

**ODYSSEY MARINE EXPLORATION, INC ON THEIR OWN BEHALF
AND ON BEHALF OF EXPLORACIONES OCEÁNICAS S. de R.L. de C.V.**

Claimant

and

UNITED MEXICAN STATES

Respondent

**NOTICE OF INTENT TO SUBMIT A CLAIM TO ARBITRATION
UNDER CHAPTER ELEVEN OF THE NORTH AMERICAN FREE
TRADE AGREEMENT**

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Introduction

1. Pursuant to Articles 1116, 1117 and 1119 of the North American Free Trade Agreement (**NAFTA**), and with a view to settling this dispute amicably through consultations in accordance with Article 1118 of NAFTA, Odyssey Marine Exploration, Inc. (**Odyssey**) on its own behalf and on behalf of the Mexican enterprise it controls, Exploraciones Oceanicas, S. de R. L. de C.V. (**ExO**), (collectively, the **Claimant**) hereby submits this Notice of Intent to Submit a Claim to Arbitration under NAFTA Chapter Eleven (**NOI**) to the United Mexican States (**Mexico**).
2. Using its world leading underwater exploration and scientific expertise, Odyssey identified one of the most substantial phosphate sand deposits in the world and obtained the concession rights to mine it for fifty years. Located in Mexico's continental shelf, the Oceanica deposit (the **Oceanica deposit** or **Oceanica**) comprises a proven resource of 588 million tonnes of phosphorite ore, and a potential resource of up to 1 billion tonnes of ore, making it one of the largest such identified resources in the world and the largest in the Americas.
3. Odyssey and ExO have spent over [REDACTED] and more than six years planning for the environmentally sound development of this resource. As Odyssey has demonstrated based upon years of on-site investigation and world-class scientific and technical analysis, ExO can extract the Oceanica deposit in a manner that will have no material impact on flora and fauna.
4. Oceanica is capable of substantially supplying the fertilizer needs of North America for the next 100 years or more. [REDACTED]
[REDACTED] Not only would the Claimant earn significant returns from the development of the deposit, but Mexico would also reap major financial and strategic rewards. Within Mexico, the Oceanica project has the potential to generate hundreds of collection and fertilizer processing jobs. In addition, it would help secure Mexico's food self-sufficiency by providing a ready supply of locally generated phosphate-based fertilizer. It would transform Mexico from an importer to a net exporter of this strategic commodity, and indirectly generate thousands of Mexican agricultural and food processing jobs. Moreover, Oceanica would generate millions of dollars in annual royalties to Mexico, as well as millions of dollars in tax revenues over the project lifetime through direct and indirect economic development.
5. Unfortunately, despite the significant benefits the project will bring the country, the Mexican Government has blocked Oceanica from moving forward, in breach of its own laws and the obligations owed to Odyssey and to ExO under NAFTA. Under the control of a senior official with broader political ambitions, the Mexican *Secretaria de Medio Ambiente y Recursos Naturales* (Ministry of the Environment and of Natural Resources, or **SEMARNAT**) has ignored objective evidence, invented grounds for opposition that have no scientific basis, failed to carry out a review consistent with its legislative mandate and procedural rules, and actively sought to discredit Odyssey and to disparage the Oceanica project.

6. The highest administrative tribunal of Mexico has confirmed the illegal and arbitrary nature of SEMARNAT's actions. On 21 March 2018 the Mexican Federal Administrative Tribunal (the **Tribunal**) annulled SEMARNAT's initial decision to deny project approval, finding that the agency's actions were arbitrary, unfounded and beyond its statutory powers. The Tribunal remanded the issue to SEMARNAT, and ordered it to provide the scientific and factual support justifying its decision, failing which the agency should approve the project. SEMARNAT blatantly disregarded the Tribunal order and on 12 October 2018 simply reinstated its original (annulled) decision, without any further factual or scientific justification.
7. SEMARNAT's contempt of the law and continued arbitrary and discriminatory conduct have destroyed the value of the Claimant's investment in Mexico. But for SEMARNAT's measures, which are attributable to Mexico under international law, the Oceanica project would already be up and running and generating substantial benefits both to the Claimant and to Mexico and its citizens. Instead, Odyssey and ExO have been forced to turn to international law for compensation.
8. The Claimant with this Notice seeks formal consultations under Article 1118 of NAFTA. Should those consultations fail, it will proceed to seek recovery in full of all losses and damages incurred both by it and by ExO, through NAFTA Chapter Eleven arbitration.

I. Name and Addresses of the Disputing Investor and of its Mexican Enterprise

9. Odyssey submits this NOI on its own behalf as a qualifying Investor under Article 1116 and under Article 1117 on behalf of ExO, a Mexican enterprise that Odyssey majority owns and controls.
10. Odyssey is a US (Nevada) corporation, publicly traded on NASDAQ (OMEX), with its principal place of business registered at 5215 W Laurel Street, Tampa, Florida, USA 33607.
11. Odyssey, through subsidiaries, owns a majority interest in and controls ExO. ExO is a Mexican company constituted in March 2012 as the vehicle for Odyssey's investment in Mexico. ExO's principal place of business is Emerson No. 150, Suite 503, Colonia Polanco, Delegación Miguel Hidalgo, Mexico, D.F. ExO holds the mining concessions for the Oceanica deposit.
12. Odyssey has invested in Mexico both through its ownership of ExO, and through its ongoing financial and technical contributions to ensure the success of the Oceanica project.
13. Since 2010 Odyssey has financed the research leading to the identification of the Oceanica concession area, as well as the application for the concession; sponsored the subsequent multi-year prospecting to identify the zones most suited for development and to collect environmental impact assessment data; and performed the technical and scientific analysis required to support the sustainable development plans and environmental impact assessments needed for the Oceanica project to go forward. These overall sunk costs have risen to more than [REDACTED].

