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**SCARBOROUGH GEOTECHNICAL SURVEY
ENVIRONMENT PLAN SUMMARY**

Document Number: SP-OUT15-0102

Important Note: This summary of the Scarborough Geotechnical Survey Environmental Plan which was accepted on 5 March, 2015 has been submitted in accordance with Regulation 11 of the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (Cth). Since the date of approval of the environmental plan, the Scarborough Geotechnical Survey has been deferred and will now potentially commence at a date past the timing detailed in this summary.



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1. Introduction

This Environment Plan (EP) summary has been prepared in accordance with the requirements of Regulation 11 (7) and (8) of the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009*. This document summarises the Scarborough Geotechnical Survey Environment Plan (SP-OUT15-0100), which was accepted by the National Offshore Petroleum Safety Environment Management Authority (NOPSEMA) on 5 March 2015.

The Scarborough Geotechnical EP covers geotechnical data acquisition and benthic sampling activities within the WA-1-R area in Commonwealth waters off the coast of Western Australia.

Esso Australia Resources Pty Ltd (“ExxonMobil”) is the operator and a titleholder of petroleum retention lease WA-1-R.

1.1. Location of the Activity

The Geotechnical Survey will take place within the WA-1-R retention lease area in Commonwealth waters on the Exmouth Plateau, approximately 220 km offshore from the Pilbara coast of Western Australia (Figure 1). The sampling and testing will be undertaken in water depths of approximately 900 to 960 metres.

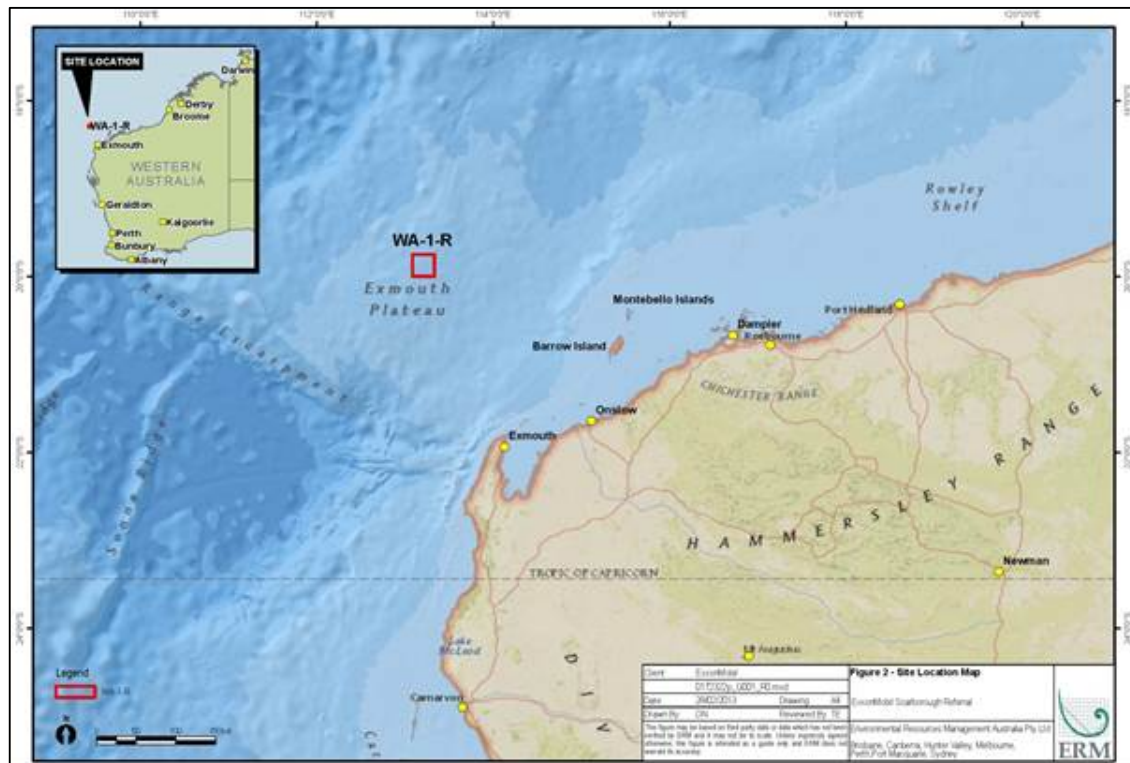


Figure 1 Location of the WA-1-R retention lease area

The boundary coordinates for the WA-1-R retention lease are provided in Table 1.

