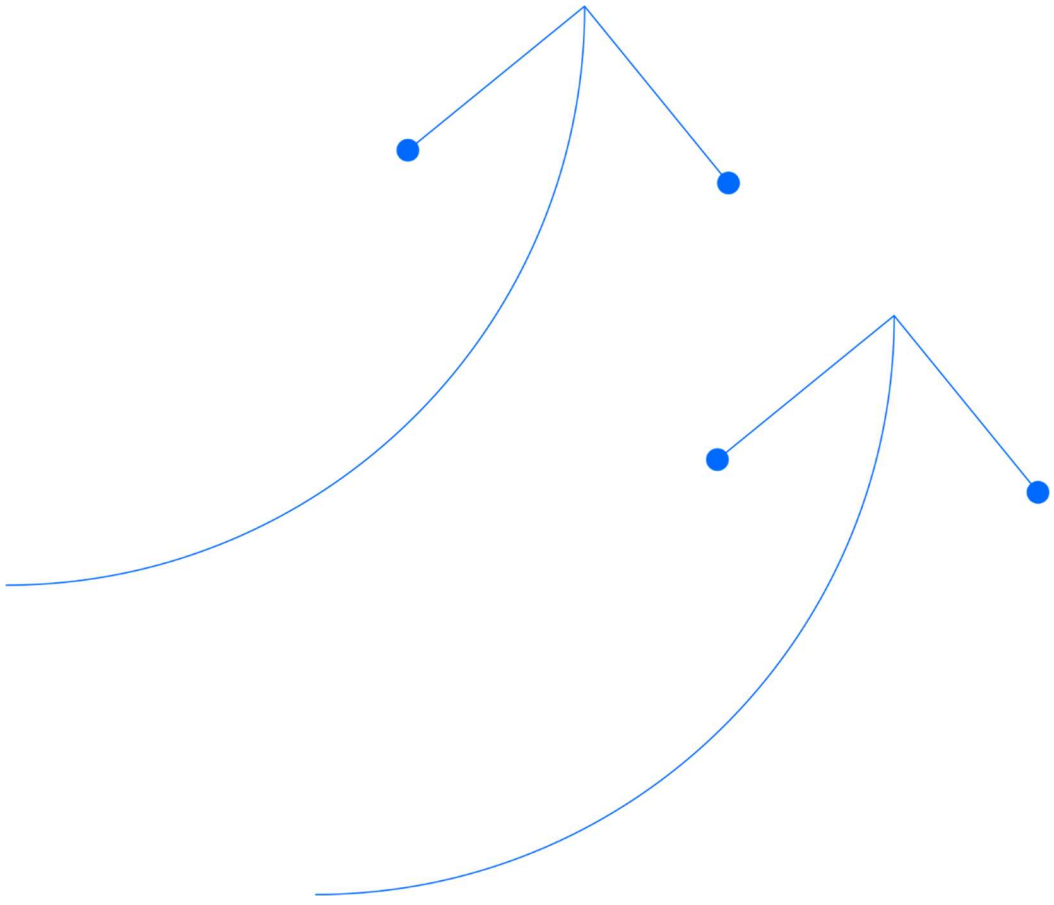
Santos

APPENDIX K: REHABILITATION MANAGEMENT PLAN

April 2026



Contents

1. Introduction

This Rehabilitation Management Plan (RMP) is in support of the EP 161 Beetaloo Basin Appraisal Activity Environmental Management Plan (EMP). This Plan aims to outline the rehabilitation of disturbances once they are no longer required for ongoing or future works, as per the requirements set out in the *Code of Practice: Onshore Petroleum Activities in the Northern Territory* (the Code). It has been developed using *the Rehabilitation Plan Guide for Surface Disturbance: Onshore Petroleum Disturbance* (DEPWS, 2020).

This RMP has been prepared by professional(s) using their skill and care acquired through education, training, and experience in the subject matters of environmental management.

Name	Position	Years Experience
Michael Rolfe	Environment Team Leader – Cooper Basin & Northern Territory	15

2. Scope

This Rehabilitation Management Plan (RMP) applies to new disturbances associated with the Beetaloo Appraisal Program within EP 161. It provides an overarching framework that outlines the rehabilitation strategy, methods, monitoring requirements, and rehabilitation success criteria for these new disturbances.

Site-specific rehabilitation Plans on a Page (PoaPs), incorporating relevant elements of this RMP, have been developed for the Jibera South and Newcastle South activities described in the EP 161 Beetaloo Appraisal EMP and are provided in Appendix A and Appendix B.

Rehabilitation approaches for previously approved disturbances are addressed through the relevant PoaPs included in appendices below. These PoaPs relate to rehabilitation under the following existing Santos EMPs:

- STO7-4: EP161 2D Seismic and Ground Gravity Survey Program
- STO1-4: McArthur Basin Civil and Seismic Program1 (inclusive of disturbances areas originally approved via STO-2018A, STO-2018B and STO2-7).

This RMP and the existing PoaPs cover the rehabilitation strategy for final land use, objectives, works, monitoring, and maintenance of disturbed land once no longer required for ongoing petroleum activities.

The location and footprints of all EP 161 ongoing activities is provided in Figure 27 of the EMP.

It does not include infrastructure that has been put in place by the landowner.

3. Rehabilitation Objectives

All significantly disturbed land as part of the Beetaloo Appraisal Program and existing EP 161 work areas (that is not required for ongoing or future petroleum works) will be rehabilitated to be consistent with surrounding land uses and ecological values as compared to an analogue site.

Consistent with the rehabilitation objectives set out in the previously approved EP 161 PoaPs, rehabilitation of the Jibera South and Newcastle South areas will be undertaken to achieve the following objectives for the final land use:

- Stable and self-sustaining

[1] *Rehabilitation of the Jibera South Water Bore pad, originally constructed under STO1-4, is now addressed in Appendix B, as the area will be utilised for the proposed well pad under the Beetaloo Appraisal Program.*

- Safe for the land users and wildlife
- Returned to an agreed and close-to pre-disturbance level that requires little or no ongoing management.
- No declared weed infestations in the rehabilitated areas that require management.

To verify rehabilitation is on track, analogue sites will be chosen to reflect the landforms being disturbed by the construction of infrastructure. The analogue sites will be surveyed, assessed, and photographed before construction works commence to aid in the rehabilitation assessments.

3.1. Rehabilitation Approach

The proposed rehabilitation approach to areas that have been disturbed is assisted natural regeneration. In accordance with other EP161 EMPs and the Code of Practice (clause A.3.9), rehabilitation will be carried out in a progressive manner.

Areas that are no longer required for the approved regulated activity(ies), are not needed for future activity(ies), or proposed to be transferred to the landholder (whether part of an area or the entire area) will be progressively rehabilitated.

Progressive rehabilitation allows disturbed land to be stabilised as soon as practicable following disturbance. This reduces the risk of erosion, sedimentation, loss of topsoil, weed invasion, and loss of seed viability within soil stockpiles.

Most disturbed areas are expected to naturally regenerate following activities. However, some areas (such as those subject to erosion or soil compaction) may require active rehabilitation works following the first wet season. Areas identified during inspections as requiring additional rehabilitation will be managed in accordance with Section 4.

To support evaluation of rehabilitation outcomes, analogue sites (selected prior to commencement of works) will be surveyed to establish baseline information on species composition and species richness.

3.1.1. Rehabilitation Zones and Actions

An A3 Plan on a Page (PoaP) illustrating each rehabilitation management zone for the proposed Beetaloo Appraisal Program is provided in Appendix A and Appendix B.

All other relevant PoaPs for existing activities approved under previous EMPs are included in Appendix C and Appendix D.

3.2. Rehabilitation risks

Table 1 provides a list of environmental factors and risks that have the potential to threaten successful long-term rehabilitation and mitigation and management controls that can be implemented.

Table 1: Environmental risks and proposed controls

Site-specific environmental risks	Proposed controls
Changes to the land profile and compaction of soils	• An *Erosion and Sediment Control Management Plan* developed by a suitably qualified person and included as part of the EMP (Appendix G). • Following construction, all vehicles must stay on designated approved access tracks. • Infrastructure designed generally in accordance with the *NT Land Clearing Guidelines*. • Rehabilitation will include respreading topsoil over areas disturbed as part of the activity. • Site selection of new access tracks that may intersect watercourses will cross at right angles with bend and bank contours maintained to avoid Groundwater Dependent Ecosystems.
Spread of biosecurity risk material (e.g., weed and seed) to, or within the Project Area during operations.	• Baseline weed survey conducted before clearing operations to identify and manage weeds. • Training and inductions for project staff and contractors will cover vehicle weed hygiene requirements. • Vehicle and machinery will be cleaned down and inspected before mobilisation to the Project Area. • Vehicles will stay on cleared/formed access tracks unless involved in the clearing. • Where weeds are identified, weed control measures in line with *Northern Territory Weed Management Handbook* will be implemented (Northern Territory Weed Management Handbook, 2021). • An annual weed survey of the work areas will be completed as per the *NT Code of Practice* standards. • Record weed monitoring and survey works in accordance with the *NT Weed Data Collection Guidelines*. • Santos will notify the NT Weed Management Branch of any new weed incursions. • Limit standing open water outside of onsite water management (i.e. tanks and ponds). • Follow the site-specific *Weed Management Plan* (EMP Appendix C).
Cattle Grazing (Post reinstatement of topsoil and disbursement of seed)	• Fencing of the well pads to minimise interaction with livestock.
Erosion Risk (New construction and maintenance)	• An *Erosion and Sediment Control Management Plan* developed by a suitably qualified person and included as part of the EMP (Appendix G). • Site selection has avoided poor draining soils and crossed flood zones at 90 degrees. • Water within secondary containment will be tested and reused if deemed suitable. • Site selection and design of access tracks, well pad, campsite and borrow pits placed to minimise erosion, e.g. outside of natural flow paths, <2% slope, outside of the 1-100 flood zone. • Site selection and design of access tracks, well pad, campsite and gravel/borrow pits placed to minimise erosion. • Well pad constructed with a bund/berm to divert water from going on-site and facilitate water flow from on-site back into catchment area during rainfall events. • Erosion and sediment controls will be installed, maintained, and monitored as per the site-specific *Erosion and Sediment Control Plan.* (Prevention) (Eng) - Critical control.

