
From: [REDACTED]
Sent: Thursday, 6 February 2020 10:05 AM
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: [Ext] Notice - Issue of final report - Petroleum environmental inspection Otway Basin 2DMC MSS [DLM=For-Official-Use-Only]

For Official Use Only

Hi [REDACTED]

Thank you for providing Schlumberger's revised response to recommendation 2101-1. NOPSEMA advises that this recommendation is now closed.

Please note that Schlumberger's implementation of EP control measures for the Otway Basin 2D MSS may be subject to future inspection.

Kind regards

[REDACTED]

[REDACTED] | Environment Specialist

National Offshore Petroleum Safety and Environmental Management Authority

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

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From: [REDACTED]
Sent: Friday, 24 January 2020 7:06 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: [Ext] Notice - Issue of final report - Petroleum environmental inspection Otway Basin 2DMC MSS [DLM=For-Official-Use-Only]

Hi [REDACTED]

Thanks for your comments.

We've revised our statement in response to the requested action as per green text below:

- *PAM validation – the PAM system needs to be validated for distance estimation with the visual sightings from the MMOs with an agreement of distance <20%. If this happens, then the PAM system is considered validated. PAM will then be considered reliable for judging distance of blue whales and can be used at night time for estimating distance and used for shut down procedures and implementing the controls.*

If PAM is not validated, the vessel can still operate at night, but any low frequency cetaceans detection results in a shut down.

- *If the PAM system is not detecting blue whales that are being observed visually by MMOs, it is then assumed that the PAM detection is not effective. Adaptive management measures will be implemented, where if there are three observations within 24 hour period that are detected visually but not acoustically, the adaptive management measure of no night time ops in the buffer zone would be implemented.*
- *If blue whales are detected both visually and acoustically, this will enable the adaptive management measures to cease, and the PAM system can still be run as an unvalidated source (assuming the distances were not in agreement). The vessel may operate at night within the buffer zone as long as any detection results in a shut down.*

Please let us know if you have any questions or concerns.

Have a good long weekend.

Regards,

[REDACTED]

[REDACTED]

Australasia

Schlumberger – [REDACTED]

Level 5, 256 St. Georges Terrace, Perth, WA 6000, Australia

[REDACTED]

Schlumberger-Private

From: [REDACTED]

Sent: Wednesday, 22 January 2020 4:10 PM

To: [REDACTED]

Cc: [REDACTED]

Subject: RE: [Ext] Notice - Issue of final report - Petroleum environmental inspection Otway Basin 2DMC MSS [DLM=For-Official-Use-Only]

For Official Use Only

Good afternoon [REDACTED]

Thank you for sending through a summation of our conversation on 16 Jan and copies of the Project Execution Plan and Training Package.

NOPSEMA notes the ongoing consultation you have been undertaking with fishing stakeholders and measures implemented to address their concerns. We encourage you to continue this ongoing consultation to ensure claims are resolved in a timely manner and impacts and risks reduced to an acceptable and ALARP level.

There is one items that requires additional clarity / commitment from SLB in order to close out recommendation 2101-1.

Requirement:

Schlumberger is required to manage the activity so that there is 'No discharge of seismic airguns in the pygmy blue whale biological important areas (BIAs) (including the Bonney Upwelling Key Ecological Feature) from 1 November

2019 to 30 April 2020; and implement measures that limit anthropogenic noise in BIAs for the duration of the activity so that any blue whale continues to utilise the area without injury, and is not displaced from a foraging area'.

Response:

Schlumberger has included the following commitment to address night time / low visibility conditions in event that PAM is not demonstrated to be effective in detecting low frequency cetaceans. *"If PAM has not been demonstrated to be effective in detecting low frequency cetaceans and there are higher than anticipated blue whales (IE More than 3 shutdowns in the preceding 24 hours), consideration of ceasing night time operations or excluding acquisition in the BIA buffer during night time and low visibility conditions."*

Clarification:

The term 'consideration' used in this adaptive management control introduces ambiguity regarding if suitable measures will be implemented to ensure that the outcome stated above will be met. If there is a demonstrated presence of blue whales observed and these are not detected acoustically, continuing to undertake the survey in the BIA buffer resulting in sound levels within the BIA above injury and behavioural disturbance thresholds would not be considered appropriate in achieving the stated outcome.

Requested action:

Please revise the statement to confirm what will be done, update the EP Execution Plan and MMO training package to make a clear / firm commitment to either excluding night time operations or excluding the BIA buffer in the event that there are three or more shut downs in the preceding 24 hours and PAM is not demonstrated to be effective in detecting pygmy blue whales.

Please call me if you have any questions.

Regards

[Redacted]

[Redacted]

[Redacted] | Environment Specialist

National Offshore Petroleum Safety and Environmental Management Authority

[Redacted] | W: nopsema.gov.au

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For Official Use Only

From: [Redacted]

Sent: Tuesday, 21 January 2020 4:33 PM

To: [Redacted]

Cc: [Redacted]

Subject: RE: [Ext] Notice - Issue of final report - Petroleum environmental inspection Otway Basin 2DMC MSS
[DLM=For-Official-Use-Only]

Hi [Redacted]

Hope this finds you well.