Table 1 WA-1-R boundary coordinates

Latitude (S)		Longitude (E)			
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
19	44	55.33	113	05	04.75
19	44	55.32	113	20	04.75
19	59	55.33	113	20	04.76
19	59	55.33	113	05	04.76



2. Description of the Activity

The Geotechnical Survey will include geotechnical data acquisition and benthic sampling activities within the WA-1-R area. The Geotechnical Survey is planned to commence in 2015 (likely beginning in the first half of the year) and will extend for a period of approximately four months.

The geotechnical data acquisition activities consist of:

- Soil borings of approximately 15 to 20 cm diameter and up to 10, 20, 40 and 60 metre depths, with potentially one or two soil borings to 150 meters depth.
- Large diameter piston cores (10 cm diameter).
- Box cores (a grab sample of approximately 25 litres of the sea bed surface to a maximum depth of 0.5 meters).
- In-situ tests including Seabed In-situ Cone Penetrometer Tests, Cone Cyclic Load and Dissipation Tests, T-Bar Penetrometer Tests, T-Bar Cyclic Load and Dissipation Tests.

The benthic sampling activities consist of the sampling of seabed sediments for physico-chemical analyses and infauna identification using a box corer.

All sampling and testing will be in water depths of approximately 900 to 960 metres.

The Geotechnical Survey will be carried out using a fit for purpose geotechnical drilling vessel that is capable of operating in the water depths within the WA-1-R area. Drilling is for geotechnical purposes only and there will be no drilling through petroleum bearing reservoirs.

The MV Fugro Voyager is currently planned to undertake the Geotechnical Survey. An equivalent vessel will be used should the MV Fugro Voyager be unavailable for the Geotechnical Survey.

Acoustic positioning devices, such as a single beam echo sounder (SBES) and an Ultra Short Base Line (USBL) system will be used during the Geotechnical Survey to accurately monitor survey equipment deployed from the survey vessel.

During the Geotechnical Survey, the survey vessel will be refuelled in the port of Dampier, either alongside at the wharf, or alternatively at anchor off Dampier port. No at sea refuelling at the offshore WA-1-R location will occur during the survey.

2.1. Activities that have the Potential to Impact the Environment

Activities that have the potential to impact the environment include:

Vessel Presence and Operations

- Vessel presence, operations and movements.
- Operational emissions (underwater noise and air emissions).
- Waste management.

Drilling and Coring

- Drilling and coring operations.

The risks associated with these activities were assessed for their potential impact on the environment and are outlined in Section 4.



3. Description of the Receiving Environment

3.1. Physical Environment

The Geotechnical Survey area is located in Commonwealth waters on the Exmouth Plateau, approximately 220 kilometres from the Pilbara coast of Western Australia. The Exmouth Plateau forms part of the North Carnarvon petroleum basin and has been mapped regionally as an area of relatively flat seabed between 900 meters and 1,100 meters water depth.

The Geotechnical Survey area is subject to an arid (mainly summer rain) subtropical climate with tropical cyclone activity from November to April. The summer and winter seasons fall into the periods September to March and May to July, respectively. Winters are characterised by clear skies, fine weather and predominantly strong east to south-east winds and infrequent rain. Summer winds are more variable, but west to south-west predominates. Three to four cyclones per year can be expected, primarily in the December to March period, though cyclones have been recorded as late as June. Rainfall is irregular from year to year with an average (for Dampier) of 315 mm per annum.

Winds are predominantly west south-west from October to April, and east south-east from May to September. Generally, the average 10 minute wind speed in non-cyclonic conditions is 6 ms⁻¹ with a 5% exceedance value of 12 ms⁻¹.

Air temperatures in the Geotechnical Survey area range from 19°C in July/August to 25°C in February – April. Sea surface temperatures (at 1m depth) range from a minimum of 22°C in September to a maximum of 31°C in March.

Currents in the WA-1-R area have been measured, with average speeds and directions found to be similar between surface and 100 m. Below 100 m, average current speeds are reduced and more likely to be affected by tidal changes. Tides in the region are categorised as semi-diurnal, with a spring/neap cycle. Maximum tidal ranges recorded vary between 10 m for spring tides and less than 3 m for neap tides.

The seabed surveyed in the WA-1-R area has been found to be relatively smooth and uniform, with sediments comprising fine silt, sand and clay. This is consistent with regional studies of the seafloor in deep waters of the North West Shelf (NWS), which confirms that habitats found in the WA-1-R area are a widely represented in the wider region.

