Modification Notice - Regulation 22

Interest Holder	Imperial Oil and Gas	EMP Title	Carpentaria Pilot Project Imperial Oil & Gas EP 187	Unique EMP ID No.	IMA 1-5	Mod No.	5	Date	May 2026
Brief Description	This Reg 22 provides notification under the Petroleum (Environment) Regulations 2016 NT that the Rehabilitation Management Plan (RMP) for IMA 1-5 has been updated by a Suitably Qualified Person (Paul Fox) to meet Ministerial Condition 14. Key updates include: • Additional SQP (Paul Fox) added to Table 1 – 25 years' experience as author of this revision • Enhanced monitoring methods – 50m transects, quadrats, drone imagery for better accuracy • New Rehabilitation Management Zones – separates linear infrastructure, sites, and land assets • Refined success criteria – 70% perennial cover, 80% flora diversity, and fauna evidence • Extended monitoring duration – 3 years post-wet season instead of annual dry season All existing management controls in the approved EMP remain unchanged.								
Geospatial Files Included?	NA								

Does the proposed change result in a new, or increased, potential or actual	If an INCREASE in an existing potential or actual	Does the proposed change require additional	Has additional stakeholder engagement been conducted?	Does it require additional environmental performance	Does it affect compliance with Sacred Site Authority Certificates?	Does it affect current rehabilitation, weed, fire, wastewater,	Will the environmental outcome continue to be achieved and will the impacts and

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environmental impact or risk?	environmental impact or risk is it provided for in the approved EMP?	mitigation measures to be included?		standards and measurement criteria?		erosion and sediment control, spill or emergency response plans?	risks be managed to ALARP and acceptable?
No	No	No	No. Not applicable.	Yes	No. Not applicable.	No.	Yes

Current EMP Text	Amended EMP Text
	Note: Added new section in plum. **1. Introduction** This Rehabilitation Management Plan (RMP) pertains to Imperial Oil & Gas A Pty Ltd (Imperial) activity in Exploration Permit (EP) 167/168 approved under the *Northern Territory Petroleum (Environment) Regulations 2016*. It addresses land disturbances associated with activity approved under Environmental Management Plan (EMP) IMA 1-5. This RMP should be considered alongside the below relevant plans: • **IMA 1-5 EP167/168** – the EMP has information on the work program, activity and risks, how environmental risk will be managed, and indicators of environmental management success. • **EP167 & Ep168 Environmental Assessment Report (EAR) 2022 – 2023** Seismic and Drilling Program. Fox & Co Environmental. IG-07 (May 2022).

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- **Weed Management Plan (WMP) in IMA 1-5 (EMP Appendix 09)** – the WMP has information on known and/or priority weeds species (including weed alert species), mitigation measures and recording and reporting procedures.

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12 Rehabilitation Management Plan

This rehabilitation plan has been prepared and reviewed by suitably qualified persons to be appropriate to the scale and nature of the Activity as described in the EMP.

Table 12.1—1: RMP Suitably Qualified Persons Name	**Qualification(s)**	**Experience**
Charles Dack	Bachelor of Engineering and Master of Environmental Law	+8 years
Damian Ogburn	PhD (Environmental Science)	47 years
Peter Shaw	B.Sc. (Hons), LL.B	40 years

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1.1 Rehabilitation Management Plan

This rehabilitation plan has been prepared and reviewed by suitably qualified persons appropriate to the scale and nature of the Activity as described in the EMP.

A suitably qualified person is “A person who has professional qualifications, training or skills or experience relevant to the nominated subject matters or tasks and can give authoritative assessment, advice and analysis about performance relevant to the subject matters using relevant protocols, standards, methods or literature or conduct tasks in accordance with requirements” (p.118 of *the Code*). In addition, a suitably qualified person will conduct the final rehabilitation assessment and prepare documentation for inclusion with a submission to the Minister for approval.

Name	**Qualification(s)**	**Experience**
Charles Dack	Bachelor of Engineering and Master of Environmental Law	+8 years

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Current EMP Text	Amended EMP Text		
	Damian Ogburn	PhD (Environmental Science)	47 years
	Peter Shaw	B.Sc. (Hons), LL.B	40 years
	Paul Fox	B. Sc. (App. Env) (Hons)	25 years Paul has over 25 years of experience working within professional environmental consulting firms as an ecologist and environmental scientist. Paul has extensive experience in the Northern Territory undertaking surveys for gas exploration projects. Paul is currently undertaking a 3-year weed and rehabilitation monitoring program for Santos on EP161 (Tanumbirini) located approximately 130km east-southeast of Daly Waters, Northern Territory. Santos undertook a 2D seismic exploration program in 2024, which included 12 linear seismic lines covering approximately 240km. The program is being undertaken in accordance with the approved RMP. Paul has previously undertaken numerous ecological assessments against Final Acceptance Criteria (FAC) with associated reporting for rehabilitated Shell QGC

