Aperio 3D Marine Seismic Survey

Environment Plan Summary

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Document Information

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Current Revision Approvals

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1.0 INTRODUCTION

Chevron Australia Pty Ltd (Chevron) proposes to undertake the Aperio three-dimensional (3D) Marine Seismic Survey (MSS) (referred to herein as 'the Survey'), located in Commonwealth marine waters of the North West Shelf, Western Australia (WA).

An Environment Plan (EP) was prepared for the Survey under the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009, and was accepted by NOPSEMA on 21 March 2013. The EP covers the time period between 1 April and 30 June 2013.

This EP Summary has been prepared in accordance with Regulation 11 (8) of the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009.

2.0 CONTACT DETAILS

Chevron Australia Pty Ltd is the proponent and the company taking the action for the Survey.

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3.0 ACTIVITY LOCATION AND DESCRIPTION

3.1 Survey Location

The Survey is located in the Commonwealth waters of the North West Shelf, WA, in water of depths ranging from 60 – 1,300 m (Figure 3.1). The Survey operational area boundary (referred to herein as 'the Survey area') is located approximately 25 km north-west of the Montebello Islands, 40 km north-west of Barrow Island and 110 km from the WA mainland at its closest point. The area of Survey operations covers approximately 3,080 km^2, with 3D seismic acquisition covering an area of approximately 2,000 km^2.

The Survey area includes the following:

- 7 Exploration Permits (WA-253-P, WA-350-P, WA-374-P, WA-427-P, WA-444-P, WA-205-P and WA-356-P);
- 9 Retention Licences (WA-5-R, WA-14-R, WA-15-R, WA-19-R, WA-20-R, WA-21-R, WA-22-R, WA-42-R and WA-24-R), and
- 4 Production Licences (WA-37-L, WA-49-L, WA-34-L and WA-38-L).

The survey operational area includes a buffer zone of up to 15 km at the western and eastern boundary of the survey area (Figure 3.1), in which the seismic source may be discharged at or below full capacity for the purpose of run outs, source testing, soft-starts and line turns. The buffer zone also extends by 5 km to the north and south of the survey area to allow for contingency in vessel movements. The coordinates for the operational area are provided in Table 3.1.

Table 3.1 Aperio 3D MSS Operational Area Coordinates

Map Point (Figure 3.1)	Latitude (S)	Longitude (E)
1	-20.2592	114.442
2	-20.2593	114.483
3	-20.1923	114.532
4	-20.1471	114.575
5	-20.1477	114.617
6	-19.9367	114.712
7	-19.8303	114.794
8	-19.7856	114.835
9	-19.7883	115.228
10	-19.9248	115.228
11	-19.97	115.227
12	-19.9694	115.176
13	-20.0569	115.153
14	-20.0874	115.153
15	-20.089	115.312
16	-20.3031	115.311
17	-20.3023	115.236
18	-20.3531	115.235
19	-20.3516	114.978
20	-20.3772	114.978
21	-20.3779	114.895
22	-20.5456	114.894
23	-20.5418	114.44

3.2 Description of Activity

The Survey is required to improve sub-surface data resolution in the region, and to meet the requirements of the various Petroleum Titles. This includes a regulatory commitment to (a) acquire 3D seismic data within Exploration Permit WA-444-P by May 2013, and (b) to evaluate the commercial viability of hydrocarbon reserves under the retention leases covered by the Survey.

The seismic energy source will not exceed 4,500 cubic inches, and an operating pressure of 2000 psi. The acoustic source array will be towed astern of the vessel at a depth of approximately 5 – 10 m. Acoustic signals will be produced at 18.75 m intervals, achieved by alternating the two sources. This interval corresponds with an acoustic signal approximately every eight seconds. An array of 10 – 12 solid hydrophone streamers will be used to detect seismic reflections from subsurface layers, which will extend a distance of up to 6 km behind the survey vessel. The streamers will be towed at a depth of approximately 8–50 m below the sea surface (allowing 20 m clearance from seabed at all times) and spaced approximately 100 m apart. Seismic data acquisition is to be conducted on a 24 hour basis.