14. These costs have including providing the funding required for ExO to pay mining concession maintenance fees to the Mexican Government. These have been payable on an escalating scale, rising to an annual fee of roughly [REDACTED] for an overall total since 2012 of nearly [REDACTED].
15. Odyssey's ownership and control of ExO qualifies it as an investor in Mexico under Article 1139 of NAFTA Chapter Eleven. Moreover, over the past eight years Odyssey has committed substantial capital and other resources in Mexico in pursuit of the Oceanica project, including through the deployment of financing, ships, equipment, and personnel. Odyssey's interest in ExO entitles Odyssey to a share in its income or profits and to a share of the value of its assets upon dissolution. Through ExO, Odyssey has an interest in an intangible property in the form of the license to exploit the Oceanica deposit.

II. Legal Representatives and Service of Documents

16. Legal counsel for the Claimant are Christophe Bondy [REDACTED] Cooley (UK) LLP, Dashwood, 69 Old Broad Street, London EC2M 1QS, UK and Rachel Thorn, Cooley LLP, The Grace Building, 1114 Avenue of the Americas, 46th Floor New York, NY 10036-7798.
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III. Issues and Factual Basis for the Claim

18. This claim concerns a Mexican State agency and its senior leadership that through manifestly arbitrary, discriminatory and illegal measures have frustrated the potential of a world-class resource development project, otherwise poised to generate substantial returns to the Claimant and enormous economic and geopolitical benefits to Mexico. But for these illegal measures, Odyssey and ExO now would already be developing Oceanica, generating significant returns and contributing to the Mexican economy and to Mexican food security. Instead, in violation of Articles 1102, 1105(1) and Article 1110 of NAFTA Chapter Eleven, the Claimants investment has been rendered worthless, all as set out below.

(i) **Odyssey is a global leader in underwater marine exploration and development**

19. Founded in 1994, Odyssey is a global leader in deep-ocean survey, scientific investigation, exploration and the development of seabed resources. The company relies on its leading team of professionals, scientists and technicians who use the most up-to-date methods and technology to discover, study and develop deep-ocean seabed assets in an environmentally responsible manner. Odyssey is committed to responsible science-based development and to sharing the benefits of its work with local communities and with host economies. Working in partnership with both private clients and with States, Odyssey's discovery, validation and development of subsea mineral deposits provides access to critical resources globally.
20. Odyssey has deployed its expertise in sites around the world, including in mineral exploration, geophysical, geotechnical environmental and scientific research in the waters of Mexico, New Zealand, Fiji, Papua New Guinea, Tonga, Solomon Islands and Vanuatu. Over the past 20 years Odyssey has mapped more than 28,000 m³ of seabed and spent more than 16,000 hours diving at deep-ocean sites, using advanced robotic technology applying the highest scientific standards.
21. Odyssey applies principles of environmental stewardship and sustainability in all of its work. All of Odyssey's operations are managed and executed to exceed global standards for environmental practices and processes, and aligned with International Seabed Authority (**ISA**) standards. The company has a history of collaboration with international organizations such as the New Zealand Institute of Water and Atmospheric Research (**NIWA**) to supplement the Institute's database. It maintains relationships with research groups around the world, supplying scientific data and biological samples for academic research.
22. Odyssey sought to bring its special expertise and best practices to the development of the Oceanica project, as set out below.

(ii) **Odyssey first identified a likely development area**

23. Starting in 2010, Odyssey undertook initial scientific research, analysis and project design to explore the development potential of phosphate deposits off the coast of Mexico.
24. Mexico presented a range of attractions for phosphate resource development, including favorable coastal, geological and oceanographic conditions, as well as proximity to the enormous Mexican, US and Canadian agricultural markets, with their significant need for phosphate-based fertilizers.
25. Based upon its research, Odyssey determined that such deposits were likely to be present under the Pacific Ocean seabed on Mexico's continental shelf.
26. By 2012, Odyssey had identified an area likely to contain a deposit in the Pacific Ocean, offshore from the coast of Baja California Sur.

relevant data

31. Using its chartered 100 meter research vessel the *Dorado Discovery*, Odyssey in the latter part of 2012 and throughout 2013 carried out an extensive prospecting and sampling campaign in the Oceanica mining concession area. Its purpose was to more precisely identify and characterize the overall concession environment and to collect the raw data required to prepare an environmentally-appropriate development plan and impact assessment.
 32. In mid-2012, Odyssey approached SEMARNAT seeking the approvals required to conduct these prospecting activities.¹ In September 2012, SEMARNAT confirmed that Odyssey's planned prospecting operations could proceed.
 33. Over the next year and a half, Odyssey sponsored five separate 30- to 40- day cruises on the *Dorado Discovery*, staffed with a 40-member crew (comprised of engineers, seamen, other ship staff, and up to 20 technical personnel) and equipped with a wide range of survey, oceanographic and geological equipment. Each cruise cost Odyssey more than [REDACTED].
 34. *Dorado Discovery* extracted multiple core samples from across the seabed floor in the Oceanica concession area, from which Odyssey's team derived thousands of mineral samples. The team also collected hundreds of water samples, biological samples and other environmental data in the concession area generally, in the targeted work areas, and in the larger regional environmental system in which the Oceanica concession resides. All of this information was destined to feed into Odyssey's detailed mapping, resource assessment, project planning and environmental due diligence exercise.
 35. In all of this work, Odyssey followed international standards and complied with Mexican environmental law.
 36. These nearly two years of work ultimately led Odyssey to identify an area within the Oceanica concession that combined highest concentration of phosphates with geological positioning favorable to development, and where naturally low biodiversity (reflecting biologically restrictive deep-sea conditions) would minimize any potential environmental impacts.
- (v) Within the concession Odyssey identified one of the world's richest phosphate deposits
37. Oceanica is a deposit of black phosphate-rich sands located in the Pacific Ocean seabed approximately 40 km from the coast in the Gulf of Ulloa, in Baja California Sur, on Mexico's continental shelf, in the embayment between Punta Abreus in the north and Puerto San Carlos in the south. Oceanica lies in Mexico's Exclusive Economic Zone (EEZ), at an average depth of 80 meters.