Water depths in the WA-1-R area range from approximately 900 to 960 m, gradually increasing from the north-northwest to the south-southeast southwest of the WA-1-R area. Craters identified on the seafloor are considered likely to be expulsion features, formed by venting and seepage of gas or fluid. Additionally, two shallow valleys are located in the southern part of WA-1-R. Locally there is geophysical evidence for gas within the top 100 m of the sediment column as identified from 3D seismic exploration data, mainly restricted to areas underlying seafloor depressions. However, shallow gas in the area appears to be at or near normal pressure and the proposed borehole locations are not close to any gas expulsion zones.

3.2. Biological Environment

The Exmouth Plateau is recognised as a Key Ecological Feature of the North West Marine Region (NWMR), because it is an area of enhanced biological productivity that supports a range of species. The Exmouth Plateau covers an area of approximately 50,000 km² and consists of a generally rough and undulating surface at water depths of approximately 500 m to more than 5,000 m. The plateau is thought to be dotted with numerous pinnacles. It is an important geomorphic feature that modifies the flow of deep waters, and has been identified as a site where internal waves are generated by internal tides. The plateau also receives settling detritus and other matter from the pelagic environment.

3.2.1. Species Listed Under the EPBC Act

There are nine listed threatened species under the EPBC Act that may occur in, or relate to, the Geotechnical Survey area. These include the blue whale; humpback whale; loggerhead turtle; green turtle; leatherback turtle; hawksbill turtle; flatback turtle; southern-giant petrel; and great white shark.



The survey area is not considered a habitat that is critical to the survival of any listed species. Similarly, there are no EPBC Act-listed threatened ecological communities in the vicinity of the survey area.

3.2.1.1. Cetaceans

A number of cetacean species (whale and dolphin) may occur in and/or migrate through the Geotechnical Survey area.

The humpback whale (*Megaptera novaeangliae*) is listed as 'Vulnerable' under the EPBC Act and is the most commonly sighted whale in north WA waters. During the northern migration, whales appear to remain on or within the 200 m bathymetry line near the Montebello Islands, approximately 230 southeast of the WA-1-R retention lease area. The Geotechnical Survey is tentatively scheduled to occur in the first half of the year, which means that it will occur outside the migration period for humpback whales across the NWS.

Blue whales (*Balaenoptera musculus*) are widely distributed throughout the world's oceans and are listed as 'Endangered' under the EPBC Act. This species has been recorded offshore in all states excluding the Northern Territory. Their migration paths are widespread and do not clearly follow coastlines or particular oceanographic features. The WA-1-R area does not overlap any recognised blue whale migratory routes or known feeding, breeding or resting areas and it is unlikely that significant numbers will occur in the area.

The deep waters above the gully/saddle on the inner edge of the Exmouth Plateau are thought to be important for sperm whales (*Kogia breviceps*, *Kogia simus*) which may feed in the region. Other cetacean species whose broad distributions cover the region include whales that are infrequently observed and usually restricted to cooler or deeper waters such as Killer (*Orcinus orca*) and Bryde's whales (*Balaenoptera edeni*). These species are unlikely to be encountered in significant numbers during the survey.

3.2.1.1. Reptiles

Five marine turtle species may occur in the survey area, including the green turtle (*Chelonia mydas*) (vulnerable and migratory); leatherback turtle (*Dermochelys coriacea*) (endangered and migratory); hawksbill turtle (*Eretmochelys imbricata*) (vulnerable); loggerhead turtle (*Caretta caretta*) (endangered and migratory); and flatback turtle (*Natator depressus*) (vulnerable and migratory).

It is unlikely that significant numbers of marine turtles will be encountered during the Geotechnical Survey given the water depths and lack of shallow submerged features.

3.2.1.2. Sharks and Rays

One shark species potentially occurring within the surrounding area is listed as 'vulnerable' under the EPBC Act – the Great White Shark (*Carcharodon carcharias*). There are no known aggregation sites for Great White Sharks in the NWS, but the species has been recorded in NWS waters during humpback migrations.

Two shark species and one ray species are listed as 'migratory' under the EPBC Act – the Shortfin Mako Shark (*Isurus paucus*), the Longfin Mako Shark (*Isurus longirostris*) and the Giant Manta Ray (*Manta birostris*).

Given the widespread, dispersed distribution of the shark and ray species identified, these species are unlikely to be present in large numbers in the survey area.

3.2.1.3. Birds

The southern giant petrel is a highly migratory bird with a large natural range and is listed as 'endangered' and 'migratory' under the EPBC Act. This species occurs from Antarctic to subtropical waters and breeds on the Antarctic continent, peninsular and islands and on subantarctic islands and South America. Southern giant-petrels may be present in the survey area, but are unlikely to be found in large numbers.