Two Survey support vessels will be used for logistical, safety and equipment management support, with at least one support vessel present at all times. Due to the length of the Survey, the survey vessel may require refuelling at sea, which will take place more than 12 nm from any emergent land. The vessel(s) will not anchor at sea unless required to in an emergency.

The Survey is scheduled to be conducted between April and June 2013, with the start date subject to vessel availability, and is expected to take approximately nine weeks to complete, depending on weather conditions.

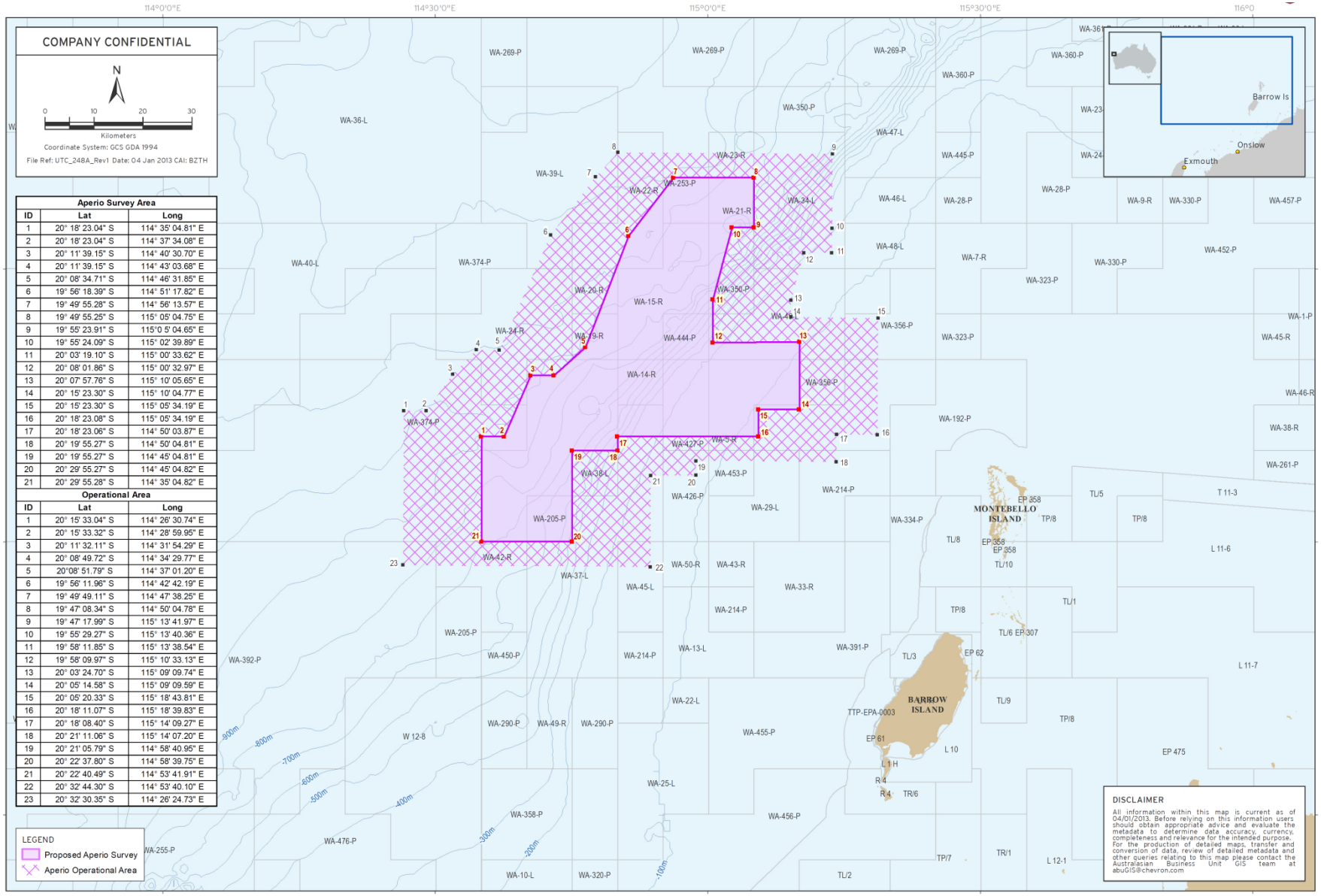

Figure 3.1 Location of the Aperio 3D Marine Seismic Survey

4.0 RECEIVING ENVIRONMENT

The Survey is located predominantly within the North-West Province bioregion, which is comprised of the offshore waters between Exmouth and Port Hedland, and located entirely on the continental slope (DEWHA, 2008a).