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	infrastructure. Rehabilitated infrastructure has included well pads, frac ponds, campsites and gravel pits.
12.1 Purpose This Rehabilitation Management Plan (RMP) has been developed to meet the requirements set out in Section A.3.9 of the *Code of Practice: Onshore Petroleum Activities in the Northern Territory (the Code)* [DENR, 2019]. All rehabilitation activities will be conducted following *the Code*.	**1.2 Purpose** This Rehabilitation Management Plan (RMP) has been developed to meet the requirements set out in Section A.3.9 of the Code of Practice: Onshore Petroleum Activities in the Northern Territory (the Code) [DENR, 2019]. All rehabilitation activities will be conducted following the Code. This RMP has been updated by Paul Fox (Principal Environmental Scientist and Director of Fox & Co Environmental Pty Ltd) to meet Ministerial Condition (MC) 14 for IMA1-5.
12.2 Scope This RMP applies to new land disturbance caused by activities under EMP IMA1-4 and its revisions, which include low-disturbance seismic survey lines (SSL), new access tracks, well pads, gravel pits, microseismic locations, and flowline corridors.	**1.3 Scope** This RMP applies to new land disturbance caused by activities under EMP IMA1-5 and its revisions, which include low-disturbance seismic survey lines (SSL), new access tracks, well pads, gravel pits, microseismic locations, and flowline corridors.
12.3 Description of the Existing Environment The Project Area is characterised by the following elements: • Very flat terrain with minimal vertical relief.	**2 Description of the Existing Environment** The Project Area is characterised by the following elements: • Very flat terrain with minimal vertical relief.

Current EMP Text	Amended EMP Text
• A limited drainage network and a lack of well-formed channel beds at this higher catchment elevation. • An absence of permanent surface water across most of the area. • Depauperate topographic features such as rocky outcrops, cliffs, caves, and gorges that are known to provide habitat niches for specific threatened species that may potentially occur and other macrofauna. Mapped streams in the Project Area have no defined banks or stream beds and no evident riparian vegetation where access tracks and flowlines alignments occur. Overland flow would be concentrated through these areas in the rainy period of the Wet Season. The environmental baseline assessment for the Project Area has used the CSIRO Land Systems (LS) mapping methodology to identify the broad landscape features of this very flat terrain and validated them using georeferenced imagery acquired during the environmental [Fox & Co Environmental, 2021] and archaeological field survey **(Appendix 01.01).**	• A limited drainage network and a lack of well-formed channel beds at this higher catchment elevation. • An absence of permanent surface water across most of the area. • Depauperate topographic features such as rocky outcrops, cliffs, caves, and gorges that are known to provide habitat niches for specific threatened species that may potentially occur and other macrofauna. Mapped streams in the Project Area have no defined banks or stream beds and no evident riparian vegetation where access tracks and flowlines alignments occur. Overland flow would be concentrated through these areas in the rainy period of the wet season. The environmental baseline assessment for the Project Area has used the CSIRO Land Systems (LS) mapping methodology to identify the broad landscape features of this very flat terrain and validated them using georeferenced imagery acquired during the environmental [Fox & Co Environmental, 2021] and archaeological field survey (EMP IMA 1-5. Appendix 01.01).
	Note: Added new section in plum. **3 Rehabilitation Framework** **3.1 Rehabilitation Objectives** Imperial's rehabilitation objectives are as follows: • Areas used for the Activity are rehabilitated consistent with surrounding land uses and ecological values.