3.3. Sites of Significance or Sensitivity in the Survey Area and Surrounds

The closest marine protected area to WA-1-R is the proposed Gascoyne Commonwealth Marine Reserve (CMR), located approximately 100 km south of the southern boundary of WA-1-R. The Gascoyne CMR covers an area of 81,766 km² with water depths ranging from 15 m to 6,000 m (traversing near-shore and offshore environments). The Reserve is an important foraging area for migratory seabirds, the threatened and migratory hawksbills and flatback turtles, and the vulnerable and migratory whale shark.

3.4. Socio-Economic Environment

3.4.1. Cultural and National Heritage

There are no listed World Heritage Properties within, or adjacent to, the WA-1-R area and the Geotechnical Survey area. The nearest World Heritage Property is the Ningaloo Coast World Heritage property, which is located approximately 200 km south-east of the southern boundary of the WA-1-R area.

There are no known indigenous cultural heritage values or issues for the waters and seabed within and immediately adjacent to the WA-1-R area and the Geotechnical Survey area. Similarly, there are no current or pending Native Title Determinations for the waters and seabed within and immediately adjacent to the WA-1-R area and the Geotechnical Survey area.

There are no places listed on the Commonwealth Heritage List or the Register of National Estate within or immediately adjacent to the WA-1-R area or the Geotechnical Survey area.

3.4.2. Shipwrecks

There are no known historic shipwreck sites within or immediately adjacent to WA-1-R or the Geotechnical Survey area.

3.4.3. Commercial Fishing

The Geotechnical Survey area is located in waters that constitute part of four Commonwealth managed commercial fisheries:

- Western Deepwater Trawl Fishery;
- Western Tuna and Billfish Fishery;
- Western Skipjack Tuna Fishery; and
- Southern Bluefin Tuna Fishery.

State administered fisheries that may operate adjacent to the survey area include the West Coast Deep Sea Crustacean Fishery, the Mackerel Managed Fishery and the Pilbara Trap and Line Fishery.

3.4.3.1. Fish Spawning Areas

Fish species may be spawning within the proposed area of activities and may include the Baldchin groper; Spanish mackerel; Goldband snapper; Rankin cod; Red emperor; Pink snapper; Blacktip shark; Sandbar shark; Crystal (snow) crab; King George whiting; and Spangled Emperor.

3.4.4. Recreational Fishing, Boating and Tourism

Due to the deep water depths over the WA-1-R area and the Geotechnical Survey area, and the distance to coastal areas of the Pilbara or NW Cape, there are no recreational activities (such as recreational fishing and marine-based tourism) undertaken in the area.



3.4.5. Commercial Shipping

WA-1-R does not overlap a major shipping lane, but is located to the west of a shipping fairway. The majority of shipping that occurs in the surrounding area is associated with the oil and gas exploration industry.

3.4.6. Defence Activities

The WA-1-R area is located underneath the extreme northern part of the Learmonth Airspace air-to-air weapons range (Military Exercise Area [MEA] R853 and R862). This area is approved for live weapons firing, including high explosive weapons. When activated by a Notice to Airmen (NOTAM), the restricted airspace can operate down to sea level.

3.4.7. Oil and Gas Industry

The WA-1-R area is part of the Northern Carnarvon Basin, which is considered to be Australia's most important oil and gas province. There are a number of other potential developments in front end engineering and design, approvals and installation phases, as well as mature developments in operational and decommissioning phases, closer to shore. The closest existing infrastructure to the WA-1-R area is over 180 km away.



4. Environmental Risk and Impact Assessment and Management

An environmental risk assessment (ERA) workshop for the Scarborough Geotechnical Survey was conducted to determine the environmental risks associated with the survey, so controls could be identified to reduce the risks to the environment to As Low As Reasonably Practicable (ALARP). The workshop was attended by representatives from ExxonMobil and the vessel contractor.

The approach and methodology used during the ERA was consistent with AS/NZS ISO 31000 and AS/NZS ISO 14001.

Environmental impacts and risks for planned activities that have the potential to impact the environment (see Section 2.1) and for unplanned activities (see Section 4.1) were evaluated by determining the consequence severity, and estimating the probability or likelihood that the consequences could occur.

- *Consequence severity:* There are four consequence categories (I through IV, with I being the highest consequence level). The consequence categories consider environmental effects (in terms of duration, size/scale, intensity) and sensitivity (in terms of irreplaceability, vulnerability and influence).
- *Probability:* There are five probability categories (A through E, with A being the most likely level). The probability categories consider the probability for each failure, event or condition necessary to produce the consequences, given the implementation of controls that prevent and mitigate the risk.