The Survey region is characterised by two seasons; winter (May–August) and summer (September–April), including a transitional period. The winter climate is dominated by intense high pressure systems that generate strong easterly and south-easterly winds, and infrequent rain. Summer conditions are more variable, with shifting but predominantly south-westerly winds. An average of five tropical cyclones occur annually in the region, during the region's tropical cyclone season, which runs from November to April (BoM, 2012). Cyclones are most common from December through March, and can generate extreme seas, swell, and localised wind gusts of over 150 km/h.

The seafloor in the region of the Survey area slopes down in a north-westerly direction with an absence of shallow areas or emergent features. The substrate throughout the Survey area is likely to be characterised by predominantly unconsolidated soft sediments, characteristic of the region (Baker et al., 2008). A bathymetric survey undertaken in proximity to the Survey area found that sediments ranged from clayey, silty, medium sand with shell and coral fragments, to finer sediments in the deeper waters of the project area (Chevron, 2010). There is also an ancient submerged coastline that extends through the Survey area along the 125 m isobath, which provides areas of hard substrate (SEWPaC, 2012a).

The Survey area is influenced by a number of regional circulation currents, including the Indonesian Throughflow, the Holloway Current and the Leeuwin Current (DEWHA, 2008a). The dominant circulation feature in the vicinity of the Survey area is the Holloway Current, driven by the Indonesian Throughflow, flowing along the outer North West Shelf (Chevron, 2010).

4.1 Biological Environment

4.1.1 Planktonic Communities

Seasonal influences are the primary drivers of planktonic primary productivity on the North West Shelf. The oligotrophic offshore waters of the Survey area generally support low productivity and low planktonic biomass (Chevron Australia, 2010). Peak primary production levels in the region (as indicated by a subsurface chlorophyll maximum associated with maximum phytoplankton levels) are below the mixed layer, at depths of approximately 70 m (NWSJEMS, 2007). Zooplankton abundance in the region is linked to phytoplankton abundance, and increases with depth due to the depth of the subsurface chlorophyll maximum (NWSJEMS, 2007).

Mass coral spawning in the region occurs in March and April each year, and may therefore coincide with the start of the Survey. However, currents in this region flow predominantly to the south-west, directing coral spawning slicks away from the Survey area (APASA, 2012).

4.1.2 Benthic Assemblages

The benthic habitat in the Survey area is largely characterised by soft, unconsolidated sediments (DEWHA, 2008a; Chevron Australia, 2010). Nearby benthic habitat surveys in similar water depths found that the area does not support ecologically isolated, sensitive, unique or significant habitats (Chevron Australia, 2010). The soft sediments of the Survey area are likely to support sparse communities of benthic epifauna, such as crustaceans, molluscs and sponges, typical of the North-west Province (DEWHA, 2008a; Chevron Australia, 2010).

The ancient submerged coastline along the 125 m isobath that passes through the Survey area provides areas of hard substrate and therefore may provide sites for higher diversity and enhanced species richness relative to surrounding areas of predominantly soft sediment (SEWPaC, 2012a). The substrate is thought to be representative of hard substrate throughout the North West Shelf region, and likely to support sponges, soft corals, crinoids, molluscs, echinoderms, and other benthic invertebrates (SEWPaC, 2012a).

4.1.3 Macrofauna

A search for matters of National Environmental Significance (NES) under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) was undertaken (SEWPaC, 2012b), and identified 10 threatened species and 17 migratory species (Table 4.1) that have the potential to occur in the Survey area.