	• Inductions will cover the importance of reporting all environmental incidents, inc. spills and sediment releases. (Prevention) (Eng). • Temporary erosion and sediment control measures will be maintained until final rehabilitation has commenced. • Rehabilitation will include respreading topsoil where pits are rehabilitated once no longer required by the activity. • Weather checked daily to determine if the Activity will commence. • The Activity will not commence if there has been rainfall in the past 24 hours within the Project Area until ground conditions have been assessed by a Santos Site Supervisor. • Seismic lines will be inspected for erosion post rehabilitation up until final acceptance.
Contamination Risk	• Controls will be in place as per the *Spill Management Plan* (Appendix E) to minimise risk of spills or contamination to the environment. • Loss of containment should be detected either via routine inspections or remote telemetry/alarm throughout the life of the project, including during rehabilitation phases. • If contamination occurs, an immediate site inspection will be undertaken to identify the nature and extent of the contamination. • An assessment of actual or potential impacts to the surrounding environment will then be completed. This assessment may include: – Identification of what, if any, decontamination measures are required (e.g. removal of chemicals, foam, oil, or contaminated soil), and/or; – Soil sampling and testing of affected areas to inform extent of actual/potential contamination and remediation requirements.
Fire Risk	• Controls in place as per the *Fire Management Plan* (EMP Appendix B). • Site-specific *Emergency Response Plan* (EMP Appendix M) has been developed and will be implemented in the event of a fire.

3.3. Rehabilitation success criteria

The rehabilitation approach will be a combination of assisted regeneration in areas that have been cleared and compacted, along with natural regeneration in areas with less compaction.

Rehabilitation site success is identified through the information obtained in the pre-disturbance land condition assessment and adjacent vegetation communities. To aid in the evaluation, the analogue sites (selected pre-works) will be surveyed to determine species composition and richness.

After the Activity, the Interest Holder will work toward rehabilitation success based on the below tabled objectives in Table 2.

Table 2: Rehabilitation Success Measures

Objectives	Measurement criteria
• Stable and self-sustaining landform with no erosion requiring ongoing maintenance.	• No active erosion present on access tracks and well pads or sensitive areas, e.g. waterways. Evidenced by qualitative inspections and photo points (no visible scarring or rill/sheet erosion).
• Safe for land users and wildlife.	• No waste or rubbish associated with the Activity left in the Project Area. • No subsidence associated with re-instated drilling pits.
• Returned to an agreed and close to the pre-disturbance level that requires little or no ongoing management. • Re-instated to reflect the natural ecosystem/s or establish an alternative outcome commensurate with the surrounding land use.	• The rehabilitated area: – Ground and perennial cover equivalent to 70% of the analogue site. – Organic litter and coarse woody debris equivalent to 50% of the analogue site. – Vegetation composition and structure comparable to analogue sites (dominant species present and structure consistent across ground, mid and upper layers).
• No declared weed infestations in the rehabilitated area that require management.	• Declared weeds identified during monitoring events managed to meet regulatory requirements.

4. Monitoring and maintenance program

Santos will inspect and maintain areas being progressively rehabilitated in line with Table 3. All rehabilitation monitoring works are scheduled outside of the defined wet season. Re-entry to the Beetaloo Appraisal work areas and existing EP 161 activity areas will be subject to weather/road conditions with maintenance during dry periods before wet season where possible.

Any annual rehabilitation survey report will:

- Summarise progressive rehabilitation progress.
- Summarise the outcomes of annual rehabilitation monitoring of prepared areas against reference sites.
- Summarise maintenance works and corrective actions taken to improve rehabilitation outcomes.
- Include geospatial files for areas under rehabilitation.

Following the guidance of the *Rehabilitation Plan Guide for Surface Disturbance: Petroleum Exploration*, a suitably qualified third party will conduct the final rehabilitation assessment and endorsement (DEPWS, 2020) .

Table 3: Inspection, maintenance and reporting

Rehabilitation phases	Rehabilitation surveys	Methods	Measurable attributes	Corrective actions	Maintenance	Reporting
Planning and Design: • At time of commencement of rehabilitation.	• Identify, establish, and survey analogue sites. • Survey vegetation and soil pre-disturbance.	• Ground truth geospatial data. • Survey, assess and document existing erosion issues.	• Baseline ground cover (%). • Baseline canopy cover (%). • Baseline perennial cover (%). • Erosion (qualitative – photo evidence of scarring, rill/sheet erosion). • Baseline vegetation composition/structure (qualitative; dominant species and structure across ground/mid/upper layers). • Baseline organic litter/coarse woody debris (qualitative).	• N/A	• N/A	• Overview reports for analogue sites, well pad, new access tracks, campsite and gravel pits to be utilised. • Included within Annual inspection report as required.
Stabilisation and Maintenance: • Until final obligations are met.	• Inspect, monitor, and test.	• Visual inspection of ESC measures and weed growth on the well pad, campsite, gravel pit/s and access tracks. • Test drilling waste as per the Code.	• No visible erosion. • No declared weeds. • Drilling waste tested and appropriate disposal methodology recorded.	• Erosion and sediment measures remediated. • Weed management conducted. • Initiate removal of unevaporated fluids from pits.	• Remove the sediment from fences/traps and re-contour banks. • Repair and reinstate ESC measures. • Remove weeds.	• Inspection reports during construction and drilling operations. • Incident reports during construction and drilling operations, e.g., spills. • Drilling by-product management report as per the Code.
Progressive Rehabilitation: • Ongoing annual/post local wet season inspections until success criteria are met.	• Annually once rehabilitation has commenced, at the end of wet season (subject to access).	• Inspect ESC measures and weed growth. • Inspect for subsidence of closed drilling pits. • Inspect re-growth in comparison to analogue sites.	• Erosion (qualitative – photo evidence of scarring, rill/sheet erosion). • No declared weeds. • Ground cover (%). • Canopy cover (%). • Perennial species cover (%). • Organic litter and coarse woody debris (qualitative, compared to analogue sites). • Vegetation composition/structure (qualitative; dominant species present and structure across ground/mid/upper layers, compared to analogue sites). • Evidence of native fauna use (tracks, scats, burrows) where observed.	• Dependent upon a third-party report or landowner feedback. • Erosion and sediment remediated. • Weed & pest management conducted. • Additional seeding. • Soil amelioration.	• Remove the sediment from fences/traps and re-contour banks. • Repair and reinstate ESC measures. • Remove weeds.	• Annual inspection report.
Annual Inspections: • Up to and including when the areas used for the Activity, or future activity are no longer required.	• Inspections by a suitably qualified person (SQP) or landowner feedback. • Inspections to cease once establishment benchmarks have been achieved.	• Vegetation monitoring. • Weed inspections. • Inspect ESC measures.	• Erosion (qualitative – photo evidence of scarring, rill/sheet erosion). • Ground cover (%). • Canopy cover (%). • Perennial species cover (%). • No declared weeds. • Organic litter and coarse woody debris (qualitative, compared to analogue sites). • Vegetation composition/structure (qualitative; dominant species present and structure across	• Additional seeding. • Livestock management. • Weed management.	• Repair and reinstate temporary ESC measures. • Remove weeds.	• Annual inspection report.

			ground/mid/upper layers, compared to analogue sites). • Evidence of native fauna use (tracks, scats, burrows) where observed.			
Completion of Rehabilitation	• Final inspection by SQP and landowner.	• Site inspection and sign-off by a third-party SQP.	• As per rehabilitation success criteria outlined in Section 3.3.	• Dependent upon recommendations from • SQP third-party.	• Dependent upon a third-party report.	• Handover report with the landowner. • Signed off on final Environmental Report.

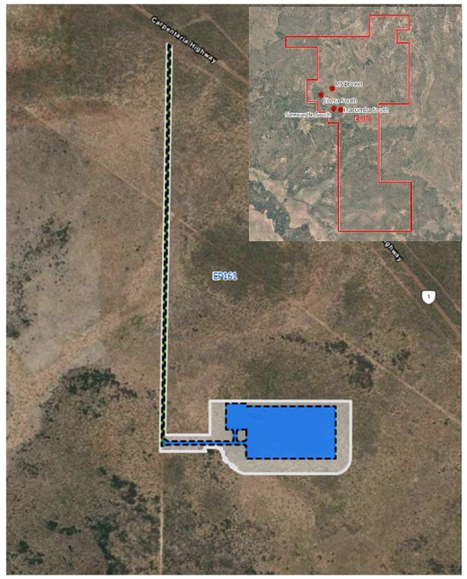
5. References

DEPWS. (2020). *Rehabilitation Plan Guide for Surface Disturbance: Onshore Petroleum Exploration*. Retrieved from https://depws.nt.gov.au/__data/assets/pdf_file/0004/936823/Rehabilitation-Plan-Guide-v0.4.pdf

Government, N. T. (2021). *Northern Territory Weed Management Handbook*. Retrieved from https://nt.gov.au/__data/assets/pdf_file/0004/233833/nt-weed-management-handbook.pdf

Appendix A - Rehabilitation plan on a page for Newcastle South

Rehabilitation Plan - EP 161 Newcastle South



Legend

- Disturbance Footprint
- Project Area
- EP161

Disturbance Footprint by Impact

- Maintenance only
- Clearing
- Clearing - rehabilitation

Location, Aim and Objectives

Property land use(s):	• Cattle grazing • Gas exploration
Rehabilitation aim:	• To return disturbed land to a stable, self-sustaining landform that is similar to pre-existing and adjacent vegetation communities and/or landforms.
Rehabilitation objectives:	• Stable and self-sustaining (e.g. no visible erosion that requires maintenance). • Safe for the land users and fauna. • Returned to an agreed and close to the pre-disturbance level that requires little or no ongoing weed control measures. • Re-instated to reflect the natural ecosystem/s or establish an alternative outcome commiserate with the surrounding land use. • Re-instated to reflect the natural ecosystem/s, or establish an alternative outcome that is commiserate with the surrounding land use e.g. pastoralism • Complementary (i.e. blends in) to the adjoining landscape. • There are no impacts of AAPA Restricted Works Area that occur adjacent to works area.

