must be a direct link between the violation and the alleged damage.

574. In this respect, the Majority has previously decided that Respondent breached the FET standard contained in NAFTA Article 1105(1) and that, in the absence of such breach, the MIA would have been granted. It is now appropriate to add that, in the Majority's view, there is a high probability that once such approval had been granted, ExO would have

obtained the few remaining authorizations it lacked and could have commenced operations sometime after.

575. Therefore, what indeed prevented the exploitation of the Don Diego Project of ExO was SEMARNAT's decision to reject its MIA. Accordingly, there is a sufficient causal link between the profits or gains that ExO would have obtained if it had been able to proceed with the Project (which is the claimed damage) and the rejection of the MIA insofar as it prevented ExO from obtaining such alleged benefits.

576. When referring to causation, Mexico questions whether ExO would have completed the several stages of development that lay ahead, obtained the remaining permits, obtained the necessary financing to put the Project in operation, implemented new extraction techniques in a cost-efficient manner, established a reliable customer base for its products and gained the significant market share it projected in its valuation of income.

577. Mexico's objections can be divided into two different questions: the first concerns whether ExO would have been in a position to start its operations after obtaining the MIA; and the second (which encompasses the majority of the questions raised by Mexico) concerns whether ExO's operations would have been profitable and, thus, if the alleged damages have real bases.

578. Regarding the first question, the Majority reiterates that although once the MIA had been obtained, and some permits and tasks would be pending, there are no reasons to assume that ExO would not have been able to obtain them and thus be in a legal position to begin operations. The other pending permits, apart from some from the Secretariat of the Navy, were all related to governmental agencies that were part of SEMARNAT and to environmental matters considered in ExO's MIA. In this respect, the MIA was the last significant hurdle or "*gateway permit.*"[721] As asserted by Claimant, the *ratio juris* of all the other post-MIA permits is the same one governing the MIA authorization: the protection of the environment.[722] Thus, assuming the existence of an approved MIA, it seems highly unlikely that ExO would have failed to obtain the other permits.

[721] Reply, ¶ 336(c).
[722] Reply, ¶ 336(c).

579. As stated above, the Tribunal deems that Respondent's breach caused the alleged damages to Claimant's investment. Therefore, regardless of the character, type, and extent of those damages, the Majority finds that any damages that might be incurred would be the direct consequence of Mexico's breach of the FET standard contained in NAFTA Article 1105(1).

580. Accordingly, the Majority rejects Respondent's objections regarding causation.

581. As to whether the operations would have been profitable, that is a different question, which is not related to the causation being analyzed but instead to the existence of the alleged damage and its amount. When considering the existence and *quantum* of compensable damages, it is necessary to define the criteria that the Tribunal will observe when deciding in this respect, which requires analyzing, in the first place, the applicable burden of proof and the standard of proof.

582. As for the burden of proof, the Tribunal notes that both parties agree that "*[t]he general rule … is that the party alleging a fact bears the burden of proving it.*"[723] Against this background, considering that Claimant alleges the existence of damages, the burden of proof falls on Claimant. This is without prejudice to Respondent's burden of proving the facts on which its defenses to Odyssey's claim for compensation rest.

583. Regarding the standard of proof, both parties agree, and so does the Tribunal, that the existence and extent of the damage must be established with a degree of "*sufficient*" or "*reasonable*" certainty.[724] This standard, as Claimant contends, does not mean a 100% certainty, but it surely excludes damages that are speculative or merely possible, as Respondent asserts.

584. Claimant also asserts that the balance of probabilities should be the applicable standard of proof. Claimant does not state whether this standard should apply to the causal link between the breach and the alleged damages, to the existence of the damage or to the *quantum* of damages. Whereas such standard might be applicable to the first two matters, the Tribunal

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723 Reply, ¶ 334; C-Mem., ¶ 627, citing **CL-0101/ RL-0065**, Sergey Ripinsky & Kevin Williams, *Damages in International Investment Law* (2008), p. 161.

724 Reply, ¶ 337; C-Mem., ¶ 644.

does not see how it could establish the *quantum* of damages resorting to the balance of probability standard.

585. Therefore, the Majority will recognize as legally compensable damages only those whose existence and *quantum* are established with sufficient or reasonable certainty, a standard that is consistent with the jurisprudence invoked by both parties.[725]

d) Claims under NAFTA Article 1116 and 1117 and Risk of Double Recovery

586. Before analyzing the specific damages claimed in this case, the Tribunal must address the point whether Claimant is seeking damages under both NAFTA Articles 1116 and 1117 and the potential risk of double recovery.

587. In this respect, Respondent contends that Claimant did not specify whether the damages it claims are under NAFTA Articles 1116 or 1117 and affirms that Claimant should not be granted double recovery.[726]

588. Even though the Tribunal has decided that it has jurisdiction over Odyssey's claim, both under NAFTA Articles 1116 and 1117,[727] this determination does not mean that Claimant does not need to specify on whose behalf it is requesting the damages it asks or that it is entitled to an overlapping recovery.

589. Therefore, since Claimant did not provide the clarifications requested, and to avoid the risk of double recovery, the Tribunal will assume, as Respondent did,[728] that the damages requested in this case correspond to those suffered by ExO and that the eventual award in favor of the latter company achieves the purpose of compensating at the same time the damages that Odyssey itself may have sustained as the owner and entity controlling ExO. In any event, the Tribunal will return to this matter when deciding who is entitled to the damages awarded in this proceeding.

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725 *See* **RL-0067**, *Amoco v. Iran*, Partial Award, ¶ 238; **CL-0054**, *Gemplus v. Mexico*, Award, Part XII, ¶ 12-56; **RL-0068**, *BG Group v. Argentina*, Final Award, ¶ 428; **CL-0011**, *Asian Agricultural Products LTD. (AAPL) v. Republic of Sri Lanka*, ICSID Case No. ARB/87/3, Final Award, 27 June 1990, ¶ 104; **RL-0069**, *S.D. Myers, Inc. v. Government of Canada*, UNCITRAL, Second Partial Award, 21 October 2002, ¶ 173; **CL-0071**, *Metalclad v. Mexico*, Award, ¶ 121.

726 C-Mem., ¶¶ 619-622; Rejoinder, ¶¶ 458-462.

727 *See supra* at ¶¶ 175-187.

728 C-Mem., ¶ 622.

590. In the same vein, there is another hypothetical risk of double recovery that needs to be addressed. Given that the decision of the TFJA on the Second Denial of ExO's MIA is pending and that this could eventually result in ExO being able to operate the Don Diego Project at some point in the future, the Tribunal takes note of Claimant's statements in this regard.

591. Thus, the Tribunal agrees with the criteria invoked by Claimant, referring to the decision of the *Chevron v. Ecuador* tribunal, which, faced with a similar question, stated: "[t]*he Claimants' recovery should not be reduced based on the uncertain possibility of a favorable outcome in the national court proceedings*," adding that "*international law and decisions as well as domestic court procedures offer numerous mechanisms for preventing the possibility of double recovery.*"[729]

592. More importantly, Odyssey has represented to this Tribunal that it undertakes to prevent double recovery in this case.[730] This representation has legal consequences, and the Tribunal considers, in line with the decisions of other tribunals,[731] that it provides sufficient guarantees to Respondent if the risk of double recovery discussed above arises in the future.

e) The Investment

593. Respondent notes that Claimant mentions different investments in its submissions, thereby creating doubts with respect to the investment value it seeks to determine. Thus, for instance, sometimes Claimant states that the investment at issue is the "*entirety of ExO's Concession and Claimant's Investment in Mexico*"; while, at other times, it affirms that "*the appropriate measure of damages, ... is the fair market value of the Don Diego Project*"

729 **CL-0259**, *Chevron Corporation (USA) and Texaco Petroleum Company (USA) v. Republic of Ecuador*, PCA Case No. 34877, Partial Award on the Merits, 30 March 2010, ¶ 557.

730 Claimant's Post-Hearing Brief, ¶ 184.

731 *See* **CL-0259**, *Chevron v. Ecuador*, Partial Award on the Merits, ¶¶ 517, 557; **CL-0261**, *Venezuela Holdings, B.V., and others v. Bolivarian Republic of Venezuela*, ICSID Case No. ARB/07/27, Award, 9 October 2014, ¶ 380; **CL-0262**, *CME Czech Republic B.V. (The Netherlands) v. Czech Republic*, UNCITRAL, Final Award, 14 March 2003, ¶ 185; **CL-0263**, *Burlington Resources Inc. v. Republic of Ecuador*, ICSID Case No. ARB/08/5 (formerly *Burlington Resources Inc., and others v. Republic of Ecuador and Empresa Estatal Petróleos del Ecuador (PetroEcuador)*), Decision on Counterclaims, 7 February 2017, ¶¶ 1084-1085.

or other different formulations that generate doubts as to which investment is to be valued.[732]

594. Respondent asserts that "*the Project*" is not *per se* a covered investment under NAFTA, as it does not fall within any of the categories of investment listed in NAFTA Article 1139. It adds that a concession cannot be accorded treatment inconsistent with the minimum standard of treatment and/or national treatment obligations established in NAFTA Articles 1102 and 1105. It concludes that, for this reason, Respondent will proceed on the basis that the investment at issue is ExO.[733]

595. Agreeing with Respondent that Claimant has indeed described the investment using different terms, the Tribunal has no doubt that the investment at issue in this case is ExO, as assumed by Respondent. In fact, Claimant has also clarified it, stating that "[t]*o give effect to the principle of full reparation, compensation in this case should reflect the fair market value of the entirety of Claimant's investment in Mexico, as encapsulated in the contemporaneous value of ExO, the business of which exclusively concerned development of the Project.*"[734] Thus, there is no disagreement between the parties on this point, and the Tribunal agrees with their position.

596. Therefore, even though the parties or the Tribunal may use the terms "*Project*," "*Concession*" or "*ExO*" as interchangeable expressions in these proceedings, the investment at issue, and whose valuation is to be determined, is ExO.

597. The Tribunal notes that Odyssey's 53.89% shareholding in ExO could also be considered an investment at issue in this proceeding. As seen above, Odyssey has brought a claim not only on behalf of ExO under NAFTA Article 1117, but also on its own behalf under NAFTA Article 1116. However, as already determined, this investment by Odyssey in ExO will not be calculated since the Tribunal has previously assumed that the damages requested in this case correspond to those suffered by ExO.

732 Mem., ¶¶ 373, 376.
733 C-Mem., ¶ 625.
734 Mem., ¶ 373 (emphasis added).

(2) Calculation of Damages

598. The Tribunal has determined that Respondent breached the FET standard contained in NAFTA Article 1105(1). If the MIA had not been wrongly rejected, Claimant would have continued the normal course of the Project, obtained the rest of the permits from the relevant authorities and been in a position to exploit the phosphate deposits comprised in the Don Diego Project. However, it does not follow from this premise that the exploitation of the Project would have been commercially possible or profitable, a matter that needs to be analyzed on its own merit. Therefore, the issue that needs to be addressed now is whether said exploitation would have been commercially feasible and, thus, the real existence and extent of the damages claimed by Claimant. The Tribunal will analyze below the different approaches and methods advocated by the parties to assess damages. It must be noted from the outset that the positions of the parties, both from a conceptual point of view and in terms of the amounts involved, lead to substantially different conclusions.

a) Claimant's Valuation of Damages under the Income Approach

599. In its Post-Hearing Brief, Claimant requests damages amounting to (i) US$ 1,355 million (gross of taxes), plus compound interest of 13.95% through 12 September 2022, for a total of US$ 3,137.6 million, plus compound interest of 13.95% through the date when the Tribunal issues its final Award, plus post-award interest through the date the Award is paid; or alternatively, (ii) US$ 1,065.4 million (net of taxes) plus compound interest of 13.95% through 12 September 2022, for a total of US$ 2,467.06 million, plus compound interest of 13.95% through the date when the Tribunal issues its final Award, plus post-award interest through the date the Award is paid, declaring that the award in this case is net of applicable Mexican taxes.[735]

600. Claimant explains the base amounts requested of [redacted] (gross of taxes) or [redacted] (net of taxes) by asserting that the damages caused by Respondent's breach of NAFTA Article 1105(1) consist of (i) the FMV of the Don Diego Project as calculated in the Compass Lexecon reports [redacted] (gross of taxes) or [redacted]

[735] Claimant's Post-Hearing Brief, ¶ 374.

(net of taxes); (ii) the strategic value of the Don Diego Project at [redacted]; and (iii) the value of exploration potential of the Don Diego Project at [redacted].

601. Thus, beyond the interests requested and its effect on the total amounts claimed, to determine the merit of the damages claimed by Claimant, it is appropriate to first review the Don Diego Project's FMV.

602. As explained above, in order to support the Don Diego Project's FMV it claims, Odyssey submitted the Compass Lexecon Reports authored by Professors Pablo Spiller and Pablo López Zadicoff.[736] Given that the scope of these reports has been described when stating the parties' position,[737] the Tribunal will now briefly state the essence of the reasoning applied by those experts insofar as it is relevant to the Tribunal's analysis.

603. Compass Lexecon states that in order to determine the Don Diego Project's FMV it attempted to replicate the price discovery mechanism that would have occurred in a due diligence process for the Don Diego Project as of 7 April 2016.[738] Consequently, in undertaking its valuation, Compass Lexecon affirms that it simulated "*the approach a willing buyer would have followed when performing a due diligence for a transaction.*"[739]

604. The date of valuation considered by Compass Lexecon is 7 April 2016, the date of SEMARNAT's First Denial of the MIA, but assuming the MIA would have been granted and the Project would have proceeded. Regarding the validity of this assumption the Tribunal refers to Section VI.C(1)b) above.

605. To determine ExO's FMV, Compass Lexecon applied the so-called income approach, as it is based on the income that the particular asset under consideration is expected to generate.[740] Specifically, Compass Lexecon applied two variations of the income approach in this case, each applicable to different phases of the Project. Firstly, to value the [redacted]

736 First Compass Lexecon Expert Report, and Second Compass Lexecon Expert Report, 29 June 2021.
737 *See supra* at Section VI.A(2).
738 First Compass Lexecon Expert Report, ¶ 44.
739 First Compass Lexecon Expert Report, ¶ 7.
740 First Compass Lexecon Expert Report, ¶ 46.

[redacted].[741]

606. Compass Lexecon explains that the DCF methodology is one of the variations of the income approach that "*measures the value of an asset by computing the Free Cash Flow to the Firm (FCFF) that the company can be reasonably expected to generate in the future by exploiting such assets, discounted at a rate that reflects the company's cost of raising capita*l."[742]

607. Regarding the ROV method, Compass Lexecon states that it is a variation of the income approach that considers that as of the date of valuation the owner of the project has a real option, *i.e.*, the right, but not the obligation, to make a business decision.[743] In this case, "*the real option refers to Odyssey's economically valuable right to further develop the Don Diego concession during Phase II of the Project, assuming that the market conditions and the results of further exploration would have been sufficiently favorable*."[744]

608. The Compass Lexecon Reports draw upon (i) the expert report of Dr. Ian Selby, who opines on the Don Diego Project's resource assessment and the volume and characterization of its resources, the technical feasibility of the dredging engineering concept to extract those resources, and the reasonableness of the associated cost and production estimates; (ii) the expert report of Dr. Colm Sheehan, a partner at Anthony D. Bates Partnership LLP, who validates the reasonableness of the estimates regarding the production rates, as well as the OPEX and CAPEX of the Project's dredging component; (iii) the expert report of Mr. Glenn A. Gruber, of Phosphate Beneficiation LLC, who provides an assessment of the technical feasibility of the processing component of the Don Diego Project and the Project's ability to meet production targets; (iv) the expert report prepared by Mr. David Fuller of Lomond & Hill and Consulmet Australia, who opines on the capital and operating expenditure estimates (CAPEX and OPEX) for the Floating Production and Storage Platforms (FPSPs) for Odyssey's Don Diego phosphate project; (v) the NI 43-101 Technical Report, prepared by Mr. Henry Lamb of Mineral Resource Associates; and (vi)

741 Mem., ¶ 378.
742 First Compass Lexecon Expert Report, ¶ 45.
743 First Compass Lexecon Expert Report, ¶¶ 11-12; Reply, ¶¶ 497-507.
744 Reply, ¶ 497.

the expert report of Dr. Peter Heffernan of CRU Consulting, who opines on the marketability of phosphate rock with the characteristics and volumes anticipated from Don Diego production.

609. The Tribunal deems it relevant to list the assumptions or "*key drivers of value*" considered by Compass Lexecon when assessing the FMV of each Phase of the Don Diego Project.

610. With respect to Phase I and the DCF methodology, Compass Lexecon considers several assumptions in relation to (i) permitting; (ii) resources and production; (iii) phosphate prices; (iv) operating costs; (v) capital investments; (vi) income tax, royalties and dividend tax; and (vii) discount rate.

611. All these assumptions are described in detail in the First Compass Lexecon Report.[745] For illustration, the Tribunal will focus on the resources and production estimates calculated by Compass Lexecon. In relation to the expected total production of Phase I, Compass Lexecon estimated such production at [redacted][746] based on the following assumptions: (i) the existence of [redacted] of total phosphate resources available in the Concession;[747] (ii) the existence of [redacted] of ore with high-grade resources with a [redacted] probability of being upgraded to probable reserves; (iv) an [redacted] probability to translate probable reserves to production.[748]

612. Based on this estimate, also including the other assumptions above listed,[749] Compass Lexecon asserted that the value for the Phase I of the Project is [redacted] as of 7 April 2016 "*prior to a gross-up for Mexican taxes on the Award*."[750]

613. Regarding Phase II and the ROV methodology used, Compass Lexecon considered "*the same types of assumption*" as the ones considered for Phase I but with some differences concerning: (i) resources; (ii) phosphate prices; (iii) offshore dredging and processing

745 First Compass Lexecon Expert Report, ¶ 12.
746 First Compass Lexecon Expert Report, ¶ 68.
747 First Compass Lexecon Expert Report, ¶ 93.
748 First Compass Lexecon Expert Report, ¶¶ 8, 67, 68.
749 *See supra* at ¶ 473, footnote 589.
750 Mem., ¶¶ 397-398.

costs; (iv) onshore flotation plant; (v) discount rate; (vi) option term; and (vii) option Volatility.[751]

614. Compass Lexecon addressed the expected total production of Phase II, estimating it at [redacted].[752] For this estimation, Compass Lexecon introduced several assumptions, such as: (i) the extraction of [redacted]; (ii) [redacted]; (iii) the estimate that [redacted] (iv) the estimate that [redacted] will translate into production; (v) an increase in the dredging capacity [redacted] during Phase II without the need of a new MIA; and (vi) a production rate of [redacted] for Phase II.[753]

615. In calculating the FMV of Phase II, Compass Lexecon also considered the following elements: (i) the option purchase date is 7 April 2016 ("**OPD**"); (ii) the option expiration date is [redacted] ("**OED**"); (iii) the length of the time between the OPD and the OED (the so-called option term) is [redacted]; (iv) the underlying value of the option, *i.e.*, the [redacted]; (v) the strike price, namely the present value of the capital expenses, which is [redacted]; and (vi) volatility, which Compass Lexecon defines as the measure of how much the present value of the Project and the investment cost are expected to fluctuate over time, and calculate the price volatility of the project value at [redacted][754]

616. Compass Lexecon asserts that using the inputs referred to above and relying upon the Margrabe formula for a European call option, "*which provides a basis for exchanging one*

751 Compass Lexecon Expert Report, ¶ 12.
752 Compass Lexecon Expert Report, ¶ 96.
753 Mem., ¶¶ 401-405; Compass Lexecon Expert Report, ¶¶ 96-100.
754 Compass Lexecon Expert Report, ¶ 115.

asset (Don Diego proceeding with Phase I) for another asset (Don Diego proceeding with Phase II),"[755] the FMV of Phase II is [redacted].[756]

617. Therefore, Compass Lexecon assesses the FMV of the Project's under the DCF and ROV methodology at [redacted] for Phase I and [redacted] for Phase II as of 7 April 2016, for a total of [redacted] (prior to a gross-up for Mexican taxes).[757]

618. Claimant gives several reasons to sustain the reasonableness of Compass Lexecon's estimate. As a central line of its approach, Claimant states that both the drivers of project value and income in mining projects can be forecasted "*with a reasonable degree of certainty*."[758] This is demonstrated, for instance, by showing that

> "*a. The methods for quantifying and characterizing resources [are] well established;*
>
> *b. The quantity and quality of the minerals can [be] estimated independently and provides a reliable basis for input assumptions;*
>
> *c. Output is sold in developed international markets reducing revenue uncertainty;*
>
> *d. Market information informs future pricing and provides an objective basis for future cash flows;*
>
> *e. The mining and processing engineering and technology can be independently validated; and*
>
> *f. Detailed information about anticipated capital expenditures, operational expenditures, and production schedules has been developed and can be independently validated.*"[759]

619. Additionally, Claimant asserts that a commodity-based business lends itself more easily to a lost profits analysis because of (i) the success of the Project's exploration campaign, which is the major risk of such an investment; (ii) the very commodity nature of the product at stake; and (iii) the detailed mining cashflow analysis previously performed.[760]

620. In turn, Respondent criticizes Compass Lexecon's valuation when estimating ExO's FMV on the basis that it engages in undue speculation in various material respects, and that there

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755 Mem., ¶ 407.
756 [redacted] as of the OPD according to First Compass Lexecon Expert Report, ¶ 13.
757 *See supra* at ¶¶ 473-474.
758 Mem., ¶ 394.
759 Mem., ¶ 390.
760 Mem., ¶¶ 391-395. *See also supra* at ¶ 472.

are several relevant facts that undermine Claimant's position and demonstrate that, under generally accepted mining industry guidelines, international best practices, and investor-State jurisprudence, the damages in this case cannot be determined using the income approach.[761]

621. In this regard, Respondent highlights, among other factors, that (i) no company, including the world's largest mining companies, has established anywhere in the world an offshore mining operation like the one Claimant intended to develop in Mexico; (ii) Odyssey had no prior experience in the mining sector or the phosphate business (*i.e.*, no track record of profitable operations in Mexico or anywhere else); (iii) ExO did not have a scoping study or a Preliminary Economic Assessment (PEA) prepared or validated by an independent expert; (iv) ExO did not have a FS or even a PFS establishing the economic viability of the Project; (v) ExO had no Proven or Probable Mineral Reserves, as those terms are understood in the context of the mining industry; (vi) ExO had not finished defining the basic engineering of the Project; (vii) the Boskalis Proposal was a preliminary proposal that did not have a sufficient level of detail.[762]

622. Against this background, the Tribunal must decide whether the income approach (DCF and ROV) method used by Compass Lexecon to assess ExO's FMV is appropriate in this case, which in essence involves determining whether the drivers of the Project's value and income can be forecasted with a reasonable degree of certainty.