Table 4.1 Threatened and Migratory species that may occur within the Survey Area

Scientific Name	Common Name	Status
Birds		
Macronectes giganteus	Southern giant-petrel	Endangered, Migratory
Mammals		
Balaenoptera musculus	Blue whale	Endangered, Migratory
Megaptera novaeangliae	Humpback whale	Vulnerable, Migratory
Balaenoptera bonaerensis	Antarctic minke whale	Migratory
Balaenoptera edeni	Bryde's whale	Migratory
Orcinus orca	Killer whale	Migratory
Physeter macrocephalus	Sperm whale	Migratory
Tursiops aduncus	Spotted bottlenose dolphin	Migratory
Dugong dugon	Dugong	Migratory
Reptiles		
Aipysurus apraefrontalis	Short-nosed seasnake	Critically Endangered
Chelonia mydas	Green turtle	Vulnerable, Migratory
Dermochelys coriacea	Leatherback turtle	Endangered, Migratory
Eretmochelys imbricata	Hawksbill turtle	Vulnerable, Migratory
Natator depressus	Flatback turtle	Vulnerable, Migratory
Caretta caretta	Loggerhead turtle	Endangered, Migratory
Sharks		
Rhincodon typus	Whale shark	Vulnerable, Migratory
Isurus paucus	Longfin mako	Migratory
Isurus oxyrinchus	Shortfin mako	Migratory

4.1.3.1 Sharks and Finfish

A number of sharks and pelagic finfish, including mackerel, tuna and billfishes, occur in the waters of the North-West Marine Region and would be expected to occur within the Survey area (DEWHA, 2008a). The continental slope in the vicinity of the Survey area (between the North West Cape and the Montebello Trough), is also recognised as the most diverse continental slope region for demersal fish communities in Australia, supporting more than 500 fish species, 76 of which are endemic (Last et al., 2005; SEWPaC, 2012a). The demersal fish species of the continental slope inhabit two distinct communities that are correlated with the upper slope (225-500 m deep) and the mid-

slope (750-1,000 m deep) (SEWPaC, 2012a), which coincide with the water depths of the survey area. Species present include narrow-ranging endemic species, such as anglerfishes, batfishes, brotulas, threadsails, smallscale smoothheads, narrowbarred grubfishes and monkfishes (Last et al., 2005). However, none of these narrow-ranging identified species are listed as protected fauna under the EPBC Act or the state protected species list (WA *Environmental Protection Act 1986*).

Three species of migratory shark may occur within the Survey area. These include the whale shark, longfin mako and the shortfin mako.

Whale sharks are widely distributed in oceanic and coastal waters and are known to undergo seasonal movements, and aggregations. An annual seasonal aggregation involving 300 – 500 individuals occurs off the Ningaloo Coast, approximately 130 km from the Survey area, between March and July, with numbers peaking in April. Due to the timing of the Survey, there is potential for whale sharks to pass through the Survey area on their southward migration to the Ningaloo Coast from Indonesian waters.

Longfin and shortfin mako sharks are widely distributed, oceanic species, whose Australian distribution is poorly known. However, given their wide-ranging distributions, low numbers may occur in the Survey area.

4.1.3.2 Seabirds

The Montebello/ Lowendal/ Barrow Island regions are considered to be significant habitat for seabirds and migratory shorebirds; however, no areas of significance to seabirds are found within the Survey area, and migratory flight paths across the Survey area are unlikely (Milton, 2003; Bamford et al., 2008).

The southern giant petrel was identified by the EPBC Protected Matters Search tool as having the potential to occur in the Survey area, although the species is not known to occur further north than the Tropic of Capricorn (23˚S), more than 400 km south of the Survey area. Therefore, the species is not likely to be encountered in the Survey area.

4.1.3.3 Marine Reptiles

Six species of EPBC-listed marine reptiles were identified as having the potential to occur within the Survey area The nearest significant habitat for these species is within the Montebello/ Lowendal/ Barrow Island regions, located outside the Survey area.

The short-nosed seasnake is listed as Critically Endangered under the EPBC Act, and is endemic to WA. The species prefers shallow water habitats (<10 m), such as reef flats or the shallow waters of the outer reef edge, and generally remain within 50 m of their preferred habitat (Guinea and Whiting, 2005). Due to the offshore location and water depths of the Survey area, it is unlikely that the species will be encountered.

Five species of marine turtle have the potential to occur in the Survey area: green, leatherback, hawksbill, flatback and loggerhead turtles.