¹ This was consistent with SEMARNAT's authority under the *Ley General Del Equilibrio Ecológico y La Protección al Ambiente* (LGEEPA) and the *Reglamento De La Ley General Del Equilibrio Ecológico Y la Protección Al Ambiente En Materia De Evaluación Del Impacto Ambiental*.

38. Based on current resource assessments, it is estimated that the Oceanica deposit contains 588.3 million tonnes of phosphate ore, with average *in-situ* amount of phosphorus pentoxide (P₂O₅) in the range of 18.1%, an average overburden of merely 1.14 meters and an average ore thickness of 2.80 meters.
39. This makes the Oceanica deposit amongst the largest and highest *in-situ* grade identified phosphate deposits in the world, and the only such marine resource found in Mexico. Developed in accordance with Odyssey's plans, Oceanica is large enough to meet most of the fertilizer needs of North America for the next 100 years.

(vi) Development of the Oceanica deposit would bring huge benefits to Mexico

40. Phosphate is one of the key components of multi-nutrient finished fertilizers, which in turn are an essential element of modern agricultural production. Close to three quarters of the total amount of available phosphorous exploitable worldwide is used in fertilizers.
41. Phosphates are natural compounds that contain phosphorous and other materials. Phosphorous is present in every living organism, including in the skeletal structures of vertebrates and in the shells of certain invertebrates. Phosphate is a non-renewable resource that cannot be manufactured. There is no synthetic substitute to replace it.
42. Mexican land-based phosphate supplies cannot meet the country's fertilizer needs. Mexico consumes an estimated 2.4 million tonnes of phosphate rock each year. To satisfy the nation's annual consumption, Mexico currently imports about 1 million tonnes of phosphate, principally from Morocco, Ukraine and Peru. Given the high cost of these imports, estimates indicate that around 74% of Mexico's crops are under-fertilized. Statistics generated by Mexico's National Institute of Statistics and Geology (**INEGI**) in 2013 point to an increasing need to import phosphate into Mexico, leaving the country exposed to foreign supply limitations, and negatively impacting Mexico's agricultural production and food security.
43. Recognizing the importance of Mexican food self-sufficiency, recently inaugurated President Andres Manuel Lopez Obrador vowed in December 2018 to meet Mexico's fertilizer needs entirely from domestic sources. Yet without domestic access to the required inputs – most notably phosphate – Mexico will continue to be dependent on foreign fertilizer. To achieve the President's stated goal, non-terrestrial sources like Oceanica must be developed.
44. What is more, development of the Oceanica deposit would go further and transform Mexico into a phosphate-exporting nation, generating significant economic and social benefits. It would not only create jobs associated with phosphate extraction and fertilizer production, but also access to cheaper and more readily available fertilizer would contribute to substantial agricultural development, indirectly generating thousands of jobs and potentially millions of dollars in economic benefits. It would also substantially strengthen Mexico's food security.

(vii) Odyssey generated a state-of-the-art development plan and environmental impact assessment

45. From the start, Odyssey was sensitive to the environmental needs of the project and had factored into its plans the development of careful environmental impact assessments and environmentally appropriate development strategies. Having obtained the mining concession and identified the area to be developed, ExO and Odyssey next spent two years working on an environmentally sustainable development plan and environmental impact assessment (**MIA-R**), to be submitted for approval by SEMARNAT in accordance with Mexican law.
46. Odyssey's extensive environmental surveys and planning resulted in both a sound understanding of the general and more specific ecosystem in the area to be developed, and a strong technical program for developing the site in an environmentally sensitive and responsible manner. Odyssey's scientific team included experts in marine dredging, plume modelling, sound propagation, ecotoxicology, phosphate science and engineering, among others.
47. The result of this work was a project development plan that follows best practices, the most innovative and efficient mitigation measures and a complete program of adaptive management and monitoring, as set out below.
 - (A) ExO's dredging techniques ensure minimal disturbance
48. Odyssey and ExO based their Oceanica development plans on the widely-studied and proven Trailer Suction Hopper Dredger (TSHD) seabed dredging process. TSHD dredging techniques are already used all over the world, including in Mexican waters, and comply with international environmental, social and fisheries impact regulations
49. To execute this work ExO secured the partnership of Boskalis, a Dutch company recognized worldwide for its dredging expertise, and its subsidiary dredging company in Mexico called Dragamex. Over the past several decades Boskalis has executed at least 219 dredging projects in Mexican waters. The Oceanica project dredging technology had been approved by the Mexican government for use in virtually all of these projects.
50. The seabed in the Oceanica project area is composed of fine sediment, with little or no structure or relief. The TSHD ship deploys a suction draghead over the seafloor at a slow walking pace, slowly suctioning phosphate-laden sediment up to the ship's hold. The main ship or a companion ship are equipped with hydrocyclone and filtration devices which extract the black phosphate-laden sands as material is raised. The remaining clean material (comprised principally of non-phosphate-laden sand, broken shells and other natural materials) is then piped back down to the seabed floor, where it is placed within previously-dredged furrows in an irregular fashion. The latter technique is proven to facilitate biomass regeneration and indeed to promote the most biodiverse floral and faunal populations. ExO also planned to reserve tracks of untouched seabed within the area being exploited as "set-aside" furrows between areas of dredging. Again, this has been demonstrated to accelerate biomass regeneration.