623. Having weighed the arguments of the parties and the evidence submitted to this proceeding, this Tribunal has concluded that it is inappropriate to use an income approach to calculate the damages in the present case, *i.e.*, the DCF method to Phase I and the ROV method to Phase II of the Project. The Tribunal's reasoning is stated below.

624. In the first place, the Tribunal agrees with Respondent that the use of an income approach – whether the DCF or the ROV methodology – to determine the FMV of an asset poses the risk of being too speculative absent a sufficient track record of profitable operations to reliably project future cash flows.[763]

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761 Rejoinder, ¶ 484.
762 Rejoinder, ¶ 485.
763 C- Mem., ¶ 645.

625. This reasoning has been established in several cases by international tribunals, which have rejected the use of the income approach where there is no record of profitable operations. Of the various precedents invoked in this proceeding, it is worth noting, for instance, the decisions of the *Metalclad v. Mexico* tribunal, which stated that a DCF approach cannot be used "*where the enterprise has not operated for a sufficiently long time to establish a performance record or where it has failed to make a profit, future profits cannot be used to determine going concern or fair market value.*"[764]

626. In the same vein, the *Gemplus v. Mexico* tribunal stated that even the operational record of the concessionaire for some period (August/September 2000 up to June 2001) "*was far too uncertain and incomplete to provide any sufficient factual basis for the DCF method.*"[765]

627. The Tribunal is aware that each case is fact-specific, as Claimant contends.[766] However, the reluctance to accept an income-based approach to determine the FMV of an asset or company when there is no track record of profitable operations seems to stem in all these cases from the same conceptual objection: the inevitable speculative nature of the estimated income.

628. The Tribunal emphasizes that the governing standard of proof is that the damages to be compensated, or the FMV to be estimated, must be sufficiently or reasonably certain as already defined. When the expected income to determine the FMV is based on assumptions that have no support on any actual record of operations, the possibility of complying with such a standard becomes challenging. In fact, it is because of the absence of such a track record of profitable operations that Claimant must resort to the many assumptions and expert opinions mentioned above, which introduces an undeniable degree of uncertainty to its DCF and ROV assessments.

629. Claimant states that "*arbitral tribunals have recognized that non-operating assets*" or "*projects without an operating track record*" can be valued using the DCF methodology;[767] and invokes, among others, the following cases: *Gold Reserve v. Venezuela*,[768] *Rumeli v.*

764 **CL-0071**, *Metalclad v. Mexico*, Award, ¶ 120.
765 **CL-0054**, *Gemplus v. Mexico*, Award, Part XIII, ¶ 13-72.
766 Reply, ¶ 344.
767 Reply, ¶¶ 344-356.
768 **CL-0056**, *Gold Reserve v. Venezuela*, Award, ¶¶ 829-832.

Kazakhstan,[769] *Phillips Petroleum v. Iran*,[770] *Rusoro v. Venezuela*,[771] *Crystallex v. Venezuela*,[772] and *Al-Bahloul v. Tajikistan*.[773]

630. Claimant adds that "*all of the internationally-accepted guidelines for the valuation of mineral properties expressly endorse forward-looking income valuation methods (like the DCF) for 'Development properties' (like Don Diego) and, in some cases, for 'Mineral Resources Properties*,'" asserting that "[t]*his is because once a resource has been discovered and characterized, the drivers of project value can be estimated with a reasonable level of certainty and appropriately adjusted for risk*."[774]

631. Claimant also states that projects in the extractive industry derive their primary value from the "*existence of reserves, and much less so on the ability to develop and extract such reserves and later sell them to the market*."[775]

632. All these considerations are disputed by Respondent, which, in addition to disagreeing with Odyssey's interpretation of the cases it invokes, cites in its favor a series of decisions that have rejected the use of the income approach in the case of non-operating projects. Thus, the precedents invoked by Respondent, apart from the *Metalclad v. Mexico* and *Gemplus v. Mexico* cases cited above, include, among others, *Merrill v. Canada*, and *Cengiz v. Libya*.[776]

633. The Tribunal will not analyze the details of each decision referred to by the parties to determine extent to which they could apply in this proceeding since, as noted above, each case is fact-specific, and each tribunal has a certain degree of discretion to resolve the issue of damages.

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769 **CL-0098**, *Rumeli Telekom A.S. and Telsim Mobil Telekomunikasyon Hizmetleri A.S. v. Republic of Kazakhstan*, ICSID Case No. ARB/05/16, Award, 29 July 2008, ¶¶ 809-811.

770 **CL-0181**, *Phillips Petroleum Company Iran v. Islamic Republic of Iran and National Iranian Oil Company*, IUSCT Case No. 39, Award, 29 June 1989, ¶ 111.

771 **CL-0099**, *Rusoro v. Venezuela*, Award, ¶ 759.

772 **CL-0042**, *Crystallex v. Venezuela*, Award, ¶ 880.

773 **CL-0177**, *Al-Bahloul v. Tajikistan*, Award, ¶¶ 71, 75.

774 Reply, ¶ 346.

775 Reply, ¶ 347.

776 **CL-0070**, *Merrill & Ring Forestry L.P. v. Government of Canada*, UNCITRAL, Award, 31 March 2010, ¶ 264; **RL-0070**, *Cengiz v. Libya*, Award, ¶¶ 602-603, 616.

634. What is worth noting is the general trend regarding the method used in investor-State cases involving pre-production mining projects. In this respect, the Tribunal agrees with Respondent that the most used method by tribunals is the sunk cost approach (five out of 11 cases), while the DCF methodology has been applied on only two occasions: in one of these cases, *Gold Reserve v. Venezuela*, it was partly due to the agreement of the experts of both parties),[777] whereas in *Tethyan v. Pakistan*, the tribunal applied a modern DCF methodology.[778]

635. Additionally, regarding the economic viability of the Don Diego Project, which is a key concept if a DCF approach is going to be used, the Tribunal must note that the Project was at a different level of development than Claimant asserts, as discussed below.

636. Furthermore, in response to Claimant's argument that in mining projects, the factors of a project (excluding the existence of the resources) tend to be reasonably predictable and, therefore, that the DCF can be used absent a record of operations, the Tribunal must note that the Don Diego Project is not a "*classic*" mining project as Claimant seems to assume, regardless of its intention to use proven technology.

637. In this sense, the Tribunal takes into consideration (i) what has been stated in the WGM Expert Report that underwater phosphate deposits exist in many parts of the world (Namibia, South Africa, Peru, the United States, New Zealand, *et cetera*); however, no mining company has been able to successfully exploit such deposits,[779] a fact that as such is not disputed by Claimant;[780] and (ii) the point made by Quadrant Economics that the phosphate deposits in the Don Diego Project area have been known for more than 50 years and that, although at least two other companies – including Innophos, one of the largest phosphate producers in the world – have obtained concessions to exploit the deposit, no commercial operation has ever been developed.[781]

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777 Rejoinder, ¶¶ 514, 518; **CL-0056**, *Gold Reserve v. Venezuela*, Award, ¶¶ 687, 690.
778 Rejoinder, ¶ 514; **CL-0116**, *Tethyan v. Pakistan*, Award, ¶ 361.
779 WGM Expert Report, ¶ 22.
780 Instead, Claimant referred to ocean floor dredging of diamonds and inland artificial pond dredging of phosphate deposits, but not to successful offshore phosphate projects. *See* Reply, ¶¶ 458-459.
781 Second Quadrant Economics Expert Report, ¶¶ 18-34.

638. The reasons that may explain why other projects have not prospered are multiple but the point to highlight is that, contrary to what Claimant argues, offshore phosphate deposits exploitation cannot be categorized or assimilated to a typical mining operation such as copper, oil or gas operations, and therefore, the associated uncertainty is naturally more significant. As Respondent posits, the Project was "*a production and business model that had not been successfully tested*."[782]

639. Based on the above, in the Tribunal's view, the lack of history of operating the concessions in this case becomes a sensitive factor that tips the balance against considering an income approach as a reliable method of valuation of the Don Diego Project.

640. The Tribunal has reviewed carefully the background information about the technical and economic feasibility of the Project, including (i) the expert reports of Dr. Ian Selby, Dr. Colm Sheehan, Mr. Glenn A. Gruber, Mr. David Fuller, and Dr. Peter Heffernan; and (ii) the witness statements of Mr. Craig Bryson, Mr. John D. Longley, and Mr. Mark Gordon. The Tribunal notes that they seek to establish as valid or certain a significant number of assumptions and estimates (production, prices, costs, OPEX, CAPEX, *et cetera*). In relation to a project that, the Tribunal must insist, has no track record of operations, and in the absence of substantially similar projects to be used as benchmarks.

641. The Tribunal is aware that these reports on the technical and economic aspects of the Project state that they have used conservative criteria or relevant discount rates to cope with the uncertainty involved. However, while this makes the estimates and assumptions less speculative, it still does not make them sufficiently certain.

642. In this respect, the Tribunal considers that the income approach is unsuitable to be used in this case for the reasons already explained. The results reached by applying such a method, even if adjusted conservatively, would still not be persuasive. The results yielded by a methodology that is not suitable, regardless of the adjustments made to them, are by definition compromised by the methodology from which they are derived.

[782] Respondent's Post-Hearing Brief, ¶ 184.

643. Claimant's proposition that the Tribunal "*should simply accept Compass Lexecon's Income valuation in its entirety (particularly given that Mexico did not submit an Income valuation of its own*)" is thus untenable.[783] The Tribunal considers that it can only validate the method and the estimates submitted by the parties to the extent that they produce sufficiently persuasive results. The fact that Mexico did not submit an alternative proposal based on an income approach does not mean that Claimant's method cannot be questioned or that the conclusions reached through such method must be deemed reasonably certain.

644. In the same vein, Claimant's assertion that "*if the Tribunal disagrees with any of the inputs into Compass Lexecon's Income valuation, it can adopt alternative assumptions that it deems appropriate to satisfy the requirement of reasonable certainty*"[784] does not address the Tribunal's main concern. In this regard, the Tribunal considers that the most relevant and substantial problem is not related to the inputs of Compass Lexecon's income valuation, but rather to the methodology that those experts chose to use, since the Tribunal considers that an income approach, in the circumstances of this case, is not the appropriate methodology to apply.

645. In turn, the Tribunal finds that regardless of the Project's potential to proceed to the subsequent stages, the Project did not have a PFS or a FS to demonstrate its economic viability at the Valuation Date, which ratifies the conclusion that an income approach to determine ExO's FMV cannot be applied.

646. In that context, it should be noted that using an income approach to determine the FMV of an investment that lacks a track record of profitable operations, if it were to be accepted as applicable and reliable, requires, at a minimum, that Claimant produces convincing evidence of its ability to generate profits in the circumstances of the project under analysis.

647. This was the criteria in the *Bear Creek v. Peru* case:

> "*In the present case, Claimant concedes that to overcome a lack of history of profitability, it would need to produce convincing evidence of its ability to produce profits in the particular circumstances it faced .... In the view of the Tribunal, such convincing evidence has not been produced by Claimant .... In view of the above considerations, the Tribunal concludes that the*

783 Claimant's Post-Hearing Brief, ¶ 254.
784 Claimant's Post-Hearing Brief, ¶ 254.

> *calculation of Claimant's damages in the present case cannot be carried out by reference to the potential expected profitability of the Santa Ana Project and the DCF method. The Project remained too speculative and uncertain to allow such a method to be utilized.*"[785]

648. Furthermore, Claimant must prove not only its ability to generate future profits, but also – with sufficient certainty – the amount of these future profits. In this respect, the Tribunal agrees with the statement of the *Tethyan v. Pakistan* tribunal:

> "*In the Tribunal's view, a review of recent case law, including but not limited to the cases set out in more detail above, confirms that the question whether a DCF method (or a similar income-based valuation methodology) can be applied to value a project which has not yet become operational depends strongly on the circumstances of the individual case. The first key question is whether, based on the evidence before it, the Tribunal is convinced that in the absence of Respondent's breaches, the project would have become operational and would also have become profitable. The second key question is whether the Tribunal is convinced that it can, with reasonable confidence, determine the amount of these profits based on the inputs provided by the Parties' experts for this calculation*."[786]

649. In order to be able to draw with reasonable certainty a conclusion on the existence of future profits and their amount, the Tribunal considers that the stage of development of the project is one of the critical elements to be considered. Thus, if the project is at an exploration stage or does not have a PFS, determining its value based on future profits becomes, in general terms, too speculative.

650. The Tribunal follows in this respect the VALMIN and CIMVAL parameters, since both parties have confirmed that those are the leading mining industry groups in the development of valuation standards, guidelines and definitions that are generally followed in the mining sector.[787]

651. As Claimant asserts, CIMVAL and VALMIN "*exhaustively discuss the different approaches and methods that can be used to value mineral properties and make*

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785 **CL-0016**, *Bear Creek v. Peru*, Award, ¶¶ 601-604.
786 **CL-0116**, *Tethyan v. Pakistan*, Award, ¶ 330.
787 Reply, ¶ 368; C-Mem., ¶¶ 669-672.

recommendations regarding when and how to apply the different approaches and methods based on a project's stage of development."[788]

652. The use of CIMVAL guidelines is not novel in investment arbitration. For instance, in the *Crystallex v. Venezuela* case, the tribunal found that Claimant's FS had been approved by the respective national authority and, consequently, the project should be considered a development property according to the CIMVAL guidelines:

> "*The CIMVAL Guidelines define 'development property' as 'a Mineral Property that is being prepared for mineral production and for which economic viability has been demonstrated by a Feasibility Study or Prefeasibility Study and includes a Mineral Property which has a Current positive Feasibility Study or Prefeasibility Study but which is not yet financed or under construction'. It is undisputed that the Ministry of Mines had approved Crystallex's Feasibility Study on 6 March 2006. Las Cristinas should thus be considered a 'development property' within the meaning of the Guidelines (as opposed to a less advanced 'exploration property').*"[789]

653. Both CIMVAL and VALMIN point out that if the project is in a "*development*" stage, it is appropriate to use an income approach to determine its value. By contrast, such approach is not recommended if the project is in an "*exploration*" stage.[790]

654. In particular, CIMVAL defines a project to be in a development stage when it "*is being prepared for mineral production and for which economic viability has been demonstrated by a Feasibility Study or Prefeasibility Study and includes a Mineral Property which has a Current positive Feasibility Study or Prefeasibility Study but which is not yet financed or under construction*."[791] Similarly, VALMIN states that a project is in a development stage when, "*not yet commissioned or operating at design levels*," its "[e]*conomic viability …* [is] *proven by at least a Pre-Feasibility Study*."[792]

655. Against this background, the Tribunal must note that it is uncontested that Claimant did not have a PFS or a FS for the Project by the Valuation Date, as prescribed by the CIMVAL

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788 Claimant's Post-Hearing Brief, ¶ 215.
789 **CL-0042,** *Crystallex v. Venezuela*, Award, ¶ 884.
790 **C-0196,** CIMVAL Standards and Guidelines 2003, G3.3, pp. 21-22; **C-0195**, VALMIN Code 2015, Section 8.3, p. 29.
791 **C-0196,** CIMVAL Standards and Guidelines 2003, S1.0 Definitions, p. 8.
792 **C-0195**, VALMIN Code 2015, Section 14 Definitions, p. 39 (emphasis added).

and VALMIN standards for the Project to be considered in a "*development*" stage. Thus, as per the same standards, it is not appropriate to use an income approach to determine its value.

656. In this respect, Odyssey stated that "*[it] had not yet collated and packaged the information that would otherwise feed into a formal Pre-Feasibility Study,*"[793] suggesting that the absence of a PFS was simply a matter of form. It asserts that regardless of the absence of a PFS or a FS, something that, in its view, is explained by the fact that Odyssey and ExO were not planning to divest themselves of the investment when SEMARNAT denied the MIA, the Project was in a development stage as of the Valuation Date.

657. Citing CIMVAL guideline G4.6, Claimant asserts that "*when using an income approach to value Mineral Resources, a qualifying statement should be included regarding the 'technical and related parameters relative to Feasibility Study or Prefeasibility Study confidence level.*'"[794] To Claimant, the key concept is the confidence level of the qualifying statement or preparatory work. Thus, the fact that the feasibility was not shown in a formal and single report is not relevant.[795]

658. Claimant affirms that this confidence level can be validated by different industry and technical expert reports. To this effect, Claimant posits that the Project has met such level of confidence when considering the feasibility of (i) the mineral resources in question; (ii) the dredging method; (iii) the production forecasts; (iv) the separation and processing processes; (v) the production forecasts; (vi) the cost forecasts; (vii) the marketing; and (viii) the price forecasts. For instance, Dr. Sheehan stated that Boskalis' production, CAPEX and OPEX estimates met a PFS level of confidence,[796] an assertion that Dr. Selby endorsed.[797]

659. Claimant indicates that the CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines for Industrial Minerals allow the commencement of operations

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793 Mem., ¶ 386.
794 Reply, ¶ 375.
795 Reply, ¶ 375. *See also supra* at ¶ 467.
796 Expert Report of Colm Sheehan, 4 September 2020, Section 3.3, pp. 4-5.
797 Reply, ¶ 438, citing Expert Report of Ian Selby, 4 September 2020, ¶¶ 123-133.

absent a PFS or a FS in a pre-production stage; it adds that such absence is only a potential risk factor.[798]

660. In sum, Claimant argues that the available information at the Valuation Date is consistent with the level of detail found in and required by a PFS.

661. As previously stated, Claimant did not perform a PFS or a FS by the Valuation Date. In the Tribunal's view, agreeing with Respondent, in mining projects the performance of a PFS or a FS is not a mere formality but the way to reflect and demonstrate the economic viability of such projects at a particular moment in time. Put differently, the existence of a PFS or FS is not a mere convention but the prescribed substantive tool to prove the economic viability of a project and, consequently, its stage of development, according to the industry applicable standards.

662. The terms of the CIMVAL and VALMIN are clear. They demand that the economic viability of the mineral property be demonstrated by a FS or PFS for that mineral property if it is to be considered a development property. Those instruments were not prepared at the Valuation Date and the Tribunal cannot disregard the clear terms of the very same standards that both parties have accepted as the guides to be observed.