The water depths of the Survey area and the lack of shallow or emergent features preclude the presence of important foraging habitat for marine turtles, and the Survey does not coincide with the nesting periods for any species. All five species are known to undertake long migrations between foraging grounds and nesting beaches. Given the distance of the Survey area from the nearest turtle nesting beaches (approximately 20 km from Montebello Islands), the presence of turtles would be limited to migrating turtles passing through the area during seismic operations.

It is also unlikely that significant numbers of turtle hatchlings will be encountered during the Survey. After leaving the nesting beaches, turtle hatchlings undertake oceanic migrations, travelling with the currents. The surface currents in this region are predominantly to the south-west from January through to June, away from the Survey area (APASA, 2012).

4.1.3.4 Mammals

Several species of cetacean are known to frequent the waters of the North-west Province bioregion, including the blue whale, listed as endangered, and the humpback whale, listed as vulnerable, under the EPBC Act.

Humpback whales migrate along the WA coastline from June to November between their winter feeding grounds and the breeding grounds of Camden Sound in north-west WA (SEWPaC, 2012c; DEH, 2005; Jenner et al., 2001). Northbound migration in the vicinity of the Survey area (Montebello Islands region) peaks in mid to late July. The Survey is scheduled to be undertaken outside of the peak northern migration period for humpback whales in the region, though may coincide with the beginning of the northern migratory period. Therefore, low to moderate numbers of humpback whales may occur in the Survey area.

Blue whales are thought to follow a similar migration pattern to humpback whales, migrating from their Antarctic summer feeding grounds to lower temperate/ tropical latitudes for mating and calving (Bannister et al., 1996). Pygmy blue whales have been recorded during acoustic logger surveys in the Barrow Island and Montebello Island region, with blue whales migrating over the shelf edge in the vicinity of the Survey area in low numbers between March and August (northbound) and October and December (southbound) (McCauley and Kent, 2009; RPS, 2010). Therefore, low numbers of blue whales migrating northward may pass through the Survey area during operations.

In addition to humpback and blue whales, five cetacean species listed as migratory under the EPBC Act were identified in the EPBC Search to potentially occur in the Survey area during the proposed survey period. These included Antarctic minke, Bryde's, killer and sperm whales and the spotted bottlenose dolphin. In addition, dugongs were identified in the EPBC Search to potentially occur in the area. The Survey area does not coincide with the preferred habitat for any of these species, and significant numbers are not expected to be encountered during the Survey.

4.2 Socio-Economic Environment

The area of the Survey area supports extensive petroleum exploration and production activities, including seismic exploration and the drilling of exploration, appraisal and development wells. A Simultaneous Operations (SimOps) Plan for the Survey will be in place prior to commencement of the activity, to ensure operations are able to proceed without incident. The SimOps Plan will also identify any other operations in the Survey area to be undertaken during the survey period.

The Survey area overlaps with several authorised commercial fishing zones. Consultation with AFMA, the WA Department of Fisheries and other fishing organisations, representatives and operators has identified that only low levels of commercial fishing may occur in the vicinity of the Survey area.

Consultation with the Australian Maritime Safety Authority (AMSA) identified that the Survey area does not overlap with recognised shipping lanes, although some local traffic may pass through the area.

The Survey area coincides with the Montebello Commonwealth Marine Reserve, classified as an IUCN Multiple Use Zone, IUCN Category VI. The reserve covers an area of 3,413 km^2 and provides for improved representation and protection of continental shelf environments and habitats, but allows for petroleum-related activities. The nearest State-managed marine protected areas are the Montebello Islands Marine Park and Barrow Island Marine Management Area, located approximately 15 and 20 km from the Survey area, respectively. The vessels will not enter the Barrow Island and Montebello Islands Marine Parks at any time during the Survey, unless required in an emergency, and the conservation values of the Montebello Commonwealth Marine Reserve, the

Montebello Islands Marine Park and the Barrow Island Marine Management Area are not likely to be affected by the Survey, given the temporary and localised nature of the likely impacts associated with the Survey.

5.0 ENVIRONMENTAL HAZARDS AND CONTROLS

In accordance with Regulation 13(3) and (3A) of the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009, an environmental risk assessment has been undertaken to evaluate significant impacts and risks arising from operational activities, unplanned events (emergency events) and event response activities.