The combination of consequence severity and probability of occurrence determines the position on the ExxonMobil Risk Matrix. The ExxonMobil Risk Matrix is divided into four categories, with Category 1 being the highest risk category and Category 4 the lowest. A risk could have a low consequence severity and high probability of occurrence, and result in the same risk ranking as a risk with a high consequence severity and low probability of occurrence. Environmental risks described in the EP were assessed as Category 3 and 4 risks.

ExxonMobil then determined whether risks were reduced to ALARP by combining an understanding of the nature and cause of the risk to be avoided and the cost involved in avoiding or mitigating the risk (in terms of increased impact on personal safety and/or the environment, increased time, effort or financial cost). A risk is considered to be reduced to ALARP if there are no additional reasonably practicable measures available to further reduce the risk; or there are no reasonably practicable alternatives to the activity; or the 'cost' of implementing further measures is grossly disproportionate to the reduction in risk.

ExxonMobil then determined whether risks were reduced to acceptable levels by inspecting the final category of environmental risk and comparing the management of the risk with internal and external standards and stakeholder feedback. The risk is considered to be reduced to acceptable levels if the level of residual environmental risk associated with the activity was either Category 2, 3 or 4; and the activity is commonplace in current offshore practice (i.e. benchmarked), is compliant with current industry/ExxonMobil Australia policy and standards, and Australian legislation; and any valid claims or objections to the risk from relevant persons or stakeholders are considered.

4.1. Unplanned Events

Consideration was also given to unplanned events which, although unlikely to occur, could lead to impacts to the environment. The ERA identified the following spill scenarios for the Geotechnical Survey:

- An on-deck release of hazardous materials (e.g., hydraulic oil, lubricating oils, cleaning chemicals and batteries);
- A loss of diesel from a ruptured fuel storage tank, resulting from a vessel collision.

A Zone of Potential Impact to the environment was determined for the worst-case credible spill (vessel collision) scenario. This Zone of Potential Impact did not include any shallow water or emergent features that could be at risk if exposed to surface diesel slicks or entrained/dissolved hydrocarbons. The nearest shallow water subtidal or intertidal features are located at least 166 km from the Zone of Potential Impact, and no surface slicks, or entrained/dissolved hydrocarbons are predicted to reach inshore areas.



4.2. Hazards, Potential Impacts and Control Measures

A summary of the environmental hazards, potential impacts and controls is provided in Table 2.

Table 2 Summary of Hazards, Potential Impacts and Control Measures

Hazard	Potential Impact	Control Measures	Risk Category
Vessel Presence and Operations			
Physical presence - Noise from vessel and acoustic sources	Behavioural change, impairment to movement patterns of marine fauna, hearing impairment to marine fauna, increased stress in marine fauna	Vessel contractors maintain vessel thrusters. Vessel contractors will maintain a 300 m standoff distance (where possible and safe to do so) as they move into and out of the WA-1-R area.	4
Operation of vessel - Dropped objects	Minor, localised seabed disturbance	Lifting gear is appropriately maintained.	4
Fuel combustion equipment on vessels	Decline in air quality and contribution to greenhouse gases	Vessel contractors have certified fuel combustion equipment operated in accordance with a current Air Pollution Prevention Certificate, where applicable. Planned Maintenance System (PMS) is in place for fuel combustion equipment and energy usage equipment to maximise efficiency. Low sulphur diesel fuel is used as the fuel source.	3
Sewage, food waste and grey water discharge from vessel	Sewage, food waste and grey water will be readily dispersed and degraded with little or no impact expected.	Vessel contractors treat sewage through a certified sewage treatment system prior to discharge. Vessel contractors macerate putrescible waste (< 25mm size) prior to discharge, or the waste is taken ashore for disposal.	4
Disposal of solid/general waste from vessel	Localised and temporary change in water quality, impacts on visual amenity (littering), and death or injury of marine fauna (through ingestion, entanglement, suffocation).	Vessel contractors store general refuse and solid waste appropriately on the vessels and transfer the waste onshore for disposal.	4
Ballast water discharge - unplanned introduction/transmission of invasive species	Introduced exotic species out-compete endemic species for local resources.	Vessel contractors to comply with the requirements of AQIS's Australian Ballast Water Management 2008 which includes exchange at sea outside of Australian territorial waters for 'high risk' ballast water from port or coastal waters.	4
Vessel biofouling - unplanned introduction/transmission of invasive species	Introduced exotic species out-compete endemic species for local resources.	Vessel contractors undertake marine pest inspection and hull anti-fouling for all vessels within 7 days prior to entering Australian Waters, in accordance with the National Biofouling Management Guidance for the Petroleum Production and Exploration Industry (DAFF 2009).	4
Discharge of vessel oily water (bilge)	Localised and temporary reduction in water quality leading to potential impact on marine organisms.	Vessel contractors treat bilge to an oil-in-water concentration of 15 ppm prior to discharge.	4
Discharge of vessel deck drainage	Localised and temporary reduction in water quality leading to potential impact on marine organisms.	Vessel contractors have scupper plugs fitted for use in overboard drains.	4