663. Odyssey asks the Tribunal to disregard this circumstance, *i.e.*, the lack of a PFS or FS, since, in its view, the Don Diego Project qualified as a development stage project at the Valuation Date. The Tribunal does not agree with this assertion. Furthermore, there is evidence from Claimant itself that does not support its proposition.

664. For example, in the NI 43-101 Technical Report, which is one of the three key instruments on which Claimant relies as evidence of the pre-feasibility status of the Project by the Valuation Date, Dr. Lamb stated that "[t]*he project is in a mature exploration stage and progressing toward being reclassified as an early stage development project*."[799]

665. The Tribunal is aware that this report was issued sometime before the Valuation Date. Still, there is no independent report contemporaneous to the Valuation Date that states that the

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798 *See supra* at ¶ 468.

799 **C-0084**, Henry Lamb, NI 43-101 Technical Report, 30 June 2014, Section 1.5, p. 13 (emphasis added).

Project had moved from the exploration phase stated in Dr. Lamb's report to a development phase.

666. Also, in its 2015 annual report submitted to the SEC, Odyssey stated that "[w]*e have invested in marine mineral companies that to date are still in the exploration phase, and have not begun to earn revenue from operations*."[800]

667. Additionally, the Tribunal notes that the [redacted] does not qualify as a "*substitute*" for a PFS.

668. CIMVAL defines a PFS in the following terms:

> ***Prefeasibility Study*** *and* ***Preliminary Feasibility Study*** *mean a comprehensive study of the viability of a mineral project that has advanced to a stage where the mining method, in the case of underground mining, or the pit configuration, in the case of an open pit, has been established, and which, if an effective method of mineral processing has been determined, includes a financial analysis based on reasonable assumptions of technical, engineering, operating, economic factors and the assessment of other relevant factors which are sufficient for a Qualified Person, acting reasonably, to determine if all or part of the Mineral Resource may be classified as a Mineral Reserve (adapted from NI 43-101, Section 1.2 Definitions). A Prefeasibility Study is at a lower confidence level than a Feasibility Study.*[801]

669. The [redacted][802] [redacted][803]

670. In the Tribunal's opinion, this document does not have a level of development, precision, or independence that would allow it to be understood as an indication that the Project was at a "*sort*" of pre-feasibility stage. [redacted]

800 Rejoinder, ¶ 582, citing **QE-0017**, Odyssey SEC 10-K Filing, 31 December 2015, p. 10 (emphasis added).

801 **C-0196**, CIMVAL Standards and Guidelines 2003, S1.0, p. 10. VALMIN definition is very similar if not identical. *See* **C-0195**, VALMIN Code 2015, Section 15 Glossary, pp. 41-42.

802 AHMSA is a Mexican mining conglomerate.

803 Rejoinder, ¶¶ 618-620; Reply, ¶ 376, footnote 892.

[redacted]

671. Furthermore, as Respondent points out, the [redacted][804]

672. Additionally, [redacted][805] [redacted].[806] Differences of this magnitude cannot be explained solely by Compass Lexecon's application of more conservative criteria; the quote above indicates that conservative criteria were also applied by the [redacted] Instead, everything suggests that the stage of development of the Project, and the information available at the time the [redacted] was prepared, corresponded to an early phase, such as the estimated value of the Project resulted in a figure approximately [redacted] higher than the one set by Compass Lexecon (with more information) years later.

673. The Tribunal notes that Claimant has attempted to remedy the lack of the PFS or FS at the Valuation Date by submitting a series of subsequent studies and confirmations to generate some equivalent to such instruments or validate the original studies *post factum*. However, the Tribunal is not persuaded that a PFS or a FS requirement can be understood to be fulfilled by such substitutes, or that a *post hoc* validation is appropriate. Furthermore, the Tribunal cannot rule out that these subsequent studies or opinions inadvertently included elements or information that was not available at the Valuation Date. While Odyssey denies such a hypothesis, the Tribunal deems that the existence of unconscious hindsight bias is a relevant risk in retroactive exercises of this type, and thus is reluctant to accept them.

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804 **C-0134**, Odyssey Marine Exploration, Inc., *Don Diego: A Strategic Phosphate Resource*, 22 September 2015, p. 16.

805 **C-0134**, Odyssey Marine Exploration, Inc., *Don Diego: A Strategic Phosphate Resource*, 22 September 2015, p. 3 (emphasis added). *See also ibid.*, p. 7.

806 *See supra* at ¶ 474.

674. The Tribunal further considers that the CIM Industrial Minerals Best Practices that Claimant cites do not support its position. While this instrument effectively considers that the lack of a PFS or a FS does not preclude the commencement of operation, it recommends that this be treated as a risk factor,[807] that must be clearly communicated to current and potential stakeholders.[808]

675. Therefore, the lack of a PFS or a FS is relevant to the risk involved under the CIM Guidelines invoked by Claimant and confirms that a valuation exercise based on future income in the absence of these instruments involves more uncertainty.

676. The Tribunal recalls that Claimant's proposition that, even if the Project "*were not a Development stage property at the date of valuation because it did not have a formal PFS, it nevertheless 'would have to be characterized as in the pre-development stage (equivalent to 'Mineral Resource Property' as per CIMVAL definitions)' and not as an exploration one*."[809]

677. Claimant adds that "*CIMVAL's definition of Mineral Resource Property explicitly includes properties that have 'not been demonstrated to be economically viable by a Feasibility Study or Prefeasibility Study*,'"[810] "*for which CIMVAL and VALMIN contemplate the use of the Income Approach <u>in some cases</u>*."[811]

678. Claimant recognizes that CIMVAL and VALMIN do not define what they mean by "*in some cases*," but states that it is reasonable to conclude that one of such cases is "*when all of the information necessary to prepare a formal PFS exists, but the owner is waiting to receive its gating permit before it commissions a formal PFS or feasibility study, as was the case here*."[812]

679. The Tribunal is not persuaded by this argument: first, because it is not convinced that all the necessary information to prepare a PFS was available by the Valuation Date; and second, because if Claimant postulates that the situation of the Don Diego Project qualifies

807 Reply, ¶ 376.
808 *See* **WGM-0002**, CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines for Industrial Minerals, 23 November 2003, p. 6.
809 Claimant's Post-Hearing Brief, ¶ 230, citing Second Compass Lexecon Expert Report, ¶ 44.
810 Claimant's Post-Hearing Brief, ¶ 237, citing **C-0196**, CIMVAL Standards and Guidelines 2003, S1.0, p. 10.
811 Claimant's Post-Hearing Brief, ¶ 246 (emphasis added).
812 Claimant's Post-Hearing Brief, ¶ 246.

within the "*some cases*" category provided in the CIMVAL and VALMIN standards, it should have proven what those cases are and what requirements they entail. Claimant demonstrates none of this and merely speculates that the situation of the Don Diego Project, as portrayed by Claimant, should coincide with "*some cases*" mentioned in those standards. Therefore, the Tribunal does not accept this argument.

680. The Tribunal acknowledges that the Don Diego Project's mineral resources are not [redacted]. Thus, this Tribunal does not consider that the Project does not *prima facie* have [redacted]. Instead, the Tribunal stresses that if the [redacted], the means to prove it is through a PFS or a FS, which the Project lacks.

681. The Tribunal agrees that a sophisticated investor and a potential acquirer would likely perform preliminary studies that could possibly contain forward-looking estimations such as "*production targets, forecast financial information and income-based valuations*."[813] However, if mineral reserves have not yet been defined, preliminary studies are neither sufficient nor adequate for using the income approach for valuation purposes. The Project needs a PFS or a FS to define whether mineral reserves exist because the use of any instrument that does not comply with industry standards implies too much uncertainty regarding a key driver of the Project.

682. The Tribunal does not dispute that Claimant has attempted to make a serious effort to support the assumptions from which Compass Lexecon calculates the DCF and ROV of the Don Diego Project. However, as previously stated, (i) the lack of track record of operations; (ii) the large number of assumptions that must be established as sufficiently certain; (iii) the stage of development of the Project and the lack of a PFS or a FS; and (iv) the proposition that very significant amounts of money be declared as proven damages according to a forward-looking income approach under these circumstances, all lead the Tribunal to conclude that it is not possible to value the Don Diego Project's FMV by applying the DCF and ROV methods.

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[813] Reply, ¶ 367, citing **WGM-0013**, Australian Securities and Investments Commission, Mining and Resources – Forward-looking Statements, October 2016, p. 12.

683. The uncertainties involved would have been considered by an informed buyer in a hypothetical transaction, and given these uncertainties, the Tribunal is not convinced that such a buyer would have accepted the income approach postulated by Claimant as a reliable method to value the Don Diego Project. Furthermore, in the scenario that the potential buyer did accept this method, the Tribunal is even less convinced that it would have accepted to price the transaction following the value estimate proposed by Claimant based on this methodology. Thus, the *quantum* of damages has not been established with reasonable certainty under the income approach proposed by Odyssey, and the Tribunal does not find the income approach to be a suitable methodology for determining the amount of compensation in this case.

684. Finally, Claimant's argument that the reasonableness of Compass Lexecon's valuation is confirmed by the fact that Agrifos, using a different approach (comparable transaction method), arrives at a similar estimate, does not change the above conclusion. As discussed below, in the Tribunal's opinion, the latter method is also not convincing, so neither method fulfils the function of confirming the other.

b) Market approach: Comparable Transactions to the Don Diego Project

685. Claimant alternatively requests that, if the Tribunal considers that the income approach is not appropriate for valuation purposes, it should value the Project using the comparable transactions methodology, which is a variation under the market approach. In this respect, Claimant submitted a report prepared by Agrifos, which determined the Don Diego Project's FMV applying that method.

686. Claimant states that the comparable transactions approach should be endorsed, essentially, because (i) it is considered as a primary valuation method according to the CIMVAL Standards; (ii) the companies and transactions selected by Agrifos are comparable to the Project; and (iii) the reasonableness of Agrifos' estimation of the FMV of the Project resorting to this comparable transaction method – and consequently of Compass Lexecon's

estimation as well – is corroborated by the proximity of the result obtained using any of these two methods.[814]

687. The Tribunal notes that Agrifos, in principle, performs a valuation broader than resorting to comparable transactions since it not only considers [redacted] "*relevant comparable transactions*" but also the market capitalization of three "*publicly traded companies*."[815]

688. From these references, Agrifos seeks to determine the value of the underlying phosphate resource implied by the relevant transaction or market capitalization of the projects and companies considered. Agrifos calculates this value in terms of US$ per metric ton of phosphate (P_2O_5) contained in the underlying resource.

689. Notwithstanding this general description, the Tribunal notes that while these [redacted], when the Report reaches its conclusion, it averages the value of two specific transactions that it calls the "*two best comparable transactions*" (Baobab and Hinda).[816] The other transactions and companies initially mentioned in the Report as references end up being used rather to support the reasonableness of the values obtained from the two "*best comparable transactions*," an issue that Dr. Cotton of Agrifos, in his cross-examination, acknowledges by pointing out that this corresponds to a "*triangulation exercise*."[817]

690. Finally, it should be noted that Agrifos makes certain statements that raise doubts about the expert's conviction regarding the use of comparable transactions approach as a method capable of reliably determining a value on its own. For instance, in its report, it states as follows:

[redacted]

814 *See supra* at ¶¶ 481-484.
815 Agrifos Expert Report, ¶ 6.
816 Agrifos Expert Report, ¶ 69.
817 Hearing Transcript, Day 6, p. 1357:17-1359:19.

[redacted][818]

691. Since the income approach has not been accepted as valid by the Tribunal, the Agrifos Report must be judged independently and not in combination with the Compass Lexecon Report. Based on the comments cited above, it is not clear to the Tribunal that the Agrifos Report is apt to determine on its merits alone the FMV of the Don Diego Project.

692. Furthermore, the Tribunal considers that it is not possible to validate the Agrifos Report, based on the following observations made by Respondent, which are analyzed below and which will be accepted as reasons to reject this alternative method proposed by Claimant.

693. First, a valuation system under the comparable transaction method that ends up being based on only two transactions constitutes a comparison exercise that lacks a broad enough basis to be considered sufficiently representative or reliable.

694. Although the value thus concluded is "*validated*" by Agrifos indicating that it is within the average of the other seven references considered in the report, the expert does not include supporting data for these references. During his testimony, Mr. Cotton only indicated that they can be consulted in Google or looking at appropriate securities exchange databases.[819] In this respect, the Tribunal believes that in order to validate that these other references were appropriate, the Agrifos Report should have included complete information on each transaction, especially considering that none of the companies mentioned in Appendix C of its Report is a public company, and consequently subject to public disclosure.

695. Additionally, when reviewing the two transactions specifically used by Agrifos to determine a comparison value for the Don Diego Project (Baobab and Hinda), the Tribunal observes some deficiencies that raise additional doubts about the comparison exercise carried out by the expert.

696. Neither of these two projects considered (nor any of the others mentioned in the Agrifos Report) consist of an offshore phosphate project, a characteristic of the Don Diego Project

818 Agrifos Expert Report, ¶ 14 (emphasis added).
819 Hearing Transcript, Day 6, p. 1386:11-19.

that distinguishes it and, if not considered, raises questions about whether the comparison is adequate.

697. In turn, the Baobab transaction relates, among other differences, to a project that was very close to starting production at the time of the transaction ([redacted]).[820] The Don Diego Project was not, at the Valuation Date, in a state of development such that it could have commenced production reasonably soon. This suggests that the projects were at different stages, which affects their comparability.

698. Regarding the Hinda transaction, the Tribunal notes that Agrifos states in its Report that it "*was a private transaction to raise development capital in 2014 and was not publicly announced. Agrifos was made aware of the terms of the transaction by one of the counterparties*."[821] Agreeing with Quadrant Economics, the Tribunal endorses its statement that "[t]*his means all of the information about this project put forward by Agrifos in this Arbitration is unverifiable*."[822] Mr. Cotton pointed during the Hearing to additional information about who provided him with the data ([redacted]),[823] but this does not change the fact that it is information not publicly disclosed, specifically, the value of the transaction, thus leaving only Mr. Cotton's statements as the source of the information.

699. Therefore, the two selected transactions used to determine a comparable value to the Don Diego Project are either not verifiable or not sufficiently comparable.

700. Second, the Tribunal believes that some of the assumptions used by Agrifos are problematic. In the Tribunal's view, for instance, increasing the volume of the resources of the Don Diego Project by incorporating the northern expansion is not justified. Compass Lexecon's income valuation did not consider the northern area in its estimation. This means that Agrifos considered a project with [redacted] more resources than those considered by

820 Second Quadrant Economics Expert Report, ¶¶ 257, 259.
821 Agrifos Expert Report, ¶ 58.
822 Second Quadrant Economics Expert Report, ¶ 260.
823 Hearing Transcript, Day 5, pp. 1336:17-1339:4.

Compass Lexecon. This difference is due mainly to the addition of inferred resources corresponding to such northern expansion.[824]

701. Inferred resources have the lowest level of confidence; if they are considered in a value estimate, a significant discount rate should be applied to them. The problem is that, in the Agrifos' valuation, the "*additional inferred resource tonnage is given the same weight as it if were measured or indicated resources, which carry a higher confidence level than inferred resources*."[825] This is a flaw that again compromises the reliability of the Agrifos Report.

702. Additionally, Agrifos added to all transactions involving a less than-controlling interest, including the Baobab and Hinda transactions, [redacted] to make "*these valuations comparable to a 100% value for the Don Diego Project*."[826]

703. Then, after applying this [redacted] to the Baobab and Hinda transactions and thus concluding an average value of [redacted] Agrifos added a new premium of [redacted] to obtain a low value of [redacted] and a premium of [redacted] to conclude a high value of [redacted] to be applied to the resources of the Don Diego Project.[827] Agrifos states that "[it] *believes that* [redacted] *Baobab and Hinda is very reasonable in light of the numerous favorable qualitative attributes of the Don Diego project compared to these* [redacted] *projects*."[828]

704. Thus, two premiums are added on top of each other: first a control premium of [redacted], and then a premium for the qualitative attributes of the Don Diego Project of an additional [redacted].

705. When Mr. Cotton was asked about the basis for determining the premium control of [redacted], he acknowledged that in his report he does not indicate any antecedent as evidence that this

824 Second Quadrant Economics Expert Report, ¶ 263.
825 Second Quadrant Economics Expert Report, ¶ 263.
826 Agrifos Expert Report, ¶ 46.
827 Agrifos Expert Report, ¶ 69.
828 Agrifos Expert Report, ¶ 69.

type of premium has been applied in any transaction and that the percentage was determined based on his experience.[829]

706. Similarly, when Mr. Cotton was asked about the basis used to determine the range of the other premium considered (the [redacted] premium for the specific Don Diego Project attributes), Mr. Cotton acknowledged that it is a qualitative estimate "*in the sense that there are no metrics that are easy to do math on to compare the Don Diego to other projects for these qualitative aspects*. *It was necessarily an estimation based on our experience.*"[830]

707. The Tribunal considers that the control premium and the additional premium applied by Agrifos, which significantly impact the valuation presented by Mr. Cotton, cannot be left solely to the experience of the expert but should have been supported by some evidence.

708. Given all the above considerations and deficiencies, the Tribunal considers that the FMV of the Don Diego Project presented by Agrifos using the comparable transactions method does not meet the requirements to be considered a valid valuation alternative. The small number of transactions considered, the fact that they are neither comparable nor verifiable, the lack of evidence regarding the additional references considered, and the assumptions and premiums applied by Agrifos, several of which this Tribunal considers unjustified, among other reasons, prevent this alternative valuation proposed by Claimant from being considered as valid or reliable, and will therefore also be rejected.

c) Market Approach: Odyssey's Market Capitalization

709. Instead of the income approach and the comparable transactions method proposed by Claimant, Respondent, based on Quadrant Economics' report, suggests that the market capitalization, another method under the market approach, is an adequate option to estimate the value of a mining project, and thus to assess damages in this case.

710. Since Odyssey is a publicly-traded company, whose shares are traded on the NASDAQ stock exchange, Quadrant Economics asserts that Odyssey's shares and its market capitalization can be used to value Odyssey's equity interest in the Don Diego Project.[831]

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829 Hearing Transcript, Day 6, pp. 1355:16-1356:3.
830 Hearing Transcript, Day 6, p. 1363:5-16.
831 Quadrant Economics Expert Report, ¶ 48.

711. The Tribunal notes that it was Claimant's expert, Compass Lexecon, who first estimated the value of the Don Diego Project based on the market capitalization method (taking Odyssey's stock price as a reference).

712. Nevertheless, Compass Lexecon states that Odyssey's market capitalization cannot be used as a primary valuation methodology for the Don Diego Project due to several factors that could have depressed Odyssey's stock price as of the Date of Valuation. Specifically, Compass Lexecon notes that Odyssey's market capitalization did not adequately reflect the value of its equity interest in the Project on a non-controlling and pre-permit basis at the Valuation Date because of (i) a continuing negative impact of Odyssey's shipwreck-salvaging business; (ii) the heightened levels of short selling that the Odyssey' stock was suffering since mid-2011; and (iii) Odyssey's liquidity constraints and its near financial distress.

713. For these reasons, Compass Lexecon asserted that the stock market capitalization of Odyssey "*does not provide a reliable basis to determine the fair market value of the Don Diego Project*" adding that it used Odyssey's market capitalization "*only to provide a reconciliation to the result of our valuation*" [832] alluding to the DCF and ROV assessments it made.

714. After formulating the above reservation, Compass Lexecon makes a comparison between the value of Odyssey that it calculated under the income approach and the value of Odyssey resulting from the market capitalization method; then applies some discounts to the first value to reflect the facts that Odyssey's stock price: (i) does not convey control over Odyssey; and (ii) it was a pre-permit value. It concludes that Odyssey's stock was "*trading at a* [redacted] *as of the Date of Valuation, in line with what may be expected for a company in financial distress and subject to short-sellers attacks*."[833]

715. The Tribunal, neither making a pronouncement on this comparison made by Compass Lexecon nor on the adjustments and conclusions it reached, agrees with Compass Lexecon that Odyssey's stock price may have been "*contaminated*" by different factors at the Valuation Date and, in addition, does not reflect all the circumstances that affect its value;

832 Compass Lexecon Expert Report, ¶ 119.
833 Compass Lexecon Expert Report, ¶ 122.

factors which may lead to the determination of an erroneous (higher or lower) value of the company and, thus, of the Don Diego Project. Therefore, the Tribunal agrees with Compass Lexecon that the market capitalization method is not suitable to determine the FMV of the Don Diego Project.

716. In turn, Quadrant Economics, in support of the argument that this method would be suitable to value Odyssey's equity interest in the Project, points out that it is a methodology approved by CIMVAL.