51. The Oceanica deposit lies at a considerable seabed depth – on average, 80 meters below the sea's surface. The low water temperatures and diminished light at these depths naturally limit the presence of any living organisms on the seabed and in adjacent waters, compared with shallower waters in the region. There is little vegetation, and only a limited population of small worms and crustaceans. These organisms are characterized by their rapid regeneration capacity. Tiny worms present in the silty seabed floor have relatively short life-cycles and following physical disturbance rapidly recolonize and recover. Small crustaceans also present on the seabed in the area are highly mobile and actively migrate back into areas as soon as operations such as dredging have ceased. Scientific studies show that the recolonization of worm and crustacean populations in analogous circumstances occurs within months of cessation of dredging activity.
52. Compared with conventional terrestrial mining, seabed dredging has reduced infrastructure requirements, does not require the relocation of communities, has no impact on potable water supplies, requires little or no removal of overlying material, has an overall lower carbon footprint, a better occupational health and safety record, and leaves minimal impact on the seabed topography.

(B) ExO included a range of precautionary management and mitigation measures

53. ExO incorporated a range of precautionary mitigation measures in its dredging plans, which were all designed to minimize the dispersal of sediment during dredging or upon the return of sediment to the seabed. This was to be accomplished by carrying and returning sand and other unused materials directly from and back to the seabed, well below the sea stratum containing most phytoplankton and other organisms. ExO also planned to use a "green valve" mechanism, which encourages sediment to sink by limiting air input into extracted materials.
54. As part of the environmental impact assessment, Odyssey retained one of the world's leading oceanographic consultancies to undertake a series of complex project models. These scientists confirmed that with ExO's proposed mitigation measures, the area of seabed affected by the operations would be confined to a zone not exceeding 200 meters or less from the point of discharge and confined strictly within the boundaries of previously dredged strips.

(C) ExO's proposed process is chemical-free and non-toxic

55. ExO's planned TSHD process is chemical-free and operates exclusively through mechanical extraction. With Odyssey's assistance, ExO also tested the toxicity levels of the phosphate sediments themselves to verify that the dredging and return of sediment would not release toxic substances. These tests confirmed there was no evidence of acute toxicity either in sediments dredged from the site or from the seawater when vigorously mixed with the excess materials that would be returned to the seabed floor.

(D) Annual work is to take place over a tiny portion of the overall concession

56. To further mitigate impacts and allow for regeneration, ExO planned that the dredging operations would only occur over a tiny portion of the overall concession area in any given year. The annual area affected by dredging would be a strip approximately 3.5 km long and about 200 to 300 meters wide. This amounts to approximately 1 km² in total each year, out of a total concession area of 3,029 km².

(E) The project is located and designed for minimal impact on major fauna

57. The project was also designed to avoid material impacts on marine mammals, notably whales and macrobiota such as the loggerhead turtle.
58. The seabed at Oceanica is unsuited as a habitat for turtles. The Oceanica project takes place at depths of 80 meters where the water is cold, in the range of 14-16 degrees Celsius. It is much deeper and in much colder water than where the loggerhead turtle usually lives. Indeed, the loggerhead turtle is mainly confined to surface waters of less than 20 meters depth and is susceptible to "cold stunning" if exposed to temperatures below 16 degrees Celsius. Furthermore, the seabed habitat at the Oceanica site does not support food resources suitable for turtles. The project is specifically designed to avoid any impacts on potential food resources in the water column and pelagic food web. The relatively sparse community of small invertebrates (mainly worms and small crustaceans) present at Oceanica depths are unsuitable as a food resource for turtles. Loggerheads feed on large prey items in the surface waters, including fish bycatch discards and the pelagic red crab, which forms dense swarms in surface waters during periods of upwelling. Oceanica is located at depths well below these crabs' typical biosphere.
59. The project also does not interfere with or impact upon cetaceans. Whale migration routes are in still deeper waters located to the west of the development site. Given the location of the project and its very limited annual footprint of 1 km², there is no possibility of impacts on conservation-significant resources on the coastline (which is 40 km to the east of the Oceanica deposit) or on the coastal lagoons of San Ignacio and Bahia Magdalena (which are almost 100 km from the site).

(F) ExO proposed further precautionary measures

60. While the risk to turtles from dredging at the Oceanica site is extremely low, ExO's plan also incorporated the use of well-proven turtle exclusion devices (notably tickler chains) and deflection equipment regularly used at other sites, as a further precautionary measure. These devices have the effect of gently moving turtles away from the dredging site as the ship slowly advances. Even in shallower waters where turtle densities are high, such techniques have proven to keep turtle losses by "entrainment" to a bare minimum.
61. In other words, ExO's deep-sea dredging plan would have a negligible impact on turtle populations.

62. ExO has nonetheless committed to recording any turtles entrained during dredging operations, so that additional mitigation measures can be implemented in the unlikely event that such measures are necessary.