Apologies for not getting back to you earlier. I've summarized the following for you based on our telephone conversation last Thursday.

- **ASBTIA:** We received new information from ASBTIA on 15th Jan 2020 on expected tuna fishing operations, based on assessment we ceased mobilisation to the Northern end of the Operational Area on 16th Jan and prepared a Management of Change (MOC) to allow acquisition to commence from mid-point of the survey moving in northern direction to avoid expected tuna fishing operations.
- **SIV/TSIC/SETFIA:** Pre-Survey Notification & Look Ahead: Both TSIC and SIV have confirmed the circulation of pre-survey notification to their members with SLB to provide cost recovery for additional time needed for the associations to prepare and send out notifications. Going forward they will continue to circulate updates to their members on SLB Otway 2D operations coordinate/vessel movements and provide any feedback received back to us.
- **48 Hour Look-Ahead / SMS notifications:** Both the processes are up and running. However, fishing industry has strongly expressed that reissue of look ahead within 24hrs of circulating the earlier significantly confuses and overloads recipients. Associations have requested these notifications be revised to go out only when operations in the coordinate area in the previous look ahead changes or if poor weather arises and vessel needs to move into anchorage. A MOC is being prepared to accommodate this request to improve ongoing communications.
- **VRLA:** We have responded VRLA with requested information and relevant person has been added to the SMS as well as look-ahead distribution list.
- As requested in response for item 2101-3, we have send the following files via NOPSEMA secured file transfer portal.
 - Environment Project Plan
 - MMO Induction Package Presented to crew
 - Management of Change Otway 2D work instructions

Please let me know if you have any questions or concerns.

Regards,

[Redacted]

[Redacted]

Australasia

Schlumberger – WesternGeco

[Level 5, 256 St. Georges Terrace, Perth, WA 6000, Australia](#)

[Redacted]



Files Sent, Thank you!

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For routine enquiries
please call NOPSEMA
during business hours
8:30am to 5:00pm
Perth 08 6188 8700
Melbourne 03 8866 5700

NOPSEMA
Level 8, 58 Mounts Bay Road, Perth, WA 6000
GPO Box 2568, Perth, WA 6001

Schlumberger-Private

From: [REDACTED]

Sent: Wednesday, 15 January 2020 4:39 PM

To: [REDACTED]

Cc: [REDACTED]

Subject: RE: [Ext] Notice - Issue of final report - Petroleum environmental inspection Otway Basin 2DMC MSS
[DLM=For-Official-Use-Only]

For Official Use Only

Dear [REDACTED]

Thank you for providing a response to NOPSEMA's requests for additional detail / clarification in relation to the actions that SLB will take to address recommendations raised in inspection 2101. I have included NOPSEMA's response below in orange text.

Further, I wish to draw Schlumberger's attention to recent concerns raised by a fisher that were communicated to NOPSEMA by the Victorian Rock Lobster Association (VRLA) in relation to the potential for the Otway Basin 2D MSS seismic activity to impact on fishing operations shoreward of the 150 m depth contour. Based on correspondence received, it appears that some stakeholders are unclear of the area that is to be surveyed and are concerned about the potential for line turns / seismic streamers to interfere with deployed rock lobster pots. Therefore, NOPSEMA advises that when SLB meets with SIV and TSIC this week, that these concerns be discussed and an agreed way forward to address the concerns developed. Based on these discussions, or any new information received from relevant persons, SLB should consider whether additional control measures or additional consultation with relevant persons is necessary. We recognise that there are existing commitments in the EP that may already address these concerns (short duration of the vessel being in those water depths, 48 hour look aheads etc) however these may not have been communicated to all relevant parties.

Based on SLB's response to recommendation 2101-5, it appears that the 4 week pre-survey notification intended to be disseminated via SIV and TSIC may not have been issued to relevant persons in this instance, including members of the VRLA. The concerns raised by the fisher that they have not received any recent communication in regards to the survey also appears to support this. Again, this should be discussed with SIV and TSIC during your meeting to ensure future notifications and engagement occurs as per EP commitments, especially when there are direct on-water conflicts to manage.

NOPSEMA also expects that a recordable incident report would be issued to NOPSEMA for any non-compliance with EPSs such as with EPS 20: *"Stakeholders will be notified prior to the commencement of the Otway Basin 2DMC MSS in accordance with the following Pre-Activity Notifications: ... All relevant stakeholders – 4 weeks prior"*. This

recordable incident report needs to document the corrective actions that will / have been taken to address any matters that have arisen from the breakdown in communication that meant that the 4 week notification of activity commencement was not issued to TSIC and SIV members.

Please contact [REDACTED] or I should you have any further queries about the actions SLB will take to address the matter identified in this email.

Kind regards
[REDACTED]

2101 – 1

Action: Inappropriate response. SLB has not specified the actions that will be taken to address bullet point 3 of the recommendation. Essentially NOPSEMA is seeking to understand what adaptive management measures would be implemented in the event that PAM is unable to detect blue whales during is seismic operations. For example, should blue whales be consistently detected visually though not acoustically what actions will SLB take to manage night time operations within the BIA buffer, particularly in the event that there are higher than anticipated blue whales observed.