717. However, Quadrant Economics does not acknowledge the fact that the CIMVAL Standards consider the market capitalization method a secondary valuation method, which it defines as "*rules of thumb considered suitable only to check Valuations by primary methods*."[834]

718. Therefore, the Tribunal concludes that there are no grounds to resort to the market capitalization method as a primary method to value damages in this case, which is what Respondent seeks to do.

719. Additionally, Quadrant Economics proposes an adjustment to the market capitalization method, which affects the basis of that valuation. In this sense, Quadrant Economics asserts that the price of Odyssey's shares at the valuation date (6 April 2016) was distorted and, consequently, the price to be considered should be as of 29 February 2016.

720. Dr. Flores of Quadrant Economics argues that the FMV should be calculated as of 29 February 2016 due to the non-Project-related increase in Odyssey's stock price from [redacted] after that date. From Dr. Flores's perspective, the only plausible explanation for an observed artificial increase in Odyssey's share price in March 2016 was the airing of the show called "*Billion Dollar Wreck.*"

721. The Tribunal considers that the Respondent's expert proposition that the price of Odyssey's shares was distorted as of the Valuation Date is unsupported. Indeed, when confronted with Claimant's alternative explanation for the increase of Odyssey's share price, Quadrant Economics issued a second report in which "*it acknowledges that the news articles published after the Valuation Date, which Compass Lexecon cites in its second report,*

834 **C-0196,** CIMVAL Standards and Guidelines 2003, G3.4, p. 22.

support the idea that Odyssey's market capitalization immediately prior to the denial of the MIA incorporated: '*market expectations of a positive MIA permit decision*.'"[835] Consequently, Quadrant Economics adjusted the FMV of the Project proposing a new value: the difference between the values of Odyssey's market capitalization on 29 February 2016 and the Valuation Date, *i.e.*, [redacted].[836]

722. These changing approaches, and the lack of a proper justification to determine the FMV of the investment through such combinations of dates, confirm the lack of reliability of the assessment exercise proposed by Respondent under the market capitalization method.

723. Furthermore, the Tribunal believes that the market capitalization method presents an additional problem since the valued asset in this dispute, *i.e.*, the Don Diego Project, is not the only asset of Odyssey or the only business in which Odyssey is involved. If Odyssey's share price is the basis for the valuation, the value of the investment would encompass the shipwreck business, which means the inclusion of factors external to the Don Diego Project.

724. Therefore, considering that (i) as per the CIMVAL Standards, the market capitalization method is secondary and thus not suitable to assess the FMV of a company as Respondent seeks to do; (ii) Compass Lexecon used such a method with the sole purpose of demonstrating the reasonableness of the income approach and making clear that it was not reliable; (iii) Odyssey's stock includes more assets than the Don Diego Project; and (iv) Respondent's changes relating to the Valuation Date when applying the market capitalization approach are unsupported, the Tribunal rejects this method to determine damages.

725. The Tribunal is aware that Claimant proposes that, if the market capitalization method is ultimately applied, some adjustment to the Compass Lexecon Report valuations is necessary to arrive at a reasonable final estimate of Odyssey's FMV. However, the Tribunal will not address whether Claimant's proposed adjustments are reasonable, having already ruled that the market capitalization method does not apply to the dispute.

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835 Rejoinder, ¶ 683, citing Second Quadrant Economics Expert Report, ¶¶ 116-119.

836 Second Quadrant Economics Expert Report, ¶ 121(iii).

d) Cost Approach: Sunk Costs

726. In addition to proposing the valuation of ExO according to the market capitalization methodology analyzed above, Mexico asserts that another way to evaluate the damages suffered by Claimant is by resorting to ExO's sunk costs.

727. Respondent introduces this compensation alternative in its Rejoinder, indicating that numerous international tribunals faced with resolving disputes relating to non-productive mining projects have determined damages based on the claimant's sunk costs.[837]

728. According to Mexico, Claimant affirmed that the Project has incurred sunk cost for [redacted] plus an additional [redacted] in financial cost as of 31 December 2020. Respondent posits that this total figure of [redacted] should be reduced to US$13.0 million as of the Valuation Date (6 April 2016) or to US$ 14.6 million as of the date of the Second Denial of ExO's MIA (12 October 2018).[838]

729. To justify these reductions, Respondent relies on the Quadrant Economics Reports, which make several criticisms of Claimant's estimate of sunk costs, thus eliminating several items or expenses that would not be appropriate to include.[839]

730. Before analyzing Mexico's arguments on this matter, the Tribunal must note that although Claimant (OMEX, to be precise) calculated the sunk costs incurred by ExO, a calculation that Compass Lexecon reproduced in its Reports,[840] Claimant has not argued that the compensation must be determined based on a sunk cost method.

731. On the contrary, Claimant objects to compensation being calculated based on ExO's sunk costs, pointing out that (i) Mexico, in its Counter-Memorial, conceded that FMV is the applicable legal standard for compensation; (ii) Quadrant Economics had admitted that sunk costs are not an indicator of the Project's FMV; and (iii) "*[t]he first time that Mexico even suggested that the Tribunal should assess damages based on Odyssey's sunk costs*

837 Rejoinder, ¶ 688.
838 Rejoinder, ¶¶ 689, 694.
839 Rejoinder, ¶¶ 689-694.
840 Compass Lexecon Expert Report, ¶ 35; Second Compass Lexecon Expert Report, footnote 142.

was in its Rejoinder, when Odyssey had no opportunity to submit a responsive pleading and evidence."[841]

732. Notwithstanding the above, the Tribunal has decided to consider ExO's sunk costs as the measure by which compensation should be calculated in this case, based on the reasons set forth below.

733. First, the Tribunal recalls that in the case of mining projects that have not started operations, the sunk cost methodology for calculating compensation is the approach most commonly used by international tribunals.[842] In this sense, without a record of operations, sunk costs can be ascertained with a reasonable degree of certainty and ensure that the claimant is fully compensated for its non-recoverable costs.

734. The Tribunal has ruled that the other valuation methods proposed by the parties (income and market approaches) do not provide estimates with sufficient certainty in this case. For the reasons already discussed, the Tribunal considers that none of them meet the applicable standard of proof or, put differently, are apt to prove damages to the satisfaction of the Tribunal.

735. In this regard, the Tribunal notes that it is not bound to choose or validate any of the parties' estimates if it considers them uncertain or flawed. On the contrary: the Tribunal may only award damages to the extent that the options presented in the proceeding satisfy the standard of proof, *i.e.*, provide a reasonable or sufficiently certain estimate of damages.

736. Both parties agree that compensation should be calculated based on the FMV of the investment, which the Tribunal shares, but with one caveat: to the extent possible. If the FMV cannot be determined according to the methodologies advocated by the parties, the Tribunal should be open to considering other alternatives and has the discretion to do so.

737. In this respect, the Tribunal is aware that the costs incurred by a company to develop a project do not necessarily represent the FMV of the investment. The asset may be worth

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841 Claimant's Post-Hearing Brief, ¶¶ 356-357.

842 *See supra* at ¶¶ 492, 546, 634. *See also* **RL-0139**, *Mohamed Abdel Raouf Bahgat v. Arab Republic of Egypt*, PCA Case No. 2012-07, Final Award, 23 December 2019, ¶¶ 466-494; **CL-0040**, *Copper Mesa Mining Corporation v. Republic of Ecuador*, PCA Case No. 2012-2, Award, 15 March 2016, ¶ 7.32; **CL-0108**, *South American Silver v. Bolivia*, Award, ¶¶ 865-866; **RL-0142**, *Stans Energy Corp. and Kutisay Mining LLC v. Kyrgyz Republic (II)*, PCA Case No. 2015-32, Award, 20 August 2019, ¶¶ 778-784; **CL-0016**, *Bear Creek v. Peru*, Award, ¶ 604.

more or less than the costs incurred to acquire or develop it. However, in the absence of any other reliable valuation alternative, the sunk costs incurred by the company to develop such a project are the best reference to determine compensation. This explains the recurrent application in investment arbitrations of the sunk costs method when there is a high level of uncertainty involved in determining the FMV of the investment.

738. The Tribunal notes that Claimant considers that it would be "*grossly improper*" to assess damages in this case based on a cost approach, since Mexico (i) only introduced this alternative in its Rejoinder; and (ii) had previously recognized that the standard of compensation is the FMV, with sunk costs not reflecting the FMV.[843]

739. The Tribunal agrees that Respondent could have introduced this compensation alternative earlier. However, the Tribunal does not consider that there has been such a delay that Respondent should be deemed to have lost its right to raise that alternative, which is Claimant's contention.[844]

740. Even though Respondent initially proposed in its Counter-Memorial that damages be assessed following the market capitalization approach, it seems likely that upon seeing Claimant's well-founded criticism of such a method in its Reply, Respondent may have understood that it was necessary to propose another alternative in its Rejoinder, such as a sunk costs approach. In other words, the Tribunal has no reason to assume that the delay in proposing this alternative was unjustified or due to bad faith. Additionally, the Tribunal notes that Claimant, in turn, introduced the comparable transaction valuation method in its Reply. Therefore, its own behavior supports the point that neither party understood that the valuation method alternatives must be proposed only in its first submission, at the risk of losing the right of further additions.

741. Nonetheless, the Tribunal considers that since this sunk costs alternative was presented only in Respondent's Rejoinder, "*when Odyssey had no opportunity to submit a responsive pleading and evidence*,"[845] Mexico must assume the limitations and consequences that follow from formulating this option at such a late phase of the proceeding. In this sense,

[843] Claimant's Post-Hearing Brief, ¶ 360.
[844] Claimant's Post-Hearing Brief, ¶ 357.
[845] Claimant's Post-Hearing Brief, ¶ 357.

Mexico cannot criticize Claimant for not submitting better evidence on sunk costs when Claimant does not agree that this is a proper method of calculating the *quantum* of damages and when it only found out in Mexico's Rejoinder that Respondent was proposing it. The Tribunal will consider this circumstance when analyzing the evidence on sunk costs, and Mexico's attempt to use it while seeking to eliminate certain items due to the alleged lack of support.

742. Having determined the method to be applied in this case, the Tribunal notes that the two Compass Lexecon Reports mention the sunk costs of the Project, which, updated to 31 December 2020, are set at [redacted] plus an additional [redacted] in financial costs, for a total of [redacted] as of that date.[846] Compass Lexecon does not make its own calculation of the sunk costs of the Project but relies on an OMEX calculation.[847] This is because Compass Lexecon was not proposing the use of the sunk costs method to assess the compensation in this case.

743. Based on the Quadrant Economics Reports, Mexico formulates various objections to this calculation of sunk costs and proposes the exclusion of several items, concluding that the amount of sunk costs should be US$ 13 million as of 6 April 2016 or US$ 14.6 million if it is considered that the Valuation Date should be the day the MIA was rejected for the second time (12 October 2018).[848]

744. In this regard, Mexico points out that ExO's sunk costs are registered in non-audited financial statements. This objection, however, does not lead Respondent to disqualify them. It analyzes the various items and then asks that only some of them be excluded based on considerations not necessarily related to the fact that the financial statements are not audited. Additionally, the Tribunal notes that since Claimant was not seeking to prove ExO's sunk costs, as it has not sought compensation based on such parameters in this proceeding, it cannot be criticized for not having asked for an audit of the company's financial statements.

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846 Compass Lexecon Expert Report, ¶ 35; Second Compass Lexecon Expert Report, footnote 142.
847 Compass Lexecon Expert Report, ¶ 35. *See also* **CLEX-0018**, ExO 2013-Q2-2020 Income Statement.
848 Rejoinder, ¶ 694; Respondent's Post Hearing Brief, ¶¶ 224, 227, 231. *See also supra* at ¶ 547.

745. As previously noted,[849] Mexico asserts that several items should be deducted from ExO's sunk costs. In this respect, it affirms, firstly, that intercompany payments or management fees, including mark-ups between companies, should be excluded since they "*artificially increase the amount of sunk costs … they do not represent actual disbursements and Claimant did not present any analysis demonstrating that these payments were necessary and reasonable to move forward with the Project*."[850]

746. The Tribunal is not persuaded by these arguments for the following reasons: (i) intercompany payments or management fees, including mark-ups between companies, represent a substantial part of ExO's sunk costs (approximately 87%, if financial costs are not considered), so that excluding these management fees and mark-ups would mean that the company incurred practically in no costs during the whole process of developing its initial operations in Mexico, which seems highly improbable; (ii) it is normal for a company in the early stages of its operations, rather than hiring its own personnel, to resort to the available personnel and management of its related companies, paying for the corresponding service either via management fees or mark-ups; and (iii) although management fees and mark-ups can operate as a vehicle to transfer profits between related companies, this hypothesis arises typically when the company paying the fees or mark-ups is earning profits and not when it is just in a pre-operational stage and consequently, is not earning revenues or profits as was the case of ExO. Therefore, there is no persuasive reason to assume that management fees and mark-ups paid by ExO to related companies should not be recognized as costs.

747. Respondent also criticizes these costs by asserting that they do not represent actual disbursements, an objection that the Tribunal does not consider valid. If Respondent seeks to imply that the payments of these costs were not made, the source of information used to reach that conclusion is unknown. More importantly, even if the payments of these costs have yet to be made, this does not mean that the debts or liabilities do not exist or are not due.

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849 *See supra* at ¶ 547.

850 Respondent's Post-Hearing Brief, ¶ 230.

748. Mexico's additional criticism that "*Claimant did not present any analysis demonstrating that these payments were necessary and reasonable to move forward with the Project*"[851] does not seem persuasive either. It is Mexico and not Claimant that decided to use ExO's costs as a parameter to determine the compensation; and this, only in its Rejoinder, so that the information that Respondent may miss in this regard cannot be explained by an omission of Claimant for which it should assume responsibility.

749. Furthermore, the Tribunal should note that Claimant did not prepare ExO's financial statements for the purpose of using them as a tool to obtain the reimbursement of the costs they reflect. It should be emphasized that Claimant has categorically rejected in this proceeding that the cost approach be used as the applicable method to assess damages. Therefore, the Tribunal has no reason to believe that ExO's financial statements were manipulated to over-represent costs and thus increase the compensation. Rather, the Tribunal assumes that they genuinely and contemporaneously reflect the costs that ExO incurred over the years to develop the Project.

750. Another criticism made by Respondent seeks to exclude as part of ExO's sunk costs the financial costs incurred by the company. In this regard, Mexico points out that this cost does not refer to a necessary cost "*to carry out the Project*"[852] but to a decision on how to finance it. Respondent quotes Dr. Flores of Quadrant Economics, who states that "*the financing decisions should not be entered into a sunk cost calculation*."[853] Dr. Flores gives the following example: if the Project had been financed with ExO's own resources, this financial cost would not exist.

751. The Tribunal disagrees that financial costs should be excluded. Just as the amounts that ExO paid for the studies to make the Project feasible are undisputedly considered a cost, the Tribunal deems that the financial charges incurred by ExO to finance or obtain the necessary resources to pay for such studies should also be included as costs.

752. Additionally, using the example Dr. Flores gave, if the Project had been financed with its own resources, or with equity instead of a loan, the alternative cost of the equity invested

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851 Respondent's Post-Hearing Brief, ¶ 230.
852 Respondent's Post-Hearing Brief, ¶ 229.
853 Hearing Transcript, Day 6, pp 1499:10-1500:6.

in the Project would also have to be quantified. In this case, alternative profitability would have to be assessed, which would also be considered as an extra cost. Therefore, it is not true that when equity is used, there is no financial cost, while if a loan is used, there is. In both situations, there is a cost, but in the case of a loan, it is quantified based on the interest accrued. In contrast, in the case of equity, the cost must be calculated based on the alternative uses to which the equity could have been put.

753. Respondent also objects that the interest rate paid for this financing is high, as it is well above the market rate. However, when it comes to computing the actual costs incurred by Claimant, the Tribunal is not called upon to choose or replace one interest rate for another, but to consider the costs or interest rates actually incurred by ExO up to the date determined as the cut-off date for calculating the costs.

754. In this respect, the interest rate paid by ExO to its related company OME, which was 18%, [854]seems to reflect the risk associated with a project that was just starting and whose probability of success depended on many assumptions that made it uncertain, as this Tribunal has already stated when ruling out a valuation of ExO under the income approach. Thus, there are reasonable grounds to assume that such a rate is not the result of manipulation aimed at over-representing costs but a true charge due to the risks involved.

755. That conclusion is reinforced when considering, in addition, the arguments outlined above,[855] that Claimant did not submit financial statements in this proceeding with the idea of using them as a basis for the calculation of the damages it claims, which validates the credibility that this Tribunal assigns to those financial statements. However, the actual interest rate paid by ExO will be recognized as the applicable rate only until the Second Denial of ExO's MIA, as explained below. After that date, the Tribunal will choose a commercial interest rate intended to compensate ExO not for its sunk costs incurred but for the time elapsed between the date of the assessment of said costs and the date of actual payment of the compensation.

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854 Second Quadrant Economics Expert Report, 19 October 2021, ¶168; **CLEX**-000**2**, OMEX - ExO Amended and Restated Note and Guarantee, 25 September 2015, p. 2.

855 *See supra* ¶ 750.

756. Finally, Respondent points out that the sunk costs mentioned in the Compass Lexecon Report are valued until 31 December 2020, which implies extending the calculation of such sunk costs beyond the corresponding date, *i.e.*, the date of the First Denial of ExO's MIA or the date of the Second Denial of ExO's MIA. Respondent adds that the need for these costs incurred by ExO after these milestones is unclear and is most likely due to costs incurred by ExO in connection with the present arbitration proceeding.

757. The Tribunal agrees with this observation. To avoid recognizing as sunk costs those costs that are not directly associated with the development of the Project, the Tribunal will set as the date of computation of the sunk costs the date of the Second Denial of ExO's MIA, *i.e.*, 12 October 2018. The reason for choosing this milestone is that the Second Denial appears to have marked the end of Claimant's interest in proceeding with the Project,[856] and thus the Tribunal assumes that no further studies or activities related to the development of the Project were carried out as from that date.

758. As a consequence of the preceding conclusions, the Tribunal will not accept the sunk costs calculated by OMEX and recorded by Compass Lexecon as [redacted] as of 31 December 2020. Rather, the Tribunal will recognize as sunk costs of ExO only the amount of US$ 37.1 million as of 12 October 2018, without prejudice to the interest to be set by the Tribunal from that date, which is discussed below.

759. This figure of US$ 37.1 million corresponds to the sunk costs calculated by Quadrant Economics (based on ExO's financial statements) as of that date and without applying the exclusions Quadrant Economics suggested (management fees, mark-ups, and financing costs).[857]

e) Project Strategic Value and ExO and Odyssey's Lost Opportunity

760. Claimant asserts that under the full reparation principle, the Don Diego Project's strategic value must be included in the compensation to be established in this case.

761. In this respect, Claimant affirms, among other reasons, that the Don Diego Project "*with its large amounts of phosphate, close to the Americas, and with relatively easy access to*

856 Mem., ¶ 179.
857 Quadrant Economics Hearing Presentation, slide 26.

the Pacific Rim countries, 'provide[s] *an alternative source of phosphate rock for companies looking to diversify their supply or move away from Moroccan rock at extremely competitive price*[s].'"[858] It adds that that the Project's operating and capital expenditure would make it one of the lowest cost producers of phosphate rock in the world; and that the Project's "*intrinsic features*," such as no fixed infrastructure, no top soil, vegetation or material to clear, no reclamation or remediation costs, and the mobility of the entire operation, reinforce its strategic value.[859]

762. According to Odyssey, "*[t]hese features enhance the value of Don Diego in ways that are not captured by the DCF of Phase I or the [ROV] of Phase II*," to the extent that Mr. Longley concludes that "*Compass Lexecon's valuation of Phase I and Phase II of the Project should be increased by 15%.*"[860] In its Post-Hearing Brief, Claimant requests [redacted] for the strategic value of the Project.[861]

763. In the same vein, Claimant posits that ExO and Odyssey "*also suffered harms arising out of the 'lost opportunity' to explore and develop parts of the Don Diego deposit that were not included within the NI 43-101 Technical Report. This 'lost opportunity' stands outside of the fair market value of Phase I or Phase II, which Compass Lexecon quantified*."[862]

764. Claimant describes, based on Mr. Longley's opinion, the Project's exploratory potential, highlighting that ExO's total concession area is 1,448 km^2, of which it has "*not yet sampled and evaluated over 936 km^2*";[863] and that in the areas of the Concession that have been sampled, "[t]*here is also evidence that the deposit runs deeper (or is thicker) in many places*."[864]

765. According to Odyssey, to quantify this lost opportunity,

> "*Mr. Longley assigns a reasonable value for the* in situ *contained P_2O_5 of US$ 2.75 per tonne and multiples it by the 163.8 million tonnes of contained P_2O_5 Odyssey estimates the Concessions*

858 Mem., ¶ 412, citing Witness Statement of John D. Longley, Jr., ¶ 27.
859 Mem., ¶ 413. *See also supra* at ¶ 477.
860 Mem., ¶¶ 414-415. *See also supra* at ¶ 478.
861 Claimant's Post-Hearing Brief, ¶ 374.
862 Mem., ¶ 416. *See also supra* at ¶ 479.
863 Mem., ¶ 419, citing Witness Statement of John D. Longley, Jr., ¶ 38. *See also supra* at ¶ 479.
864 Mem., ¶ 419, citing Witness Statement of John D. Longley, Jr., ¶ 39.