Current EMP Text	Amended EMP Text
	• No uncontrolled priority or declared weeds spread or introduced due to the Regulated Activity. • No ongoing land instability or erosion from areas cleared during the conduct of the Regulated Activity. • Rehabilitated areas are safe for continued land use.
12.4 Planning and Site Selection The Land Systems (LS) identified in the Project Area provide an important initial assessment in defining movement corridors for well pads, flowlines and access tracks. Civil engineering requirements for soil stability and hydrology allow LS areas with unsuitable soil types and hydrology to be excluded. Significant differences in soil types in the LSs present in the Project Area determines the type of vegetation present and may impact rehabilitation trajectories. Soil types found in the various LSs occur as a hydrological and topographic sequence of soil development from higher to lower elevations on this flat terrain that is at the top of the Elsey Creek catchment. Soils in the LSs range from: • Rudosols in the Bullwaddy LS at higher elevations. • Kandosols in the Forrest LS, Brolga LS and Banjo LS at mid-elevations. • Tenosols in the Mering LS at low elevations. • Vertosols in the Larrimah LS and Western LS at low elevations.	**3.2 Planning and Site Selection** The Land Systems (LS) identified in the Project Area provide an important initial assessment in defining movement corridors for well pads, flowlines and access tracks. Civil engineering requirements for soil stability and hydrology allow LS areas with unsuitable soil types and hydrology to be excluded. Significant differences in soil types in the LSs present in the Project Area determines the type of vegetation present and may impact rehabilitation trajectories. Soil types found in the various LSs occur as a hydrological and topographic sequence of soil development from higher to lower elevations on this flat terrain that is at the top of the Elsey Creek catchment. Soils in the LSs range from: • Rudosols in the Bullwaddy LS at higher elevations. • Kandosols in the Forrest LS, Brolga LS and Banjo LS at mid-elevations. • Tenosols in the Mering LS at low elevations. • Vertosols in the Larrimah LS and Western LS at low elevations. Due to the varied nature of ground disturbance and infrastructure involved in the Activity, rehabilitation will differ across the project area. The Project Area is refined into three Rehabilitation Management Zones (RMZ).

Current EMP Text	Amended EMP Text

	• Linear infrastructure:
	  ○ Access tracks
	  ○ Gas and water flowlines
	  ○ Pipelines, pipework
	
	• Sites:
	  ○ Well pads
	  ○ Campsites
	
	• Land Assets:
	  ○ Groundwater bores

12.5 Seismic Survey Line Rehabilitation Monitoring The seismic survey will be conducted during the initial phase of the Activity. Following seismic acquisition, Seismic Survey Lines (SSL) that are not to be used for access tracks will be closed to vehicle access and will be monitored for progress of ongoing rehabilitation. Identified Land Systems along the SSL are used to inform rehabilitation monitoring because they enable stratified sampling to monitor vegetation recovery. This method is particularly useful for monitoring rehabilitation on long narrow (4 m) wide SSL to ensure specific LS are sampled adequately and help obtain better estimates of rehabilitation trajectories of SSL in each LS.	*Note:* • *Strikethrough text in plum indicates removal* 3.3 Seismic Survey Line Rehabilitation Monitoring The seismic survey will be conducted during the initial phase of the Activity. Following seismic acquisition, Seismic Survey Lines (SSL) that are not to be used for access tracks will be closed to vehicle access and will be monitored for progress of ongoing rehabilitation. Identified representative Land Systems along the SSL will be used to inform rehabilitation monitoring because they enable stratified sampling to monitor vegetation recovery. This method is particularly useful for monitoring rehabilitation on long narrow (4 m) wide SSL to ensure specific LS are sampled

Current EMP Text	Amended EMP Text
Frequent extensive bushfires occur in the Sturt Plateau, including at the pastoral stations on EP 167 and 168. Wet Seasons with average or above average rainfall result in rapid regrowth of tussock grass and understorey vegetation.	adequately and help obtain better estimates of rehabilitation trajectories of SSL in each LS. Representative analogue sites will be monitored prior to initial line preparation works. Number of sites selected in each LS will be proportionate to the level (area) of impact of each LS. Analogue sites will establish a pre-clearance baseline level of landscape condition to compare against adjacent rehabilitated areas. ~~Frequent extensive bushfires occur in the Sturt Plateau, including at the pastoral stations on EP 167 and 168. Wet Seasons with average or above average rainfall result in rapid regrowth of tussock grass and understorey vegetation.~~
12.6 Rehabilitation Sampling and Analysis Plan Land rehabilitation is monitored using standard analogue sites and impact sites for comparative analysis. Analogue (non-disturbance) sites are adjacent to impact (disturbed) sites in this land-disturbing activity. • For larger disturbances in a single area, such as well pads, focused repeat sampling may be undertaken (in space and time) in impact sites and comparison with analogue sites in adjoining landscape of undisturbed vegetation, using a range of standard sampling measurement criteria and analytical techniques (georeferenced imagery, quadrat counts, canopy structural analysis etc.) within the impact and adjoining analogue sites. • For long, narrow (4 m) corridors of low-impact disturbance (rootstock preserved, and large trees avoided) such as 4 m wide seismic survey lines (SSL), imagery provides the most efficient, least impacting, practicable, and safe means of demonstrating	*Note: Strikethrough text in plum indicates removal* **3.3.1 Rehabilitation Sampling and Analysis Plan** Land rehabilitation is monitored using standard analogue sites and impact sites for comparative analysis. Analogue (non-disturbance) sites are adjacent to impact (disturbed) sites in this land-disturbing activity. • Seismic survey lines (SSL) and infrastructure sites will undergo ~~for larger disturbances in a single area, such as well pads,~~ focused repeat sampling ~~may be undertaken (in space and time) in~~ at impact sites and ~~comparison with~~ adjacent analogue sites in adjoining landscape of undisturbed vegetation, using a range of standard sampling measurement criteria and analytical techniques (georeferenced imagery, transects with quadrat ~~counts~~ assessments, canopy and shrub layer structural analysis etc.) within the impact and adjoining analogue sites. • Rehabilitation vs Analogue comparison sites to be established at nominated rehabilitation sites.