Timeframe for action: Inappropriate as control measures would need to be determined and integrated into relevant procedural and training documents prior to commencement of the survey. Please revise the timeframe to confirm that this action will be addressed prior to commencement of the seismic survey.

Further information: Please specify how SLB will address bullet point 3 of this recommendation and revise the action date so that adaptive management measures are in place prior to commencement of the survey.

In the event that there are more than three blue whale sightings within the BIA buffer in the preceding 24 hours during the Otway Basin 2DMC MSS, and these sightings have not been detected by the PAM system on either the seismic vessel or support vessel, SLB will implement adaptive management measures. If the PAM system is not considered effective, no night time operations within the BIA buffer zone will be allowed until a time that the PAM system can be validated effective for use in detecting blue whales, and the validation requirements are to be in accordance with the approved EP.

If these adaptive management measures are implemented, night time operations will only be allowed outside of the BIA buffer until a time that PAM has been validated effective for detecting blue whales.

The reason that the PAM system does not detect blue whales that are sighted by the MMOs could be due to the fact that they are not vocalising. Should vocalising blue whales be detected both visually and acoustically by the PAM system, that will also initiate the adaptive management measures to be implemented and remove the limitation of no night-time operations within the blue whale BIA buffer zone.

These adaptive management measures will be in place from the outset of the Otway Basin 2DMC MSS and implemented for the duration of the survey

Timeframe: Jan 15 20

NOPSEMA response: Satisfactory.

2101-2

Action: Inadequate detail provided in the action. This recommendation relates to how SLB will verify their conformance with the limitation specified in the EP decision notification. While it is noted that the [REDACTED] is responsible for ensuring that the contractor Work Instruction is implemented, detail in relation to the process used to verify contractor implementation has not been included. In addition, the response to this recommendation does not consider the use of real time verification systems or automated alarms.

Timeframe for action: Inappropriate as verification processes would need to be determined and integrated into SLB contractor assurance processes prior to commencement of the survey.

Further information: By COB 14 Jan please provide detail of SLB's verification process that will be implemented by the [REDACTED] to confirm compliance with the decision notification limitation and revise the action date.

Orca Navigational System will have obstruction targets loaded onto the system for line coordinates upon entering or departing the buffer zone. This is an alarm that alerts the [REDACTED] on the proximity of the no source zone. The line coordinates (controlling first and last shotpoint) are automatically loaded onto the system and the [REDACTED] will check these. The system automatically shuts the source down at LSP and the source will no longer be activated. Likewise, early discharge upon entering the buffer zone from the BIA when source will be activated is protected. A detailed work instruction has been developed by the Contractor to reflect this requirement.

Timeframe: Jan 15 20

NOPSEMA response: Satisfactory

2101-3

Action: Appropriate

Timeframe for action: Inappropriate as control measures would need to be determined and integrated into relevant procedural and training documents prior to commencement of the survey.

Information to close out recommendation: By 14 Jan 2020, please provide a copy of the final Environmental Project Plan and Party Chief, MMO and PAM operator induction package.

NOPSEMA response: Please provide information as requested above. It is anticipated that the Environmental Project Plan and Induction package will include the response to recommendation 2101- as documented by SLB above.

2101-4

Action: Inadequate. The proposal to meet ASBTIA prior to the commencement of the survey does not address the elements of the recommendation relating to undertaking a documented evaluation of any new or increased impacts and risks and adopting new controls if warranted. Noting that ASBTIA has already provided additional information on 30 December 2019, SLB should have already commenced an evaluation of this information in relation to new or increased impacts and risks (raised in this information) that may need to be addressed prior to the commencement of the survey.

Timeframe: No timeframe for addressing this recommendation is provided.

Further information: SLB to evaluate concerns / new information provided by ASBTIA on 30 Dec 2019 to determine whether new or modified controls are needed to manage impacts to SBT and associated operations to ALARP and acceptable levels. In addition, the timeframe for addressing the recommendation needs to be revised. Please revise the action due date to a date that is prior to the commencement of the survey.

- *ASBTIA letter received 30th Dec 2019, ASBTIA still unable to determine where or when fishing will occur. No new information was provided that indicated fishing effort would occur in areas overlapping the survey changing the current risk assessment.*
- *SLB responded on the 8th of January confirming that in the absence of new information changing the risk profile that the acquisition plans could not be changed and that measures exist in the EP allowing changes to the acquisition plan based on real time information that we receive from fishers on the water or by stakeholders via pre-established communication lines. If fishing activities are planned to enter the operational area adaptive measure will be implemented as per the EP.*
- *SLB meeting with ASBTIA 15th Jan 2020 to discuss existing mitigation measures and communication plan in more detail to ensure communication protocol is clear and robust.*
- *Continuous communication will be maintained with ASBTIA through the course of project to discuss any new information.*
- *SLB has committed to providing ASBTIA a 48 hour look ahead every 24 hour*
- *Timeframe: Jan 15 20*

NOPSEMA response: Satisfactory

2101-5

Action: Inadequate detail. The response has not clarified whether SIV and TSIC have now issued notifications to their members.