> *contain. This result gives a value of US$ 444.7 million for the lost opportunity of exploring and developing the further parts of the Don Diego Deposit not included within the NI 43-101 Technical Report.*"[865]

766. Claimant adds that in *Gemplus v. Mexico*, the tribunal endorsed the "*loss of opportunity*" approach for these types of valuation exercises.[866] It also cites various other decisions such as *Southern Pacific v. Egypt*,[867] *Gavazzi v. Romania*[868] and *Bilcon v. Canada*[869] that have awarded damages for the lost opportunity of making profits, and it stresses that the difficulty in quantifying losses is no reason not to award damages. In Claimant's view, "*[a] tribunal should do this notwithstanding the inherent complexity in calculating the value of the opportunity, particularly when those difficulties arise because it is the state that has prevented the claimant from progressing the opportunity.*"[870]

767. Finally, in its Post-Hearing Brief, Claimant requests [redacted] for the value of the exploration potential of the Project or lost opportunity.[871]

768. The Tribunal finds no merit in Claimant's argument that, under the principle of full reparation, the compensation should include the strategic value of the Project and the "*lost opportunity*" to explore and develop parts of the Don Diego deposit.

769. First, the Tribunal notes that Claimant's independent expert, Compass Lexecon, who quantified the damages that ExO and Odyssey would have suffered due to the breaches discussed in this proceeding, did not include either of these concepts in its calculation. Its estimate refers to the value of Phase I of the Don Diego Project according to the DCF method and the value of Phase II of the Don Diego Project according to the ROV method, without including any reference to the strategic value of the Project and the loss opportunity requested by Claimant.

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865 Mem., ¶ 420.
866 **CL-0054**, *Gemplus v. Mexico*, Award, Part XIII, ¶ 13-99.
867 **CL-0187**, *Southern Pacific Properties (Middle East) Limited v. Arab Republic of Egypt*, ICSID Case No. ARB/84/3, Award on the Merits, 20 May 1992, ¶ 215.
868 **CL-0175**, *Marco Gavazzi and Stefano Gavazzi v. Romania*, ICSID Case No. ARB/12/25, Award, 18 April 2017 (Excerpts), ¶¶ 121, 223-224.
869 **CL-0123**, *Clayton/Bilcon v. Canada*, Award on Damages, ¶¶ 280-299.
870 Reply, ¶ 566.
871 Claimant's Post-Hearing Brief, ¶ 374.

770. Regarding the object of its assignment, Compass Lexecon states that

> "[a]*s valuation experts, we were instructed to compute damages based on the fair market value of the Don Diego Project had it been permitted as of the Date of Valuation. That is, the value at which the asset would have been transacted by a willing buyer and a willing seller, neither under compulsion to buy or sell, and assuming SEMARNAT had granted environmental approval as of that date*."[872]

771. Therefore, the assignment given to Compass Lexecon consisted of determining what it considered to be the ExO's fair market value, without limitations and without being instructed to leave out any concept whatsoever.

772. Thus, if at the time of concluding the value at which the asset would have been transacted by a willing buyer and a willing seller, Compass Lexecon did not consider it appropriate to include these two concepts that Claimant postulates should be added, it must be understood that this is because Compass Lexecon considered that such concepts lacked sufficient merit to be included in the amount of compensation.

773. This circumstance is significant: the decision not to compute the strategic value and the lost opportunity of the Don Diego Project as part of the compensation was made by the expert engaged by Claimant.

774. In other words, if the expert retained by Claimant considers that the concepts mentioned above would not have been incorporated in the price of ExO by a willing buyer, the Tribunal sees no reason to include them as part of the compensation owed to Claimant.

775. As to Claimant's argument that Compass Lexecon did not consider the strategic value and lost opportunity because the income approach methodology (DCF and ROV) applied by such expert is unsuitable to capture these effects, it also lacks merit. The Tribunal must note that Compass Lexecon, when determining ExO's FMV, considered that the income approach methodology (either in its DCF or ROV variant) was the most appropriate way to do so, as it captured the asset's actual value. Therefore, to point out that the methodology above is incomplete or partial is not in line with the assessment of Claimant's expert, who,

[872] Compass Lexecon Expert Report, ¶ 6.

as the Tribunal understands, was not instructed to apply the DCF or the ROV to value ExO but freely selected that method as the one that best estimated the total value of the asset.

776. Moreover, Claimant's argument for seeking the strategic value of the Project and the "*lost opportunity*" to explore and develop parts of the Don Diego deposit ([redacted] and [redacted], respectively) is based on estimates made by Mr. Longley, who is not an expert on damages, nor is he an independent advisor, as he is Odyssey's Chief Operating Officer (since October 2014) and President of the company (since 2019).[873]

777. In the view of the Tribunal, there is no basis to assign an extra 15% to the value of the Project because of its strategic value. Mr. Longley does not indicate why he settles on that specific percentage increase, which benchmarks he considered, nor does he refer to any other valuation of an equivalent project where this premium has been considered. Furthermore, the base value on which Mr. Longley calculates this 15% increase, *i.e.*, the valuation performed by Compass Lexecon, has not been validated by the Tribunal, as already discussed, so it becomes even more difficult to accept this estimate.

778. The situation is equally speculative regarding the estimated value of the lost opportunity to explore and develop other parts of the Don Diego deposit. Mr. Longley points out that the NI 43-101 Technical Report only refers to 18% of the Concession area, adding that "*the full contours of the deposit have not yet been delimited, [and] the geological data and drilling … conducted so far* '*strongly suggest*' *the deposit continues to the north, to the south, and to the west*."[874] It is regarding this area not analyzed in the NI 43-101 Technical Report that Mr. Longley makes his estimates.

779. Mr. Longley also speculates with respect to the potential of the Don Diego deposit in terms of depth, noting that "[t]*here is also evidence that the deposit runs deeper (or is thicker) in many places*."[875]

780. The absence of solid evidence on these estimates and the lack of fundamental studies in this regard are made clear when Mr. Longley states that "*[h]ad SEMARNAT granted the*

873 Witness Statement of John D. Longley, Jr., ¶ 3.
874 Witness Statement of John D. Longley, Jr., ¶ 38.
875 Witness Statement of John D. Longley, Jr., ¶ 39.

MIA, we had budgeted [redacted] *to conduct additional core sampling campaigns to quantify and characterize the resource in the unexplored areas of the Concession, as well as to increase sample spacing within the explored areas*."[876]

781. Thus, Mr. Longley's calculation to include ore resources in addition to those considered by Compass Lexecon ([redacted] for the unexplored part of the concession and [redacted] for the eventual greater depth of the deposit in the explored part), lacks sufficient support, involves mere inferences, and is backed only by Mr. Longley's own estimates. Therefore, those estimates do not comply with the reasonable certainty standard of proving damages.

782. Finally, the Tribunal does not accept as relevant Claimant's references to decisions of other tribunals where this type of concept has been considered, as those cases involve analyses and conclusions related to the specific facts of each case. Further, in none of these decisions is it apparent that the lost opportunity has been considered as an additional compensation to the estimated damages. Rather, it seems to have been applied instead of an income approach methodology and as a unique compensation method.

(3) Interest

783. Claimant states that full compensation under customary international law requires the award of interest. [877] It adds that "*the full reparation principle should animate all aspects of an award of interest, from the appropriate interest rate, to whether the interest should compound, to how frequently it should compound*."[878] Claimant also cites NAFTA Article 1135 and ARSIWA Article 38(1) as they provide some guidance in this respect as to how the Tribunal may render its final award.[879]

876 Witness Statement of John D. Longley, Jr., ¶ 41.
877 Mem., ¶ 423.
878 Mem., ¶ 424.
879 Mem., ¶ 425. Claimant mentions "*Draft Article 38(1)*" in its Memorial, but the correct reference is to ARSIWA Article 38(1).

784. According to Claimant, a full compensation should include a "*pre-award interest at a rate equivalent to the WACC of a typical investor in a pre-operational mining project in Mexico.*" It adds that Compass Lexecon calculates the relevant WACC as 13.95%.[880]

785. Claimant asserts that, pursuant to ARSIWA 38(2), full compensation requires the interest to run "*from the date when the principal sum should have been paid until the date the obligation to pay is fulfilled*"[881] or put differently, the award of pre- and post-award interest.[882]

786. In addition, Claimant affirms that, consistent with the principle of full reparation, pre-award interest should compound annually, and that the Tribunal should award Claimant compound interest on all compensation payable.[883]

787. Finally, Claimant asserts that if Mexico does not promptly pay the awarded damages, it should be "*entitled to compound interest running from the date of the award until payment is made in full.*"[884]

788. Respondent argues that the interest rate postulated by Claimant is "*without meri*t," "*unprecedented in investor-State arbitration*" and, furthermore, "*would compensate Claimant for risks it never assumed*."[885]

789. Respondent argues that interest should be calculated on the basis of the one-year U.S. Treasury bond rate.[886]

790. The Tribunal notes that NAFTA Article 1135 provides that: "*Where a Tribunal makes a final award against a Party, the Tribunal may award, separately or in combination, only: a. monetary damages and any applicable interest* […]."

791. The Tribunal also notes that the only reference in the Treaty to the rate of interest to be awarded is contained in NAFTA Article 1110(4), which provides the following: "[i]*f payment is made in a G7 currency, compensation shall include interest at a commercially*

880 Mem., ¶ 426.
881 Mem., ¶ 427.
882 Mem., ¶ 427.
883 Mem., ¶ 428.
884 Mem., ¶ 431.
885 Respondent's Post- Hearing Brief, ¶¶ 146, 225.
886 Respondent's Post-Hearing Brief, ¶ 226.

reasonable rate for that currency from the date of expropriation until the date of actual payment."

792. Although this norm refers to compensation arising from an expropriation, the Tribunal considers that it may serve as guidance in the present case because it is the most explicit reference in NAFTA on the matter, and because the Tribunal sees no reasons to exclude the application of this criterion when the compensation arises from the breach of the FET standard rather than from an expropriation. In addition, Respondent argues for the application of this concept from the time of its first submission, and Claimant did not dispute it as such during the proceeding.

793. Against this background, the Tribunal considers that interest at a rate equivalent to the WACC of a typical investor in a pre-operational mining project in Mexico advocated by Claimant is not a commercially reasonable rate to be applied in this case.

794. In this regard, the Tribunal agrees with Quadrant Economics' objections that such rate "*includes business risks in the mining industry and is not suitable to calculate interest in this Arbitration, as a potential award of damages will not have been subject to those risks*."[887]

795. The Tribunal believes that the commercially reasonable interest rate to be applied to the damages awarded must not be associated with the risk of operating in the mining industry but to compensate for the time value of money from the date the compensation was calculated to the date the compensation is paid, considering the counterparty risk involved. Indeed, the amount of compensation calculated based on sunk costs as of 12 October 2018 has not been affected by the mining business risk from that date.

796. For the reasons stated above, the Tribunal does not accept Claimant's request to apply a 13.95% interest rate, equivalent to the WACC of a typical investor in a pre-operational mining project in Mexico.

797. In turn, the Tribunal also does not consider a commercially reasonable rate of interest Respondent's position that interest should be calculated based on the one-year U.S.

[887] Second Quadrant Economics Expert Report, ¶ 176.

Treasury bond rate.[888] This is a highly conservative alternative proposed by Quadrant Economics, which, rather than reflecting a commercially reasonable interest rate, reflects the expert's preference not to take any risk. It is thus the expert's own choice of a risk-free rate[889] that cannot be transformed into the typical parameter to be observed by a commercial company when investing its resources.

798. During the Hearing, the Tribunal asked Dr. Flores of Quadrant Economics about the choice of this rate; the expert's answer made it clear that it was a preference to invest in a very conservative alternative:

> *"Arbitrator Alexandrov: ... Why is the Risk-Free rate a commercial rate?*
>
> *The Witness: .... But then to recreate--the idea is, well, what would have the Claimant done if it would have received that one dollar in 2016? And what we know is that dollar for the last five years has not been subject to risks, to business risks, so then you have to think, where would you invest the money? And then you would invest it in--what is commercially, if I went to a bank and said, 'Hey, I want to put this money, put this one dollar and I want you to keep it for me for the next five years, and I don't want to be subject to any risks,' and then they say you know, what buy a Treasury Bond. You can buy Treasury Bonds. And from that perspective, the Treasury Bond rate is commercial rate where what you want to do is deposit money in a very, very, very safe investment.*"[890]

799. Therefore, the one-year U.S. Treasury bond rate is a "*very, very, very safe*" choice made by Dr. Flores but not what this Tribunal considers a commercially reasonable rate.

800. Additionally, the U.S. Treasury bond rate does not reflect the counterparty risk since the debtor is Mexico, not the U.S. In this sense, it seems reasonable that the applicable interest rate should be equivalent to what Mexico pays when it borrows money by issuing sovereign debt bonds.

801. Furthermore, setting a lower interest rate than the one Mexico pays for when borrowing money would generate an incentive not to pay the award since deferring payment would be a cheaper alternative to borrowing.

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888 Respondent's Post-Hearing Brief, ¶ 226.
889 Second Quadrant Economic Report, ¶ 176.
890 Hearing Transcript, Day 6, pp. 1591:17-1592:22.

802. Based on these considerations, *i.e.*, identifying a commercially reasonable interest rate, and considering that the counterparty is Mexico, the Tribunal finds it appropriate to award interest applying the one-year Mexico Treasury bond rate.

803. The Tribunal is aware that Quadrant Economics considers that an interest rate should not include counterparty risk since "*any potential award in not subject [to such a risk]*" or that "*the amount awarded to claimant was sheltered from that default event.*"[891] Notwithstanding, the Tribunal disagrees that the risk of non-payment of an award is lower than that of non-payment of a sovereign bond. Instead, it considers them equivalent risks. In addition, the risk to which Claimant is exposed is a risk that should be judged *ex ante*, from the date of calculation of the sunk cost onwards, and not as of today, which is what Quadrant Economics suggests.

804. Regarding the reason for using a short-term rate (one-year) instead of a longer-term rate (*i.e.*, 10-year), the Tribunal agrees with Quadrant Economics that a claimant party cannot know, *a priori*, when the award will be rendered, and "*therefore a prudent investor would routinely reinvest in short-term assets until that date.*"[892]

805. Finally, in relation to Claimant's request that interest must compound annually, and that pre- and post-award interest must be paid, Respondent makes no objections to that request and, therefore, the Tribunal does not consider those points as disputed matters.

806. Thus, the interest will compound annually and will be paid from 12 October 2018, which is the date on which damages are calculated, until the date of this Award, and thereafter, until full payment is made by Mexico.

(4) Tax

807. Claimant states that Compass Lexecon's valuation is net of Mexican taxes. Accordingly, Claimant requests that the Tribunal (i) award damages to ExO based on the Compass Lexecon valuation of Phases I and II on Mexican pre-tax basis and gross-up all other damages awarded for applicable Mexican taxes; or (ii) declare that any award be net of all applicable Mexican taxes and that Mexico may not tax or attempt to tax the Award; and

891 Second Quadrant Economics Expert Report, ¶ 185.
892 Second Quadrant Economics Expert Report, ¶ 183.

(iii) order Mexico to indemnify Claimant with respect to any Mexican taxes imposed on the Award.

808. Respondent criticizes some aspects of the tax gross-up requested by Claimant in the event that the damages assessment follows the income approach methodology.[893] As the Tribunal has ruled out the application of that methodology, it will dispense with analyzing Respondent's criticisms in this respect.

809. Mexico does not dispute that the compensation awarded by the Tribunal can be affected or diminished due to the taxes applicable to it. The Tribunal also agrees with this principle, especially considering that the Award seeks to compensate Claimant for costs incurred and not for expected profits.

810. As the Tribunal does not know the type and amount of the Mexican taxes eventually applicable to the awarded compensation, it is not in a position to calculate the gross-up that would be necessary for the compensation to maintain its net value.

811. Consequently, the Tribunal rules that the Award is net of all applicable Mexican taxes.

VII. COSTS

812. Both parties request an award of costs in respect of the full costs of the arbitration, and all fees and expenses.[894]

813. The parties reached an agreement on 7 November 2022, according to which the parties' cost submissions must not contain any legal arguments regarding the apportionment of costs.[895] Based on this agreement, the Tribunal will consider only Claimant's resubmission of its Cost Submission dated 14 December 2022, where the references to arguments and new legal authorities initially included in its Cost Submission dated 30 November 2022, were removed, and Respondent's Cost Submission dated 30 November 2022.

814. Claimant's legal fees and expenses amount to US$ 21,265,683.40. Claimant has advanced US$ 400,000 on account of the fees and expenses of the Members of the Tribunal and the ICSID administrative fees and expenses.

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893 C- Mem., ¶¶ 712-713.
894 Claimant's Post-Hearing Brief, ¶ 375(vii); Respondent's Post-Hearing Brief, ¶ 232.
895 *See supra* at ¶ 71.

815. Respondent's legal fees and expenses amount to US$ 2,590,212.44. Respondent has advanced US$ 400,000 on account of the fees and expenses of the Members of the Tribunal and the ICSID administrative fees and expenses.

816. The Tribunal notes that according to NAFTA Article 1135, it has the power to award cost "*in accordance with the applicable arbitration rules*," which, in this case are the UNCITRAL Rules of 1976.[896] In turn, Article 40 of the 1976 UNCITRAL Rules provides as follows:

> "*1. Except as provided in paragraph 2, the costs of arbitration shall in principle be borne by the unsuccessful party. However, the arbitral tribunal may apportion each of such costs between the parties if it determines that apportionment is reasonable, taking into account the circumstances of the case.*
>
> *2. With respect to the costs of legal representation and assistance referred to in article 38, paragraph (e), the arbitral tribunal, taking into account the circumstances of the case, shall be free to determine which party shall bear such costs or may apportion such costs between the parties if it determines that apportionment is reasonable.*"

817. The Tribunal considers that the "*cost follows the event*" principle is the general and well-settled rule in international investment law. It also considers that the present dispute encompasses highly complex issues due to its technical nature and the extent of the evidence submitted. The Tribunal notes that Claimant has successfully proved that Respondent has breached the FET standard contained in NAFTA Article 1105(1). However, the Tribunal rejected Claimant's principal valuation approach and the methodologies it proposed to calculate the damages. Respondent has also submitted several defenses in the assessment of damages that the Tribunal accepted.

818. Having described the circumstances above, considering that Respondent is the unsuccessful party but most of its defenses have been accepted regarding the amount of damages, that the damages awarded are substantially lower than those claimed by Claimant, and in light of the broad discretion the Tribunal has in the apportionment of the costs pursuant Article 40 of the 1976 UNCITRAL Rules cited above, the Tribunal finds

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[896] Procedural Order No. 1, Section 2.1. "*These proceedings are conducted in accordance with the UNCITRAL Rules of 1976, except to the extent that they are modified by Chapter 11, Section B of NAFTA.*"

that it is reasonable that Respondent shall be responsible for all of the costs of this arbitration, including the arbitrators' fees and the administrative expenses before ICSID; and each party shall bear its own fees and expenses.

819. The costs of the arbitration, including the fees and expenses of the Tribunal and ICSID's administrative fees and direct expenses amount to a total of USD 1,187,998.31 broken down as follows:

Arbitrators' fees and expenses	
Felipe Bulnes	468,628.09
Stanimir Alexandrov	191,495.00
Philippe Sands	156,370.05
Jan Paulsson[897]	4,312.50
ICSID's administrative fees	220,000.00
Direct expenses	147,192.67
Total	**1,187,998.31**

820. These costs have been paid out of the advances made by the parties.[898]

[897] President of the Tribunal from 6 December 2019 until 12 February 2020, date on which he withdrew from his position as President of the Tribunal.