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rehabilitation success on 2D SSL. Impact areas can be directly compared to the adjoining analogue site by visual inspection post-Wet Season. The use of the LS framework provides a valuable method for monitoring rehabilitation on SSL using stratified sampling to ensure specific LS are sampled adequately and helps obtain precise estimates of rehabilitation trajectories of SSL in each LS. This technique is a probability sampling method, also known as stratified random sampling.	• Vegetation assessment sites to be established to be representative of landforms and vegetation communities intersected by the seismic lines.
	
	• 50 m transects to be established at nominated rehabilitation sites, with adjacent 50m transects for the analogue sites. Site dimensions are 50 x 5 m transect (i.e. to cover the width of the seismic line). Analogue sites should be parallel and positioned 15-20 m from the rehabilitation site to allow direct comparison against the rehabilitation measurement criteria. The following data to be recorded at each transect:
	
	  • Start and end point photographs with GPS locations at start and end points.
	  • 5 x 1m2 quadrats placed at 5m intervals along the 50m transect.
	  • Each quadrat assessed for % groundcover, perennial species, organic litter, woody debris, bare ground and natural rocks/cobbles. Photos taken of each quadrat.
	  • Total perennial cover along the 50m transect.
	  • Drone photos taken at the 25m mark (centre point) of both rehabilitation and analogue transects.
	  • Species richness recorded at both sites in the 50m x 5m area.
	  • Evidence of native fauna use recorded.
	  • Evidence of other impacts such as cattle impacts were recorded.
	  • Weed species recorded if present
	
	• Photographs will be taken at every waterway and/or drainage line crossing point. Photographs to be taken looking across, upstream and downstream

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	and assessments to be undertaken on the erosion status (if any) at each crossing point. • Line Visibility: ~~For long, narrow (4 m) corridors of low-impact disturbance (rootstock preserved, and large trees avoided) such as 4 m wide seismic survey lines (SSL),~~ Aerial imagery analysis (satellite imagery and drone footage at impact/analogue sites) will also provide an efficient, ~~least~~ zero impact~~ing~~, practicable, and safe means of providing supporting information ~~demonstrating~~ for rehabilitation success on 2D SSL. Impact areas can be directly compared to the adjoining analogue site by visual inspection ~~post-Wet Season~~ during each monitoring period. The use of the LS framework provides a valuable method for monitoring rehabilitation on SSL using stratified sampling to ensure specific LS are sampled adequately and helps obtain precise estimates of rehabilitation trajectories of SSL in each LS. This technique is a probability sampling method, also known as stratified random sampling.
12.8 Rehabilitation Goals Imperial A's environmental rehabilitation goals are high-level standards. Imperial A will demonstrate appropriate environmental compliance, and that the proper rehabilitation level has been met. Imperial A's rehabilitation goals are to ensure that: • Wastewater residue is removed from the site. • Solid waste (drilling cuttings material) that does not meet the criteria for unconfined burial (inert landfill) is removed from the site. • All petroleum activity infrastructure is removed from the site.	*Note: Strikethrough text in plum indicates removal* **3.5 Rehabilitation Goals** ~~Imperial A's environmental rehabilitation goals are high-level standards.~~ Imperial will demonstrate appropriate environmental compliance, and that the proper rehabilitation level has been met. Imperial's rehabilitation goals are to ensure that: • Wastewater residue is removed from the site. • Solid waste (drilling cuttings material) that does not meet the criteria for unconfined burial (inert landfill) is removed from the site.