Timeframe for action: Please include an appropriate timeframe for action

Further information: Please clarify whether both SIV and TSIC have undertaken the 4 week pre-survey notification on SLB's behalf. In addition, please clarify how SLB will maintain oversight of upcoming communications going out to SIV/TSIC members (e.g. receiving confirmation from SIV and TSIC that it has been undertaken). Please provide this response by COB 14 Jan 2020.

- *[REDACTED] requested SLB forward 4-week pre-survey notification to SIV administration for circulation. SLB actioned the request on the 15th Dec 2019 to ensure distribution.*
- *SIV contacts have been away on leave and have been tough to reach, although communicated that information would be sent out via their administrator. Requests for meetings to discuss ongoing engagement once they return from holidays 16-17th Jan.*
- *SLB provided 1 week pre survey notification to SIV/TSIC on 9th Jan 2020.*
- *Meeting requested with SIV on 16th or 17th Jan to discuss further engagement on distribution of notifications and look ahead to its members.*
- *SLB has committed to providing SIV/TSIC a 48 hour look ahead every 24 hour*
- *Timeframe: Jan 17 20*

NOPSEMA response: Satisfactory in the context of the recommendation raised. However please refer to matters raised in email above and take further actions accordingly.

2101-6

Action and timeframe: Appropriate subject to clarification that SLB is referring to the VIC Biosecurity agency when referring Department of Agriculture in the context of this recommendation.

Further information: By COB 14 Jan 2020, please clarify that the Victorian Biosecurity agency is what SLB means when referring to Dept of Agriculture.

Risk assessment has been completed and approved. A copy has been sent to Biosecurity in Victoria.

Timeframe: Jan 14 20

NOPSEMA response: Satisfactory. Based on phone conversation on 13 Jan 2020, it is understood that SLB is referring to Biosecurity Victoria.

2101 – 7

Action: Inadequate detail. The response does not clarify that ongoing consultation will take place with both the Department of Agriculture (Australian Government) and Biosecurity and Agricultural Services (Victoria).

Timeframe for action: Not appropriate. Action would need to be taken prior to the next port call.

Further information: By 14 Jan 2020, please confirm that ongoing consultation will take place with both Department of Agriculture (Australian Government) and Biosecurity and Agricultural Services (Victoria) and that consultation with Agricultural Services (Victoria) will take place prior to the next port call.

Confirmation that ongoing consultation with both Department of Agriculture (Australian Government) and Biosecurity and Agricultural Services (Victoria) and that consultation with Agricultural Services (Victoria) will take place prior to the next port call.

Timeframe: Jan 14 20

NOPSEMA response: Satisfactory.

2101- 8

Action: Requires further clarification. While SLB's response commits to undertaking a risk assessment and management of change in the event that diving operations are anticipated within 50km of the seismic activity, it is not clear that this change management process will consider modifying control measures and associated EPSs to address key DMAC guideline considerations.

Timeframe for action: No timeframe for addressing this recommendation is provided.

Further information: By COB 14 Jan 2020, please confirm that change management processes will be implemented, including consideration of additional control measures, prior to seismic survey within 50km of diving operations. In addition, please provide an updated action timeframe.

When the risk assessment and management of change reflecting DMAC requirements, it will also refer to and comply with Regulation 17 (5) and (6) to ensure any changes to the EP are reviewed for and comply to the Regulation requirements, if needed.

Jan 14 20

NOPSEMA response: Satisfactory.

2101-9

Action: Inappropriate. There is no clear action in response to this recommendation to explain how SLB will update its systems to ensure new information, such as changes to guidelines, new plans of management, recovery plans and legislative requirements, will be identified and where applicable, incorporated into management documentation via the environmental management system (EMS).

Timeframe for action: No timeframe for addressing this recommendation is provided.

Further information. By Friday 17 Jan 2020, please explain what actions will be taken to ensure that new information relevant to environmental management and legislative compliance, is identified and reviewed as part of the SLB EMS. In addition, please provide an appropriate timeframe for SLB's proposed actions to address this recommendation.

A specific Work Instruction has been compiled to demonstrate how the template will apply to the 2D Otway MSS EP requirements and the interaction with the [REDACTED] and EMS within Schlumberger for current and future operations to ensure SLB is aligned with modifications to existing Acts and Regulation requirements.

Jan 17 20

NOPSEMA response: Satisfactory.

2101-10

Action: Inadequate - the response does not clarify how the personnel undertaking the MOC will ensure that impacts and risks are assessed to determine whether an EP revision is warranted because of 'a significant modification or new stage of the activity' OR 'new or increased environmental impact or risk' that is not provided for in the environment plan.

Timeframe: No timeframe for addressing this recommendation is provided.

Further information: By Friday 17 Jan 2020, please clarify whether SLB's change management processes will include specific prompts to consider changes in the context of Regulations 17(5) and 17(6) of the Environment Regulations.

The new work instruction specifies that all modifications are subject to Regulations 17 (5) and (6) during the review period. This will ensure any modifications to a new stage or activity or an increase of environmental impact are acknowledged and addressed.

Jan 17 20

NOPSEMA response: Satisfactory.