(G) There is no impact on fisheries

63. The Oceanica project as designed also protects local fisheries. The area targeted for development is in a low-fish zone 40 km from the coast, only sporadically frequented by either commercial or smaller local fisheries. Given the naturally low numbers of bottom-dwelling fish in the sector and low catch numbers, fisherman have historically avoided the water column directly above the Oceanica deposit – they refer to the area as “Los Lodos” or “the silts”. Regardless, as a precaution ExO agreed it would cede a significant portion of the concession in the area to the east of Oceanica, precluding any overlap with the legal concessions of regional fisheries in these shallower waters. Further, ExO agreed that fishing ships would be allowed to fish in all areas of the Oceanica concession, with the exception of a 500 meters berth around extraction vessels while they are in operation. Moreover, while any impact on fisheries was designed to be minimal or non-existent, ExO's proposal nonetheless included a mechanism to compensate fisheries for any losses linked to the dredging operation.

(H) There is no impact on tourism

64. Finally, Odyssey and ExO designed the project to avoid any impact on tourism. Since the project operations are planned 40 km from the coast, they would be invisible from the shoreline and have no impacts on coastline amenities. Oceanica also does not require adjacent shore-based facilities which might otherwise affect the Baja California Sur area leisure and tourism industry.

(I) ExO undertook to monitor going forward

65. In addition to its environmental mitigation and restorative measures, ExO further undertook to conduct extensive ongoing environmental monitoring, including through the presence of independent government appointed on-board observers, to identify, quantify and report any signs of project impacts and to address them going forward. It also undertook to engage in public environmental education and a “corporate good neighbor” policy to assist in developing programs to promote local communities and fisheries development, even though the dredging operation will not affect them.

(viii) ExO filed its MIA-R with SEMARNAT

66. On 2 September 2014, after nearly three years of effort, Odyssey and ExO filed the MIA-R with SEMARNAT, which set out their plans for development and environmental impact assessment and mitigation strategies, all as described above.
67. The MIA-R was a 4600-page document comprised of eight chapters, with 15 annexes and hundreds of technical and scientific references. The MIA-R was based on contributions from experts and consulting institutions in the fields of geology, oceanography, marine biology, marine ecosystems management, and environmental science specifically as it relates to dredging. It included a 30-page non-technical summary drawing on the MIA-R's main conclusions.

68. Odyssey and ExO acted in good faith and in the expectation that SEMARNAT would evaluate their proposal on its merits, based upon scientific analysis and following the established administrative process.
69. Unfortunately, they experienced the exact opposite.
70. SEMARNAT has statutory responsibility under Mexican law to review and provide environmental approvals for mineral development projects in Mexican territory. SEMARNAT exercises that authority under the general direction of its principal Secretary, and with the support of various sub-entities that address specific aspects of the approvals process, including project evaluation, coordination with other agencies, legal review, and guardianship of specific environmental mandates.
71. SEMARNAT's review process – at least, the way the regulatory oversight is supposed to take place – is set out in official Guidelines. The process set out in the Guidelines is intended to support a systematic, evidence and science-based evaluation of the specific project to be considered, in its particular environment, including through initial project definition, breakdown of the project into separate phases, description of the relevant environment, consideration of the most significant environmental issues, specific impact assessments, consideration of alternatives and of mitigation measures, evaluation of residual environmental impacts, and the development of effective, specifically focused monitoring mechanisms.
72. In reality, SEMARNAT in its ultimate decision refusing approval of the project clearly ignored their own legal and regulatory mandate and requirements.
73. Both ExO and Odyssey were keen to ensure that the Mexican Government and public would appreciate the anticipated benefits of the project, the extent of their environmental due diligence and mitigation measures, and the limited environmental impact of the project. ExO consistently responded to any issues SEMARNAT raised with accurate and relevant scientific data and technical information and analysis, and took part in two full rounds of public hearings on the project
74. The result of all of this work bore fruit, at least at the technical level. At final meetings in early 2016, SEMARNAT officials confirmed that all of their technical queries had been satisfied.
75. Unfortunately, SEMARNAT's lead official Rafael Pacchiano intervened and killed the project, as set out below.

(ix) Secretary Pacchiano Alaman was hostile to the project

76. Rafael Pacchiano Alaman was appointed Secretary of SEMARNAT by Mexican President Enrique Peña Nieto on 27 August 2015. Prior to this appointment, he had since December 2012 been Under Secretary for Environmental Enforcement at SEMARNAT, and before that between 2009 and 2012 was federal deputy in Mexico's 61st Congress, representing the Ecologist Green Party of Mexico (*Partido Verde Ecologista de Mexico*).

77. As titular head of SEMARNAT since August 2015, Mr Pacchiano had ultimate responsibility for the decisions taken by the agency.
78. In his previous role as Under Secretary at SEMARNAT, Mr. Pacchiano had raised only one substantive concern regarding the Oceanica project which related to its potential impact on whale migrations. ExO had addressed that concern in good faith, demonstrating that the proposed project location avoided by a considerable distance any whale migration paths. ExO further committed to substantial precautionary mitigation measures, undertaking to suspend dredging activities altogether during the whale migration season. Having received these explanations in a face-to-face meeting with ExO representatives in 2015, Mr Pacchiano declared himself satisfied that his concern had properly been addressed.
79. But in March 2016, as the deadline for issuance of SEMARNATs approval approached, Secretary Pacchiano performed a *volte-face*. He convened another meeting with ExO representatives and advised ExO that in light of other recent environmental controversies (none of which had anything to do with the Oceanica project) his political position was precarious. He said that he was unwilling to be seen as approving a project such as Oceanica, despite its merits. He therefore directed ExO to withdraw its MIA-R application and to resubmit it at some later (undetermined) date, threatening that if ExO did not withdraw the application voluntarily, he would find some reason to deny it.
80. ExO and Odyssey had expected that the Oceanica project would be evaluated on its scientific merits. They dedicated six years of good faith efforts to achieve that result. What they instead encountered was a process arbitrarily dictated to facilitate the career ends of a high State official.
81. ExO and Odyssey were convinced of the merits of their application and that there were no legitimate grounds for refusal. They decided to maintain their request and not to withdraw the MIA-R.
82. ExO's decision to maintain its application left SEMARNAT scrambling for a reason to deny the project.