Prepared by:	AECOM and Santos
Key Contact:	James Laverty [redacted]
GPS Co-ordinates: GDA 2020 Lat\Lon	-16.5553S 134.7139° E

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Rehabilitation Management Zones, Disturbance Area and Land Type

Zone	Size (ha)	Land system(s) (refer to ecological report for details)
Newcastle South	*23.06 ha*	• **Land system – Beetaloo –** on plains and rises associated with deeply weathered profiles (laterite) including sand sheets and other depositional products; sandy and earth soils. Eight vegetation communities have been identified on site (see figure below and refer to ecological report). The main vegetation communities planned for clearing are: • 1a & 1b - Corymbia dichromophloia, Eucalyptus leucophloia, Erythrophleum chlorostachys, mid high open woodland

Rehabilitation Actions and Proposed Schedule

Component (sites)	Rehabilitation actions
Main access track	• Removal of imported road base material (gravel etc), re-shaping the landform to blend the bare soil with the surrounding areas, stockpiled vegetation and topsoil re-spread, lightly scarify and shallow ripping to ensure the heavily compacted areas are loosened, suitable for vegetation growth.
Well pad and infrastructure	• Remove all infrastructure • Re-shaping the landform, re-spread topsoil over area, lightly scarify and rip. • Small pad to be retained around well pad for ongoing inspection requirements
Borrow pits	• Stabilise pit edges • Re-spread stockpiled topsoil over area, lightly scarify and rip.

Vegetation Communities

1a

1b

Key Rehabilitation Risks

- Drought — impacting the establishment of rehabilitated vegetation
- Fire — impacting revegetation
- Grazing — impacting revegetation
- Lack of topsoil and soil inversion — impacting rehabilitation success
- Exposed Ground – leading to weed establishment and/or erosion

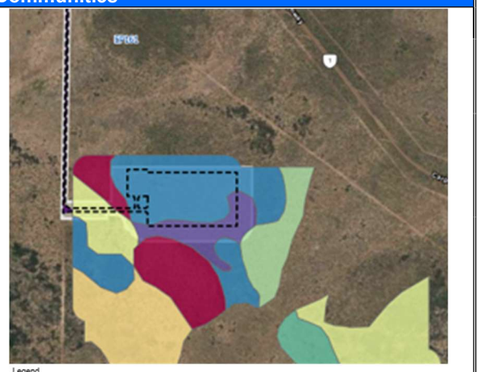
Indicative Rehabilitation Action Schedule

Stage	Timing/trigger	Activity	Monitoring and records
• Baseline	• Prior to disturbance	• Identify analogue sites and photo points to support comparison of post-rehab condition	• Baseline notes (e.g. ground cover/canopy/perennial %, vegetation composition/structure, litter, erosion), photos, GPS/GIS layers.
• Decommissioning and progressive rehabilitation	• As soon as practicable after an area is no longer required, and no later than 12 months after activities cease	• Remove infrastructure (where required) • Execute on ground rehabilitation activities as per section 3 (where required)	• Rehab completion checklist, photos, GPS/GIS layers, corrective actions log (if required).
• Year 1 (post-wet season inspection)	• End of first wet season following rehabilitation (subject to site access)	• Inspect rehabilitated areas for erosion, weeds and vegetation regrowth • Implement corrective actions if required	• Annual rehab inspection report with photo points and corrective actions (if required).
• Ongoing until closure	• Annually (post-wet season), until success criteria are met and accepted	• Continue monitoring against success criteria • Complete final inspection and close-out documentation when criteria are met	• Annual rehab inspection report • Final close-out record by a suitably qualified person and landowner.

Rehabilitation Success Criteria

Aspect	Performance objective	Measurement criteria	Corrective actions
Landform and soils	• The rehabilitated landform is equivalent to (and/or blends in with) the adjoining landform.	• Slope within rehabilitated areas is consistent with surrounding undisturbed landforms. • Soil type within rehabilitated areas is consistent with surrounding undisturbed landforms. • Soil condition within rehabilitated areas is consistent with surrounding undisturbed landforms.	• Infill seeding • Soil amelioration • Erosion remediation • Weed management
Erosion	• Stable and self-sustaining landform with no erosion requiring ongoing maintenance. • No adverse erosion issues directly associated with the Project. • Landform within rehabilitation area is stable	• No visible scarring, rill/sheet erosion to be present within rehabilitation area. • No active erosion issues (of any type) to be present on sensitive and/or erosion prone land types identified during baseline surveys. • Less than 2% cover of minor erosion issues (i.e. stabilised or likely to stabilise) across the rehabilitation area	• Erosion and sediment control plan • Infill seeding • Soil amelioration
Vegetation and habitat	• Dominant flora species in analogue or complementary sites are represented in rehabilitated areas. • Community structure of the rehabilitation is recognisable as or is trending towards the target vegetation community. • Perennial species have established and are expected to persist in line with analogue sites. • Habitat structures and quality is similar to analogue site, creating safe access and habitat connection at and to adjacent areas (for native fauna).	• Ground cover foliage is at least 70% of the analogue site. This cover is likely to self-sustain over time and rehabilitated areas become ecologically integrated with surrounding areas. • Perennial species cover (i.e. woody species such as shrubs and small trees, may also include perennial grass/forb species if applicable) is at least 70% of the analogue or complimentary site. • Vegetation composition and structure are comparable to the analogue/complementary site (dominant species present and structure consistent across ground, mid and upper layers). • Rehabilitation area supports at least 50% of the organic litter and coarse woody debris of the analogue site. • There is evidence that native fauna are utilising habitat within the rehabilitation area i.e. tracks, scats, burrows etc.	• Infill seeding • Soil amelioration • Weed management • Pest management • Bushfire management
Weeds	• No adverse weed infestations associated with the Project.	• No establishment of weeds declared under the Northern Territory Weeds Management Act. • Non-declared weed species (i.e. Buffel Grass) cover to be at similar levels (or less than) to baseline and/or surrounding areas. • No evidence that weeds have been spread or introduced by exploration activities.	• Weed management
Safety for humans and wildlife	• Safe for land users • All hazardous material and waste have been removed and disposed of in a licensed landfill or recycling facility. • Rehabilitation of disturbance areas should be similar in landform to the surrounding area and not pose safety risk to humans or wildlife.	• No waste, contamination or rubbish associated with the exploration program, including removal of all surface facilities and fencing (star pickets/fencing wire). • No steep slopes or barriers to remain on site, as these may be a safety risk to wildlife or humans.	• Waste removal • Erosion remediation • Grading of slopes to be consistent with surrounding landforms.

Newcastle South Well Pad with Vegetation Communities



Legend

- Disturbance Footprint
- Project Area
- EP161

Vegetation Type

- 1a
- 1b
- 1c
- 1d
- 2a
- 2c
- 5
- 6

Appendix B - Rehabilitation plan on a page for Jibera South

Rehabilitation Plan - EP 161 Jibera South

Location, Aim and Objectives

Property land use(s):	• Cattle grazing • Gas exploration	**Prepared by**:	AECOM and Santos
		Key Contact:	James Laverty [redacted]
Rehabilitation aim:	• To return disturbed land to a stable, self-sustaining landform that is similar to pre-existing and adjacent vegetation communities and/or landforms.	**GPS Co-ordinates**: GDA 2020 Lat\Lon	16.4505˚ S 134.6148˚ E
Rehabilitation objectives:	• Stable and self-sustaining (e.g. no visible erosion that requires maintenance). • Safe for the land users and fauna. • Returned to an agreed and close to the pre-disturbance level that requires little or no ongoing weed control measures. • Re-instated to reflect the natural ecosystem/s or establish an alternative outcome commiserate with the surrounding land use.	• Re-instated to reflect the natural ecosystem/s, or establish an alternative outcome that is commiserate with the surrounding land use e.g. pastoralism • Complementary (i.e. blends in) to the adjoining landscape. • There are no impacts of AAPA Restricted Works Area that occur adjacent to works area.	

Rehabilitation Management Zones, Disturbance Area and Land Type

Zone	Size (ha)	Land system(s) (refer to ecological report for details)
Jibera South	64.28 ha	• **Land system – Beetaloo –** on plains and rises associated with deeply weathered profiles (laterite) including sand sheets and other depositional products; sandy and earth soils. • **Land System - Creswell** – on gently undulating plains and rises; Corymbia and Eucalyptus mid-high open woodland with isolated Acacia on tussock grasses. • **Land System – Inacumba** – on gently undulating rises and undulating plains to low hills; Corymbia and Eucalyptus mid-high open woodland with isolated Acacia on mixed tussock and hummock grasses. Ten vegetation communities are identified on site (see figure below and refer to ecological report). The main vegetation communities planned for clearing are: • 1a & 1b - *Corymbia dichromophloia, Eucalyptus leucophloia, Erythrophleum chlorostachys*, mid high open woodland • 2b - *Eucalyptus leucophloia, Macropteranthes kekwickii* ± *Acacia shirleyi*, mid high woodland

Vegetation Communities

1a

1b

2b

Rehabilitation Actions and Proposed Schedule

Component (site)	Rehabilitation actions
Main access track	• Removal of imported road base material (gravel etc), re-shaping the landform to blend the bare soil with the surrounding areas, stockpiled vegetation and topsoil re-spread, lightly scarify and shallow ripping to ensure the heavily compacted areas are loosened, suitable for vegetation growth.
Well pad and infrastructure	• Remove all infrastructure • Re-shaping the landform, re-spread topsoil over area, lightly scarify and rip. • Small pad to be retained around well pad for ongoing inspection requirements
Borrow pits	• Stabilise pit edges • Re-spread stockpiled topsoil over area, lightly scarify and rip.