[REDACTED] | Environment Specialist



For Official Use Only

From: [REDACTED]
Sent: Tuesday, 14 January 2020 8:35 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: [Ext] Notice - Issue of final report - Petroleum environmental inspection Otway Basin 2DMC MSS [DLM=For-Official-Use-Only]

Hi [REDACTED]

Thanks for your time yesterday. Based on the conversation, we have inserted our response in *green text* and have kept them short and to the point. Please let us know if you have any further clarifications.

2101 – 1

Action: Inappropriate response. SLB has not specified the actions that will be taken to address bullet point 3 of the recommendation. Essentially NOPSEMA is seeking to understand what adaptive management measures would be implemented in the event that PAM is unable to detect blue whales during its seismic operations. For example, should blue whales be consistently detected visually though not acoustically what actions will SLB take to manage night time operations within the BIA buffer, particularly in the event that there are higher than anticipated blue whales observed.

Timeframe for action: Inappropriate as control measures would need to be determined and integrated into relevant procedural and training documents prior to commencement of the survey. Please revise the timeframe to confirm that this action will be addressed prior to commencement of the seismic survey.

Further information: Please specify how SLB will address bullet point 3 of this recommendation and revise the action date so that adaptive management measures are in place prior to commencement of the survey.

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If these adaptive management measures are implemented, night time operations will only be allowed outside of the BIA buffer until a time that PAM has been validated effective for detecting blue whales.

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These adaptive management measures will be in place from the outset of the Otway Basin 2DMC MSS and implemented for the duration of the survey

Timeframe: Jan 15 20

2101-2

Action: Inadequate detail provided in the action. This recommendation relates to how SLB will verify their conformance with the limitation specified in the EP decision notification. While it is noted that the [REDACTED] is responsible for ensuring that the contractor Work Instruction is implemented, detail in relation to the process used to verify contractor implementation has not been included. In addition, the response to this recommendation does not consider the use of real time verification systems or automated alarms.

Timeframe for action: Inappropriate as verification processes would need to be determined and integrated into SLB contractor assurance processes prior to commencement of the survey.

Further information: By COB 14 Jan please provide detail of SLB's verification process that will be implemented by the [REDACTED] to confirm compliance with the decision notification limitation and revise the action date.

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Timeframe: Jan 15 20

2101-3

Action: Appropriate

Timeframe for action: Inappropriate as control measures would need to be determined and integrated into relevant procedural and training documents prior to commencement of the survey.

Information to close out recommendation: By 14 Jan 2020, please provide a copy of the final Environmental Project Plan and Party Chief, MMO and PAM operator induction package.

2101-4

Action: Inadequate. The proposal to meet ASBTIA prior to the commencement of the survey does not address the elements of the recommendation relating to undertaking a documented evaluation of any new or increased impacts and risks and adopting new controls if warranted. Noting that ASBTIA has already provided additional information on 30 December 2019, SLB should have already commenced an evaluation of this information in relation to new or increased impacts and risks (raised in this information) that may need to be addressed prior to the commencement of the survey.

Timeframe: No timeframe for addressing this recommendation is provided.

Further information: SLB to evaluate concerns / new information provided by ASBTIA on 30 Dec 2019 to determine whether new or modified controls are needed to manage impacts to SBT and associated operations to ALARP and acceptable levels. In addition, the timeframe for addressing the recommendation needs to be revised. Please revise the action due date to a date that is prior to the commencement of the survey.

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- *Continuous communication will be maintained with ASBTIA through the course of project to discuss any new information.*
- *SLB has committed to providing ASBTIA a 48 hour look ahead every 24 hour*
- *Timeframe: Jan 15 20*

2101-5

Action: Inadequate detail. The response has not clarified whether SIV and TSIC have now issued notifications to their members.

Timeframe for action: Please include an appropriate timeframe for action

Further information: Please clarify whether both SIV and TSIC have undertaken the 4 week pre-survey notification on SLB's behalf. In addition, please clarify how SLB will maintain oversight of upcoming communications going out to SIV/TSIC members (e.g. receiving confirmation from SIV and TSIC that it has been undertaken). Please provide this response by COB 14 Jan 2020.

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- SLB has committed to providing SIV/TSIC a 48 hour look ahead every 24 hour
- Timeframe: Jan 17 20

2101-6

Action and timeframe: Appropriate subject to clarification that SLB is referring to the VIC Biosecurity agency when referring Department of Agriculture in the context of this recommendation.

Further information: By COB 14 Jan 2020, please clarify that the Victorian Biosecurity agency is what SLB means when referring to Dept of Agriculture.

Risk assessment has been completed and approved. A copy has been sent to Biosecurity in Victoria.

Timeframe: Jan 14 20

2101 – 7

Action: Inadequate detail. The response does not clarify that ongoing consultation will take place with both the Department of Agriculture (Australian Government) and Biosecurity and Agricultural Services (Victoria).

Timeframe for action: Not appropriate. Action would need to be taken prior to the next port call.

Further information: By 14 Jan 2020, please confirm that ongoing consultation will take place with both Department of Agriculture (Australian Government) and Biosecurity and Agricultural Services (Victoria) and that consultation with Agricultural Services (Victoria) will take place prior to the next port call.