Table 5.1 details routine and non-routine Survey operations, that may give rise to environmental hazards, and the controls in place to mitigate risks and impacts to as low as reasonable practicable (ALARP), and to an acceptable level.

Table 5.1 Survey Operational Activities, Potential Environmental Impacts and Controls

Activities (Hazards)	Potential Environmental Impact(s)	Management Controls
Vessel Presence in Operational area		
Survey and support vessels in the operational area, towing seismic equipment	Collision/ entanglement with large marine fauna resulting in injury or death Potential disruption/ interaction with commercial fishing operators, or commercial shipping vessels in the area	Where cetaceans and whale sharks are sighted, a 300 m separation distance will be maintained by all vessels, in accordance with EPBC Regulations 2000 Division 8.1. In the event of a cetacean approaching the survey vessel, the vessel will travel at slow speed of < 6 knots while towing seismic equipment to create and maintain the separation distance required. A 24 hour visual, radio and radar watch will be maintained for vessels in the vicinity of the operational area. Minimum lighting required for safety and navigational purposes, in accordance with the Navigation Act 1912 (Marine Orders Part 30 [Prevention of Collisions]), is onboard and operational. Vessel presence shall be communicated to other users via a Notice to Mariners. Consultation undertaken with relevant stakeholders as per the Engagement Plan SimOps Plan in place prior to Survey commencement.
Underwater Noise		
Seismic acoustic source in Operation Vessel thrusters/ Engine operation	Physiological damage to marine fauna Disruption to behaviour patterns to marine fauna	Seismic operations are compliant with EPBC Act Policy Statement 2.1 (DEWHA, 2008b) and EPBC Approval Conditions for the Survey (EPBC Ref: 2012/6648). No discharge of seismic source within 20 kilometres of the Montebello Islands, in accordance with EPBC Approval conditions (EPBC Ref: 2012/6648, Condition 4). SimOps Plan in place prior to Survey commencement.
Noise		
Helicopter transfers	Disruption to behaviour patterns of marine fauna	Helicopter must not fly lower than 500 m or within a 500 m radius of a cetacean or whale shark, if safety is not compromised, in accordance with EPBC Regulations 2000 Division 8.1.
Solid and Liquid Waste		
Routine discharge of grey water, treated sewage and putrescible wastes	Temporary and localised reduction in water quality associated with increase in nutrients	Offshore discharge of food wastes macerated to <25 mm only when > 3 nm from land when vessel is moving, in accordance with MARPOL 73/78. Macerator maintained as per the Vessel's Preventative Maintenance Schedule. Vessels have an IMO-approved Sewage Treatment Plant onboard, and where applicable, vessels will

Activities (Hazards)	Potential Environmental Impact(s)	Management Controls
		have a Current International Sewage Pollution Prevention Certificate. Offshore discharge of grey water and treated sewage only when > 3 nm from land when vessel is moving, in accordance with MARPOL 73/78.
Routine discharge of treated oily water	Temporary and localised reduction in water quality	Vessels > 400 T will have an oil-water separator onboard, hold a current IOPP Certificate and maintain an Oil Record Book, in accordance with MARPOL 73/78. Oily water contained onboard and disposed at a licensed facility; or discharged to marine environment only when concentration <15 ppm and vessel is moving, in accordance with MARPOL 73/78. Oily water discharge quality automatically monitored and redirected to oil-water separator if concentration exceeds 15 ppm.
Generation of solid and hazardous wastes and accidental loss to the marine environment	Temporary and localised reduction in water quality. Ingestion or entanglement of marine fauna	Vessels > 100 T (or certified for >15 persons onboard) have a Waste Management Plan, in accordance with MARPOL 73/78. Vessels >400 T (or certified for >15 persons onboard) will have a Garbage Record Book, in accordance with MARPOL 73/78. Bins available for the segregation of waste as per the Waste Management Plan, and bins for potentially wind-blown waste are fitted with cargo nets. Solid and hazardous wastes generated during the Survey are segregated onboard the vessels and are incinerated (using an IMO-approved incinerator, on survey vessel only) or appropriately disposed of at a licensed onshore facility.
Cooling water discharge	Temporary and localised reduction in water quality associated with increase in temperature	Cooling water system and engines maintained as per the Preventative Maintenance Schedule.
Atmospheric Emissions		
Vessel operation Power generation Incineration of solid wastes	Temporary and localised reduction in air quality Increased greenhouse gas emissions to the atmosphere	Vessel engines certified and maintained according to manufacturer's specifications and vessels hold current IEEC and SEEMP is onboard, where applicable. Incinerator certified and maintained according to manufacturer's specifications, and volume/type of waste is recorded in Vessel's Garbage Management Book, where applicable. Fuel usage for the Survey is reported.