Key Rehabilitation Risks

- Drought — impacting the establishment of rehabilitated vegetation
- Fire — impacting revegetation
- Grazing — impacting revegetation
- Lack of topsoil and soil inversion — impacting rehabilitation success
- Exposed Ground — leading to weed establishment and/or erosion

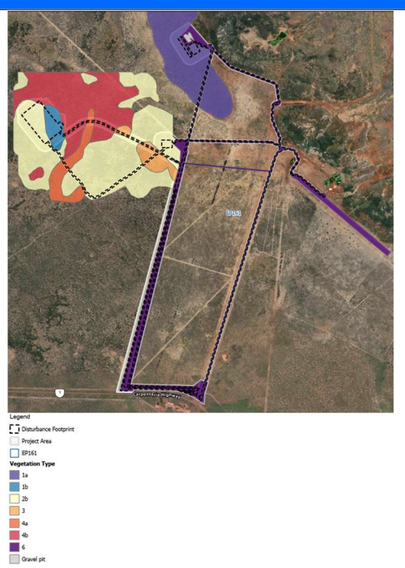
Indicative Rehabilitation Action Schedule

Stage	Trimming / trigger	Activity	Monitoring and records
• Baseline	• Prior to disturbance	• Identify analogue sites and photo points to support comparison of post-rehab condition	• Baseline notes (e.g. ground cover/canopy/perennial %, vegetation composition/structure, litter, erosion), photos, GPS/GIS layers.
• Decommissioning and progressive rehabilitation	• As soon as practicable after an area is no longer required, and no later than 12 months after activities cease	• Remove infrastructure (where required) • Execute on ground rehabilitation activities as per section 3 (where required)	• Rehab completion checklist, photos, GPS/GIS layers, corrective actions log (if required).
• Year 1 (post-wet season inspection)	• End of first wet season following rehabilitation (subject to site access)	• Inspect rehabilitated areas for erosion, weeds and vegetation regrowth • Implement corrective actions if required	• Annual rehab inspection report with photo points and corrective actions (if required).
• Ongoing until closure	• Annually (post-wet season), until success criteria are met and accepted	• Continue monitoring against success criteria • Complete final inspection and close-out documentation when criteria are met	• Annual rehab inspection report • Final close-out record by a suitably qualified person and landowner.

Rehabilitation Success Criteria

Aspect	Performance objective	Measurement criteria	Corrective Actions
Landform and soils	• The rehabilitated landform is equivalent to (and/or blends in with) the adjoining landform.	• Slope within rehabilitated areas is consistent with surrounding undisturbed landforms. • Soil type within rehabilitated areas is consistent with surrounding undisturbed landforms. • Soil condition within rehabilitated areas is consistent with surrounding undisturbed landforms.	• Infill seeding • Soil amelioration • Erosion remediation • Weed management
Erosion	• Stable and self-sustaining landform with no erosion requiring ongoing maintenance. • No adverse erosion issues directly associated with the Project. • Landform within rehabilitation area is stable	• No visible scarring, rill/sheet erosion within rehabilitation area. • No active erosion issues (of any type) to be present on sensitive and/or erosion prone land types identified during baseline surveys • Less than 2% cover of minor erosion issues (i.e. stabilised or likely to stabilise) across the rehabilitation area.	• Erosion and sediment control plan • Infill seeding • Soil amelioration
Vegetation and habitat	• Dominant flora species in analogue sites are represented in rehabilitated areas. • Community structure of the rehabilitation is recognisable as, or is trending towards the target vegetation community. • Perennial species have established, and are expected to persist in line with analogue sites. • Habitat structures and quality is similar to analogue site, creating safe access and habitat connection at and to adjacent areas (for native fauna).	• Ground cover foliage is at least 70% of the analogue site. This cover is likely to self-sustain over time and rehabilitated areas become ecologically integrated with surrounding areas. • Perennial species cover (i.e. woody species such as shrubs and small trees, may also include perennial grass/forb species if applicable) is at least 70% of the analogue or complimentary site. • Vegetation composition and structure are comparable to the analogue/complementary site (dominant species present and structure consistent across ground, mid and upper layers). • Rehabilitation area supports at least 50% of the organic litter and coarse woody debris of the analogue site. • There is evidence that native fauna are utilising habitat within the rehabilitation area i.e. tracks, scats, burrows etc.	• Infill seeding • Soil amelioration • Weed management • Pest management • Bushfire management
Weeds	• No adverse weed infestations associated with the Project.	• No establishment of weeds declared under the Northern Territory Weeds Management Act. • Non-declared weed species (i.e. Buffel Grass) cover to be at similar levels (or less than) to baseline and/or surrounding areas. • No evidence that weeds have been spread or introduced by exploration activities.	• Weed management
Safety for humans and wildlife	• Safe for land users • All hazardous material and waste have been removed and disposed of in a licensed landfill or recycling facility. • Rehabilitation of disturbance areas should be similar in landform to the surrounding area and not pose safety risk to humans or wildlife.	• No waste, contamination or rubbish associated with the exploration program, including removal of all surface facilities and fencing (star pickets/fencing wire). • No steep slopes or barriers to remain on site, as these may be a safety risk to wildlife or humans.	• Waste removal • Erosion remediation • Grading of slopes to be consistent with surrounding landforms.

Jibera South Project area vegetation community



Appendix C - Rehabilitation Plan on a Page for STO7-4 (EP161 2D Seismic and Ground Gravity Survey Program)

Rehabilitation Management Plan (RP) EP 161 - STO7-4: EP161 2D Seismic and Ground Gravity Survey

Santos

REHABILITATION PLAN 2024

Project Area Details		Contact Details	
EP Number:	161	**Title of Responsible Person:**	NT Senior Supervisor Civil Works
Project Activity:	STO 7-4 - 2D Seismic Program	**Name:**	James Laverty
		Phone Number:	[redacted]
Total Area of Surface Disturbance:	107 ha[1]	**Email:**	[redacted]

Land Uses, Rehabilitation Objectives and Risk

Land Uses:

- Cattle grazing, gas exploration.

Rehabilitation Objectives:

- Stable and self-sustaining (e.g., no visible erosion that requires maintenance).
- Safe for the land users and fauna.
- Returned to an agreed and close to the pre-disturbance level that requires little or no ongoing weed control measures.
- Re-instated to reflect the natural ecosystem/s or establish an alternative outcome commiserate with the surrounding land use.
- No declared weed infestations in the rehabilitated area that require management.

Rehabilitation Risks:

- Compaction by vehicles on seismic lines.
- Exposed land surface contributes to increased weed recruitment and increased fire intensity, decreasing revegetation success.
- Extreme weather events (e.g., flood, fire, cyclone, drought) that destroy immature vegetation/regeneration.
- Fauna grazing on seedlings reduces rehabilitation outcomes.

Rehabilitation Approach

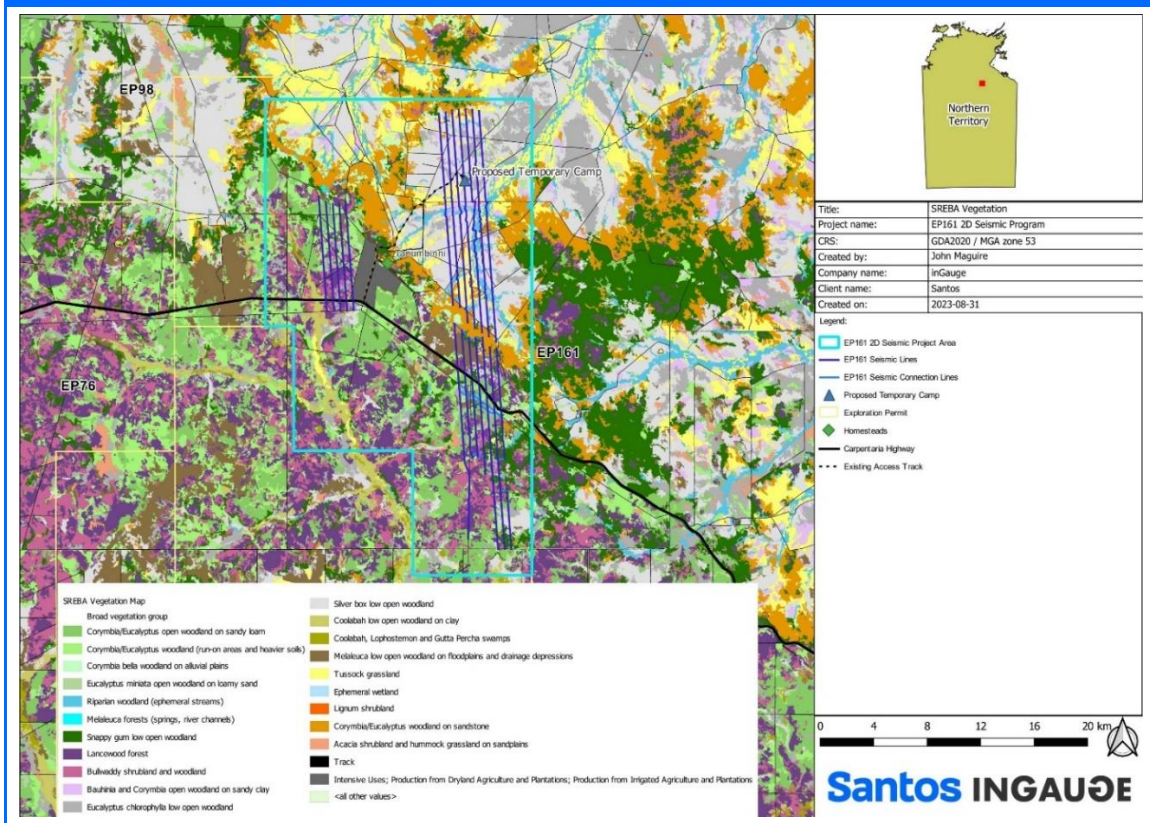
- The line preparation crew operates within a 50m working corridor, which permits deviations to avoid key environmental sensitivities and enables the selection of areas with favourable natural conditions (e.g., minimal slope).
- To reduce the need for mulching and limit repeated travel on prepared lines, existing access tracks are prioritised.
- A mulcher is used for line preparation so the soil is not disturbed, and the vegetation rootstock is not cleared.
- Decision trees utilised to assist in guiding line preparation.
- Mulched vegetation is immediately spread on the prepared line to reduce soil exposure and promote rapid rehabilitation.
- Annual inspections at the end of the wet season to inspect ESC measures and re-growth in comparison to analogue sites.