Confirmation that ongoing consultation with both Department of Agriculture (Australian Government) and Biosecurity and Agricultural Services (Victoria) and that consultation with Agricultural Services (Victoria) will take place prior to the next port call.

Timeframe: Jan 14 20

2101- 8

Action: Requires further clarification. While SLB's response commits to undertaking a risk assessment and management of change in the event that diving operations are anticipated within 50km of the seismic activity, it is not clear that this change management process will consider modifying control measures and associated EPSs to address key DMAC guideline considerations.

Timeframe for action: No timeframe for addressing this recommendation is provided.

Further information: By COB 14 Jan 2020, please confirm that change management processes will be implemented, including consideration of additional control measures, prior to seismic survey within 50km of diving operations. In addition, please provide an updated action timeframe.

When the risk assessment and management of change reflecting DMAC requirements, it will also refer to and comply with Regulation 17 (5) and (6) to ensure any changes to the EP are reviewed for and comply to the Regulation requirements, if needed.

Jan 14 20

2101-9

Action: Inappropriate. There is no clear action in response to this recommendation to explain how SLB will update its systems to ensure new information, such as changes to guidelines, new plans of management, recovery plans and legislative requirements, will be identified and where applicable, incorporated into management documentation via the environmental management system (EMS).

Timeframe for action: No timeframe for addressing this recommendation is provided.

Further information. By Friday 17 Jan 2020, please explain what actions will be taken to ensure that new information relevant to environmental management and legislative compliance, is identified and reviewed as part of the SLB EMS. In addition, please provide an appropriate timeframe for SLB's proposed actions to address this recommendation.

A specific Work Instruction has been compiled to demonstrate how the template will apply to the 2D Otway MSS EP requirements and the interaction with the [REDACTED] and EMS within Schlumberger for current and future operations to ensure SLB is aligned with modifications to existing Acts and Regulation requirements.

Jan 17 20

2101-10

Action: Inadequate - the response does not clarify how the personnel undertaking the MOC will ensure that impacts and risks are assessed to determine whether an EP revision is warranted because of 'a significant modification or new stage of the activity' OR 'new or increased environmental impact or risk' that is not provided for in the environment plan.

Timeframe: No timeframe for addressing this recommendation is provided.

Further information: By Friday 17 Jan 2020, please clarify whether SLB's change management processes will include specific prompts to consider changes in the context of Regulations 17(5) and 17(6) of the Environment Regulations.

The new work instruction specifies that all modifications are subject to Regulations 17 (5) and (6) during the review period. This will ensure any modifications to a new stage or activity or an increase of environmental impact act are acknowledged and addressed.

Jan 17 20

Regards,

[REDACTED]

[REDACTED]

Australasia

Schlumberger – [REDACTED]

[REDACTED]

Schlumberger-Private

From: [REDACTED]

Sent: Monday, 13 January 2020 11:02 AM

To: [REDACTED]

Cc: [REDACTED]

Subject: RE: [Ext] Notice - Issue of final report - Petroleum environmental inspection Otway Basin 2DMC MSS [DLM=For-Official-Use-Only]

Hi [REDACTED]

There have been some delays in the connecting flights and a couple of us will still be in air at 11.45AM Perth time. We propose to reschedule the teleconference for 4PM Perth time this afternoon. I will resend the invite, please let me know if this doesn't work and we can revise for a later time slot accordingly.

Regards,
[REDACTED]

Schlumberger-Private

From: [REDACTED]
Sent: Sunday, 12 January 2020 12:49 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: [Ext] Notice - Issue of final report - Petroleum environmental inspection Otway Basin 2DMC MSS [DLM=For-Official-Use-Only]

Hi [REDACTED]

All of us are travelling to Portland Victoria for the Project start up on Monday. Just working through our flight schedule, following time windows would work for us for a teleconference on Monday, 13th Jan.

- 11.45AM Perth Time
- 4PM Perth Time

I will send a skype invite for 11.45AM for Monday morning, if that doesn't work then I can revise it accordingly.

Regards,
[REDACTED]

Schlumberger-Private

From: [REDACTED]
Sent: Friday, 10 January 2020 11:15 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: [Ext] Notice - Issue of final report - Petroleum environmental inspection Otway Basin 2DMC MSS [DLM=For-Official-Use-Only]

For Official Use Only

Dear [REDACTED]

Please see below NOPSEMA's advice to SLB's proposed actions in response to recommendations of inspection 2101 (Otway Basin 2D MC MSS).

I suggest that we meet (teleconference or face to face) on Monday or early Tuesday (if possible) to discuss SLB's response to the matters raised below noting the anticipated commencement date of 16 January 2020.

I'll give you a call on Monday morning to discuss.

Kind regards
[REDACTED]

2101 – 1

Action: Inappropriate response. SLB has not specified the actions that will be taken to address bullet point 3 of the recommendation. Essentially NOPSEMA is seeking to understand what adaptive management measures would be implemented in the event that PAM is unable to detect blue whales during its seismic operations. For example, should blue whales be consistently detected visually though not acoustically what actions will SLB take to manage night time operations within the BIA buffer, particularly in the event that there are higher than anticipated blue whales observed.