Current EMP Text	Amended EMP Text
• All rubbish and waste are removed from the site. • Introduced or spread weeds caused by the Activity are removed. • All disturbed areas are returned to a safe and stable landform, re-shaping them as close as possible to the surrounding environment. • Stockpiled topsoil is re-spread. • Native vegetation is re-established, enabling corridors to become ecologically integrated into the surrounding landscape. • The monitoring and reporting of the rehabilitation progress following the closure of an area is in compliance with the *Rehabilitation Plan Guide for Surface Disturbance: Onshore Petroleum Exploration* [DEPWS, 2020]. • All management concerns from land managers/owners are addressed. Following completion of the rehabilitation works, Imperial A will submit the final Environmental Reports to DEPWS along with the s14 application to release the Rehabilitation Security. Following the *Environmental Closeout Procedures for Petroleum Activities*, the final rehabilitation assessment and endorsement will be conducted by an appropriately qualified third party [DENR DPIR, 2016]. The success of the rehabilitation will be measured according to the following criteria: • The Landholder and DEPWS agree in writing that the land supports the pre-disturbance land use.	• All petroleum activity infrastructure is removed from the site. • All rubbish and waste are removed from the site. • Introduced or spread weeds caused by the Activity are removed. • All disturbed areas are returned to a safe and stable landform, re-shaping them as close as possible to the surrounding environment. • Stockpiled topsoil is re-spread. • Native vegetation is re-established, enabling corridors to become ecologically integrated into the surrounding landscape. • The monitoring and reporting of the rehabilitation progress following the closure of an area is in compliance with the Rehabilitation Plan Guide for Surface Disturbance: Onshore Petroleum Exploration [DEPWS, 2020]. • All management concerns from land managers/owners are addressed. Following completion of the rehabilitation works, Imperial will submit the final Environmental Reports to the Northern Territory Government Department of Lands, Planning and Environment (DLPE) along with the s14 application to release the Rehabilitation Security. Following the *Environmental Closeout Procedures for Petroleum Activities*, the final rehabilitation assessment and endorsement will be conducted by an appropriately qualified third party [DENR DPIR, 2016]. The success of the rehabilitation will be measured according to the following criteria: • The Landholder and DLPE agree in writing that the land supports the pre-disturbance land use. • The soil suitability and stability are equivalent to the surrounding soil unit. • There is no subsidence, erosion, introduced weed species, or weed species at levels higher than the surrounding environment.

Current EMP Text	Amended EMP Text
• The soil suitability and stability are equivalent to the surrounding soil unit. • There is no subsidence, erosion, introduced weed species, or weed species at levels higher than the surrounding environment. • A minimum of 70% foliage cover and diversity of Analogue sites is maintained in the rehabilitated sites. • The density of the established habitat structures (litter cover, fallen woody material, hollow logs, etc.) is like the surrounding non-Impact area. • The maintenance required is no greater than that of the land before its disturbance. Where a site is rehabilitated, monitoring will be undertaken annually to assess the rehabilitation and determine where additional remedial works are required. Where a site is transferred to the landholder or owner in an acceptable condition for the final land use, the landholder will be responsible for its ongoing maintenance.	• A minimum of 70% of groundcover vegetation is maintained in the rehabilitated site compared to the adjacent analogue site. • A minimum of 70% perennial species vegetation cover (i.e., woody species such as shrubs and small trees and perennial grass/forb species if applicable) and a minimum 80% of flora species diversity of analogue site~~s~~ is maintained in the rehabilitated site~~s~~. • The density of the established habitat structures (litter cover, fallen woody material, hollow logs, etc.) is like the surrounding non-impact area. • The maintenance required is no greater than that of the land before its disturbance. • There is evidence that native fauna is utilising habitat within the rehabilitated area i.e. direct observations, tracks, scats, burrows etc. Where a site is rehabilitated, monitoring will be undertaken periodically to assess the rehabilitation and determine where additional remedial works are required. Where a site is transferred to the landholder or owner in an acceptable condition for the final land use, the landholder will be responsible for its ongoing maintenance.
12.9 Progressive Rehabilitation Plan Imperial A promotes methodologies for the progressive rehabilitation of areas no longer required for operational use. Progressive rehabilitation of significantly disturbed land, which is not required for the ongoing conduct of the approved regulated activities or future activities, will commence as soon as practicable but no longer than 12 months following the cessation of activities on the land.	4 **Progressive Rehabilitation Plan** Imperial promotes methodologies for the progressive rehabilitation of areas no longer required for operational use. Progressive rehabilitation of significantly disturbed land, which is not required for the ongoing conduct of the approved regulated activities or future activities, will commence as soon as practicable but no longer than 12 months following the cessation of activities on the land.