Project Area Vegetation Communities

Community 1: Open woodlands – Silver box, Eucalypt, Corymbia and Melaleuca woodland with shrub layers or grassland groundcover

Community 2: Bullwaddy / Lancewood

Project Area Vegetation Map



Pre-Disturbance Land Condition Summary

The Project Area is within a pastoralist property, located near the junction of two biogeographic regions as well as the headwaters of several catchments. As a result, the landscapes reflect to some degree those of the southern Sturt Plateau and Gulf Fall and Upland (upper Roper River) Bioregions. The Project Area soils are dominated by kandosols and rudosols. Rudosols are very shallow soils or those with minimal soil development and include very shallow rocky and gravelly soils across rugged terrain. The dominant vegetation type in the Project Area is woodland. Vegetation communities within the Project Area are dominated by Eucalyptus and Corymbia species (in the plains and undulating hills), Acacia woodlands/forests, and Melaleuca communities (within drainages lowlands, and depressions), Lancewood (*Acacia shirleyi*) woodland/forests and Bullwaddy (*Macropteranthes kekwickii*) woodlands.

Rehabilitation Plan Prepared by:	Trent Smith	**Role:** HSE & Compliance Manager inGauge

[1] *Previously approved disturbed totaled 125ha, actual disturbance resulted in 107ha*

Appendix D – Rehabilitation Plan on a Page(s) for STO1-4: McArthur Basin Civil and Seismic Program (inclusive of STO-2018A, STO2018B, and STO2-7)

Rehabilitation Plan - EP 161
2D Seismic (MSCAN19-01)

Location, Aim and Objectives			
Property land use(s):	Cattle grazing Gas exploration	**Prepared by**:	EcOz Environmental Consultants, Ingauge and Santos (date: 20/12/2023)
Rehabilitation aim:	To return disturbed land to a stable, self-sustaining landform that is similar to pre-existing and adjacent vegetation communities and/or landforms.	**Key Contact**:	Adam Hill, [redacted]
		GPS Co-ordinates: GDA 2020 Lat\Lon	16.39897˚ S 134.703900˚ E
Rehabilitation objectives:	• Stable and self-sustaining. • Safe for the land users and wildlife. • Returned to its pre-disturbance condition that requires no ongoing management	• Re-instated to reflect the natural ecosystem/s, or establish an alternative outcome that is commiserate with the surrounding land use e.g. pastoralism • Complementary (i.e. blends in) to the adjoining landscape. • There are no impacts of AAPA Restricted Works Area that occur adjacent to works area.	

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Rehabilitation Management Zones, Disturbance Area and Land Type

Zone	Size (ha)	Land system(s) (refer to ecological report for details)
Seismic lines	4.5	**Land system – Tanumbirini –** on plains, rises and plateaus; shallow soils with some surface stone and rock outcrops with mature trees generally present as mid high open woodland, over tussock grass understory

Example Land System - Tanumbirini

Rehabilitation Actions and Proposed Schedule

Component	Rehabilitation actions
	Linear Infrastructure
Seismic Lines	Light ripping/scarification and re-spreading of vegetation removed during seismic line preparation works
	Assess vegetation regrowth through photo-point monitoring at established photo-point monitoring sites

Indicative Rehabilitation Action Schedule

Month	Season	Wildfire Risk	Actions
December to March	Wet	Low	• Collect seeds • Broadcast seed and revegetate
April and May	Wet	Low	• Collect seeds • Weed surveys and management • Rehabilitation surveys
June	Transition	Med	• Monitor for wildfire • Rehabilitation surveys
July	Dry	High	• Rehabilitation surveys and establish analogue sites • Remove non-essential infrastructure
August	Dry	High	• Rehabilitation surveys and establish analogue sites • Decommission and remove non-essential infrastructure • Install erosion and sediment controls
September	Dry	High	• Rehabilitation surveys and establish analogue sites • Install erosion and sediment controls • Verify vegetation community composition
October	Dry	High	• Rehabilitation surveys and establish analogue sites • Verify vegetation community composition • Respread topsoil • Prepare rehabilitation zones for wet season and natural regeneration
November	Transition	Medium	• Prepare rehabilitation zones for wet season and natural regeneration

Rehabilitation Success Criteria

Aspect	Performance objective	Measurement criteria	Corrective actions
Landform and soils	The rehabilitated landform is equivalent to (and/or blends in with) the adjoining landform.	• Slope within rehabilitated areas is consistent with surrounding undisturbed landforms. • Soil type within rehabilitated areas is consistent with surrounding undisturbed landforms. • Soil condition within rehabilitated areas is consistent with surrounding undisturbed landforms.	• Infill seeding • Soil amelioration • Erosion remediation • Weed management
Erosion	• No adverse erosion issues directly associated with the Project. • Landform within rehabilitation area is stable	• No severe / significant active erosion to be present within rehabilitation area. • No active erosion issues (of any type) to be present on sensitive and/or erosion prone land types identified during baseline surveys. • Less than 2% cover of minor erosion issues (i.e. stabilised or likely to stabilise) across the rehabilitation area	• Erosion remediation • Infill seeding • Soil amelioration
Vegetation and habitat	• Dominant flora species in analogue or complimentary sites are represented in rehabilitated areas. • Community structure of the rehabilitation is recognisable as, or is trending towards the target vegetation community. • Perennial species have established, and are expected to persist in line with analogue sites. • Habitat structures and quality is similar to analogue site, creating habitat connection to adjacent areas (for fauna native fauna).	• Ground cover foliage is at least 70% of the analogue site. This cover is likely to self-sustain over time and rehabilitated areas become ecologically integrated with surrounding areas. • Perennial species cover (i.e. woody species such as shrubs and small trees, may also include perennial grass/forb species if applicable) is at least 70% of the analogue or complimentary site. • At least 80% of the dominant flora species in the mid and ground layers (strata) are present within rehabilitation site, when compared to analogue site. • Rehabilitation area support at least 50% of the organic litter and coarse woody debris of the analogue site. • There is evidence that native fauna are utilising habitat within the rehabilitation area i.e. tracks, scats, burrows etc.	• Infill seeding • Soil amelioration • Weed management • Pest management • Fire management
Weeds	• No adverse weed infestations associated with the Project.	• No establishment of weeds declared under the Northern Territory Weeds Management Act. • Non-declared weed species (i.e. Buffel Grass) cover to be at similar levels (or less than) to baseline and/or surrounding areas. • No evidence that weeds have been spread or introduced by exploration activities.	• Weed management
Safety for humans and wildlife	• All hazardous material and waste have been removed and disposed of in a licensed landfill or recycling facility. • Rehabilitation of disturbance areas should be similar in landform to the surrounding area and not pose safety risk to humans or wildlife.	• No waste, contamination or rubbish associated with the exploration program, including removal of all surface facilities and fencing (star pickets/fencing wire). • No steep slopes or barriers to remain on site, as these may be a safety risk to wildlife or humans.	• Waste removal • Erosion remediation • Grading of slopes to be consistent with surrounding landforms.

Key Rehabilitation Risks

- Drought — impacting the establishment of rehabilitated vegetation
- Fire — impacting revegetation
- Grazing — impacting revegetation
- Lack of topsoil and soil inversion—impacting rehabilitation success
- Exposed Ground — leading to weed establishment and/or erosion

Rehabilitation Plan - EP 161
Bennett Bore and Pond

Location, Aim and Objectives

Property land use(s):	Cattle grazing Gas exploration
Rehabilitation aim:	To return disturbed land to a stable, self-sustaining landform that is similar to pre-existing and adjacent vegetation communities and/or landforms.
Rehabilitation objectives:	• Stable and self-sustaining. • Safe for the land users and wildlife. • Returned to its pre-disturbance condition that requires no ongoing management • Re-instated to reflect the natural ecosystem/s, or establish an alternative outcome that is commiserate with the surrounding land use e.g. pastoralism • Complementary (i.e. blends in) to the adjoining landscape. • There are no impacts of AAPA Restricted Works Area that occur adjacent to works area.