Timeframe for action: Inappropriate as control measures would need to be determined and integrated into relevant procedural and training documents prior to commencement of the survey. Please revise the timeframe to confirm that this action will be addressed prior to commencement of the seismic survey.

Further information: Please specify how SLB will address bullet point 3 of this recommendation and revise the action date so that adaptive management measures are in place prior to commencement of the survey.

2101-2

Action: Inadequate detail provided in the action. This recommendation relates to how SLB will verify their conformance with the limitation specified in the EP decision notification. While it is noted that the [REDACTED] is responsible for ensuring that the contractor Work Instruction is implemented, detail in relation to the process used to verify contractor implementation has not been included. In addition, the response to this recommendation does not consider the use of real time verification systems or automated alarms.

Timeframe for action: Inappropriate as verification processes would need to be determined and integrated into SLB contractor assurance processes prior to commencement of the survey.

Further information: By COB 14 Jan please provide detail of SLB's verification process that will be implemented by the [REDACTED] to confirm compliance with the decision notification limitation and revise the action date.

2101-3

Action: Appropriate

Timeframe for action: Inappropriate as control measures would need to be determined and integrated into relevant procedural and training documents prior to commencement of the survey.

Information to close out recommendation: By 14 Jan 2020, please provide a copy of the final Environmental Project Plan and Party Chief, MMO and PAM operator induction package.

2101-4

Action: Inadequate. The proposal to meet ASBTIA prior to the commencement of the survey does not address the elements of the recommendation relating to undertaking a documented evaluation of any new or increased impacts and risks and adopting new controls if warranted. Noting that ASBTIA has already provided additional information on 30 December 2019, SLB should have already commenced an evaluation of this information in relation to new or increased impacts and risks (raised in this information) that may need to be addressed prior to the commencement of the survey.

Timeframe: No timeframe for addressing this recommendation is provided.

Further information: SLB to evaluate concerns / new information provided by ASBTIA on 30 Dec 2019 to determine whether new or modified controls are needed to manage impacts to SBT and associated operations to ALARP and acceptable levels. In addition, the timeframe for addressing the recommendation needs to be revised. Please revise the action due date to a date that is prior to the commencement of the survey.

2101-5

Action: Inadequate detail. The response has not clarified whether SIV and TSIC have now issued notifications to their members.

Timeframe for action: Please include an appropriate timeframe for action

Further information: Please clarify whether both SIV and TSIC have undertaken the 4 week pre-survey notification on SLB's behalf. In addition, please clarify how SLB will maintain oversight of upcoming communications going out to SIV/TSIC members (e.g. receiving confirmation from SIV and TSIC that it has been undertaken). Please provide this response by COB 14 Jan 2020.

2101-6

Action and timeframe: Appropriate subject to clarification that SLB is referring to the VIC Biosecurity agency when referring Department of Agriculture in the context of this recommendation.

Further information: By COB 14 Jan 2020, please clarify that the Victorian Biosecurity agency is what SLB means when referring to Dept of Agriculture.

2101 – 7

Action: Inadequate detail. The response does not clarify that ongoing consultation will take place with both the Department of Agriculture (Australian Government) and Biosecurity and Agricultural Services (Victoria).

Timeframe for action: Not appropriate. Action would need to be taken prior to the next port call.

Further information: By 14 Jan 2020, please confirm that ongoing consultation will take place with both Department of Agriculture (Australian Government) and Biosecurity and Agricultural Services (Victoria) and that consultation with Agricultural Services (Victoria) will take place prior to the next port call.

2101- 8

Action: Requires further clarification. While SLB's response commits to undertaking a risk assessment and management of change in the event that diving operations are anticipated within 50km of the seismic activity, it is not clear that this change management process will consider modifying control measures and associated EPSs to address key DMAC guideline considerations.

Timeframe for action: No timeframe for addressing this recommendation is provided.

Further information: By COB 14 Jan 2020, please confirm that change management processes will be implemented, including consideration of additional control measures, prior to seismic survey within 50km of diving operations. In addition, please provide an updated action timeframe.

2101-9

Action: Inappropriate. There is no clear action in response to this recommendation to explain how SLB will update its systems to ensure new information, such as changes to guidelines, new plans of management, recovery plans and legislative requirements, will be identified and where applicable, incorporated into management documentation via the environmental management system (EMS).

Timeframe for action: No timeframe for addressing this recommendation is provided.

Further information. By Friday 17 Jan 2020, please explain what actions will be taken to ensure that new information relevant to environmental management and legislative compliance, is identified and reviewed as part of the SLB EMS. In addition, please provide an appropriate timeframe for SLB's proposed actions to address this recommendation.

2101-10

Action: Inadequate - the response does not clarify how the personnel undertaking the MOC will ensure that impacts and risks are assessed to determine whether an EP revision is warranted because of 'a significant modification or new stage of the activity' OR 'new or increased environmental impact or risk' that is not provided for in the environment plan.

Timeframe: No timeframe for addressing this recommendation is provided.

