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**From:** [REDACTED]  
**Sent:** Tuesday, 17 December 2019 3:44 PM  
**To:** [REDACTED]  
**Subject:** Exit brief - Schlumberger Otway Basin 2D MSS [SEC=UNCLASSIFIED]  
**Attachments:** Brief - Petroleum Environmental Inspection Exit Brief - Issued to SLB (vA1374427).pdf

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Dear [REDACTED]

Please see attached the exit brief delivered at today's exit meeting. We plan to forward to draft inspection report early next week.

Kind regards  
[REDACTED]

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[REDACTED] | Environment Specialist  
Environmental Effects

National Offshore Petroleum Safety and Environmental Management Authority

[REDACTED] | [W: nopsema.gov.au](http://www.nopsema.gov.au)

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## Petroleum Environmental Inspection

Environment Plan:	Otway Basin 2DMC Marine Seismic Survey
Title(s):	Vic-01-SPA; T-01-SPA; SA-05-SPA
Titleholder:	[REDACTED]
Nominated titleholder's representative:	[REDACTED]
Inspection dates:	Onshore: 16-17 December 2019
Regulated Business Premises and/ or Offshore Petroleum Premises:	Level 5, 256 St Georges Terrace, Perth, 6000
Prepared by:	[REDACTED]
NOPSEMA Reference:	RMS ID 2101

### 1. Inspection Team

The inspection team comprised the following personnel:

Lead inspector	[REDACTED]
Inspection Team	[REDACTED]

### 2. Scope

The areas covered in this inspection included:

**Item 1:** Environment Management - Acoustic disturbance - confirmation that the titleholder has processes in place to manage the activity in accordance with the 'limitation' issued in the decision notification.

**Item 2:** Ongoing Consultation with Relevant Persons - confirmation that there is an appropriate consultation process in place, focusing on interaction between the survey and southern blue fin tuna operations and industry association.

**Item 3:** Biosecurity / IMS - confirmation that biosecurity risk assessment processes and control measures to achieve an acceptable level of biofouling risk have been implemented prior to the commencement of the activity

### 3. Observations/Findings

The following provides an overview of the observations and findings from the inspection.

Please note, from the time of issuance of this exit brief the inspection team will not consider new information or documents which have not been collected or requested as a part of the inspection. If the inspection team requires further documents to complete the inspection, these will be listed in section 4 below or will be formally requested by the inspectors prior to issuance of the inspection report.

The draft inspection report will generally be issued to the titleholder within 2 weeks of the onsite exit meeting. At the time the draft report is issued, an offer will be made to the titleholder’s onshore management to discuss the findings of the draft report with the inspection team. There will also be an opportunity for the titleholder to correct any factually incorrect information contained within the draft report. Following the receipt of any comments, NOPSEMA will finalise and issue the inspection report. When recommendations are raised in the report, NOPSEMA may seek information to verify the titleholders progress in addressing the recommendations by the agreed due date.

<p><b>Item 1. – Environment Management - Acoustic disturbance - confirmation that the titleholder has processes in place to manage the activity in accordance with the 'limitation' issued in the decision notification.</b></p>	
<p><b>Positive findings</b></p>	<p><b>Observations</b></p>
<p><b>Measures to ensure that limitations in the decision notice will be met</b></p> <ul style="list-style-type: none"> <li>To confirm that controls in the EP for the BIA buffer are effective in preventing injury (inc TTS) and displacement from foraging, additional evaluation has been undertaken utilising geological data acquired from well investigations. These results have provided Schlumberger with confidence in the sound propagation outputs of the model that assumed a limestone seabed.</li> <li>MOC document has been developed to clarify the changes made to EPSs to ensure that the outcome can be met.</li> </ul>	<p><b>Measures to ensure that limitation in the decision notice will be met</b></p> <ul style="list-style-type: none"> <li>During night time and low visibility operations, the key control for preventing displacement and injury to blue whales inside of the BIA is detection via PAM. It is not clear what actions SLB will take in the event that PAM is not effective in detecting low frequency cetaceans (i.e. whales observed though not acoustically detected) and how SLB has confidence that the limitation imposed in the decision notice will be met during times of low visibility and night time operations.</li> <li>The support / scout vessel surveillance control measure applies 10 km ahead of the seismic vessel. However, this surveillance control does not appear to apply to detecting whales in the BIA rearward of the seismic vessel when the survey vessel is heading southward out of the BIA buffer.</li> </ul>