[898] The ICSID Secretariat will provide the parties with a detailed Financial Statement. The balance in the case account will be refunded to the parties proportionally to their contributions.

VIII. AWARD

821. For the foregoing reasons, the Tribunal decides as follows:

(a) Claimant's claim that Respondent breached NAFTA Article 1105(1) by failing to accord Claimant's investment fair and equitable treatment is granted.

(b) Orders Respondent to pay ExO for breaching its obligation under NAFTA Article 1105(1) the sum of US$ 37.1 million. This amount is payable within 30 days of the notification of this Award.

(c) Orders interest to be paid on this Award from 12 October 2018, until payment in full at a rate equal to the one-year Mexico Treasury bond rate, compounded annually.

(d) These amounts are net of applicable Mexican taxes and Mexico may not tax the Award. If it does so, Mexico will indemnify ExO concerning any Mexican taxes imposed on the Award.

(e) Orders Respondent to pay all of the costs of this arbitration, including the arbitrators' fees and ICSID's administrative fees as detailed in paragraph 819.

(f) Orders each party to bear its own fees and expenses.

(g) Denies all other claims for compensation.

[Signed]

Dr. Stanimir Alexandrov
Arbitrator

Date: 12 September 2024

Prof. Philippe Sands, KC
Arbitrator
Subject to the attached dissenting opinion

Date:

Mr. Felipe Bulnes Serrano
Presiding Arbitrator

Date:

[Signed]

Dr. Stanimir Alexandrov
Arbitrator

Date:

Prof. Philippe Sands, KC
Arbitrator
Subject to the attached dissenting opinion

Date: 12 September 2024

Mr. Felipe Bulnes Serrano
Presiding Arbitrator

Date:

Dr. Stanimir Alexandrov
Arbitrator

Date:

Prof. Philippe Sands, KC
Arbitrator
Subject to the attached dissenting opinion

Date:

[Signed]

Mr. Felipe Bulnes Serrano
Presiding Arbitrator

Date: 16 September 2024

Odyssey Marine Exploration, Inc v The United Mexican States, ICSID Case No. UNCT/20/1:

Dissenting Opinion of Professor Philippe Sands KC

1. This case concerns an investment in the Gulf of Ulloa, on the west coast of Mexico, an area rich in biodiversity which plays a significant role for many marine organisms. One amongst these is the loggerhead turtle (*caretta caretta*), a highly migratory species that is recognised under international and national laws as internationally endangered.[1] Other significant marine species in the Gulf of Ulloa include gray and blue whales, dolphins, seals, sea lions, and many species of birds which pass through the Gulf at various times of the year. The importance of the region to marine life is recognised by international organisations, including UNESCO, and scientific bodies.[2] A number of areas surrounding the Gulf are designated as protected areas.

2. The Gulf of Ulloa is also important in providing fisheries resources for local communities, in a way that significantly underpins their social and economic wellbeing. Local fishermen and authorities, as well as the Mexican State, have expressed a desire to balance the exploitation of fishing resources with the protection of the marine environment. To that end, they have developed a regulatory regime that is intended to minimise the harm that fisheries (as well as other activities) may have on marine life in the Gulf. This regulatory regime is supported and complemented by the activities of a number of fishing organisations and societies, and academic and learned bodies. The successful operation of this regime, and the protection of the Gulf of Ulloa, has been a significant concern for many years. This reflects a commitment on the part of the Mexican State and the local community to protect the marine environment of the Gulf of Ulloa.

3. This is one part of the background against which Odyssey Marine Exploration, Inc. (U.S.) ("**Odyssey**" or the "**Claimant**"), a company incorporated in the state of Nevada,

[1] Convention on International Trade in Endangered Species of Wild Fauna and Flora ('CITES'), Appendix I (included under the Cheloniidae genus); Red List of the International Union for the Conservation of Nature (**R-0042**).
[2] **C-0009**, SEMARNAT Denial Decision, 12 October 2018, pp. 73-74; **R-0029,** CONANP Report on World Natural and Mixed Heritage in Mexico 2012-18; **R-0030,** The David and Lucile Packard Foundation Presentation on Marine Priority Regions for Mexico.

United States of America, proceeded to invest in a project that would engage in the mining of phosphates on the seabed of the Gulf of Ulloa. Odyssey is a company with impressive expertise in deep sea exploration and the recovery of artefacts and cargo from wrecked or sunken ships. It appears to be a responsible company, but also one that has no previous experience in seabed (or any other) mining, and no expertise of its own in relation to seabed mining of the kind that it now proposes to engage in.

4. Moreover, the investment and proposed activity of Odyssey in Mexico is premised on the use of a technique of seabed mining for phosphates that appear to be entirely novel and untested anywhere in the world. A number of factors – the absence of experience of the company and its personnel, the novelty of the mining techniques, the significant potential impact on the environment - became apparent on the first day of the hearing in this case: in the course of a cross-examination, Dr Lozano, the Environmental and Project Manager of the Don Diego project, confirmed that he had no experience in Mexico, or in sea-mining, or in applying for environmental permits of this kind.[3]

5. These facts alone, which are not substantively contested, coupled with the ecological characteristics of the Gulf of Ulloa, would give any reasonable public authority pause in proceeding with any decision to authorise the proposed mining activity. If any case called for the diligent application of the obligation to protect the environment, including a precautionary approach (which is binding on and applicable to Mexico under international law and Mexican law), this is it.

6. The project in which Odyssey has invested seeks to mine phosphate from a particular area in the Gulf of Ulloa. It is sometimes referred to as the 'Don Diego deposit'. Odyssey has proposed to make use of a mechanical method to extract phosphate from the seabed: first, a suction tube would carry material from the seabed; second, the phosphate would be separated from the extraneous sediment; and third, the extraneous sediment would be deposited back to the sea floor.[4] Whilst the suction technique proposed for this project appears to have been used in other kinds of projects, this is

[3] Hearing Transcript Day 1, pp. 206-207.
[4] **C-0059**, Boskalis Don Diego Phosphate Mining Proposal.

apparently the first time that these techniques would be used to extract minerals from the seabed.[5]

7. This simple description allows any reasonable person to recognise that the proposed activity, to be carried out over an extended area of 800 square kilometres, is one that is liable to disturb the floor of the ocean on a scale that is both significant and novel. It is notable that Odyssey has at various times sought to avoid characterising its proposed activity as 'mining', preferring to refer to it as 'dredging' (it might just as inaccurately have referred to its activity as 'hoovering' or 'cleaning'). It has adopted this approach to terminology, one assumes, because of the negative connotations often (but not always fairly) associated with mining activities. Yet the reality is that as a matter of international law, the 'Don Diego Project' is a mining project.[6] Indeed, Odyssey itself has described its various witnesses and consultants as experts in 'mining', and has suggested that its investment should be treated as a mining project when it has been advantageous to do so.[7]

8. Given the nature of the project, and the inevitability of certain impacts on the environment of the Gulf of Ulloa, it is perhaps not surprising that the Don Diego Project would cause alarm amongst certain communities, in particular those with interests in fishing and ecology. Odyssey itself has acknowledged the potential for environmental harm, having engaged a number of consultants on environmental matters, and undertaken a number of studies to assess the extent of the potential impacts and harm, as well as the availability of mitigation measures. The Tribunal has been presented with a large body of evidence from both parties as to the significance of the potential environmental harm and the efficacy of mitigation measures. I say more about this material below.

9. The Tribunal also had the opportunity to hear from the Sociedad Cooperativa de Producción Pesquera Puerto Chale S.C.L, a local fishing cooperative, and the Centre for International Environmental Law, a public interest organisation, which sought to

[5] Hearing Transcript Day 7, pp. 1695-1697.
[6] UNCLOS Annex III, Arts 13 and 17; Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area (2013) Regulation 1; Hearing Transcript Day 4, pp. 885-889; Hearing Transcript Day 5, pp. 1299-1300; Hearing Transcript Day 7, pp. 1692-1696.
[7] See in particular the Claimant's written submissions on quantum in its Memorial at pp. 151-168, and in its Reply at pp. 137-233.

intervene in the proceedings to address the potential impacts of the mining project on the marine environment of the Gulf of Ulloa. A Majority of the Tribunal considered that neither of these organisations should be authorised to participate. As set out in my dissenting opinion on that decision, which is attached to this, it was surprising and regrettable that the Majority concluded that no useful purpose would be served by allowing either of these two organisations to be authorised to make filings that could assist the Tribunal. The decision suggested to me, at an early stage in the proceedings, that the Tribunal might proceed on the basis that this case had no significant environmental aspect, despite the ample evidence to contrary even at that earlier stage of the proceedings. Regrettably, the approach taken by the Majority on the merits of this case has fully confirmed that initial concern.

10. I return to the environmental impact of the proposed project below. For present purposes, it suffices to say that a cautious approach to this project would be wholly reasonable in light of the context: the novelty and nature of the proposed activity, the inexperience of Odyssey and its own staff, the ecological significance of the location, and the application of the precautionary principle.[8] It is therefore no surprise that the need for caution was explicitly acknowledged by one of the Claimant's key witnesses, Mr Alfonso Flores, in the course of the hearing.[9]

11. On jurisdiction, I agree with the conclusion that the Tribunal can hear the dispute.

12. On the merits, however, I do not share the Majority's conclusion that the Respondent may be said to have acted in a manner that is arbitrary, or that Art 1105 NAFTA has been violated. The Majority's approach to the law and the facts is tainted by numerous deficiencies which undermine the reasoning and the conclusions. Of particular concern is the failure to consider the environmental context of the proposed project, the principal arguments put forward by the Respondent to justify the refusal to authorise the project, and the evidence that is on the record in this case.

13. For reasons of judicial economy, the Majority has decided that it is unnecessary to determine whether the Respondent's conduct amounts to a failure to provide Full

[8] Principle 15 Rio Declaration, Art 194 UNCLOS.
[9] Hearing Transcript Day 7, p. 1698.

Protection and Security (Art 1105 NAFTA) or an indirect expropriation (Art 1110 NAFTA), or whether the Respondent has treated the Claimant less favourably than domestic investors (Art 1102 NAFTA). To be clear, I do not consider it to be even arguable that any of those provisions has been breached, on the basis of the record before the Tribunal. As the majority has not addressed these provisions, I limit my analysis to the allegation of arbitrary conduct and Art 1105 NAFTA.

Art 1105 NAFTA

14. The Majority concludes that the Respondent has treated the Claimant 'arbitrarily' and that such treatment amounts to a breach of the standard outlined in Art 1105 NAFTA.

15. Arbitrariness falls to be interpreted and applied by reference to the relevant provisions of NAFTA, and the relevant or applicable rules of international law. The preamble to NAFTA and its Art 1114 affirm the importance of environmental protection and sustainable development, as recognised by the USA in its Non-Disputing Party Submission in this case.[10] The system of international investment law does not exist in a vacuum, and tribunals assessing the actions of States must remember that States are subject to a large number of other international obligations. Indeed, the Vienna Convention on the Law of Treaties requires the interpretation of NAFTA to take into account 'any relevant rules of international law applicable in the relations between the Parties', a formulation which includes treaty and customary obligations.[11] In the present case, the relevant rules which are applicable include customary obligations on the protection of biodiversity and the marine environment. These obligations can be found in treaties such as the 1992 Convention on Biological Diversity and the United Nations Convention on the Law of the Sea (to which the United States is not a party), and have also been found to exist in customary international law. Those customary obligations include the obligation to protect and preserve the environment, in a manner that is consistent with a precautionary approach.[12] Of particular relevance is Art 208

[10] Submission of the United States of America, paras 21-22.
[11] Article 31(3)(c) of the Vienna Convention on the Law of Treaties.
[12] Principle 15 of the Rio Declaration. Various international courts and tribunals have recognised that the precautionary principle is a rule of customary international law. See in particular: *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area (Request for Advisory Opinion Submitted to the Seabed Disputes Chamber)* ITLOS Case No. 17, Advisory Opinion of 1 February 2011, para 135; *Legality of the Threat or Use of Nuclear Weapons,* Advisory Opinion, ICJ Reports

UNCLOS, which requires States to "prevent, reduce and control pollution of the marine environment arising from or in connection with seabed activities subject to their jurisdiction", and which reflects a rule of customary law.[13] Hence, when considering whether the Respondent acted in an arbitrary fashion, it is critical to recall that it was obliged to act in accordance with its duty under international law to protect the environment of the Gulf of Ulloa, and the precautionary principle.

16. I agree with the Majority that, in principle, arbitrary conduct may amount to a breach of the international minimum standard referred to in Art 1105. Whether it does so will depend on the facts of the case. As pointed out by Canada in its Non-Disputing Party Submission, Art 1105 does not give tribunals the power to second-guess government policy and decision making. Any assessment under Art 1105 must, therefore, be carried out in light of the "high measure of deference that international law generally extends to the right of domestic authorities to regulate within their own borders".[14] I also agree that the judgment of the ICJ in *ELSI* may be taken as a starting point in defining 'arbitrary' conduct in international law. The judgment of the ICJ is clear in setting a high standard: conduct will only be considered 'arbitrary' when it is "opposed to the rule of law" and when the conduct in question "shocks, or at least surprises, a sense of judicial propriety".[15]

17. This standard may be said to be broad and open to interpretation, but there can be no doubt that the ICJ intended to set a high bar. For its part, the Majority has not fully articulated what it believes to be the various strands of arbitrariness. The Majority has found that the Respondent acted in an arbitrary fashion: in other words, by deciding to reject the MIA authorising the Claimant's project to proceed, it has acted in a way that "shocks" or "surprises" the Majority's sense of judicial propriety. This finding appears to rest on the belief that the Respondent made its decision to reject the MIA for reasons

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1996, p. 226, para 29; *Pulp Mills on the River Uruguay (Argentina v Uruguay),* Provisional Measures, Order of 13 July 2006, ICJ Reports 2006, p. 152; Dissenting Opinion of Judge Ad Hoc Vinuesa; *Request for an Examination of the Situation in Accordance with Paragraph 63 of the Court's Judgment of 20 December 1974 in the* Nuclear Tests *(New Zealand v France) Case,* ICJ Reports 1995, Dissenting Opinion of Judge Sir Geoffrey Palmer, para 91, and Dissenting Opinion of Judge Weeramantry, p. 342.

[13] Article 208 of United Nations Convention on the Law of the Sea.

[14] Non-Disputing Party Submission of Canada, para 18, citing *S.D. Myers, Inc. v Government of Canada*, UNCITRAL, Partial Award, 13 November 2000, para 263 (Arbs. J. Martin Hunter, Bryan P. Schwartz, Edward C Chiasson QC) and several other NAFTA cases to the same effect.

[15] *Elettronica Sicula S.p.A. (ELSI)*, Judgment, ICJ Reports 1989, p. 15, para 128.

that were not to do with the environmental reasons stated to be the basis for the decision. In principle, I do not disagree that acting for reasons other than those given may - depending on the evidence that is available, and the particular facts of a given case - amount to arbitrary conduct and a breach of the international minimum standard of treatment.

18. However, I part with the Majority on the application of that standard of law to the facts of the present case. A finding that a State has taken a decision for reasons which differ from those stated is a most serious charge. Essentially, it amounts to finding that a State and its officials have acted dishonestly. In light of this, one would expect the Majority to take a careful thorough approach to the assessment of the evidence, closely analysing witness testimony and documentary evidence (or lack thereof) which purports to support such allegations, and doing so in a balanced manner.

19. In particular, one would expect the Majority to have carefully review the environmental reasons given by the Respondent in the two decisions it took to reject the Claimant's MIA. Of course, it is not for the Tribunal to determine whether such concerns were well-founded, but the rigour and care with which the Respondent has analysed the environmental issues - and the plausibility of its conclusions, having regard to the margin of appreciation which a public authority will have in relation to decisions on such matters - have direct relevance to the credibility and force of a conclusion that a Respondent has actually acted for reasons that are different to those which are stated to be the basis for its decision.

20. Despite this obvious point, the Majority has not seen fit to engage at all with an analysis that is careful and thorough. Instead, it has based its factual conclusions on an approach which may be characterised as speculative, and placed a weight on witness testimony of a quality and credibility that is questionable.

21. The Majority has based its finding on four main factors. I address each in turn. A common thread runs through each of the factors, and that relates to the Majority's engagement with the detailed decisions by the Respondent that reject the MIA: the first decision is 236 pages in length, the second is 516 pages. The reports in respect of both decisions go to significant lengths to analyse the potential environmental impact of

Odyssey's proposed mining project. They undertake a detailed analysis of Odyssey's methodology and its proposed measures to mitigate the environmental effects of its mining activities. They include details about the serious and wide-ranging environmental concerns of reputable independent scientific bodies and organisations, as well as members of the public. As the evidence before the Tribunal made clear, this proposed project elicited a great deal of concern for many legal and natural persons. Yet despite the abundance of material, the Majority has chosen to ignore the evidence as to environmental harm in its entirety.

22. The environmental concerns expressed in the two decisions include the following:
    a. the impact on the habitat of endangered *caretta caretta* turtle;[16]
    b. the abundance of turtles in the project site;[17]
    c. the impact on whales and other large marine mammals;[18]
    d. the impact of mechanical dredging/mining on benthic organisms in the seabed, and the consequential impact on the organisms which feed on those benthic organisms;[19]
    e. the compatibility of the project with the precautionary principle as recognised by both Mexican and international law;[20]
    f. the methodology of the Claimant's environmental surveys, including the time of year at which those surveys were carried out;[21]
    g. the relaxed attitude adopted by the proposed mitigation measures to the loss of turtle life,[22] and
    h. the lack of clear methods or indicators for assessing the ongoing impact of the project.[23]

[16] **C-0008**, SEMARNAT Denial Decision, 7 April 2016, pp. 220-222; **C-0009**, SEMARNAT Denial Decision, 12 October 2018, pp. 464-467.
[17] **C-0008**, SEMARNAT Denial Decision, 7 April 2016, pp. 220-222; **C-0009**, SEMARNAT Denial Decision, 12 October 2018, pp. 469-471.
[18] **C-0009**, SEMARNAT Denial Decision, 12 October 2018, pp. 471-472.
[19] **C-0008**, SEMARNAT Denial Decision, 7 April 2016, p. 222; **C-0009**, SEMARNAT Denial Decision, 12 October 2018, pp. 480-494.
[20] **C-0009**, SEMARNAT Denial Decision, 12 October 2018, pp. 509-511.
[21] **C-0009**, SEMARNAT Denial Decision, 12 October 2018, pp. 469-471.
[22] **C-0009**, SEMARNAT Denial Decision, 12 October 2018, pp. 500, 509-512.
[23] **C-0009**, SEMARNAT Denial Decision, 12 October 2018, p. 501.

23. The concerns expressed during the public consultations related to the project included the following:
    a. the Government of the State of Baja California Sur, which expressed concern as to the manner in which the environmental assessments had been carried out;[24]
    b. the National Commission for the Knowledge and Use of Biodiversity, which expressed concern regarding the negative impacts of mining and the overlap between the project area and various sites important for their biodiversity;[25]
    c. the National Commission for Protected Natural Areas, which expressed various concerns including the potential impact of the project on whales;[26]
    d. the Institute of Sea Sciences and Limnology, which expressed particular concern relating to the release of toxic elements into the water column,[27] and
    e. the Society of Marine Mammalogy, which cited concerns relating to the acoustic impact on whales and potential habitat loss.[28]

24. In respect of individual submissions, the two refusal decisions also record a number of instances where the Respondent requested follow-up information or clarification on matters of detail including methodology. Moreover, even a cursory glance at the two decisions shows that the analysis sections are replete with references to - and backed by - a range of independent and publicly available scientific publications, which address and analyse the environmental significance of the Gulf of Ulloa, and the likely significant adverse effects of the proposed project.