Prepared by:	EcOz Environmental Consultants, Ingauge and Santos (date: 26/10/2023)
Key Contact:	Adam Hill, [redacted]
GPS Co-ordinates: GDA 2020 Lat\Lon	16.41454˚ S 134.67615˚ E

Santos

Rehabilitation Management Zones, Disturbance Area and Land Type

Zone	Size (ha)	Land system(s) (refer to ecological report for details)
Well pad (and associated components) **a. Groundwater Well** **b. Water holding Pond**	0.18	**Land system – Tanumbirini** – on plains, rises and plateaus; shallow soils with some surface stone and rock outcrops with mature trees generally present as mid high open woodland, over tussock grass understory

Rehabilitation Actions and Proposed Schedule

Component	Rehabilitation actions
	Sites
Well pads and infrastructure pads	• Remove all infrastructure • Re-shaping the landform, re-spread topsoil over area, lightly scarify and rip. • Small pad to be retained around well pad for ongoing inspection requirements
Groundwater wells / Water bores	• Decommissioning of well. • Stockpiled vegetation and topsoil re-spread, lightly scarify and shallow ripping • Removal of fencing and groundwater bores will be undertaken and any reusable materials and will be transferred to the landholder
Water bore holding pond	• Drained of liquids, infill pit, flatten/level out, re-spread topsoil over area, lightly scarify and rip.

Key Rehabilitation Risks

- Drought — impacting the establishment of rehabilitated vegetation
- Fire — impacting revegetation
- Grazing — impacting revegetation
- Lack of topsoil and soil inversion—impacting rehabilitation success
- Exposed Ground — leading to weed establishment and/or erosion

Indicative Rehabilitation Action Schedule

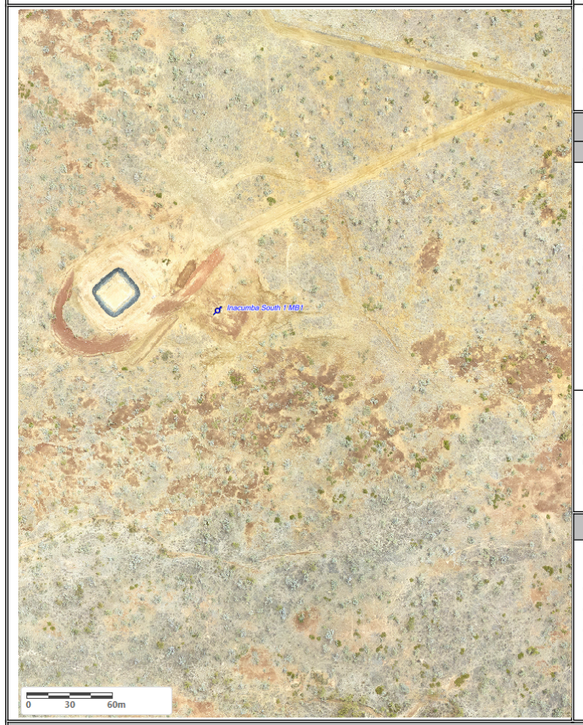
Month	Season	Wildfire Risk	Actions
December to March	Wet	Low	• Collect seeds • Broadcast seed and revegetate
April and May	Wet	Low	• Collect seeds • Weed surveys and management • Rehabilitation surveys
June	Transition	Med	• Monitor for wildfire • Rehabilitation surveys
July	Dry	High	• Rehabilitation surveys and establish analogue sites • Remove non-essential infrastructure
August	Dry	High	• Rehabilitation surveys and establish analogue sites • Decommission and remove non-essential infrastructure • Install erosion and sediment controls
September	Dry	High	• Rehabilitation surveys and establish analogue sites • Install erosion and sediment controls • Verify vegetation community composition
October	Dry	High	• Rehabilitation surveys and establish analogue sites • Verify vegetation community composition • Respread topsoil • Prepare rehabilitation zones for wet season and natural regeneration
November	Transition	Medium	• Prepare rehabilitation zones for wet season and natural regeneration

Rehabilitation Success Criteria

Aspect	Performance objective	Measurement criteria	Corrective actions
Landform and soils	• The rehabilitated landform is equivalent to (and/or blends in with) the adjoining landform.	• Slope within rehabilitated areas is consistent with surrounding undisturbed landforms. • Soil type within rehabilitated areas is consistent with surrounding undisturbed landforms. • Soil condition within rehabilitated areas is consistent with surrounding undisturbed landforms.	• Infill seeding • Soil amelioration • Erosion remediation • Weed management
Erosion	• No adverse erosion issues directly associated with the Project. • Landform within rehabilitation area is stable.	• No severe / significant active erosion to be present within rehabilitation area. • No active erosion issues (of any type) to be present on sensitive and/or erosion prone land types identified during baseline surveys. • Less than 2% cover of minor erosion issues (i.e. stabilised or likely to stabilise) across the rehabilitation area	• Erosion remediation • Infill seeding • Soil amelioration
Vegetation and habitat	• Dominant flora species in analogue or complimentary sites are represented in rehabilitated areas. • Community structure of the rehabilitation is recognisable as, or is trending towards the target vegetation community. • Perennial species have established, and are expected to persist in line with analogue sites. • Habitat structures and quality is similar to analogue site, creating habitat connection to adjacent areas (for fauna native fauna).	• Ground cover foliage is at least 70% of the analogue site. This cover is likely to self-sustain over time and rehabilitated areas become ecologically integrated with surrounding areas. • Perennial species cover (i.e. woody species such as shrubs and small trees, may also include perennial grass/forb species if applicable) is at least 70% of the analogue or complimentary site. • At least 80% of the dominant flora species in the mid and ground layers (strata) are present within rehabilitation site, when compared to analogue site. • Rehabilitation area support at least 50% of the organic litter and coarse woody debris of the analogue site. • There is evidence that native fauna are utilising habitat within the rehabilitation area i.e. tracks, scats, burrows etc.	• Infill seeding • Soil amelioration • Weed management • Pest management • Fire management
Weeds	• No adverse weed infestations associated with the Project.	• No establishment of weeds declared under the Northern Territory Weeds Management Act. • Non-declared weed species (i.e. Buffel Grass) cover to be at similar levels (or less than) to baseline and/or surrounding areas. • No evidence that weeds have been spread or introduced by exploration activities.	• Weed management
Safety for humans and wildlife	• All hazardous material and waste have been removed and disposed of in a licensed landfill or recycling facility. • Rehabilitation of disturbance areas should be similar in landform to the surrounding area and not pose safety risk to humans or wildlife.	• No waste, contamination or rubbish associated with the exploration program, including removal of all surface facilities and fencing (star pickets/fencing wire). • No steep slopes or barriers to remain on site, as these may be a safety risk to wildlife or humans.	• Waste removal • Erosion remediation • Grading of slopes to be consistent with surrounding landforms.

Example Land System - Tanumbirini

Rehabilitation Plan - EP 161 Inacumba South Well Pad and Access Track



Location, Aim and Objectives

Property land use(s):	Cattle grazing Gas exploration
Rehabilitation aim:	To return disturbed land to a stable, self-sustaining landform that is similar to pre-existing and adjacent vegetation communities and/or landforms.
Rehabilitation objectives:	• Stable and self-sustaining. • Safe for the land users and wildlife. • Returned to its pre-disturbance condition that requires no ongoing management • Re-instated to reflect the natural ecosystem/s, or establish an alternative outcome that is commiserate with the surrounding land use e.g. pastoralism • Complementary (i.e. blends in) to the adjoining landscape. • There are no impacts of AAPA Restricted Works Area that occur adjacent to works area.

Prepared by:	EcOz Environmental Consultants, Ingauge and Santos (date: 26/10/2023)
Key Contact:	Adam Hill, [redacted]
GPS Co-ordinates: GDA 2020 Lat\Lon	16.56238˚ S 134.77088˚ E

Santos

Rehabilitation Management Zones, Disturbance Area and Land Type

Zone	Size (ha)	Land system(s) (refer to ecological report for details)
Well pad (and associated components) **a. Groundwater Well** **b. Water holding Pond**	0.82	**Land system – Coolibah** – on alluvial floodplains, swamps, drainage depression on grey and brown clays with mature trees generally present as mid high open woodland, over tussock grass understory
Access tracks (constructed as part of works and not transferred)	0.24	**Land system – Coolibah** – on alluvial floodplains, swamps, drainage depression (as above)

Key Rehabilitation Risks

- Drought — impacting the establishment of rehabilitated vegetation
- Fire — impacting revegetation
- Grazing — impacting revegetation
- Lack of topsoil and soil inversion—impacting rehabilitation success
- Exposed Ground — leading to weed establishment and/or erosion

Rehabilitation Actions and Proposed Schedule

Component	Rehabilitation actions
Linear Infrastructure	
Main access track	• Removal of imported road base material (gravel etc), • e-shaping the landform to blend the bare soil with the surrounding areas, • Stockpiled vegetation and topsoil re-spread, lightly scarify and shallow ripping to ensure the heavily compacted areas are loosened, suitable for vegetation growth.
Sites	
Well head	Well suspended Decommissioning of well.
Well pads and infrastructure pads	Remove all infrastructure Re-shaping the landform, re-spread topsoil over area, lightly scarify and rip. Small pad to be retained around well pad for ongoing inspection requirements
Groundwater wells / Water bores	Decommissioning of well. Stockpiled vegetation and topsoil re-spread, lightly scarify and shallow ripping Removal of fencing and groundwater bores will be undertaken and any reusable materials and will be transferred to the landholder
Water bore holding pond	Drained of liquids, infill pit, flatten/level out, re-spread topsoil over area, lightly scarify and rip.