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The subsequent subsections outline the three progressive rehabilitation steps that Imperial A will undertake during the Activity's lifecycle.	The subsequent subsections outline the three progressive rehabilitation steps that Imperial will undertake during the Activity's lifecycle.
12.9.1 Mitigating Actions During Operations During the Activity, the following processes will be in place to promote a smoother rehabilitation transition for the Project Area: • Topsoil stockpiles will be stored around the edge of the well site lease in low-profile mounds (< 2 m) on the upslope side; if the terrain is sloped, this is undertaken to ensure that any seed in the mounds is a viable option for respread on-site post operations. • Vegetation stockpiles will be stored in separate mounds. • Erosion and sediment devices will be installed per site-specific ESCP (Appendix 05). • All waste will be stored following procedures outlined in Appendix 06. • Weed management measures will be implemented according to Appendix 09. • Fire breaks will be managed and monitored for fuel load as described in Appendix 08. • When required and still in use, gravel pits will be maintained by: o Contouring to ensure drainage of disturbed area is directed to shallow, low-sloped internal voids.	**4.1 Mitigating Actions During Operations** During the Activity, the following processes will be in place to promote a smoother rehabilitation transition for the Project Area: • Topsoil stockpiles will be stored around the edge of the well site lease in low-profile mounds (< 2 m) on the upslope side; if the terrain is sloped, this is undertaken to ensure that any seed in the mounds is a viable option for respread on-site post operations. • Vegetation stockpiles will be stored in separate mounds. • Erosion and sediment devices will be installed per site-specific ESCP (EMP IMA 1-5. Appendix 05). • All waste will be stored following procedures outlined in (EMP IMA 1-5. Appendix 06). • Weed management measures will be implemented according to (EMP IMA 1-5. Appendix 09). • Fire breaks will be managed and monitored for fuel load as described in (EMP IMA 1-5. Appendix 08). • When required and still in use, gravel pits will be maintained by: o o Contouring to ensure drainage of disturbed area is directed to shallow, low-sloped internal voids. o Consolidating stockpiled subsoil material (to occupy minimal area).

Current EMP Text	Amended EMP Text
○ Consolidating stockpiled subsoil material (to occupy minimal area). ○ Light contour ripping of the reshaped surface. ○ Retaining the perimeter bunds (topsoil).	○ Light contour ripping of the reshaped surface. ○ Retaining the perimeter bunds (topsoil).
12.9.2 Land No Longer Required for the Regulated Activity If contamination is detected, remediation will commence immediately following the Spill Management Plan in **Appendix 07**.	**4.2 Land No Longer Required for the Regulated Activity** If contamination is detected, remediation will commence immediately following the Spill Management Plan in (EMP IMA 1-5. **Appendix 07**).
12.9.3 After Full Decommissioning After the decommissioning of the Activity, when all assets are no longer required, Imperial A is dedicated to fully rehabilitating all environmental aspects resulting from its operations. Including, but not limited to, the following (to achieve the rehabilitation goals): • Decommissioning all petroleum activities following industry best practice, the WOMP and DITT approval. • Spreading topsoil evenly over any cleared area prior to Wet Season rains. • Installing temporary erosion and sediment devices following site-specific ESCP (to be updated at the time of full decommissioning), DLRM best practice principles and guidelines to ensure soil stability post-progressive rehabilitation earthworks [TOPO, 2021].	**4.3 After Full Decommissioning** After the decommissioning of the Activity, when all assets are no longer required, Imperial is dedicated to fully rehabilitating all environmental aspects resulting from its operations. Including, but not limited to, the following (to achieve the rehabilitation goals): • Decommissioning all petroleum activities following industry best practice, the Well Operations Management Plan (WOMP) and Department of Mines and Energy (DME) approval. • Spreading topsoil evenly over any cleared area prior to wet season rains. • Installing temporary erosion and sediment devices following site-specific ESCP (to be updated at the time of full decommissioning), DLPE best practice principles and guidelines to ensure soil stability post-progressive rehabilitation earthworks [TOPO, 2021].