Activities (Hazards)	Potential Environmental Impact(s)	Management Controls
Lighting		
Survey/ support vessel presence in the operational area.	Disruption to behaviour patterns of marine fauna	Vessels will not enter the Barrow Island or Montebello Islands state-managed marine parks, unless required in an emergency.
Quarantine		
Survey/ support vessels in the operational area with IMS Deployment and operation of in-sea equipment with potential biofouling Ballast water exchange	Introduction of IMS to the area	Where applicable vessels will have AQIS clearance to operate in Australian waters, and records of submission of QPAR to AQIS prior to entry. All vessels to maintain a current anti-fouling coating that complies with the requirements of Annex 1 of the International Convention on the Control of Harmful Anti-Fouling Systems on Ships. Streamers cleaned regularly (as required/applicable) during the Survey to reduce biofouling. No exchange of ballast water <12 nm from land or in water depths of < 200 m, as per Australian Ballast Water Requirements, 2001.
Loss or Damage to Streamer		
Streamers deployed in operational area Damage to fluid filled streamer stretch section	Potential hazard to navigation, disruption to other users Temporary and localised contamination of the marine environment	Damaged or leaking stretch sections (when detected) will be recovered as soon as is practical and repaired or replaced to prevent further leakage. Weather conditions to be monitored and avoidance of any conditions that may increase risk of streamer loss (i.e. cyclones). Streamers cleaned regularly (as required/applicable) to reduce drag. Streamers equipped with streamer recovery devices to avoid sinking and assist with recovery and tailbuoy tracking. Support vessel on site at all times to help with monitoring and recovery of streamer (where safe to do so).
Single Point Failure		
Survey/ support vessel operations Storage of hazardous materials Mechanical breakdown	Temporary and localised contamination of the marine environment.	Vessels will have a Shipboard Oil Pollution Emergency Plan (SOPEP) and survey vessel will undertake a SOPEP spill drill within one week of survey commencing. Hazardous materials stored within contained areas to prevent discharge to sea. Spill kits maintained onboard and kept fully stocked. Spill cleanup will commence immediately.

Activities (Hazards)	Potential Environmental Impact(s)	Management Controls
Loss of Containment during Diesel Transfers		
Vessel to vessel refuelling operations	Temporary and localised contamination of the marine environment.	Vessel to vessel refuelling in accordance with Contractor's Bunkering Procedures. Refuelling only to occur when >12 nm from land.
Damage to Vessel Resulting in Loss of Containment		
Survey and support vessels in operational area.	Temporary and localised contamination of the marine environment; Potential toxicity to marine fauna.	See 'Vessel Presence in Operational area' for prevention measures Undertake desktop Aperio EP response exercise prior to implementation of EP to demonstrate ability to respond. Implement response activities and the Survey Action Plan in the event of fuel loss resulting from vessel collision, where required.

6.0 MANAGEMENT APPROACH

Chevron has developed a tiered series of Systems, Plans, Procedures and Work Instructions to ensure that appropriate management strategies are implemented as required to reduce the risk of environmental disturbance from survey operations to ALARP and an acceptable level.

These environmental practices and procedures are documented in the corporate management manuals developed between Chevron and Survey Vessel Operators, outlined in project specific documents detailed below:

- Operational Excellence Management System (OEMS)
- Australian Business Unit (ABU) Emergency Management Process
- HSE Manual
- Emergency and Vessel Procedures
- Shipboard Oil Pollution Emergency Plan (SOPEP)
- Waste Disposal Procedures
- Survey Bridging Document
- Survey Vessel Project Plan
- Survey Environment Plan (including an Oil Spill Contingency Plan)
- Chevron ABU Emergency Response Plan (ERP)
- Chevron ABU Marine Oil Pollution Plan (MOPP)
- ABU Incident External Notification and Reporting Requirements

The Implementation Strategy as documented in the Aperio 3D Marine Seismic Survey EP will be enacted in accordance with Chevron Australia's Operational Excellence Management System (OEMS). Chevron's OEMS is aligned to ISO 14001:2004 and key components of the management system that will be implemented are included in Table 6.1.