Indicative Rehabilitation Action Schedule

Month	Season	Wildfire Risk	Actions
December to March	Wet	Low	• Collect seeds • Broadcast seed and revegetate
April and May	Wet	Low	• Collect seeds • Weed surveys and management • Rehabilitation surveys
June	Transition	Med	• Monitor for wildfire • Rehabilitation surveys
July	Dry	High	• Rehabilitation surveys and establish analogue sites • Remove non-essential infrastructure
August	Dry	High	• Rehabilitation surveys and establish analogue sites • Decommission and remove non-essential infrastructure • Install erosion and sediment controls
September	Dry	High	• Rehabilitation surveys and establish analogue sites • Install erosion and sediment controls • Verify vegetation community composition
October	Dry	High	• Rehabilitation surveys and establish analogue sites • Verify vegetation community composition • Respread topsoil • Prepare rehabilitation zones for wet season and natural regeneration
November	Transition	Medium	• Prepare rehabilitation zones for wet season and natural regeneration

Example Land System - Coolibah

Rehabilitation Success Criteria

Aspect	Performance objective	Measurement criteria	Corrective actions
Landform and soils	• The rehabilitated landform is equivalent to (and/or blends in with) the adjoining landform.	• Slope within rehabilitated areas is consistent with surrounding undisturbed landforms. • Soil type within rehabilitated areas is consistent with surrounding undisturbed landforms. • Soil condition within rehabilitated areas is consistent with surrounding undisturbed landforms.	• Infill seeding • Soil amelioration • Erosion remediation • Weed management
Erosion	• No adverse erosion issues directly associated with the Project. • Landform within rehabilitation area is stable.	• No severe / significant active erosion to be present within rehabilitation area. • No active erosion issues (of any type) to be present on sensitive and/or erosion prone land types identified during baseline surveys. • Less than 2% cover of minor erosion issues (i.e. stabilised or likely to stabilise) across the rehabilitation area	• Erosion remediation • Infill seeding • Soil amelioration
Vegetation and habitat	• Dominant flora species in analogue or complimentary sites are represented in rehabilitated areas. • Community structure of the rehabilitation is recognisable as, or is trending towards the target vegetation community. • Perennial species have established, and are expected to persist in line with analogue sites. • Habitat structures and quality is similar to analogue site, creating habitat connection to adjacent areas (for fauna native fauna).	• Ground cover foliage is at least 70% of the analogue site. This cover is likely to self-sustain over time and rehabilitated areas become ecologically integrated with surrounding areas. • Perennial species cover (i.e. woody species such as shrubs and small trees, may also include perennial grass/forb species if applicable) is at least 70% of the analogue or complimentary site. • At least 80% of the dominant flora species in the mid and ground layers (strata) are present within rehabilitation site, when compared to analogue site. • Rehabilitation area support at least 50% of the organic litter and coarse woody debris of the analogue site. • There is evidence that native fauna are utilising habitat within the rehabilitation area i.e. tracks, scats, burrows etc.	• Infill seeding • Soil amelioration • Weed management • Pest management • Fire management
Weeds	• No adverse weed infestations associated with the Project.	• No establishment of weeds declared under the Northern Territory Weeds Management Act. • Non-declared weed species (i.e. Buffel Grass) cover to be at similar levels (or less than) to baseline and/or surrounding areas. • No evidence that weeds have been spread or introduced by exploration activities.	• Weed management
Safety for humans and wildlife	• All hazardous material and waste have been removed and disposed of in a licensed landfill or recycling facility. • Rehabilitation of disturbance areas should be similar in landform to the surrounding area and not pose safety risk to humans or wildlife.	• No waste, contamination or rubbish associated with the exploration program, including removal of all surface facilities and fencing (star pickets/fencing wire). • No steep slopes or barriers to remain on site, as these may be a safety risk to wildlife or humans.	• Waste removal • Erosion remediation • Grading of slopes to be consistent with surrounding landforms.

Rehabilitation Plan - EP 161
Inacumba North

Location, Aim and Objectives

Property land use(s):	Cattle grazing Gas exploration
Rehabilitation aim:	To return disturbed land to a stable, self-sustaining landform that is similar to pre-existing and adjacent vegetation communities and/or landforms.
Rehabilitation objectives:	• Stable and self-sustaining. • Safe for the land users and wildlife. • Returned to its pre-disturbance condition that requires no ongoing management • Re-instated to reflect the natural ecosystem/s, or establish an alternative outcome that is commiserate with the surrounding land use e.g. pastoralism • Complementary (i.e. blends in) to the adjoining landscape. • There are no impacts of AAPA Restricted Works Area that occur adjacent to works area.

Prepared by:	EcOz Environmental Consultants, Ingauge and Santos (date: 26/10/2023)
Key Contact:	Adam Hill, [redacted]
GPS Co-ordinates: GDA 2020 Lat\Lon	16.51591˚ S 134.84185˚ E

Santos

Rehabilitation Management Zones, Disturbance Area and Land Type

Zone	Size (ha)	Land system(s) (refer to ecological report for details)
Well pad (and associated components) **a. Lease pad (remediated)** **b. Water bores (7 drilled, 1 P&A)** **c. Access track** **d. Fence around lease**	9.57	**Land system – Coolibah** – on alluvial floodplains, swamps, drainage depression on grey and brown clays with mature trees generally present as mid high open woodland, over tussock grass understory
Access tracks	0.91	**Land system – Coolibah** – on alluvial floodplains, swamps, drainage depression (as above)

Key Rehabilitation Risks

- Drought — impacting the establishment of rehabilitated vegetation
- Fire — impacting revegetation
- Grazing — impacting revegetation
- Lack of topsoil and soil inversion—impacting rehabilitation success
- Exposed Ground — leading to weed establishment and/or erosion

Rehabilitation Actions and Proposed Schedule

Component	Rehabilitation actions
Linear Infrastructure	
Main access track	Removal of imported road base material (gravel etc), re-shaping the landform to blend the bare soil with the surrounding areas, stockpiled vegetation and topsoil re-spread, lightly scarify and shallow ripping to ensure the heavily compacted areas are loosened, suitable for vegetation growth.
Sites	
Well head	Well suspended Decommissioning of well.
Well pads and infrastructure pads	Remove all infrastructure Re-shaping the landform, re-spread topsoil over area, lightly scarify and rip. Small pad to be retained around well pad for ongoing inspection requirements
Groundwater wells / Water bores	Decommissioning of well. Stockpiled vegetation and topsoil re-spread, lightly scarify and shallow ripping Removal of fencing and groundwater bores will be undertaken and any reusable materials and will be transferred to the landholder

Indicative Rehabilitation Action Schedule

Month	Season	Wildfire Risk	Actions
December to March	Wet	Low	• Collect seeds • Broadcast seed and revegetate
April and May	Wet	Low	• Collect seeds • Weed surveys and management • Rehabilitation surveys
June	Transition	Med	• Monitor for wildfire • Rehabilitation surveys
July	Dry	High	• Rehabilitation surveys and establish analogue sites • Remove non-essential infrastructure
August	Dry	High	• Rehabilitation surveys and establish analogue sites • Decommission and remove non-essential infrastructure • Install erosion and sediment controls
September	Dry	High	• Rehabilitation surveys and establish analogue sites • Install erosion and sediment controls • Verify vegetation community composition
October	Dry	High	• Rehabilitation surveys and establish analogue sites • Verify vegetation community composition • Respread topsoil • Prepare rehabilitation zones for wet season and natural regeneration
November	Transition	Medium	• Prepare rehabilitation zones for wet season and natural regeneration

Example Land System - Coolibah

Rehabilitation Success Criteria

Aspect	Performance objective	Measurement criteria	Corrective actions
Landform and soils	• The rehabilitated landform is equivalent to (and/or blends in with) the adjoining landform.	• Slope within rehabilitated areas is consistent with surrounding undisturbed landforms. • Soil type within rehabilitated areas is consistent with surrounding undisturbed landforms. • Soil condition within rehabilitated areas is consistent with surrounding undisturbed landforms.	• Infill seeding • Soil amelioration • Erosion remediation • Weed management
Erosion	• No adverse erosion issues directly associated with the Project. • Landform within rehabilitation area is stable.	• No severe / significant active erosion to be present within rehabilitation area. • No active erosion issues (of any type) to be present on sensitive and/or erosion prone land types identified during baseline surveys. • Less than 2% cover of minor erosion issues (i.e. stabilised or likely to stabilise) across the rehabilitation area	• Erosion remediation • Infill seeding • Soil amelioration
Vegetation and habitat	• Dominant flora species in analogue or complimentary sites are represented in rehabilitated areas. • Community structure of the rehabilitation is recognisable as, or is trending towards the target vegetation community. • Perennial species have established, and are expected to persist in line with analogue sites. • Habitat structures and quality is similar to analogue site, creating habitat connection to adjacent areas (for fauna native fauna).	• Ground cover foliage is at least 70% of the analogue site. This cover is likely to self-sustain over time and rehabilitated areas become ecologically integrated with surrounding areas. • Perennial species cover (i.e. woody species such as shrubs and small trees, may also include perennial grass/forb species if applicable) is at least 70% of the analogue or complimentary site. • At least 80% of the dominant flora species in the mid and ground layers (strata) are present within rehabilitation site, when compared to analogue site. • Rehabilitation area support at least 50% of the organic litter and coarse woody debris of the analogue site. • There is evidence that native fauna are utilising habitat within the rehabilitation area i.e. tracks, scats, burrows etc.	• Infill seeding • Soil amelioration • Weed management • Pest management • Fire management
Weeds	• No adverse weed infestations associated with the Project.	• No establishment of weeds declared under the Northern Territory Weeds Management Act. • Non-declared weed species (i.e. Buffel Grass) cover to be at similar levels (or less than) to baseline and/or surrounding areas. • No evidence that weeds have been spread or introduced by exploration activities.	• Weed management
Safety for humans and wildlife	• All hazardous material and waste have been removed and disposed of in a licensed landfill or recycling facility. • Rehabilitation of disturbance areas should be similar in landform to the surrounding area and not pose safety risk to humans or wildlife.	• No waste, contamination or rubbish associated with the exploration program, including removal of all surface facilities and fencing (star pickets/fencing wire). • No steep slopes or barriers to remain on site, as these may be a safety risk to wildlife or humans.	• Waste removal • Erosion remediation • Grading of slopes to be consistent with surrounding landforms.