Current EMP Text	Amended EMP Text
• Immediately commencing remediation resulting from the detection of a contaminant following the Spill Management Plan (**Appendix 07**).	• Immediately commencing remediation resulting from the detection of a contaminant following the Spill Management Plan (**EMP IMA 1-5. Appendix 07**).
12.10 Rehabilitation Success • Lack of topsoil and soil inversion – the soils are to be returned to pre-disturbance soil profiles, and topsoil, stockpiled and conserved at the well pads as described in the Erosion and Sediment Control Plan (Appendix 05), spread over the entire well pad evenly. **Table 12.11—3** details the performance standards and measurement criteria that Imperial A will implement to assess the success of rehabilitation.	**4.4 Rehabilitation Success** • Lack of topsoil and soil inversion – the soils are to be returned to pre-disturbance soil profiles, and topsoil, stockpiled and conserved at the well pads as described in the Erosion and Sediment Control Plan (EMP IMA 1-5. Appendix 05), spread over the entire well pad evenly. • Weed infestations – Imperial will implement the weed management plan to minimise the risk of weed impacts. Table 4 details the performance standards and measurement criteria that Imperial will implement to assess the success of rehabilitation.
12.11 Monitoring and Maintenance Program Imperial A will undertake regular maintenance and yearly monitoring of rehabilitated areas to measure compliance against this Rehabilitation Plan. This monitoring and maintenance process will be after the closure of any site/infrastructure that is not required for future activities. To ensure success in the rehabilitation process and effective monitoring, which provides a balanced representation of the ground condition and various landform, and vegetation types encountered before clearance, photo points will be established for larger	**4.5 Monitoring and Maintenance Program** Imperial will undertake regular maintenance and yearly monitoring of rehabilitated areas to measure compliance against this Rehabilitation Plan. This monitoring and maintenance process will be after the closure of any site/infrastructure that is not required for future activities. To ensure success in the rehabilitation process and effective monitoring, which provides a balanced representation of the ground condition and various landform, and vegetation types encountered before clearance, photo points will be established for larger disturbance areas such as well pads. The images may be

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<tr><td>disturbance areas such as well pads. The images may be captured digitally using drones. Each photo point will be geo-referenced, and field notes will be recorded at the time the images are captured.

Photo-point sites and the analogue sites will be monitored annually in the Dry Season after the completion of rehabilitation in Section 12.9. The annual visits will assess and record rehabilitation progress until the rehabilitation success criteria are met (Section 12.10):

• Table 12.11—1 details the actions and proposed timing for the rehabilitation of sites disturbed under this EMP.
• Table 12.11—2 presents the monitoring, maintenance, and reporting plan required to meet the environmental outcomes and rehabilitation goals set in this plan.
• Refer to Table 7.5—2 (Monitoring Plan) of the Environmental Management Plan for details of Rehabilitation Monitoring.
• Table 12.11—3 shows the rehabilitation measurement criteria.

All rehabilitation monitoring activities are scheduled around post-Wet Season; re-entry to the leases will be subject to weather/road conditions and the current activity of the region.</td><td>captured digitally using drones. Each photo point will be geo-referenced, and field notes will be recorded at the time the images are captured.

Photo-point sites and the analogue sites will be monitored annually for 3-years in the post-wet season after the completion of rehabilitation in Section 3. The annual visits will assess and record rehabilitation progress against the rehabilitation success criteria (Table 4):

• Table 2 details the actions and proposed timing for the rehabilitation of sites disturbed under EMP IMA 1-5.
• Table 3 presents the monitoring, maintenance, and reporting plan required to meet the environmental outcomes and rehabilitation goals set in this plan.
• Refer to Table 7.5—2 (Monitoring Plan) of the Environmental Management Plan (IMA 1-5) for details of Rehabilitation Monitoring.
• Table 4 shows the rehabilitation measurement criteria.

All rehabilitation monitoring activities are scheduled around post-wet season; re-entry to the leases will be subject to weather/road conditions and the current activity of the region.</td></tr>
<tr><td>Table 12.11—1: Rehabilitation and Closure Plan Management Environmental Actions

<table><tr><td>Aspect</td><td>Factors Assessed/ Actions</td><td>Timing</td></tr><tr><td>Actions</td><td>• Establish monitoring points</td><td>As prescribed.</td></tr></table></td><td>Table 2: Rehabilitation and Closure Plan Management Environmental Actions

<table><tr><td>Aspect</td><td>Factors Assessed/ Actions</td><td>Timing</td></tr><tr><td>Actions</td><td>• Establish analogue monitoring points to</td><td>As prescribed.</td></tr></table></td></tr>
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Current EMP Text	Amended EMP Text
to compare the appearance of rehabilitation areas to the surrounding environment. • Appropriately sign over assets to the landholder or owner. • Photos to be conducted at each monitoring event to compare progress.	compare the appearance of rehabilitation areas to the surrounding environment. • Appropriately sign over assets to the landholder or owner. • Photos to be conducted at each monitoring event to compare progress.
Table 12.11—2: Monitoring, Maintenance, and Reporting Plan	Table 3: Monitoring, Maintenance, and Reporting Plan