	<ul style="list-style-type: none"> <li>• Controls need to be reviewed to ensure support vessels comply with the EPBC regulations Part 8 – Interacting with Cetaceans and Whales.</li> <li>• There is recent scientific information in relation whale dive behaviours that may be relevant to informing control measures (e.g. pre-start up observations) for PBW when operating in the BIA buffer i.e. North West Shoals to Shore Research Program (AIMS <a href="http://www.aims.gov.au/nw-shoals-to-shore">www.aims.gov.au/nw-shoals-to-shore</a>) and <a href="https://www.pnas.org/content/116/50/25329">https://www.pnas.org/content/116/50/25329</a></li> </ul>
<p><b>Measures to ensure that there will be no discharge of the airgun in the blue whale BIA</b></p> <p>It was evident that SLB has emailed SeaBird Exploration Cyprus Ltd a copy of the BIA shapefile as a 'No discharge zone' to be incorporated into the acquisition plan.</p>	<p><b>Measures to ensure that there will be no discharge of the airgun in the blue whale BIA</b></p> <p>Based on the information inspected, it is not clear that there is a real-time verification process in place to ensure that there is no discharge of the acoustic array inside the BIA. There is no roles and responsibilities for this critical verification step specified in the Environment Execution Plan.</p>
<p><b>Pre-survey planning</b></p> <ul style="list-style-type: none"> <li>• Pre-survey planning and preparation for seismic operations has commenced. Examples include:             <ul style="list-style-type: none"> <li>- Draft induction pack for MMOs and PAM</li> <li>- Shape files of BIA submitted to operator for acquisition plan</li> <li>- Operational Flow charts</li> <li>- Project Execution plan is drafted and includes relevant operational environmental management requirements such as a summary of start-up and whale detection survey requirements.</li> </ul> </li> </ul>	<p><b>Pre-survey planning</b></p> <ul style="list-style-type: none"> <li>• There are inconsistencies between the induction requirements, operational flow charts and Execution Plan. In addition, there are EP requirements that do not appear to be captured in draft operational management documentation. Examples of inconsistencies, ambiguities or omissions include:             <ul style="list-style-type: none"> <li>- The requirement for a <u>10km shut down</u> should a PBW or SRW be detected (visually or acoustically) by the seismic vessel OR support vessel while the seismic vessel is operating within the BIA buffer is not clear in induction / stop work documents.</li> <li>- Adaptive management measures, should a higher than expected number of whales be detected in the BIA and BIA buffer, are not documented in procedural flowcharts.</li> <li>- Turtle and dolphin management requirements are absent on the BIA buffer operational procedure flow chart</li> <li>- should species identification be uncertain (visually or acoustically) actions to be taken are not clear on the operational flow chart or induction package</li> <li>- Omission of some relevant operational controls that are required as per EPSs in the accepted EP and/or modified controls following approved MOC processes</li> </ul> </li> </ul>



	<ul style="list-style-type: none"> <li>- Map and figures do not align with updated acquisition plan maps.</li> <li>- The personnel responsible for ensuring that all EP commitments and decision notice limitation requirements will be continuously met is not clear in the induction package and the project execution plan.</li> </ul>
	<p><b>Change management processes</b></p> <p>On behalf of SLB, SLR has prepared management of change documentation for changes to EP commitments to ensure that impacts to pygmy blue whales will continue to be managed consistent with the decision notice limitation. The two MOC documents sampled during the inspection in relation to acoustic impact managed were <i>MOC – Change in acoustic source size</i> and <i>MOC – Operating up to the BIA</i> (in the BIA buffer). In addition, a brief visual inspection of the Quest system was provided to outline how SLB internally tracks and manages change management. A number of observations have been made in relation to the MOC processes based on the information observed / sampled at the inspection:</p> <ul style="list-style-type: none"> <li>- MOC documentation does not consider whether the proposed changes meet the EP revision requirements (regulation 17).</li> <li>- Changes that have been proposed to clarify management measures for PBW that apply to the BIA buffer are yet to be formally approved by SLB and incorporated into relevant management documentation.</li> </ul>
<p><b>Item 2 – Ongoing Consultation with Relevant Persons - confirmation that there is an appropriate consultation process in place, focusing on interaction between the survey and southern blue fin tuna operations and industry association.</b></p>	
<p><b>Positive findings</b></p>	<p><b>Observations</b></p>
<ul style="list-style-type: none"> <li>• SLB provided email correspondence and minutes of ongoing engagement with ASBTIA. This indicates that SLB is actively engaging with ASBTIA to resolve a potential overlap in operational timing with the tuna fishing operations. A further meeting is planned to be held between SLB and ASBTIA in the next 1-2 weeks to discuss what can be implemented to manage any on-water conflicts. SLB confirmed that the existing controls in the EP will still apply.</li> </ul>	<ul style="list-style-type: none"> <li>• SLB did not provide documented information to confirm that new information relevant to the survey activity is being adequately considered in the context of whether there is a potential new / increased impact or risk that needs to be managed. For example, there was no documented evaluation undertaken for the updated DMAC guidance and the change to the southern blue fin tuna (SBT) active fishing area. Both of these examples of new information may</li> </ul>