(x) SEMARNAT refused to grant approval on spurious grounds

83. On 7 April 2016, shortly after ExO's last meeting with Secretary Pacchiano, SEMARNAT made good on Secretary Pacchiano's threat and issued a decision refusing environmental permission for the Oceanica project. The SEMARNAT report as drafted confirmed that the decision was politically motivated, and not grounded in any objective facts or analysis. The report was of such poor quality it was evident it had been produced in a rush between the March 2016 meeting and the April 2016 deadline. SEMARNAT's report notably ignored the specific geographic and environmental features of the Oceanica site. It also disregarded the evidence and scientific analysis ExO had provided over the past two years.
84. Instead, SEMARNATs report refused permission based upon the project's alleged impact on loggerhead turtle habitat and their food source, red crabs.

85. SEMARNAT's turtle and red crab rationale made no technical sense and had no basis in scientific fact. During the project evaluation phase, SEMARNAT had sought more information about the potential impact of the project on loggerhead turtle populations and on their food supply, in particular asking about any potential impact on red crabs. In response, ExO provided SEMARNAT with definitive answers to these queries. As it noted, loggerhead turtle populations cannot survive at the depths of the Oceanica project and do not depend for their sustenance on biological materials generated at that level. ExO further demonstrated that the project would have no influence on red crabs: it was designed to avoid any impacts on the pelagic food web, including red crabs and the pelagic species that feed on them.
86. In its refusal, SEMARNAT deliberately misinterpreted all available scientific information concerning the distribution of loggerhead turtles in the Gulf of Ulloa. Notably, it simply ignored the fact that loggerhead turtles live at depths far shallower than the planned development area. SEMARNAT's misinterpretations in turn led it to make scientifically baseless assertions about presumed impacts on seabed food resources for loggerhead turtles. Among other things, SEMARNAT failed to consider Odyssey's highly sophisticated proposed process of removal and return of seabed materials, minimizing water disturbance and functioning in only a highly limited area of the seabed floor. Indeed, SEMARNAT failed to cite a single study suggesting that ExO's analysis or conclusions were incorrect.
87. SEMARNAT's refusal amounted to a grave violation of its own stated procedures. In rejecting ExO's proposal, contrary to the dictates of its own Guidelines, SEMARNAT ignored and failed to address any of ExO's technical proposals, working methods, mitigation measures, restoration protocols, or monitoring sampling and communications programs.
88. Instead, SEMARNAT relied on general popular media sources and papers discussing the environmental importance of the Gulf of Ulloa more broadly. None of the sources it cited addressed the specific environment of Oceanica, nor did they comment in any way on the likely environmental impact of the project as conceived by Odyssey and ExO. SEMARNAT instead relied on a blanket "precautionary principle", citing other projects in other parts of the world, employing different types of dredging, at different depths and in different environments – none of which had any relevance or application to the Oceanica project.
89. In short, SEMARNAT's decision was quickly cobbled together to create a veneer legitimacy for a pre-determined conclusion.
90. Once public, SEMARNAT's refusal of 7 April 2016 had the effect of sinking Odyssey's share prices by 59% from US\$8.37 to \$3.45 per share, or a loss of market capitalization of approximately US\$37M.

(xi) During the same time period SEMARNAT granted approvals to many more environmentally sensitive projects owned or controlled by Mexican nationals

91. SEMARNAT's refusal of the Oceanica project was all the more arbitrary and discriminatory because SEMARNAT has and continues to approve multiple substantial dredging projects in Mexico's waters, in far more ecologically sensitive

areas. The scale of these approved projects is enormous and the technology and process are similar to, or even less effective than, the technology that Odyssey and ExO propose to employ at Oceanica. The singular difference is that these projects all are owned or controlled by Mexican nationals. To name but a few:

- On 15 November 2013, SEMARNAT approved 38,000,000 m³ of seabed dredging, at the request of Administracion Portuaria Integral de Veracruz. SEMARNAT approved the project notwithstanding that it lies within a natural protected area designated as a National Park, including areas of high environmental relevance (designated by SEMARNATs *Comisidn Nacional para el Conocimiento y Uso de la Biodiversidad (CONABIO)*), and despite the fact that the part of the project nearest to the shore is included in an internationally-designated protected wetland. Unlike the silty deep-water seabed of Oceanica, with its low biodiversity, the seabed for the Veracruz project is comprised of a coral reef and a well-known habitat for loggerhead and other turtles, bottlenose dolphins, and a range of other species.
 - On 16 March 2016 SEMARNAT also authorized 7,600,000 m³ of seabed dredging at the request of Power Plant Laguna Verde, which is owned and operated by Comision Federal de Electricidad (CFE), the national electric company owned by the Mexican government. Again, this approval came despite the fact that the project is located in internationally protected wetland designated by CONABIO to be of environmental relevance. The area for this SEMARNAT approved dredging project includes habitat for species that are endangered and at risk of extinction, including the sea parrot turtle and the hawksbill turtle.
 - In addition, on 7 September 2018 SEMARNAT authorized over 1,400,000 m³ of seabed dredging at the request of Gas y Petroquimica de Occidente S.A de C.V. Here again, the approval came despite the project covering several areas that SEMARNAT itself designated as of high environmental relevance. The project area and neighboring areas include the habitat and presence of several varieties of sea turtles, bottlenose dolphins and sea lions.
92. All of these projects that have been approved by SEMARNAT are owned and controlled by Mexican nationals or Mexican State agencies.