25. Despite these concerns being available in evidence before the Tribunal, the Majority has not referred to, or offered any views on, the substantive reasons put forward by the Respondent in support of its refusal decisions. These reasons are at the very heart of the Respondent's defence to the claim before the arbitral tribunal, and it is troubling and inappropriate that on a matter of evident local, national and international concern, an

[24] **C-0008**, SEMARNAT Denial Decision, 7 April 2016, pp. 162-163; **C-0009**, SEMARNAT Denial Decision, 12 October 2018, pp. 160-161.
[25] **C-0008**, SEMARNAT Denial Decision, 7 April 2016, p. 165; **C-0009**, SEMARNAT Denial Decision, 12 October 2018, p. 163.
[26] **C-0008**, SEMARNAT Denial Decision, 7 April 2016, pp. 165-172; **C-0009**, SEMARNAT Denial Decision, 12 October 2018, pp. 163-170.
[27] **C-0008**, SEMARNAT Denial Decision, 7 April 2016, pp. 175-179; **C-0009**, SEMARNAT Denial Decision, 12 October 2018, pp. 173-177.
[28] **C-0008**, SEMARNAT Denial Decision, 7 April 2016, pp. 184-191; **C-0009**, SEMARNAT Denial Decision, 12 October 2018, pp. 182-189.

international arbitral tribunal should proceed in silence in this way. The Majority has offered no justification, explanation or reasons for its decision not to consider or assess the reasons offered by the Respondent for its decision to reject an MIA on environmental grounds. It is hard to see any reasonable basis for that failure. Having failed to take into account relevant arguments and evidence, the Majority has fallen into fatal error, undermining any possibility that its conclusions might be said to be reasonable or related to the evidence before it.

26. The only acknowledgement in the Award of the environmental issues at the heart of the case are the three extremely short paragraphs considering the submissions from independent scientific bodies, NGOs and government organisations outlined in paragraph 23 above.[29] Unfortunately, the Majority appears to fundamentally misunderstand the proper role of such submissions in an environmental assessment process. The Majority casually dismisses the relevance of these submissions on the basis that they are not referred to in the analysis section of the two decisions,[30] something not contested by the Claimant. This is hardly surprising. As seemingly acknowledged by both the Claimant and the Majority,[31] these submissions were not binding and the Respondent was required to carry out its own independent analysis of the Don Diego Project. Had the Respondent relied on this material in the way envisaged by the Majority, the Respondent would have left itself open to the charge that it had not made the two refusal decisions itself, or that it had been selective in referring to some but not all submissions. The manner in which the Respondent dealt with the third party submissions inscribes itself in a practise that is in no way exceptional. In this way, the Majority's approach appears to reflect a lack of understanding of the environmental assessment process rather than anything more substantive.

27. The real significance of these submissions is not in how they are referred to in the analysis of the MIA, but in the effect they have on the credibility of the argument that the Respondent was not actually acting for the environmental reasons given. In my view, the existence of detailed submissions from a large number of independent and authoritative expert organisations or individuals who have expressed serious concerns

[29] Majority's Award, paras 431-434.
[30] Majority's Award, para 434.
[31] Claimant's Reply, para 69; Majority's Award, para 433.

as to the environmental impacts of the Don Diego Project goes to the credibility of the Respondent's case: these submissions confirm both the reasonableness of the conclusion that the Don Diego Project gave rise to significant environmental concerns, and that the Respondent may be said to have acted on the basis of those concerns. The Majority passes in silence on both aspects.

28. Instead of addressing the environmental reasons invoked by the Respondent, the Majority has largely based its conclusion that the Respondent acted for reasons other than environmental protection by relying on the witness testimony of two individuals, Mr Alfonso Flores and Mr Alberto Villa. Both are former employees of SEMARNAT. I have paid the closest attention to the written statements and oral testimony of Mr Flores and Mr Villa, and regret that I have a number of concerns which lead me to have significant doubts about their credibility.

29. One significant concern is that Mr Flores and Mr Villa received payments from the Claimant for time they devoted to the preparation of their witness statements and time spent attending the hearings. This fact was not initially declared to have been the case: the arrangements were not disclosed by Odyssey or the witnesses at the earliest opportunity, as they might have been, and the details of the arrangements, including the conditions, timing and financial amounts emerged only during the course of the hearing.[32] The subsequent failure of Mr Flores to submit invoices to the Tribunal, despite orders to do so, means that the Tribunal does not have a complete picture as to the financial and other arrangements he entered into in deciding to provide testimony in this case.[33] However, it appears that each witness was paid around USD 200 per hour for their time, in respect of the preparation of their witness statements and oral testimony, amounting to a total of no less than USD 25,000 each.[34] Having regard to the relative brevity of the statements, this is a significant sum, and appears to amount to over half of the annual salaries they received as employees of SEMARNAT.

30. Moreover, in the course of the hearing it emerged that a part of the payment received by Mr Villa appeared to have been for work undertaken prior to the signing of his

[32] Hearing Transcript Day 2, pp. 337-350.
[33] Hearing Transcript Day 7, p. 1647-1649.
[34] Hearing Transcript Day 2, p. 341.

contract with the Claimant. Whilst Mr Villa's first witness statement was signed on 8 May 2020, the Commitment Contract under which he received payment was not signed until 2 November 2020. Mr Villa was subject to the operation of a rule of Mexican law which explicitly prohibited the two individuals from engaging in such activities within a year of their employment at SEMARNAT: see Articles 55 and 56 of the General Law of Administrative Liabilities. Mr Villa denied that he was being remunerated in any way for the time spent preparing his first witness statement.[35] However, given the rate of USD 200 per hour, and the fact that Mr Villa was paid for at least 60 hours of 'hearing preparation',[36] Mr Villa's protestations are not persuasive.

31. The Majority is right to point out that it is not illegal or unusual as such for witnesses in investor-State disputes to be paid for their time. However, that does not mean that a tribunal should disregard the existence of such payments - including the conditions, timing and value - or the candour (or absence of it) of a party in connection with the making of such payments, as it forms a view as to the credibility of one or more witnesses. The arrangements in this case were unusual, and may well have been irregular or even unlawful under Mexican law. The lack of initial transparency meant that the Tribunal was not aware of the arrangements when they first read the witness statements. I believe that the restraint of the Majority on this important issue - given the very great weight it has placed on the evidence of the two witnesses - is of concern. How much weight can reasonably be placed on the testimony of the two most important witnesses, when part way through proceedings it emerges that they have been paid significant amounts by the party that will benefit from their evidence? Not a great deal, in my view, and even less given the absence of other evidence to support the conclusion reached by the Majority. The arrangements entered into with the witnesses, taken together with the other points I address below, give rise to significant doubts as to the credibility of Mr Flores and Mr Villa, and to the weight that should be afforded to their testimony.

32. I have other doubts about the testimony of Mr Flores and Mr Villa. First, despite claiming to have extensive involvement in the relevant decision-making process whilst

[35] Hearing Transcript Day 2, p. 338.
[36] Hearing Transcript Day 2, p. 347.

employees at SEMARNAT, neither was able to point to any contemporaneous documentary evidence, in the form of emails, meeting minutes or reports, to support their assertions or the facts they alleged. This does not in itself mean that the testimony of Mr Flores and Mr Villa should be discounted entirely. However, in light of the two lengthy reports setting out the environmental reasons for the refusal of the MIA, this lack of documentary evidence tendered by the witnesses to establish that the refusal was motivated by other considerations is, to say the least, surprising and disconcerting. The absence of any such evidence significantly limits the weight to be given to the testimony of Mr Flores and Mr Villa.

33. A further doubt arises from the fact that the testimony of each of the two witnesses is not persuasive on its own terms. A great deal is left unaddressed and unexplained by their accounts. They have nothing to say, for example, on consistent, strong and widely articulated opposition to the Don Diego Project on environmental grounds from authoritative and independent scientific institutions, as well as citizens groups and members of the public. The opponents included those most directly affected by the proposed project, such as the local fishing community. Nor do they have anything to say about the expressions of concern that emanated from authorities beyond SEMARNAT, or express views on how SEMARNAT could reasonably be expected to ignore such expressions of concern. The suggestion from another of the Odyssey's witnesses, Mr Gordon, that the environmental concerns raised were 'ideological' rather than scientific, tends to support the conclusion that the proponents of the project and its supporters viewed environmental matters to be a nuisance, and to lack substance.[37] By contrast, the expert reports produced by the Respondent were independent, authoritative and compelling in their conclusions as to the project's risks for marine life in the Gulf of Ulloa, particularly the *caretta caretta* turtles: see Report by Dr. Agnese Mancini, Dr. Alberto Abreu, Dr Bryan Wallace, Dr Allan Zavala, and Msc. Raquel Briseño, Sea Turtle Expert Group on the Conservation of the *Caretta Caretta* Turtle in the Gulf of Ulloa (October 13, 2021, especially at para 127). The evidence before the Tribunal on the risk of environmental harms was compelling, not concocted, and articulated by highly qualified individuals and governmental and non-governmental bodies alike. The evidence further supported the conclusion that Odyssey was a wholly inappropriate

[37] Hearing Transcript Day 1, pp. 193-194.

proponent of a project such as this, characterised as it was by the unfortunate combination of no experience in mining activities and a profound sense of hostility to environmental concerns that might stand in the way of the project.

34. The Tribunal also heard from Mr Pacchiano, the individual who Odyssey alleges was alone responsible for blocking the Don Diego project. I found Mr Pacchiano to be a credible witness, in the sense that his concern was rather obviously motivated by a desire to ensure that the project should only proceed if the legitimate environmental concerns that had been raised were capable of being fully and professionally addressed. The fact that he has a personal commitment to the protection of the environment is not something that should be held against him. To the contrary, as Secretary of SEMARNAT you would expect that individual to proceed in a precautionary manner, and I heard nothing in his testimony - or views that emerged in cross-examination - to indicate that the motivations for his actions were not properly founded on legitimate environmental concerns. Did the conduct of Mr Pacchiano "shock … or at least surprise … a sense of judicial propriety"?[38] It did not shock or surprise my sense of judicial propriety, particularly given the Respondent's obligation to comply with the precautionary principle. I find it difficult to see how, on the basis of the evidence before the Tribunal, a reasonable reader or observer could conclude that Mr Pacchiano's behaviour was shocking or arbitrary. Reasonable people may have different views on the merits of the decision to reject the MIA on environmental grounds, but it cannot by any stretch be considered to be a decision that shocked or was arbitrary. It was, very plainly, based only on concerns about the environmental risks of the project as outlined in the two lengthy decisions denying the MIA, and there was no compelling evidence before the Tribunal pointing to any other basis for the decision. Indeed, despite stating that the decision to deny the MIA was taken due to the personal motives of Mr Pacchiano, neither the Claimant nor the Majority has been able to identify what these supposed motives actually were. Much of what Mr Pacchiano said tended to reinforce my doubts about the testimony of Mr Flores and Mr Villa, and the lack of credibility of the project's proponents.

[38] *Elettronica Sicula S.p.A. (ELSI)*, Judgment, ICJ Reports 1989, p. 15, para 128.

35. Yet the Majority dismisses Mr Pacchiano's testimony in its entirety, by means that are unconvincing. Rather than casting a critical eye over the testimony of Mr Pacchiano, on the one hand, and the testimony of Mr Flores and Mr Villa on the other, the Majority relies on thin reasoning that opted instead for the plausibility of the evidence of the latter individuals. Contrary to the view expressed by the Majority,[39] the fact that Mr Pacchiano attended a number of meetings related to the Don Diego project cannot of itself support Odyssey's case that he was determined to block the project. To the contrary, the nature of the project and the investor would have set alarm bells ringing for any reasonable individual who occupied the position that Mr Pacchiano did. Deep seabed mining is controversial, as it is liable to have long-term consequences which are difficult to predict. The potentially problematic nature of the activity is reflected in current international debates concerning deep sea-bed mining under UNCLOS,[40] and a recent decision taken by the 14th Conference of the Convention on Migratory Species that has pointed to the environmental dangers of deep sea mining, and has urged states to recognise the impact of such mining, act in accordance with the precautionary principle and "not to engage in deep-sea mining" until robust evidence on the potential harm of such mining has been obtained.[41]

36. Equally striking is the Majority's conclusion that the lack of testimony from a number of other individuals who were involved in the decision-making process should be taken as an indication that the Claimant's allegations are true. It is true that these individuals did not appear before the Tribunal "to support Mr. Pacchiano's version that the statements of Messers. Flores and Villa were false",[42] as the Majority asserts. It is

[39] Majority's Award, paras 374-375.
[40] Eg See further International Seabed Authority, 'Draft Regulations on Exploitation of Mineral Resources in the Area: The Facilitator's Fourth Revised Draft Text on Parts IV and VI and Related Annexes' ISBA/28/C/IWG/ENV/CRP.3 (16 October 2023); International Seabed Authority, 'Secretary General Annual Report: Ensuring the Sustainable Management and Stewardship of the Deep Seabed and its Resources for the Benefit of Humankind' (June 2022); International Seabed Authority 'Draft Regulations on the Exploitation of Mineral Resources in the Area' ISBA/25/C/WP.1 (22 March 2019), Part IV.; International Seabed Authority, 'Preliminary Strategy for the Development of Regional Environmental Management Plans for the Area' ISBA/24/C/3 (16 January 2018); International Seabed Authority, 'Towards an ISA Environmental Management Strategy for the Area' ISA Technical Study No. 17.
[41] CMS Resolution 14.6 on Deep-Seabed Mineral Exploitation Activities and Migratory Species, UNEP, paras 2-3, adopted 17 February 2024. The decision is of no legal effect in relation to these proceedings, and does not inform my conclusions, as it post-dates the hearings and the parties have not had a chance to address it, and Mexico and the US are not parties to the Convention. Nevertheless, it confirms the reasonableness of concerns addressed by the experts and other parties who participated in the decision-making process in Mexico. CMS/Resolution 14.6
[42] Majority's Award, para 386.

equally the case, however, that they did not appear in order to support the account given by the Claimant's witnesses. To draw the inferences the Majority has - or indeed in the other direction - from the absence of one or more potential witnesses, and then to give such weight on the basis of absence and inference, is contrary to the basic fact-finding responsibilities of a tribunal charged with assessing evidence and applying law.

37. A second factor relied upon by the Majority is the decision of the TFJA that the first MIA refusal decision was unlawful. It is to the credit of the TFJA – and to Mexico – that the ruling did criticise the first refusal decision: a decision taken was challenged, found to have been adopted unlawfully as a matter of Mexican law, and set aside. The system of Mexican law worked. Yet the Majority completely misinterprets what the TFJA did: it did not criticise the decision to refuse the MIA on the merits of environmental concerns, but rather on the basis of the reasons given and the approach taken. Moreover, it is well-established and even self-evident that a finding of illegality or fault at the domestic level does not mean that a finding of illegality at the international level necessarily follows. As explained by the ICJ in *ELSI*:

> "A finding of the local courts that an act was unlawful may well be relevant to an argument that it was also arbitrary; but by itself, and without more, unlawfulness cannot be said to amount to arbitrariness. … Nor does it follow from a finding by a municipal court that an act was unjustified, or unreasonable, or arbitrary, that that act is necessarily to be classed as arbitrary in international law, though the qualification given to the impugned act by a municipal authority may be a valuable indication."[43]

38. The core of the criticism from the TFJA is that the first refusal decision was insufficiently precise and did not fully explain the basis on which some findings were reached.[44] The TFJA's decision is thorough and clearly reasoned, and it deserves the fullest respect for what it concluded and for what it did not say. The TFJA did not rule that the refusal decision was taken for reasons other than those put forward in the decision. Contrary to the suggestion put forward by the Majority, the TFJA did not find that the refusal decision had "serious flaws from a scientific and environmental

[43] *Elettronica Sicula S.p.A. (ELSI)*, Judgment, ICJ Reports 1989, p. 15, para 124.
[44] **C-0170**, TFJA Ruling, 21 March 2018, pp. 138-170 (English).

perspective",[45] or that the decision was "devoid of scientific bases".[46] Rather, the TFJA explicitly stated that it did not have the expertise to consider the merits of the environmental reasons put forward,[47] and confined its review to the clarity of the analysis and reasoning. In light of this, the TFJA decision provides no support for the Majority's view that the refusal decision was taken for reasons other than the environmental reasons put forward.

39. The Tribunal has been provided with a second refusal decision in which the environmental concerns are addressed in more depth and with additional evidence, precisely to address the concerns raised by the TFJA in its judgment.[48] A challenge to this decision remains pending before the domestic courts, and it would be inappropriate to comment on prospects of this challenge succeeding (moreover, as the Claimant has not addressed the manner in which the TFJA has conducted those proceedings, it is not part of the claim in these proceedings and cannot be addressed by this Tribunal). For present purposes, however, it suffices to note that the second report is even longer and more detailed than the first, and seeks (on its face) to address the concerns raised by the TFJA in its judgment. It also appears to address both the economic and environmental aspects of this project. It is therefore striking that, despite the emphasis placed on the second decision by the Respondent, the Majority has chosen to say nothing about the contents of the second report in considering the merits of the dispute. The Majority has found that a decision is arbitrary without examining the stated reasons for the decision.

40. At the very least, the existence and content of the second report surely had to be assessed to determine the nature of the effort by SEMARNAT to address the concerns raised by the TFJA in its judgment, and to determine whether the report may be characterised as a genuine attempt to repair the failings of the first report? The Majority should have asked itself whether the contents of the second report were such as to oppose the rule of law, or to shock (or at least surprise) a sense of judicial propriety.[49] On its face, it is absurd to conclude, on the basis of the totality of the evidence before

[45] Majority's Award, para 406.
[46] Majority's Award, para 406.
[47] **C-0170**, TFJA Ruling, 21 March 2018, p. 187 (English).
[48] **C-0009**, SEMARNAT Denial Decision, 12 October 2018.
[49] *Elettronica Sicula S.p.A. (ELSI)*, Judgment, ICJ Reports 1989, p. 15, para 128.

the Tribunal, that the decision to reject the MIA, for the reasons set out in the second report, can be described as shocking or to reflect the work of a lawless mind.

41. The Majority relies on a third factor to find a violation of Art 1105, namely the decision taken by SEMARNAT Undersecretary Martha García Rivas on 27 February 2017 to reject ExO's Request for Review. Here, the Majority places considerable emphasis on the refusal to give sufficient (or any) weight to various scientific reports submitted by Odyssey in support of the Request. These include formal defects such as the failure to include the full name of an author of one of the reports and the fact that some of the signatories were foreign.[50] This failure was also criticised by the TFJA.[51]

42. This appears to be a case of overzealousness on the part of SEMARNAT. It was not justifiable, in my view, to refuse to give weight to scientific reports merely on the basis of apparently minor formal defects. That said, it is hard to see how Undersecretary García Rivas' actions could be said to provide substantive support to the conclusion that the decision to deny the Claimant's MIA was taken for reasons other than the environmental reasons put forward by SEMARNAT. The TFJA decision made no findings as to why Undersecretary García Rivas acted as she did, and did not suggest that her actions undermined or cast doubt on the importance given to the environmental reasons in the MIA decision. There is no evidence before the Tribunal to indicate why Undersecretary García Rivas acted as she did, and the Majority has cited none. Instead, the Majority has engaged in an act of speculation, identifying this as an additional factor to support a conclusion that the Respondent rejected the Claimant's MIA for reasons that had nothing to do with environmental protection. In the absence of evidence, it is wrong for an international arbitral tribunal to engage in speculation as to motive, and it is wrong to place weight on the consequences of that speculation. The approach departs from the proper assessment of evidence that is an inherent part of the arbitral function. Speculation is not a basis for assessing the facts. Speculation cannot buttress or make a finding of fact, or be relied upon to reach a legal conclusion. Yet that is precisely what the Majority has done.

[50] Majority's Award, paras 409-423.
[51] **C-0170**, TFJA Ruling, 21 March 2018, pp. 186-188.

43. Finally, in relation to the second SEMARNAT decision, the Majority places much emphasis on a statement allegedly made by SEMARNAT five days after the TFJA ruling, which the Claimant alleges to reflect an intention to do no more than to confirm SEMARNAT's original decision and deny the MIA for a second time, following the decision of the TFJA.[52] The document containing the alleged statement requires careful consideration, as the origins of the statement are a source of significant disagreement between the parties. In this regard, it is striking that the Majority has not been able to point to clear evidence upon which it can reasonably rely to resolve that disagreement, choosing instead to proceed on the basis of its apparent authority and significance.[53] In the absence of clear evidence establishing the origins of the statement, it is difficult to see how it could reasonably be given much, if any, weight.

44. Even assuming, however, that the statement is to be taken at face value, it does not offer any material support to the Majority's conclusion that the Respondent acted for reasons other than the protection of the environment. In seeking evidence of a conspiracy within SEMARNAT against the Claimant, the Majority appears to have discounted a less convoluted explanation for the supposed statement: that SEMARNAT was confident with the environmental and scientific analysis which it had carried out, and intended to express its assessment and conclusions in a manner required by the decision of the TFJA. The Majority does not dispute that a significant scientific and technical analysis had already been carried out at that point in time, or that the Respondent was entitled (and obliged) to act in compliance with a precautionary approach, having regard to the ecological significance of the Gulf of Ulloa. Once again, the Majority has read into a document a motive for its contents that is entirely speculative.