The implementation strategy details the management approach for both routine operations and incident response activities.

Table 6.1 Summary of Key Implementation Measures for the Management Approach of the Aperio 3D Marine Seismic Survey

Key Implementation Measures	Brief Description
Roles and Responsibilities	Responsibilities are defined for personnel involved in the projects implementation for both planned activities and unplanned events.
Training and Competency	Detailed inductions are provided to educate personnel of specific environmental risks. These inductions will include: ♦ Survey induction ♦ Environmental roles and responsibilities training ♦ Spill response inductions and training ♦ Marine Fauna Observer inductions
Routine Monitoring and Reporting	Chevron has a number of internal and external environmental reporting requirements.

	Routine reporting provides information regarding Chevron's environmental performance.
Incident Reporting	Chevron has a number of processes dedicated to incident investigation and reporting. Incident reporting ensures that the appropriate regulator is notified in the event of an incident.
Compliance Assurance	Auditing and inspections are undertaken to identify gaps in management of risk and assign corrective actions to responsible personnel. A Pre-Start EP Compliance Inspection will be undertaken to ensure all requirements for the Survey are in place. A Weekly EP Compliance Inspection will be undertaken to ensure management measures are being implemented appropriately.
Documents and Records	Chevron has prescribed storage and maintenance periods for records and documents.
Environment Plan Review	Chevron has processes in place to ensure the review of an Environment Plan in accordance with relevant legislation.

7.0 STAKEHOLDER CONSULTATION

In compliance with Regulation 11A of the OPGGS (Environment) Regulations 2009 the following stakeholders and interested parties were identified, and have been consulted as part of the stakeholder engagement process for the Survey:

Commonwealth Government Department or Agency

- Australian Maritime Safety Authority (AMSA)
- Department of Broadband, Communication and the Digital Economy (DBCDE)
- Department of Defence (Australian Hydrographic Service)
- Department of Defence (Defence Property Services Group)
- National Native Title Tribunal
- National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA)
- Department of Sustainability, Environment, Water, Population and Communities
- (SEWPaC)

WA State Government Department

- Department of Transport

Fisheries – Government and Commercial

- Australian Fisheries Management Authority (AFMA)
- Australian Southern Bluefin Tuna Industry Association
- Commonwealth Fisheries Association
- WA Department of Fisheries

- JAMACLAN Marine Services, representing the following:
  - Austral Fisheries
  - Seafresh Holdings/ Westmore Seafoods
  - A. Raptis and Sons
  - Shark Bay Seafoods
  - North West Slope Trawl Fishery
  - Western Deepwater Trawl Fishery (part of)
- K. J. Lockwood and M.J. Manifis (T/A Western Offshore Fishing Charter)
- Old Brown Dog Pty Ltd
- Pearl Producers Association
- Raymond W Davies (and UpTop Fisheries Pty Ltd)
- Western Australian Fishing Industry Council (WAFIC)
- Western Rock Lobster Council

Fisheries – Recreational

- Charter Boat Owners & Operators Association (including individual operators)
- Coral Bay Discoveries
- Exmouth Game Fishing Club
- Montebello Island Safaris
- Nickol Bay Sport Fishing Club
- Onslow Visitor Centre
- Port Hedland Game Fishing Club
- RecFishWest
- Top Gun Charters

Emergency Response Organisation

- Australian Marine Oil Spill Response Centre (AMOSC)

Stakeholders were engaged two months prior to the submission of the EP, in order to provide a reasonable consultation timeframe. A Communication and Engagement Plan is in place for each stakeholder to determine the level, type and schedule of initial and ongoing engagement requirements.

The Communication and Engagement Plan covers both initial and ongoing stakeholder engagement and covers both planned activities and unplanned events. Chevron will maintain communications with identified stakeholders as required ensuring that they are informed of any aspects of the Survey or changes that may affect other users of the area.

8.0 REFERENCES

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