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Hazard	Potential Impact	Control Measures	Risk Category
Vessel movements - unplanned collision with marine fauna	Death or injury of marine fauna.	Vessel contractors maintain a 300 m standoff distance from cetaceans (where possible and safe to do so) as they move into and out of the WA-1-R area, and employ avoidance measures such as reducing speed within the WA-1-R area (where possible and safe to do so) should listed marine species (such as cetaceans) be sighted. Vessel contractors have trained and qualified Vessel Masters.	4
Physical Presence of vessel – interference with other marine users	Interference with commercial/recreational fishing or shipping activities through disturbance to fish populations, interference with fishing gear, restriction of access to fishing grounds.	Consultation with fishing and shipping groups. Vessel contractors have trained and qualified Vessel Masters. Vessel uses dynamic positioning to maintain position. Vessel navigational and radar watch equipment is functional and maintained. Maintain radar watch	4
Drilling and Coring			
Discharge of drilling fluid (Water Based Mud) and cuttings to sea	Potential for smothering of sediment dwelling (benthic) organisms. Discharge is not expected to result in significant toxicity to marine organisms since low toxicity constituents are used in the drilling fluid.	Use of low environmental impact chemicals to make up WBM	4
Unplanned Events			
Unplanned release of chemicals or hazardous materials to the marine environment	Localised change in water quality leading to potential impact on seabirds, marine mammals, reptiles, fish and other marine organisms.	Vessel contractors store chemicals and hazardous wastes appropriately on the vessels, and transfer the hazardous waste onshore for disposal. Vessel contractors have a Shipboard Oil Pollution Emergency Plan (SOPEP) in place. Oil spill equipment is appropriately maintained. Emergency preparedness and response plans are in place.	4
Unplanned loss of containment of diesel, hydraulic oil or lubricating oil to the marine environment	Localised change in water quality leading to potential impact on seabirds, marine mammals, reptiles, fish and other marine organisms.	Vessel contractors have trained and qualified Vessel Masters. Vessel contractors have a SOPEP in place. Oil spill equipment is appropriately maintained. Emergency preparedness and response plans are in place	4



4.3. Response Arrangements

In the highly unlikely event of an unplanned loss of containment of diesel, the Oil Pollution Emergency Plan (OPEP) outlines the response arrangements that can be undertaken, including:

- Source control.
- Monitoring and evaluation (including natural recovery).

Source control is the initial response to be undertaken. The aim of source control is to stop or mitigate the flow of hydrocarbons to limit the amount released and therefore reduce the overall impact to the environment.

Monitoring and evaluation are fundamental components of a hydrocarbon spill response, providing an overview of the spill trajectory, size and nature. Monitoring and evaluation provide real-time data on the trajectory and weathering of hydrocarbons. Monitoring and evaluation assist in informing a decision of whether further action is required and help inform the decision-making for prioritising the protection of sensitive receptors.

The OPEP also outlines the resources (personnel and equipment) which may be utilised in the event of an oil pollution emergency, the lead organisations and responders, and the notification requirements. The OPEP interfaces with the spill contingency plans developed by Australian Maritime Safety Authority (AMSA) (National Plan), Western Australian Government (WestPlan-MOP), and the Australian Marine Oil Spill Centre (AMOSOC) (AMOSPlan).

ExxonMobil has developed checklists for managing an oil pollution emergency, which include responding to the first sighting of oil (first strike actions) and gathering spill information, implementing source control measures, classifying response levels (Level 1, Level 2 or Level 3), implementing response action plans/arrangements and reporting to statutory agencies. ExxonMobil manages incidents using the Incident Command/Management System, which is a system designed to provide a consistent approach to respond to emergency situations. Positions within the system are fixed and have specific functions, ensuring that all responders know what to do and where they report in the organisation structure. A response to a spill on or around the survey vessel will utilise survey vessel personnel, and may also utilise members of the ExxonMobil Emergency Support Group (ESG) who can provide strategic and operational support.

The OPEP also includes operational and scientific monitoring activities, which can be initiated in the event of a spill.