<p>██████████ are involved and SLB recognise the importance of effectively communicating with ASBTIA once potential operational conflicts are better understood.</p>	<p>affect the appropriateness of existing controls for managing impacts to fishing operations including diver activities.</p>
<ul style="list-style-type: none"> <li>Ongoing consultation is also continuing with SIV and TSIC, with reasonable efforts being made by SLB to resolve concerns held. This is evidenced by meeting minutes from 2 December 2019 and the confirmation with these relevant persons that there are no timing or operational impacts given the changes to the acquisition area.</li> </ul>	<ul style="list-style-type: none"> <li>SLB have fulfilled their commitment to undertake pre-survey notifications to relevant stakeholders greater than 4 weeks prior to the survey start date on 2 December 2019. This was done through emails to relevant persons listed in the Spreadsheet for pre-activity notifications and through using SIV and TSIC to distribute information to their members. However, SLB have not confirmed with SIV and TSIC whether they have distributed information to their members. Closing this loop would minimise the risk of unplanned on-water interactions with commercial fishers.</li> </ul>
	<ul style="list-style-type: none"> <li>Inspectors observed that specific aspects of EPS 24 have not been complied with, such as the requirement for SETFIA to send out SMS notification at 3 months and 2 months prior to the survey start date. It is recognised that it was not feasible to implement these EPS however there was no documentation to justify why they were not implemented.</li> </ul>
<p><b>Item 3 – Biosecurity / IMS - confirmation that biosecurity risk assessment processes and control measures to achieve an acceptable level of biofouling risk have been implemented prior to the commencement of the activity</b></p>	
<p><b>Positive findings</b></p>	<p><b>Observations</b></p>
<p><b>Residual biofouling</b></p> <ul style="list-style-type: none"> <li>Following confirmation of an ineffective antifoul coating and tertiary fouling communities on wet surfaces of the Nordic Explorer, a full in-water cleaning operation was undertaken Durban, South Africa between 3-5 December, 2019. Following this cleaning event, additional cleaning was undertaken was verified remotely by a suitably qualified / experienced ██████████</li> </ul>	<p><b>Residual biofouling</b></p> <ul style="list-style-type: none"> <li>Significant levels of biofouling persist in niche areas of the vessels and a moderate level of confidence that macroscopic IMS of concern would have been detected had they been present has been documented by the ██████████</li> </ul>
<p>██████████ conclusions</p> <ul style="list-style-type: none"> <li>The ██████████ report concludes that the Nordic Explorer is compliant with all stated biofouling management obligations and that</li> </ul>	<p>██████████ conclusion</p> <ul style="list-style-type: none"> <li>The ██████████ notes that the uncleaned sections of the hull could represent a residual risk</li> </ul>



<p>the risk of transferring IMS of concern into the Project Area is low.</p>	<p>of transferring IMS of concern to Australian coastal waters.</p>
<p><b>Ongoing consultation Vic biosecurity agency</b></p> <ul style="list-style-type: none"> <li>• Consultation with the Victorian State agency, Biosecurity and Agricultural Services has commenced</li> </ul>	<p><b>Ongoing consultation Vic biosecurity agency</b></p> <ul style="list-style-type: none"> <li>• Consultation with the Victorian state agency – Biosecurity and Agricultural Services is ongoing and a response from SLB in relation to the outcome of the inspection report appears to remains outstanding.</li> </ul>
	<p><b>Risk assessment outcome</b></p> <p>SLB has received information from BFS and it is understood that further cleaning is proposed to be undertaken prior to arrival in Australian waters. SLB is yet to complete its documented risk assessment of the biosecurity risk posed by the Nordic Explorer and to provide confidence that the risk is acceptable prior her arrival on title to commence the seismic survey.</p>

#### 4. Documents

Documents yet to be provided:

- Information to show that all 236 stakeholders were emailed the 4 week notification. Please provide by COB 17 Dec 2019.

*NOPSEMA is committed to continuous improvement of its regulatory practices. Personnel involved in a NOPSEMA Petroleum Environmental Inspection may submit feedback on the inspection via email to [feedback.inspection@nopsema.gov.au](mailto:feedback.inspection@nopsema.gov.au)*