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Western Gray Whale Advisory Panel ("WGWAP" or "Panel")
Independent Observer for 2015 SEIC Piltun-Astokh 4-D Seismic Survey

ANNEX I to Contract

TERMS OF REFERENCE

Independent Observer for 2015 SEIC Piltun-Astokh 4-D Seismic Survey

Sakhalin Energy Investment Company Ltd. ("SEIC" or the "Company") is planning to conduct a 4-D seismic survey of its Piltun-Astokh lease area in the Russian Far East during the summer of 2015. The survey start date will be at the earliest 1 July or latest 12 July (depending on ice-free conditions, weather, etc), with expected date of completion of all the survey "A-lines" by 1 August and the conclusion of the survey by 20 August 2015 (the "Survey").

Sakhalin Energy and WGWAP, primarily via the Noise Task Force (the "NTF"), have developed a monitoring and mitigation program to minimise the effects of the survey on gray whales and to maximise data collection to assist in the planning of similar programs for future seismic surveys. Inevitably, these programs are complex and require decisions to be taken in the field in real time based on the guidance provided in the monitoring and mitigation plan (the "MMP"). The final MMP developed by the Company for its 2015 Piltun-Astokh 4-D Seismic Survey is attached to this Contract as Annex V. Implementation of the MMP will require prompt integration of information of a number of types (e.g. acoustic, visual sightings, observed whale behaviour) from a number of sources (buoys, vessels, shore stations).

In order to assist the Panel and the Company in evaluating the effectiveness of the MMP, and also to provide a degree of transparency and public confidence, it was agreed that an independent observer (the "IO") should be present to develop a first-hand report on the MMP's implementation and provide recommendations for improvements (if any).

The qualifications and duties of the IO are given below.

1. Qualifications:

- (1) Is able to speak English and to communicate, if needed, with relevant Sakhalin Energy personnel and others, as appropriate¹;
- (2) Is able to communicate with the crew of the vessels involved in the survey, including the senior marine mammal observer (the "MMO") and other MMOs aboard all survey vessels;
- (3) Has completed the Sakhalin Energy basic safety training program for shore-based personnel or an approved equivalent²;
- (4) Is in possession of any Russian documentation³ needed to undertake the duties outlined in these Terms of Reference;

¹ There are regularly scheduled telephone conference calls to shore in which it is possible for the IO to participate.

² As communicated by Sakhalin Energy to IUCN, the basic safety induction to the IO will be provided by Sakhalin Energy on the morning of 29 June 2015 during a briefing meeting to be held in Yuzhno-Sakhalinsk (the "Safety Training"), before the mobilisation to the onshore camp, scheduled for the same day evening.

³ The IO should have a minimum higher (university) education in marine biology and a valid medical certificate allowing to be part of shorebased activities in the Russian Far East.

- (5) Has experience in cetacean fieldwork;
- (6) Has a good understanding of the issues surrounding seismic surveys and whales, including knowledge of seismic operations and procedures;
- (7) Is familiar with the MMP and the reports that led to its development;
- (8) Has a good understanding of all the data (acoustic, behaviour, distribution) expected to be received and an ability to interpret such data in the light of the MMP;
- (9) Is able to monitor the progress of the seismic vessel in the light of A- and B-lines as specified in the MMP.

2. Duties and collaboration:

- (1) Behave courteously and responsibly at all times and conduct duties in a manner that is factual and impartial;
- (2) Arrive on Sakhalin Island in time to complete the Safety Training and then mobilize to the field camp to be able to observe the start of the Survey. Contractor shall remain on site for at least that portion of the seismic Survey that involves the acquisition of A-lines unless this goes beyond 2 August 2015 (the latest "demobilization date" for the IO from Sakhalin to Moscow). This is likely to mean that the IO will need to be present for approximately 4 weeks, starting from 1 July (the "Field Mission"). The IO "mobilization date" from Moscow to Sakhalin is expected to be no later than 27 June 2015; ⁴
- (3) Receive from the Company, and review, in near real time or as regularly as practically achievable, visual and acoustic data relevant to implementation of the MMP (IO will be permitted access to all relevant documentation including any field protocols, log books, journals or other forms of documentation on the Survey that are relevant to the assignment) and thus enable the Panel and the Company to evaluate compliance with the MMP and/or any difficulties in its implementation. IO will Comply with Company IT policy if granted access to company IT infrastructure;
- (4) The IO will be based at seismic survey command centre and will be able to view and access the acoustic data coming from the real time monitoring buoys (however such access may be granted retrospectively not in real time if the latter interferes with ongoing operations), as well as observe all operations of the teams involved in the MMP via multiple visits to field stations, posts etc. IO shall adhere to Company's Life Saving Rules while on Company premises (including the shore based camp) which will be explained during the project briefing, and any violations will have the same consequences as for Company personnel⁵. IO will act as an observer at all times and not hinder the ongoing monitoring and operations in any way. IO will cooperate with Company HSE inspections if so requested;
- (5) Co-operate and communicate with Sakhalin Energy's designated Central Commander of overall seismic operations and provide advice where appropriate on the implementation of the MMP, whilst recognising the existing decision-making structure (the IO has no authority to start or stop any operations). It is understood that the Central Commander should allow the IO to request information from the senior MMO via the Central Commander;
- (6) Submit weekly activity updates to IUCN (that IUCN will share with the WGWAP Co-chairs and the Company) and present the full final report to IUCN on the implementation of the MMP and document any exceptions or changes to the MMP should they occur. The documentation should be of sufficient detail to allow for a full analysis and review of the seismic survey programme, including an overall conclusion on the success of the implementation of the MMP during the Field Mission and recommendations for improvements for future surveys, if appropriate. An outline of the nature of the final report will be developed by the WGWAP. The final report will