(xii) ExO appealed from SEMARNAT's initial refusal

93. On 29 April 2016 ExO petitioned SEMARNAT to reconsider its initial refusal of 7 April, in accordance with Mexican law.
94. In support of its application, in June 2016 ExO filed a complete supplementary technical report setting out in detail the flaws and scientific and factual inaccuracies in the SEMARNAT decision, the ways in which SEMARNAT failed to consider evidence, and the lack of scientific justification or relevance of the issues the agency had raised.
95. Seven months passed with no answer. Despite its statutory responsibility to provide a response within 120 days, SEMARNAT simply ignored ExO's application for reconsideration.

(xiii) ExO then appealed to the Federal Tribunal of Administrative Justice, which annulled SEMARNAT's decision

96. On 27 January 2017 ExO sought judicial review of SEMARNAT's decision and of its failure to respond to the request for revision, before Mexico's Federal Tribunal of Administrative Justice (the Tribunal).
97. Through 2017, the case went through an extensive briefing phase before the Tribunal.
98. On 21 March 2018 the Tribunal issued a ruling (notable as the first unanimous ruling of this Tribunal in two decades) nullifying the original decision of SEMARNAT and ordering it to issue a new resolution within four months. A bench of eleven judges found that SEMARNAT had failed to comply with Mexican law because its decision lacked sufficient scientific justification, ignored key evidence relating to the depth and lack of environmental impacts of the operation and failed to take account of the mitigation factors put forward by ExO.
99. The Tribunal directed SEMARNAT to confirm which scientific grounds and reasoning justified its original decision, including specifically addressing ExO's evidence that the dredging activity in question, given its depth, would not affect the habitat of either loggerhead turtles, or their source of food. Failing that, SEMARNAT was to issue project approval.

(xiv) Secretary Pacchiano publicly asserted he would block Oceanica under any circumstances

100. At a public event on 9 September 2018, while the Tribunal-ordered response from SEMARNAT was pending, Secretary Pacchiano was asked about his position concerning the Oceanica project. His answer was unequivocal - he declared that he would "under no circumstances" agree to the Oceanica project going forward.
101. Secretary Pacchiano's statement confirmed his agency's refusal to consider the Oceanica project objectively, and the continuing discriminatory and political motivation of the agency under his direction.

(xv) SEMARNAT Issued a Second Decision which Failed to Comply with Tribunal Requirements

102. Secretary Pacchiano's threatened arbitrary and illegal behavior was confirmed when SEMARNAT on 12 October 2018 issued its second refusal of the Oceanica project.
103. The agency already had stalled in providing any decision at all. Despite the clear directions and order from a full bench of the Tribunal, by late September – six months after the Tribunal issued its ruling – SEMARNAT had still failed to issue a new decision. Accordingly, on 4 October 2018 ExO filed a second request to the Tribunal, this time asking that the Tribunal find SEMARNAT out of time, in contempt of the Tribunal's original order and ordering the agency to issue the requested approval.
104. SEMARNAT issued its second refusal only in an attempt to cut off the reviewing power of the Tribunal. In any event, the outcome was dictated in advance. In plain

contempt of the March 2018 order of the Tribunal, the second refusal issued by SEMARNAT again failed to evaluate ExO's technical proposal, scientific data and mitigation measures, or habitat restoration plans.

105. Instead, SEMARNAT put forward a mishmash of pretexts pulled from studies that had been developed in different contexts and that bore no relation to the actual conditions present in the project. SEMARNAT again failed to explain how its alleged concern about loggerhead turtles had any scientific merit given the depth of the Oceanica project, its minimal annual coverage, highly limited pelagic disturbance and range of precautionary mitigation measures.

(xvi) SEMARNAT deliberately publicized its refusal and made false statements that disparaged the project

106. SEMARNAT also deliberately sought to attract the maximum public attention to the second refusal, a departure from the agency's typical discretion in denying such permits. This clearly was deliberate and intended to score a political "win" for Secretary Pacchiano by setting him up (falsely) as a supposed environmental crusader.
107. Typically, when SEMARNAT issues a denial, its decision is communicated solely to the applicant. However, in the present case SEMARNAT issued a press release dated 18 October 2018 announcing its decision to deny permission, thereby ensuring the denial received as much publicity as possible.
108. The press release SEMARNAT issued contained several materially untrue and damaging statements about the Oceanica project and its alleged environmental impacts. It also falsely suggested the decision was supported by agencies that had had no involvement whatsoever in the decision, presumably in an effort to bolster the legitimacy of the decision.
109. In all of these circumstances, ExO and Odyssey have lost any confidence in the good faith treatment of their Oceanica project by Mexico, and have been forced to seek recourse under international law.

IV. Mexico has Breached its Obligations under NAFTA Chapter Eleven

110. Mexico through the actions of its agencies and legal representatives, including Secretary Pacchiano, has breached the obligations under Section A of Chapter Eleven of NAFTA, including but not limited to Article 1102 (National Treatment), Article 1105(1) (Minimum Standard of Treatment) and Article 1110 (Expropriation and Compensation).