Further information: By Friday 17 Jan 2020, please clarify whether SLB's change management processes will include specific prompts to consider changes in the context of Regulations 17(5) and 17(6) of the Environment Regulations.

National Offshore Petroleum Safety and Environmental Management Authority

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From: [REDACTED]
Sent: Wednesday, 8 January 2020 6:18 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: [Ext] Notice - Issue of final report - Petroleum environmental inspection Otway Basin 2DMC MSS

Hi [REDACTED]

Hope this finds you well.

We have submitted our response via secure transfer in the requested spreadsheet format.

Also, recommendation 2101-8,9,10 were not included in the spreadsheet provided to us. We have summarized our response (*in green*) to referred recommendation as per below as the spreadsheet is protected and is not allowing us to make the changes:

- NOPSEMA Recommendation 2101-08
SLB response:

The latest guidelines published by IMCA (PUBLICATION OF DMAC 12 REV. 2 – SAFE DIVING DISTANCE FROM SEISMIC SURVEYING OPERATIONS: 25 October 2019) has been updated to take into account incidents and the new recommendations that will be in full adopted by Schlumberger. When the potential diving operations positions are known from the SBTIA group (yet to be released on January 8), a risk assessment and Management of Change will be then submitted if diving operations are within a 50 km radius with the following guidelines incorporated:

- *Where diving and seismic activity are scheduled to occur within a distance of 45km (28 miles), it would be good practice for all parties to be made aware of the planned activity where practicable. This should include clients/operators, diving and seismic contractors.*
- *Where diving and seismic activity will occur within a distance of 30km (18.6 miles) a joint risk assessment should be conducted, between the clients/operators involved and the seismic and diving contractors in advance of any simultaneous operations. The risk assessment should consider ramp-up trials as well as other risk control measures e.g. reduction in source sizes, changes to firing intervals, timeshare/prioritisation etc.*

Position: [REDACTED]
Due Date: 15/04/2020

- NOPSEMA Recommendation 2101-09
SLB response:

In the QUEST approval format, expert approvers can be added, such as ensuring the [REDACTED] or other external approvers are included. Schlumberger operate with a country wide check for changes to State and Federal legislation. The [REDACTED] is responsible to monitor Acts and Regulations to determine the effect it will have on Schlumberger business. The [REDACTED] has been notified on the survey requirements for advice and notifications.

- NOPSEMA Recommendation 2101-10
SLB response:

*“On a global basis, Schlumberger complies with QHSE-STD-S010: Management of Change and Exemption Standard. Within QUEST, when submitting through a template for a Management of Change, it is possible to enter external links to documents such as ‘ Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009’ to ensure that sections of any documents are reviewed before the QUEST MoC is submitted for approval. A direct link was established to the following website:
<https://www.legislation.gov.au/Details/F2015C00069>.*

The Originator of the report [REDACTED] will ensure the link is saved and the following entered into the preventions tab as the responsibility of the Originator of the document:

NOTE: This MoC has been subject to the deliberations of Regulation 17 (5) and 17 (6) of the Environment Regulations. Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009. Refer to link for more information.

It is also possible for Expert Approvers to be added for review, if there are any specific issues for certain functions (Compliance Manager, for example) to review and comment before final approval. "

Please let me know if you have any questions or concerns.

Regards,

[REDACTED]

[REDACTED]

Australasia

Schlumberger

[REDACTED]



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please call NOPSEMA
during business hours
8:30am to 5:00pm
Perth 08 6188 8700
Melbourne 03 8866 5700

NOPSEMA
Level 8, 58 Mounts Bay Road, P
GPO Box 2568, Perth, WA 6001

Schlumberger-Private

From: [REDACTED]

Sent: Thursday, 2 January 2020 2:48 PM

To: [REDACTED]

Cc: [REDACTED]

Subject: RE: [Ext] Notice - Issue of final report - Petroleum environmental inspection Otway Basin 2DMC MSS

Hi [REDACTED]

Happy New year.

We confirm the receipt of final report and will get back to you with our response to the recommendations before CoB on 8th January.

Regards,
[REDACTED]

[REDACTED]
Australasia

Schlumberger [REDACTED]
[REDACTED]

Schlumberger-Private

From: [REDACTED]

Sent: Tuesday, 31 December 2019 3:06 PM

To: [REDACTED]

Cc: [REDACTED]

Subject: [Ext] Notice - Issue of final report - Petroleum environmental inspection Otway Basin 2DMC MSS

DLM Only

Dear [REDACTED]

Please find attached NOPSEMA's final inspection report for the petroleum environmental inspection of the Schlumberger Otway Basin 2DMC Marine Seismic Survey.

NOPSEMA requests that Schlumberger provides responses to recommendations by 8 January 2020 to enable NOPSEMA to consider these responses prior to the commencement of the seismic survey activity.

Responses to recommendations should be submitted via the secure file transfer and using the attached spreadsheet.

Please give me a call if you have any questions and let me know if you would like to meet to discuss responses to recommendations prior to submitting them.

Kind regards
[REDACTED]

[REDACTED] | Environment Specialist

National Offshore Petroleum Safety and Environmental Management Authority

[REDACTED] | **W:** nopsema.gov.au

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