⁴ As communicated by Sakhalin Energy to IUCN, the date of "mobilization" from Yuzhno-Sakhalinsk in the south of Sakhalin Island, Russian Far East to the shore-based camp in the north-east of Sakhalin Island is the evening of 29 June 2015. All onshore team members and the IO will depart in the evening of 29 June 2015 by train from Yuzhno-Sakhalinsk in the south of Sakhalin Island to Nogliki, in the north-east of Sakhalin Island and then by truck from there to the South Piltun onshore camp on the following day. The team, together with the IO, will arrive at the onshore camp on 30 June 2015. The shore-based monitoring will commence on 1 July 2015. The IO should therefore arrive in Yuzhno-Sakhalinsk during the preceding weekend, at the latest.

⁵ Violation of Life Saving Rules results in immediate removal from the project for alcohol violation, and three strikes approach for other violations such as failure to wear seatbelt.

be authored by the IO and made public by IUCN after acceptance by the Panel. The draft final report will be subject to review by Sakhalin Energy to ensure factual accuracy, following a procedure similar to that used for WGWAP reports and for the IO report on the previous SEIC Astokh 4-D seismic survey (2010). Any and all information, data and documents gathered and/or prepared by the IO during the Field Mission shall only be shared as necessary and relevant with the Panel, IUCN and/or the Company and, by no means shall be made public until the final report is publicly released by IUCN.

3. IO communication chain and protocols:

- (1) Giulia Carbone, Deputy Director, Business and Biodiversity Programme, will be the IO focal person to communicate with the IO for the duration of the Contract;
- (2) An "advisory group" consisting of Greg Donovan, Doug Nowacek, Randall Reeves, Brandon Southall, Alexander Vedenev and Dave Weller will be available for consultation should the need arise during the Field Mission;
- (3) In the case of a significant deviation from the MMP or an outright rejection of any aspect of it, the IO shall immediately inform Sakhalin Energy's designated Central Commander as well as IUCN's focal person and at least one of the Panel Co-chairs (Reeves and/or Donovan) (by phone or radio and always followed by written communication by e-mail as soon as feasible);
- (4) For issues related to the IO presence in the camp, Contractor shall contact Stephanie Lock (SEIC HSE General Manager) (by phone or radio and always followed by written communication by e-mail as soon as feasible);
- (5) If necessary, the IO may liaise with Company's overall head of the survey operations (including geophysical acquisition, monitoring and mitigation components, based in Yuzhno-Sakhalinsk: Marko van der Veen, SEIC Chief Geophysicist).

4. Duty stations during the Field Mission:

- (1) SEIC onshore camp in the north-east of Sakhalin Island, Russian Federation;
- (2) SEIC monitoring team's camps, stations, posts etc.

5. Submission of written reports to IUCN:

Contractor shall submit the following written reports to IUCN:

- (1) Weekly activity updates starting from the first day of the Field Mission;
- (2) Preliminary field report promptly upon completion of the Field Mission by IO;
- (3) Final report within one month following the completion of the Field Mission.

6. Other arrangements:

- (1) All contractual, travel and financial arrangements will be made by IUCN, unless otherwise specified;
- (2) Company will ensure IO has adequate access to observe all aspects of implementation of the MMP and is able to communicate with appropriate Company personnel as necessary and feasible, given the priority of completion of their immediate tasks ensuring successful Survey, and access to command centre communication equipment and/or facilities necessary to allow communication with the MMP components, Central Commander, IUCN and the Panel "advisory group":
- (3) Company will make arrangements for the IO mobilisation from Yuzhno-Sakhalinsk to its onshore camp and back;
- (4) Company will provide for all IO needs (e.g., lodging, meals) during the Field Mission;
- (5) Before departing for the mission to Sakhalin, and in order for the Contractor to receive guidance and any additional information on the details of the Field Mission, the Contractor shall attend a one-day final preparatory meeting with IUCN, WGWAP Co-Chair and Sakhalin Energy which shall take place on 23 June 2015, at IUCN Headquarters, in Gland, Switzerland.