(iv) Violation of NAFTA Article 1102

111. Mexico has violated NAFTA Articles 1102. This article provides that Mexico must accord U.S. investors and their investments treatment no less favorable than that it accords, in like circumstances, to its own investors with respect to the establishment, acquisition, expansion, management, conduct, operation, and sale or other disposition of investments.

112. In violation of these provisions, Mexico has provided more favorable treatment to its own investors than to the Claimant by regularly granting environmental approvals to Mexican companies and Mexican State agencies for major dredging projects off the coast of Mexico, while refusing such permission to Oceanica. There is no regulatory justification for this disparate treatment. As demonstrated in ExO's submissions, the Oceanica site presents significantly less environmental sensitivity than do the sites of multiple other approved offshore dredging projects. Moreover, at Oceanica the Claimants propose to employ improved versions of the same technology employed by such other projects, as well as additional state-of-the-art precautionary measures

(ii) Violation of NAFTA Article 1105(1) (Minimum Standard of Treatment)

113. The Mexican Government's measure amounts to a violation of NAFTA Article 1105(1) (Minimum Standard of Treatment).
114. Article 1105(1) provides that 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.
115. The actions of the SEMARNAT agency and of Secretary Pacchiano violate the international customary minimum standard of treatment of investors in that they are manifestly arbitrary, and reflect fundamental breaches of due process in administrative decision-making.
116. In particular, the refusal by SEMARNAT to consider evidence and scientific analysis in its decision making and technically absurd conclusions, together with Secretary Pacchiano's avowal to deny project approval under any circumstances, all reflect deliberate State treatment of the investment that is manifestly arbitrary and which falls far short of international minimum standards.
117. SEMARNAT and Secretary Pacchiano also violated fundamental principles of due process by plainly ignoring the statutory and regulatory framework for their administrative decision-making. Odyssey and ExO were in effect facing a rigged process, with decisions ordained against them in advance, due process ignored and avenues for domestic recourse frustrated by the Government and its agents.

(iii) Violation of NAFTA Article 1110 (Expropriation and Compensation)

118. The measures taken by the Mexican Government also amount to a violation of NAFTA Article 1110 (Expropriation and Compensation). That article provides *inter alia* that no Party may directly or indirectly nationalize or expropriate an investment of an investor of another Party in its territory or take a measure tantamount to nationalization or expropriation of such an investment, except (a) for a public purpose, (b) on a non-discriminatory basis, (c) in accordance of due process of law and Article 1105(1) and (d) on payment of compensation in accordance with paragraphs 2 through 6 of Article 1110.
119. By arbitrarily refusing to allow the Oceanica project to move forward and instead, actively frustrating it, Mexico has rendered worthless the Claimant's investment in the

Oceanica project. This substantial taking is a measure tantamount to expropriation under Article 1110.

120. Moreover, the measure failed to meet any of the conditions for legal expropriation under Article 1110. The measure was not for a public purpose: a State cannot cloak an arbitrary measure under the mantle of its regulatory powers, as to do so would amount to an *abus de droit* at public international law. Mexico's measures were also discriminatory, in that they arbitrarily distinguished between the Claimant and other investors in like circumstances in Mexico. Mexico also failed to respect due process of law and Article 1105(1), through SEMARNAT and Secretary Pacchiano's manifestly arbitrary decision-making and contempt for due process. Finally, the Claimant has received no compensation to date for these losses.

V. Approximate Damages Suffered

121. As a result of measures taken by the Mexican Government, Odyssey and ExO have suffered losses in an amount to be fully quantified, but not less than US\$3,540,000,000.
122. The principle factor in this valuation is the anticipated value to ExO of the Oceanica deposit, had the enterprise been permitted to use its concessions in accordance with the project development plans. [REDACTED]
[REDACTED]
[REDACTED]
123. For the avoidance of any doubt, the Claimant will be requesting that full compensation for all losses and damages suffered by ExO be made payable directly to ExO in accordance with NAFTA Articles 1117 and 1135(2)(b).
124. In addition, Odyssey and ExO have incurred expenses in excess of [REDACTED] in the pursuit of the investment in the Oceanica project, including financing multiple extensive marine research cruises deploying scientific, technical, environmental and operational crews; payment of concession maintenance fees; costs of generating a sustainable development program and the related environmental impact assessment; administrative, expert and personnel costs relating to several years of engagement with SEMARNAT in pursuit of environmental approval; costs of capital, and costs relating to attempts to defend Odyssey and ExO's rights before the Mexican Courts, as well as under NAFTA Chapter Eleven.
125. Finally, Odyssey has incurred substantial financing costs in relation to its investment and will seek relief for the time value of its expected return.

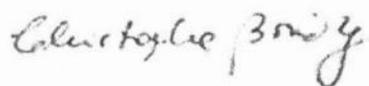
VI. Request for Relief

126. In the event that the parties to the dispute are unable to resolve this dispute through consultations under Article 1118, the Claimant will request that the Arbitral Tribunal constituted in accordance with NAFTA Chapter Eleven:

- Award damages to ExO pursuant to Article 1117 and to Odyssey pursuant to Article 1116 for breaches of Articles 1102, 1105(1) and 1110 of NAFTA in an amount to be fully quantified, but not less than US\$3,540,000,000;
- Grant pre- and post-Award compound interest on the amount of damages awarded;
- Compensate the Claimant for all costs of the arbitration, as well as for their costs of legal representation and other related costs; and
- Grant such other relief as the Arbitral Tribunal may deem just.

Dated this 4th day of January 2019.

Respectfully submitted,



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Christophe Bondy, Cooley (UK) LLP

**Counsel for Odyssey Marine Exploration, Inc.
and Exploraciones Oceanicas S. de R.L. de C.V.**