Timing	Monitoring Inspection Criteria
Year 1 • After full decommissioning	Rehabilitated land will be reviewed post first wet season after site decommissioning works to determine the following: ○ Vegetation establishment type and re-growth.
Year/ 2-ongoing	

Timing	Monitoring Inspection Criteria
Year 1 • After full decommissioning	Rehabilitated land will be reviewed post first wet season after site decommissioning works to determine the following: ○ Vegetation condition compared to analogue site ○
Year/ 2-ongoing	Annual inspection post wet season of any areas that have not been deemed as

Current EMP Text		Amended EMP Text	
• After site decommissioning	Yearly inspection post Wet Season of any areas that have not been deemed as rehabilitated and the bond has not been returned to determine the following:	• After site decommissioning	rehabilitated and the bond has not been returned to determine the following: Vegetation condition compared to analogue site

Note:

- *In Table 12.11-3 - Rehabilitation Measurement Criteria, specifically the row for "Rehabilitation Outcome: Impacted Land to Resemble Pre-Operation State" has been replaced with the revised row below. The table is now Table 4.*
- *Additional text in plum.*

Table 4 Rehabilitation Measurement Criteria

Rehabilitation Outcome	Performance Standard	Measurement Criteria	Justification
Impacted Land to Resemble Pre-operation State	Access tracks, microseismic locations, and seismic lines are indistinguishable from the surrounding area/vegetation, other than the maturity of trees. Vegetation composition of the rehabilitation is of the same composition as the surroundings (e.g., type, density).	Rehabilitation sites achieve: • The dominant flora species in the mid and ground layers (strata) is equivalent to 80% of the analogue site. • No evidence of soil subsidence and <2% erosion across the site (qualitative – photo evidence of scarring, rill/sheet erosion). • Ground cover - 70% foliage cover compared to adjacent analogue site of the surrounding area.	Species richness shows the rehabilitation site can support the full complement of species from Analogue sites, even if not all species are yet at the same abundance. • In arid regions, soil stability is critical for rehabilitation success. • Cover equivalent to 70% of the surrounding area is likely to self-sustain over time and ecologically integrated with local vegetation.

Current EMP Text		Amended EMP Text	
		• If canopy species are mulched, evidence that recruitment of dominant canopy species is occurring. • There is evidence of native fauna utilising habitat within the rehabilitated area (e.g. tracks, burrows, scats, direct observations) • 70% perennial species cover (i.e., woody species such as shrubs and small trees and perennial grass/forb species if applicable) compared to adjacent analogue cover. • 50% of the organic litter and coarse woody debris compared to adjacent analogue site	
	No introduction or spread of weeds caused by the proposed program.	No declared weed species under the Northern Territory *Weeds Management Act 2001* [DEPWS, 2001]. No greater abundance of common weed species than in the local vicinity.	By undertaking pre and post-operational weed impact surveys, the pre-operation state can be determined.
Stable landform	No adverse erosion caused from Imperial activities.	Vegetation have established, stabilising soils, and reducing erosion potential.	In arid regions, soil stability is critical for the success of rehabilitation

Current EMP Text		Amended EMP Text	
		No evidence of soil subsidence and <2% erosion across the site (qualitative – photo evidence of scarring, rill/sheet erosion).	
No impact to groundwater	Water characteristics are the same or have not significantly changed from the baseline groundwater monitoring	Groundwater monitoring program to show the major difference to groundwater quality and availability.	Quality and quantity of available groundwater resources are expected by the community.
		Note: Added new section in plum. **5 Review** This RMP may be reviewed and updated via a Regulation 22 under the NT Petroleum (Environment) Regulations 2016 based on progressive rehabilitation activities, identification of reference / analogue sites or changes to the disturbance footprint that may have occurred during the previous year – for example, new disturbances (sites/linear infrastructure, erosion, fire or weed coverage). This RMP may also be updated as risks change (e.g. additional land clearing, spill incidents requiring remediation, gravel pits or access tracks that are no longer required). Performance against commitments made in this RMP is to be included as a component of the Annual Environment Performance Report for the EMP. Annual rehabilitation monitoring will cease once the Minister is satisfied with the rehabilitation outcomes.	
12.12 References Fox & Co Environmental. (2021). *EP167 & EP168 Environmental Assessment Report 2022-2023 Seismic and Drilling Program*.		**6 References** Fox & Co Environmental. (2022). *EP167 & EP168 Environmental Assessment Report 2022-2023 Seismic and Drilling Program*.	