

**Tasmanian Drilling Services
Environmental Management Plan**

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1.1 PROJECT PROFILE

Refer to HSE&SR Management Plan

2.1 AIR QUALITY

Background

A risk to the air quality is through generation of dust by vegetation removal and vehicle movement. Dust poses a risk to vegetation. It can also be a nuisance to the workforce and can affect visibility. With adequate monitoring and controls such as watering, dust is considered to be a low risk.

Management Requirements

- Dust is not a consideration for this project.
- Access to site is provided by TasPorts on sealed roads.
- All work is completed water side.

2.2 NOISE MANAGEMENT

Background

Drilling equipment can generate noise and vibration. Noise is considered to be a low environmental risk on the basis that the equipment is will be operated in the water, which will act as a natural dampener. Where equipment is generator operated there can be additional noise such as through the use of air compressors.

Management Requirements

- Noise levels will be maintained within safe working limits.
- Plant, vehicles and equipment will be regularly maintained in accordance with Tasmanian Drilling Services maintenance system.
- Mufflers will be installed on all hired compressors. It will be requested of equipment hire agencies that equipment will operate at levels of less than 85dBA.
- Work will only be performed during agreed hours to ensure that client environmental consent conditions are met.
- Where there is a noise sensitive environment, the TasPorts will be requested to identify the maximum noise levels that are permitted to address sensitive receptors.

2.3 WASTE MANAGEMENT

Background

Waste generated

The activities undertaken will generate waste materials such as plastics, containers, wood, paper, domestic waste and liquid waste (waste oil). These wastes require management as they have the potential to contaminate soil, water and the atmosphere.

Hydrocarbon waste materials pose the greatest risk in terms of contamination to groundwater, surface water and the soil, through the accidental spillage of these products and other chemicals. These materials include waste oil, used grease, oily rags, used oil filters and hydraulic hoses. Spillage levels would generally be less than 20 litres.

One of the best ways of managing waste is to eliminate it through methods such as procuring products that generate less waste, assessed in terms of the packaging that may accompany a product or how efficiently a product or its container can be used. All products will be taken to site in the smallest container appropriate to the product being used.

Waste Facilities

Rubbish containers are provided to ensure that all materials and products brought to the site can be removed from the site, so that there can be a zero waste impact. To optimise these wastes are identified as:

- Putrescibles;
- Recyclables; and
- Hydrocarbon impacted.

Each waste stream is stored separately for appropriate disposal. Disposal is completed at refuge stations or at the direction of the client.

Management Requirements

- All wastes will be collected and stored in designated waste receptacles.
- Sufficient bins, recycling and general waste collection areas, shall be established to facilitate the management of waste.
- Planned inspections and site inspections shall include waste disposal facilities.
- Materials contaminated by hydrocarbons will be collected for disposal in an approved disposal area.
- All work sites will be regularly monitored for litter accumulation. Prior to the finalisation of daily activities, a review shall be completed to ensure that litter is collected. The circumference of the site, shall be checked to ensure that there is no litter entrapped in the fencing, hoarding or pollution control devices.
- Oily rags will be separated and taken off-site with hydrocarbon contaminated material
- Chemicals including waste grease and oil must be stored in bunded areas with lids or under cover to prevent spillage.
- Records / receipts for waste management shall be retained. Records should stipulate waste type, mass / volume, calculations, any assumptions made and how the waste is managed (re-used, recycled, disposal location).
- There shall be no burning of waste.
- Facilities must be designed and maintained to prevent release of waste to the environment.

2.4 SURFACE AND GROUNDWATER MANAGEMENT
Background
Surface water

Surface waters can be impacted by uncontrolled release of hydrocarbons. Booms will be available to contain any spills of hydrocarbons.

Groundwater

Drilling activities could affect the groundwater on the site. Location of known aquifers etc will be provided by TasPorts as part of the drill plans. Water make will be calculated as part of drilling to identify if there is intrusion on an aquifer.

Management Requirements

- Hydrocarbon spill kits are retained on the drilling rig and the dredge. These include booms, soaker pads etc.. Marine bund installed around the perimeter of the barge.
- Hydrocarbon stores are all bunded.
- Diesel fuel (marine side) is contained in a double bunded tank.
- V-notch weirs are available for measuring water flow rates
- All drilling is fully cased.

2.5 HYDROCARBON AND CHEMICAL MANAGEMENT

Background

Hazardous materials may be required to execute Tasmanian Drilling Services activities. These materials have the potential to cause atmospheric, soil or water contamination and could potentially pose risks to human health and the environment.

The most effective way of managing hazardous substances is to eliminate or substitute them with less hazardous alternatives where practicable. A hazardous substances register has been prepared and maintained to ensure that the least hazardous substances are used.

Management Requirements

Storage

- Chemicals shall be stored in a bunded locations to prevent uncontrolled spillage.
- Generators / compressors and water pumps shall be situated in bunded areas or shall be self-bunded to prevent loss of fuels and oils.

Refuelling

- Fuelling of all vehicles and equipment will be carried out with an operator in attendance at all times. Refuelling hose has an auto cut-off switch (deadman).
- Refuelling of plant will be conducted in a way that minimises spillage.

Waste

- Refer to waste in 2.3.

Spill Response

- All spills shall be cleaned up immediately and contaminated materials disposed as referenced in section 2.3.
- Where safe to do so, dry clean up shall be used in preference to other spill response measures.

General

- A safety data sheet register is available.
- Chemicals will be managed as per the Materials Safety Data Sheets
- Where a TasPorts has “banned” a chemical from site, it shall not be taken to site.
- Drilling is sumpless and no chemicals will be used. The water from the surrounding environment that the drill is placed in, shall be used as drilling fluid. There will be no weight placed on the drilling fluid. All “chipping” from the drill will be allowed to settle back to the ocean floor.

2.6 LAND DISTURBANCE AND REHABILITATION

Background

The only land disturbance is associated with the drilling activity itself. All drilling is based on the ocean environment and chip from the drill is allowed to settle back to the ocean floor.

Management Requirements

LAND DISTURBANCE

- Drilling is sumpleless and weightless (no muds).
- All chips generated from the drilling process are allowed to settle back to the marine floor level.
- There should be no rehabilitation activities required for this drilling.

WEEDS / SEEDS

- Weed hygiene measures within the project area have been developed and implemented where required.
- Weed and seed inspections are completed on equipment as part of mobilisation / demobilisation activities. Machinery shall be washed down prior to transport to ensure that weeds and seeds are not trafficked from one area to another.
- Where requested by TasPorts, clearance certificates can be provided.