Training and exercises are used to maintain ExxonMobil's ability to implement an emergency response. Oil spill response training is made available to specific ExxonMobil personnel required to undertake a role in oil spill response. A test of the OPEP will be undertaken prior to commencement of the survey. If response arrangements are significantly amended, testing of the updated response arrangements shall occur.

4.3.1. Spill Response Activities Potential Impacts and Risks

Spill response activities have the potential to incur impacts and risks to the environment, and these are managed carefully with controls in place in the unlikely event a spill does occur. The potential environmental impacts and risks associated with proposed response strategies include:

- Noise from vessel or aircraft used in monitoring and evaluation of the spill.
- Continued or additional spillage of hydrocarbons (e.g., due to a transfer failure/broken hose during the transfer of hydrocarbons into an undamaged vessel or another tank; or from a spill response vessel collision).

ExxonMobil has performance outcomes and standards on controls that manage the above potential impacts and risks to ensure spill response activities are managed to ALARP and acceptable levels during an actual spill response.



5. Implementation Strategy

The implementation strategy detailed in the Scarborough Geotechnical Survey EP identifies the systems, practices and procedures that are used to ensure environmental impacts and risks of the activity are reduced to ALARP and acceptable levels, and that environmental performance outcomes and standards outlined in the EP are met.

5.1. Operations Integrity Management System (OIMS)

ExxonMobil is committed to conducting business in a manner that is compatible with the environmental and economic needs of the communities in which it operates, and that protects the safety, security, and health of its employees, those involved with its operations, its customers, and the public. These commitments are documented in the Safety, Security, Health, Environmental, and Product Safety policies.

These policies are put into practice through a management system called the Operations Integrity Management System (OIMS). All OIMS management systems contribute to the effective management of the identified environmental risks and impacts in the Scarborough Geotechnical Survey EP.

5.2. Ongoing Monitoring and Performance Review

ExxonMobil will undertake a compliance audit against the EP prior to the commencement of the survey. The audit will contain a detailed assessment of compliance with the environmental performance outcomes and standards and an overview of the effectiveness of control measures (i.e. that impacts and risks are reduced to ALARP and acceptable levels). Findings and recommendations of the audit will be documented and communicated to vessel personnel.

An OIMS review will also be carried out to confirm that the monitoring and measurement processes detailed in each of the OIMS systems are being carried out, environmental performance outcomes and standards are being met, and environmental impacts and risks are reduced to ALARP and managed to acceptable levels.

During the activity, the vessel contractor will also undertake monthly compliance reporting against the EP to confirm the effectiveness of the control measures and to confirm compliance with the performance outcomes and performance standards given in the EP.

Monitoring of environmental performance is undertaken on a regular basis through various forums including twice-daily tool box meetings, morning meetings and monthly reviews of the contractor's environmental performance.

Investigations into environmental incidents and non-conformances are conducted in accordance with ExxonMobil's Incident Management System (as detailed in OIMS Element 9 Incident Management). Notification, reporting and investigation of incidents:

- Ensures management, regulatory authorities and other appropriate personnel are notified of all incidents and near misses on a timely basis;
- Enables the sharing of learnings throughout the organisation to continuously improve internal health, safety and environment systems;
- Identifies corrective actions to prevent re-occurrence; and
- Enables the analysis and trending of incident data to ensure appropriate focus on emerging issues.

In accordance with Regulation 17 (6) of the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009*, ExxonMobil will submit a proposed revision of the EP to NOPSEMA before, or as soon as practicable after, a new or significantly increased environmental impact or risk is identified that is not provided for in the EP.



6. Consultation

ExxonMobil has undertaken consultation with all relevant stakeholders potentially affected by the Scarborough Geotechnical Survey activities.

- Commonwealth and West Australian government bodies;
 - Australian Maritime Safety Authority (AMSA)
 - Australian Fisheries Management Authority (AFMA)
 - Headquarters Air Command/Department of Defence (DoD)
 - Commonwealth Department of the Environment (DoE)
 - Commonwealth Department of Industry (DoI)
 - Western Australia Department of Fisheries (DoF)
 - Western Australia Department of State Development (DSD)
 - Western Australia Department of Mines and Petroleum (DMP)
 - Western Australia Department of Transport (DoT)
 - National Offshore Petroleum Titles Authority (NOPTA)
 - Australian Hydrographic Service
- Commercial and recreational fisheries; fishing industry bodies, groups and associations;
 - Western Australia Fishing Industry Council (WAFIC)
 - West Coast Deep Sea Crustacean Fishery (WCDSCF) licence holders / Hillarys Yacht Club
 - Mackerel Managed Fishery licence holders
 - Pilbara Trap and Line Fishery licence holders
 - Commonwealth Fisheries Association (CFA)
 - Western Australian Northern Fishing Companies Association (NFCA) / Austral Fisheries
 - Western Australian Northern Trawl Owners Association (WANTOA)
 - Recfishwest
 - Western Australian Seafood Exporters
 - A Raptis & Sons
- Industry/Other Groups
 - Australian Marine Oil Spill Centre (AMOSOC)
 - Oil Response Company Australia
 - Australian Oceanographic Services
 - MDA Corporation
 - World Wildlife Fund (WWF)
 - BHP Billiton Petroleum