45. The Majority also offers "observations" relating to the Claimant's legitimate expectations.[54] It is not clear as to what bearing (if any) these "observations" have on the Majority's conclusions, as they appear only after it has concluded that a breach of Art 1105 occurred. In any case, this section adds little to the Majority's analysis. No serious effort is made to establish (i) the 'quasi-contractual commitment' necessary for

[52] Majority's Award, paras 424-430; **C-0470**, Informational Note.
[53] Majority's Award, paras 428-430.
[54] Majority's Award, para 443.

any expectation to be relevant to an MST analysis,[55] (ii) evidence of actual reliance on that commitment,[56] or (iii) evidence that any such reliance was reasonable or prudent.[57] Instead, the Majority has resorted to further vague and general assertions, unsupported by any legal authority or factual evidence. Like the remainder of the award, this standard of reasoning falls far below what the Claimant and Respondent are entitled to expect from an international tribunal.

Compensation

46. It follows from my conclusions on the merits that I do not believe the Claimant can be said to be owed any compensation. However, even if the Majority's analysis on the merits may be said to be correct, which in my view it is not, I have serious reservations as to the approach taken on compensation.

47. The concern with the Majority's approach rests on three fundamental principles of international law, which tribunals are required to follow in determining the quantification of compensation following the finding of an internationally wrongful act. *First*, there must be a causal link between the breach identified and the loss claimed. It is not enough to show the existence of a loss following a wrongful act without also establishing that it was caused by the breach actually identified. *Second*, the principles for quantifying compensation will depend on the treaty breach identified. Whilst the standard of 'full compensation' explained in *Chorzow Factory* applies to all internationally wrongful acts, the principles for quantification will differ depending on the particular obligation breached. Inherent in a finding of an unlawful expropriation is that a claimant has lost the full value of its investment and that compensation should therefore be measured according to the fair market value of the expropriated asset ('FMV'). Where a breach of a different obligation is identified, however, the loss suffered may be considerably less than the full value of the investment, meaning that the FMV standard or sunk costs cannot automatically be applied to determine the quantum of compensation. In such cases tribunals must look to evidence beyond the

[55] *Cargill, Incorporated v United Mexican States*, ICSID Case No. ARB(AF)/05/2, Award, 18 September 2009, para 290 (Arbs. Michael Pryles, David D. Caron, Donald M. McRae).
[56] Eg *RWE Innogy GMBH and RWE Innogy Aersa S.A.U. v Kingdom of Spain*, ICSID Case No. ARB/14/34, Decision on Jurisdiction, Liability, and Certain Issues of Quantum, 30 December 2019, paras 494-506 (Arbs. Anna Joubin-Bret, Judd L. Kessler, Samuel Wordsworth).
[57] Eg *Invesmart, B.V. v Czech Republic*, UNCITRAL, Award, 26 June 2009, para 250 (Arbs. Michael Pryles, Christopher Thomas, Piero Bernardini).

value of the investment to determine the loss actually suffered. *Third*, claimants bear the burden of establishing the loss and demonstrating the causal link between the breach identified and the loss claimed. In the absence of sufficient evidence or argument from a claimant, tribunals should not enter into their own analysis or speculation. In my view, the Majority has violated all of these cardinal principles.

48. In this case the Majority has found only that there has been a breach of Art 1105 NAFTA, rightly rejecting the claim that there has been an unlawful expropriation. Instead of presenting distinct quantum analyses for each claimed violation of NAFTA, the Claimant has chosen to present a single argument based on the full value of the investment.[58] This method would be logical in the context of a claim for unlawful expropriation, but for the reasons explained above it cannot be applied automatically to other treaty breaches. Simply asserting, as the Claimant does, that each alleged breach independently caused the value of the investment to become zero without any supporting evidence or analysis is manifestly inadequate.[59] In the absence of any argument or evidence from the Claimant as to any loss flowing from the distinct treaty breach identified, the Majority reaches a conclusion that is unreasoned. At its highest, the loss caused to the Claimant, on the Majority's approach, can be no more than that which arises from the cost of having to make a second application for an MIA, or the delay that followed the making of such an application. There is no claim that the Mexican courts have acted wrongfully. As the Claimant has offered no argument or evidence as to the damages that arise in relation to additional costs incurred or delay, the Majority should have concluded that no compensation can be awarded to the Claimant. This is the approach taken by other tribunals, such as the recent award in *Infinito Gold v Costa Rica*.[60]

[58] Claimant's Memorial, para 376.
[59] Claimant's Memorial, para 376.
[60] *Infinito Gold Ltd. v Republic of Costa Rica,* ICSID Case No. ARB/14/5, Award, 3 June 2021 (Arbs. Gabrielle Kaufmann-Kohler, Bernard Hanotiau, Brigitte Stern), paras 584-586. See also *Pawlowski AG and Projekt Sever S.R.O. v Czech Republic*, ICSID Case No. ARB/17/11, Award, 1 November 2021 (Arbs. Juan Fernández-Armesto, John Beechey, Vaughan Lowe), paras 728-737; *The AES Corporation and TAU Power B.V. v Republic of Kazakhstan*, ICSID Case No. ARB/10/16, Award, 1 November 2013 (Arbs. Pierre Tercier, Vaughan Lowe, Klaus Sachs), paras 444-478; *The Rompetrol Group N.V. v Romania*, ICSID Case No. ARB/06/3, Award, 6 May 2013 (Arbs. Franklin Berman, Donald Francis Donovan, Marc Lalonde), paras 281-288; *Biwater Gauff (Tanzania) Ltd. v United Republic of Tanzania,* ICSID Case No. ARB/05/22, Award, 24 July 2008 (Arbs. Bernard Hanotiau, Gary Born, Toby Landau), paras 788-806.

49. Yet the Majority has proceeded otherwise, awarding the Claimant compensation measured according to the FMV standard for the loss of the entire investment. This is essentially unreasoned and deeply problematic. There is no evidence whatsoever in this case that any breach of Art 1105 has caused the total loss of the investment, and the Majority has pointed to none. Instead, the Majority has seemingly proceeded on the unstated assumption that *any* breach of an investment treaty leads to an award of compensation based on the FMV standard. This is plainly incorrect. The Majority is also wrong to state that the Respondent agreed that any compensation should be measured according to the FMV standard;[61] a brief glance at the written submissions shows that the Respondent clearly states that it believes the FMV standard applies only following a finding that the Claimant had a right capable of being expropriated and that there had been either (i) an unlawful expropriation, or (ii) measures tantamount to expropriation.[62] The Respondent did not, as the Majority seems to suggest,[63] agree that the FMV standard applies whenever a treaty breach has been identified. To the contrary, the Respondent has explicitly stated that it "rejects the proposed measure of compensation in any other scenario".[64] Given that the Majority has not even attempted to analyse the existence of unlawful expropriation or measures tantamount to an expropriation, it appears that the Majority's quantum analysis is based on a misreading, or misunderstanding, of the record before the Tribunal.

50. Regrettably, this is not the end of the problems with the Majority's compensation analysis. As noted in the earlier section of this dissent, a challenge to the second refusal decision was pending before the Mexican courts when this arbitration was begun. There are a number of possible outcomes to this domestic litigation, and there is no evidence before the Tribunal to allow an assessment as to the likely outcome. As noted, the Claimant has not argued that the Mexican courts have violated any provision of the NAFTA.

51. It may, for example, be the case that the second decision is upheld with the result that the Don Diego Project is not permitted to go ahead. Alternatively, the second decision may be struck down with SEMARNAT being asked to consider the Project once again.

[61] Majority's Award, para 559.
[62] Respondent's Counter-Memorial, para 632; Respondent's Post-Hearing Brief, paras 150-152.
[63] Majority's Award, para 559.
[64] Respondent's Counter-Memorial, para 632.

A determination of whether any particular outcome involves a breach of NAFTA would have to be assessed in light of both the content of the second refusal decision (on which the Majority has not commented) and the content of the TFJA judgment.

52. Despite this, the Majority has concluded that in the absence of the apparent breach of Art 1105 "the MIA would have been granted" and "there is a high probability" that other authorisations and licences would also have been granted.[65] Later, in calculating damages, the Majority goes even further, stating that: "If the MIA had not been wrongly rejected, Claimant would have continued the normal course of the Project, obtained the rest of the permits from the relevant authorities and been in a position to exploit the phosphate deposits comprised in the Don Diego Project."[66] This too is pure speculation, unsupported by evidence. It is a finding that shocks, the wishful thinking of a couple of arbitrators who have substituted their personal views for the evidence. It is an approach that mischaracterises and disrespects the proceedings before the Mexican courts, and undermines the proceedings which are ongoing. Until the decision of the TFJA is known, and even thereafter, the Tribunal cannot predict whether the Claimant's project will ultimately go ahead, or in what form it may go ahead, or the nature or extent of the Claimant's financial loss, if any. In these circumstances, it is evidently premature and wrong for the Majority to award the quantum of damages based on the Claimant's approach and its own speculations. On a proper approach to the Majority's conclusions, the only financial loss which could plausibly be argued with any degree of certitude is the cost incurred in making a second MIA application. That amount has not even been claimed, as the record makes clear. It follows that no compensation should be awarded. If the Majority had engaged with the correct principles and standards applicable to the quantification of compensation it would have so found.

53. Had the Majority properly considered the three cardinal principles on causation, the distinctions between different obligations and the burden of proof, I believe it would have reached the conclusion that, on the basis of the current stage of the proceedings before the Mexican courts and the evidence and argument before this Tribunal, no compensation should be awarded to the Claimant in this case. Instead, it has opted to

[65] Majority's Award, para 576.
[66] Majority's Award, para 600.

award compensation on a basis that is fundamentally flawed, both as a matter of law under the NAFTA, and in terms of legal policy. They have concocted a future that is plucked out of thin air.

Costs

54. The costs statements of both parties merit close scrutiny. The Claimant's costs amount to US$21,265,683.40, a jaw-dropping figure given the relatively discrete and straightforward nature of this case. About one half of this amount appears to have been provided by third-party funders (DrumCliffe LLC and Poplar Falls LLC).[67] For broader context, a recent report has cited the mean cost for claimants in investor-State cases to be US$ 6.4 million, less than one-third of what the Claimant has claimed in costs in this case.[68] The Respondent's costs amount to US$2,590,212.44, about ten per cent of the Claimant's figure if the ICSID costs (US$400,000 paid by each Party) are taken out of the equation. Remarkably, the Claimant spent more on a single quantum expert (Compass Lexecon, paid a staggering US$2,897,657.72). No less remarkably, Compass Lexecon came up with a headline claim for compensation of US$3.1376 billion,[69] about one hundred times more than the amount eventually awarded by the Majority (US$37.1 million).

55. The Claimant's costs are, by any decent standard, unreasonably high. There is ample authority for the proposition that a Tribunal should not make an order for unreasonably high costs.[70] On the basis of my own experience in investor-State arbitration (more than forty cases as counsel, on both sides, and thereafter more than sixty cases as arbitrator) I can see nothing exceptional or complex about this case that could justify such excessive costs. Having regard to the nature and extent of the original claim and the

[67] **C-0190**, pp. 4, 21-24, 56-58.
[68] BIICL-Allen & Overy, '2021 Empirical Study: Costs, Damage and Duration in Investor-State Arbitration' (June 2021), pp. 9-12.
[69] Majority's Award, para 601.
[70] See *Charanne B.V. and Construction Investments S.A.R.L. v Kingdom of Spain*, SCC Case No. V 062/2012, Final Award, 21 January 2016 (Arbitrators Alexis Mourre, Guido Santiago Tawil, Claus Von Wobeser), paras 563-564; *Cortec Mining Kenya Limited, Cortec (Pty) Limited and Stirling Capital Limited v Republic of Kenya*, ICSID Case No. ARB/15/29, Award, 22 October 2018 (Arbitrators Ian Binnie, Kanaga Dharmananda, Brigitte Stern), paras 389-401 ("A party is free to spend as much money as it wishes on legal fees and expenses, but it does not follow that all such costs and expenses should be imposed on the opposing (unsuccessful) party"; *Interocean Oil Development Company and Interocean Oil Exploration Company v Federal Republic of Nigeria*, ICSID Case No. ARB/13/20, Award, 6 October 2020 (Arbitrators William W. Park, Julian D.M. Kew, Hon. Justice Edward Torgbor), paras 384-387, refusing to order costs that are "unreasonably high" (para 385).

outcome decided by the Majority, and the gap between the two, I agree with the decision of the Majority that each side should bear its own legal costs.

* * *

56. As is clear, however, I am in fundamental disagreement with the approach taken by the Majority to matters of liability and quantum, and with the conclusions. The evidence before this Tribunal cannot bear the finding that the Respondent acted for reasons that were not genuinely motivated by real environmental concerns, or that the actions of the Respondent have caused the loss of the entire investment. Having regard to the evidence, and to the legal principles to be applied, the only aspect of this case which could be said to be "contrary to the rule of law", or which "shocks, or at least surprises, a sense of judicial propriety", is the approach taken to the interpretation and application of the law by the Majority, on both liability and quantum.

57. This is a case in which the legal system of Mexico has worked. A decision was taken by the Mexican authorities, it was challenged before the Mexican courts, which ruled in favour of the Claimant. There has been no denial of justice, and none has been argued. On the basis of the evidence, the process of decision-making in Mexico has been extensive and thorough. The project very obviously raises significant environmental concerns: it proposed a mining technique that is untried and untested, to be utilised by a Claimant that has zero experience in the activity it wished to engage in, in an area that is recognised to be ecologically sensitive. In this context, at a relatively early stage of the decision-making process, the Claimant received a decision that it did not like. It went to the local courts to get justice, and it got justice. It then invoked an international treaty obligation to challenge its earlier treatment. That approach was premature: the violation of Mexican law was corrected, there was no violation of any international legal obligation.

58. By way of conclusion, I cannot refrain from expressing the view that this unprecedented and disturbing Award is novel and groundbreaking in the worst of ways. Beyond the prematurity of the application, the reasonable environmental concerns identified by the Respondent and others, which should have been at the centre of the Majority's reasoning, have been wilfully ignored, along with the high level of regulatory deference

to which the Mexican State is entitled. At a time when local, national and international laws have come together to promote a more careful and considered approach to the protection of the environment, including the marine environment, the Majority has found arbitrariness in the face of reasonable and serious environmental concerns, compelling evidence, and an applicable law which sets a very high bar for such a finding. The Majority has treated the evidence and the law as obstacles to be overcome in the pursuit of a desired outcome, rather than as the path to the correct result. The Majority has made an order on liability and quantum that is unjustified under the law.

59. States and investors alike place their trust in arbitral tribunals to deal with highly sensitive disputes, involving a range of public and commercial interests and perspectives. At a time when states are finally beginning to recognise the challenges and complexities of taking decisions that may have significant impacts on the environment, and as the fragility of our marine environment is increasingly understood, the Majority has driven a coach and horses through Art 1105 and legitimate environmental concerns. This is a deeply regrettable Award. Evidence and law have been ignored, to be replaced by speculation and arbitral activism.

[Signed]

Professor Philippe Sands KC

27 August 2024

Professor Sands appends a dissent as follows:

1. I regret that I do not agree with the Majority's decision to reject the joint Request for Leave to file an *amicus curiae* brief. In applying the criteria in the FTC statement a Tribunal should show an awareness that the NAFTA Parties have recognised that *amicus curiae* submissions have the potential to improve both the quality and the legitimacy of the final award, even if the tribunal ultimately disagrees with the reasoning of those submissions. It is incumbent upon arbitrators to have regard to the need to consider the impact on the legitimacy of the final award in light of both (a) general legitimacy concerns in relation investment treaty arbitration, and (b) specific local community interests that are engaged by a particular case. Regrettably, the Majority's decision indicates no awareness of these considerations, and has in effect overridden the views of the Respondent, which contributed to the drafting of FTC statement.

Significant interest in the arbitration

2. Contrary to the view of the Majority, I believe it is clear that the *Cooperativa* has a significant interest in the outcome of the arbitration. The Majority's conclusion appears to rest exclusively on the basis that the Claimant in these proceedings is seeking compensation and not restitution, implying that only if the Claimant was seeking restitution would the Majority have found that the *Cooperativa* had a significant interest in the arbitration. This is an extraordinarily narrow reading of the 'significant interest' requirement, and the Majority has offered no justification in support. It is now well-recognised that investment treaty arbitration can have a significant impact on domestic regulatory regimes, even where compensation is the only remedy awarded. It is therefore entirely possible that a finding that the Respondent has breached the treaty could lead to regulatory changes which directly affect the interests of the *Cooperativa*, either immediately or in the future. The Majority's decision fails to recognise or take account of the broader impacts of investment treaty arbitration.

3. The position of *CIEL* is more difficult, and I agree with the Majority that it is not enough to demonstrate merely a 'general interest in the proceeding'. Nevertheless, I believe that CIEL has demonstrated a significant interest in the current case. In reaching this conclusion, I have

found the nature of *CIEL*'s work particularly significant. It is not an organisation which has a general interest in the protection of the environment, or a general academic interest in investment treaty arbitration. Rather, *CIEL* has a limited set of clear goals which focus on how the law (particularly international treaty arbitration) affects human rights and the environment. In my view, the present proceedings fall squarely within *CIEL*'s limited focus, and the outcome of these proceedings may impact on *CIEL*'s ability to achieve its aim. To the extent that more information was needed in this respect, the Tribunal could, as I proposed, have requested further information from *CIEL*.[2]

Assistance on a legal or factual issue

4. I believe that both the *Cooperativa* and *CIEL* are able to bring a unique perspective to the specific factual and legal issues in this dispute, and that these perspectives would assist the Tribunal.

5. The utility of the perspective offered by the *Cooperativa* relates to the impact that the Claimant's project may have had on the fishing activity of local people. To suggest, as the Majority appears to, that the impact of the project is irrelevant and that the dispute concerns only the legality of the decision to refuse operating permits is not persuasive. The two issues are intrinsically connected, and a conclusion on the latter cannot be reached without consideration of the former. Whilst the Parties themselves are in a position to explore the impact of the Claimant's project on the interests of local people, the *Cooperativa* is in a unique position to give a first hand account and thus support or challenge the arguments of the parties. This unique perspective would have been extremely valuable, and I consider it to be deeply regrettable that the Majority has decided that it does not wish to hear from a community that is directly affected by the outcome of the proceedings. Such a decision will only serve to undermine perceptions as the legitimacy of these proceedings.

[2] In addressing this issue, it is appropriate to disclose that I was involved in the founding of a predecessor organisation to CIEL, back in 1989. I have had no involvement or role in any aspect of the activity or operation of this incarnation of the organisation, since its founding more than twenty-five years ago.

6. In my view, *CIEL* is able to offer a unique perspective due to its ability to place this dispute in the context of broader debates and developments in international law. The focus of the Parties has naturally been on the legal standards of the treaty and the relevant factual evidence. In my view, these broader debates are highly relevant to the Tribunal's task in this case, given the potential interplay of investment, environmental and human rights issues in this case. Given its expertise, I believe that *CIEL* is well-placed to offer additional insights that could assist the Tribunal, and that its contribution would have enriched the material available to the Tribunal, beyond the pleadings of the Parties. At a time when challenges to the environment are recognised as affecting a range of stakeholders, I consider it regrettable that the Majority does not think it appropriate to allow those who have demonstrated that they may be affected by the outcome a chance to participate in the proceeding, by means of a limited *amicus* submission. A quarter of a century ago, the International Court of Justice recognised that "the environment is not an abstraction but represents the living space, the quality of life and the very health of human beings, including generations unborn", and there was now a general obligation to protect the environment which was "part of the corpus of international law relating to the environment".[3] An *amicus* filing offers an important means of giving effect to that obligation, whilst also recognising the rights and interests of affected persons.

Impact on the Parties

7. To have allowed the *Cooperativa* and *CIEL* to submit *amicus* briefs would not have unduly burdened the parties, unfairly prejudiced either party or disrupted the arbitral proceedings. Both sides are represented by experienced counsel, and are perfectly capable of responding to *amicus* briefs. That one or both of the *amici* may have offered a view which is contrary to the interests of either party is not in itself a sufficient reason to exclude the *amici* from proceedings. Indeed, parties should welcome the opportunity for more rigorous and detailed argument, as Respondent has done. Finally, any concern about the burden on the parties or disruption to the

[3] *Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, ICJ Reports 1996,* p. 226, at 241 (para. 29).

proceedings could be easily managed by imposing strict limits and requirements on the *amicus* briefs.

Professor Philippe Sands QC

16 December 2021