6.1. Consultation Already Undertaken

A number of mechanisms to communicate with stakeholders were used to ensure stakeholders could make an informed assessment of the possible consequences of the activity on their functions, interests or activities. This included written communications and one-on-one discussions via telephone and in-person. Consultation commenced in 2013, with a further round undertaken in late 2014 and early 2015.



**Scarborough Geotechnical Survey
Environment Plan Summary**



None of the stakeholders consulted to date have raised any significant issues regarding the Geotechnical Survey. Some stakeholders did ask clarifying questions about, or provided comment to, the activity outlined in the EP. A summary of the responses are provided in Table 3.

Table 3 Summary of Responses during Stakeholder Consultation

No.	Stakeholder Query/Comment	Summary of ExxonMobil Response
1	Stakeholder requested the name of the vessel be provided before commencement of the survey activities.	This will be provided by ExxonMobil before the commencement of activities.
2	Stakeholder provided information on the military exercise areas that are within the survey area. Stakeholder also requested ExxonMobil notify them if the survey timing is delayed by more than 3 months, to confirm that the information provided has not changed.	Information has been incorporated into the EP. ExxonMobil to contact stakeholder if the survey timing is delayed by more than 3 months.
3	Stakeholder recommended ExxonMobil consult directly with West Australian Fishing Council, Recfishwest, the Mackerel Managed Fishery and the West Coast Deep Sea Crustacean Fishery and local fishers. Stakeholder also requested that the EP consider fish spawning and nursery grounds within the area.	Consultation has taken place with the recommended bodies. Fish spawning and nursery grounds, as well as potential impacts on fisheries have been considered in the EP.
4	Stakeholder stated they did not believe the activity would significantly interact with the WA commercial fishing industry due to the distance from shore and the depth of water.	ExxonMobil acknowledged the comment.
5	Stakeholder believed the survey area may be in the same area as their fishing licence. Stakeholder requested further information prior to survey commencement.	Following further discussion with stakeholder, they are content that the survey is not in the same area. ExxonMobil to provide the name of the vessel, the call sign and dates of the survey to stakeholder closer to the time of commencement.
6	Stakeholder queried if the vessel would be able to move off location during core drilling.	Discussion was held with stakeholder and confirmed that the vessel cannot move off location while drilling core samples. ExxonMobil to provide stakeholder with the dates of the survey preferably 2 weeks prior to the start of the survey to enable issue of a Notice to Mariners. Stakeholder will also be provided with a cessation notice on completion of survey activities.
7	Stakeholder was concerned that they had not been adequately been consulted.	ExxonMobil provided the stakeholder with further information on the survey including a description of activities, location, duration, and the potential for unplanned diesel release. Stakeholder was satisfied with this information.
8	Stakeholder stated they have no concerns with the proposed survey and the activity would not affect recreational fishers due to its distance from shore.	ExxonMobil acknowledged the comments and the information provided has been incorporated into the EP.

Note: This summary has been adapted for brevity from detailed consultation records and therefore is not a full representation of conversations or dialogue with these stakeholders.

The outcomes of the consultation process determined that there are limited fishing activities expected from fisheries in the area, the Geotechnical Survey is not expected to impact on any known recreational fishing grounds; and the Geotechnical Survey will not be occurring in a major commercial shipping route.



6.2. Ongoing Consultation

ExxonMobil will continue to consult with stakeholders, and will continue to maintain a Stakeholder Consultation Log on an ongoing basis during the Geotechnical Survey.

ExxonMobil and the survey vessel contractor will comply with requests from stakeholders for additional information and requests for updates during the activity. ExxonMobil will re-engage with relevant stakeholders closer to the time of the Geotechnical Survey to provide them with the survey start date, name of vessel and call sign details. On completion of the activity, notification will be sent to the relevant stakeholders or those that request post survey notification.



7. Contact Details

The environmental contact for this activity is:

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