Rehabilitation Plan - EP 161
Jibera South Access Track

Location, Aim and Objectives

Property land use(s):	Cattle grazing Gas exploration
Rehabilitation aim:	To return disturbed land to a stable, self-sustaining landform that is similar to pre-existing and adjacent vegetation communities and/or landforms.
Rehabilitation objectives:	• Stable and self-sustaining. • Safe for the land users and wildlife. • Returned to its pre-disturbance condition that requires no ongoing management • Re-instated to reflect the natural ecosystem/s, or establish an alternative outcome that is commiserate with the surrounding land use e.g. pastoralism • Complementary (i.e. blends in) to the adjoining landscape. • There are no impacts of AAPA Restricted Works Area that occur adjacent to works area.

Prepared by:	EcOz Environmental Consultants, Ingauge and Santos (date: 20/12/2023)
Key Contact:	Adam Hill, [redacted]
GPS Co-ordinates: GDA 2020 Lat\Lon	16.44914˚ S 134.61573˚ E

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Rehabilitation Management Zones, Disturbance Area and Land Type

Zone	Size (ha)	Land system(s) (refer to ecological report for details)
Access tracks (constructed as part of works and not transferred)	2.2	**Land system – Lancewood 3** – Minor landsystem present – on gently undulating plains on mostly sandstone with tall open grassland present.

Example Land System - Lancewood 3

Rehabilitation Actions and Proposed Schedule

Component	Rehabilitation actions
Linear Infrastructure	
Main access track	Removal of imported road base material (gravel etc), re-shaping the landform to blend the bare soil with the surrounding areas, stockpiled vegetation and topsoil re-spread, lightly scarify and shallow ripping to ensure the heavily compacted areas are loosened, suitable for vegetation growth.

Indicative Rehabilitation Action Schedule

Month	Season	Wildfire Risk	Actions
December to March	Wet	Low	• Collect seeds • Broadcast seed and revegetate
April and May	Wet	Low	• Collect seeds • Weed surveys and management • Rehabilitation surveys
June	Transition	Med	• Monitor for wildfire • Rehabilitation surveys
July	Dry	High	• Rehabilitation surveys and establish analogue sites • Remove non-essential infrastructure
August	Dry	High	• Rehabilitation surveys and establish analogue sites • Decommission and remove non-essential infrastructure • Install erosion and sediment controls
September	Dry	High	• Rehabilitation surveys and establish analogue sites • Install erosion and sediment controls • Verify vegetation community composition
October	Dry	High	• Rehabilitation surveys and establish analogue sites • Verify vegetation community composition • Respread topsoil • Prepare rehabilitation zones for wet season and natural regeneration
November	Transition	Medium	• Prepare rehabilitation zones for wet season and natural regeneration

Rehabilitation Success Criteria

Aspect	Performance objective	Measurement criteria	Corrective actions
Landform and soils	The rehabilitated landform is equivalent to (and/or blends in with) the adjoining landform.	• Slope within rehabilitated areas is consistent with surrounding undisturbed landforms. • Soil type within rehabilitated areas is consistent with surrounding undisturbed landforms. Soil condition within rehabilitated areas is consistent with surrounding undisturbed landforms.	• Infill seeding • Soil amelioration • Erosion remediation • Weed management
Erosion	• No adverse erosion issues directly associated with the Project. Landform within rehabilitation area is stable	• No severe / significant active erosion to be present within rehabilitation area. • No active erosion issues (of any type) to be present on sensitive and/or erosion prone land types identified during baseline surveys. Less than 2% cover of minor erosion issues (i.e. stabilised or likely to stabilise) across the rehabilitation area	• Erosion remediation • Infill seeding • Soil amelioration
Vegetation and habitat	• Dominant flora species in analogue or complimentary sites are represented in rehabilitated areas. • Community structure of the rehabilitation is recognisable as, or is trending towards the target vegetation community. • Perennial species have established, and are expected to persist in line with analogue sites. • Habitat structures and quality is similar to analogue site, creating habitat connection to adjacent areas (for fauna native fauna).	• Ground cover foliage is at least 70% of the analogue site. This cover is likely to self-sustain over time and rehabilitated areas become ecologically integrated with surrounding areas. • Perennial species cover (i.e. woody species such as shrubs and small trees, may also include perennial grass/forb species if applicable) is at least 70% of the analogue or complimentary site. • At least 80% of the dominant flora species in the mid and ground layers (strata) are present within rehabilitation site, when compared to analogue site. • Rehabilitation area support at least 50% of the organic litter and coarse woody debris of the analogue site. • There is evidence that native fauna are utilising habitat within the rehabilitation area i.e. tracks, scats, burrows etc.	• Infill seeding • Soil amelioration • Weed management • Pest management • Fire management
Weeds	• No adverse weed infestations associated with the Project.	• No establishment of weeds declared under the Northern Territory Weeds Management Act. • Non-declared weed species (i.e. Buffel Grass) cover to be at similar levels (or less than) to baseline and/or surrounding areas. • No evidence that weeds have been spread or introduced by exploration activities.	• Weed management
Safety for humans and wildlife	• All hazardous material and waste have been removed and disposed of in a licensed landfill or recycling facility. • Rehabilitation of disturbance areas should be similar in landform to the surrounding area and not pose safety risk to humans or wildlife.	• No waste, contamination or rubbish associated with the exploration program, including removal of all surface facilities and fencing (star pickets/fencing wire). • No steep slopes or barriers to remain on site, as these may be a safety risk to wildlife or humans.	• Waste removal • Erosion remediation • Grading of slopes to be consistent with surrounding landforms.

Key Rehabilitation Risks

- Drought — impacting the establishment of rehabilitated vegetation
- Fire — impacting revegetation
- Grazing — impacting revegetation
- Lack of topsoil and soil inversion—impacting rehabilitation success
- Exposed Ground — leading to weed establishment and/or erosion

Rehabilitation Plan - EP 161 Tanumbirini 1-3 and Access Track

Location, Aim and Objectives

Property land use(s):	Cattle grazing Gas exploration
Rehabilitation aim:	To return disturbed land to a stable, self-sustaining landform that is similar to pre-existing and adjacent vegetation communities and/or landforms.
Rehabilitation objectives:	• Stable and self-sustaining. • Safe for the land users and wildlife. • Returned to its pre-disturbance condition that requires no ongoing management • Re-instated to reflect the natural ecosystem/s, or establish an alternative outcome that is commiserate with the surrounding land use e.g. pastoralism • Complementary (i.e. blends in) to the adjoining landscape. • There are no impacts of AAPA Restricted Works Area that occur adjacent to works area.

Prepared by:	EcOz Environmental Consultants, Ingauge and Santos (date: 26/10/2023)
Key Contact:	Adam Hill, [redacted]
GPS Co-ordinates: GDA 2020 Lat\Lon	16.40002˚ S 134.70471˚ E

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Rehabilitation Management Zones, Disturbance Area and Land Type

Zone	Size (ha)	Land system(s) (refer to ecological report for details)
Well pad (and associated components) **a. Laydown pad** **b. Petroleum wells** **c. Camp pad** **d. Groundwater wells** **e. Fence around lease**	15.6	**Land system – Tanumbirini** – on plains, rises and plateaus; shallow soils with some surface stone and rock outcrops with mature trees generally present as mid high open woodland, over tussock grass understory
Access tracks (constructed as part of works and not transferred)	0.9	**Land system – Tanumbirini** – on plains, rises and plateaus (as above)

Rehabilitation Actions and Proposed Schedule

Component	Rehabilitation actions
Linear Infrastructure	
Main access track	Removal of imported road base material (gravel etc), re-shaping the landform to blend the bare soil with the surrounding areas, stockpiled vegetation and topsoil re-spread, lightly scarify and shallow ripping to ensure the heavily compacted areas are loosened, suitable for vegetation growth.
Sites	
Well head	Well suspended Decommissioning of well.
Well pads and infrastructure pads	Remove all infrastructure Re-shaping the landform, re-spread topsoil over area, lightly scarify and rip. Small pad to be retained around well pad for ongoing inspection requirements
Groundwater wells / Water bores	Decommissioning of well. Stockpiled vegetation and topsoil re-spread, lightly scarify and shallow ripping Removal of fencing and groundwater bores will be undertaken and any reusable materials and will be transferred to the landholder
Water bore holding pond	Drained of liquids, infill pit, flatten/level out, re-spread topsoil over area, lightly scarify and rip.

Key Rehabilitation Risks

- Drought — impacting the establishment of rehabilitated vegetation
- Fire — impacting revegetation
- Grazing — impacting revegetation
- Lack of topsoil and soil inversion—impacting rehabilitation success
- Exposed Ground — leading to weed establishment and/or erosion

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Erosion	• No adverse erosion issues directly associated with the Project. • Landform within rehabilitation area is stable.	• No severe / significant active erosion to be present within rehabilitation area. • No active erosion issues (of any type) to be present on sensitive and/or erosion prone land types identified during baseline surveys. • Less than 2% cover of minor erosion issues (i.e. stabilised or likely to stabilise) across the rehabilitation area	• Erosion remediation • Infill seeding • Soil amelioration
Vegetation and habitat	• Dominant flora species in analogue or complimentary sites are represented in rehabilitated areas. • Community structure of the rehabilitation is recognisable as, or is trending towards the target vegetation community. • Perennial species have established, and are expected to persist in line with analogue sites. • Habitat structures and quality is similar to analogue site, creating habitat connection to adjacent areas (for fauna native fauna).	• Ground cover foliage is at least 70% of the analogue site. This cover is likely to self-sustain over time and rehabilitated areas become ecologically integrated with surrounding areas. • Perennial species cover (i.e. woody species such as shrubs and small trees, may also include perennial grass/forb species if applicable) is at least 70% of the analogue or complimentary site. • At least 80% of the dominant flora species in the mid and ground layers (strata) are present within rehabilitation site, when compared to analogue site. • Rehabilitation area support at least 50% of the organic litter and coarse woody debris of the analogue site. • There is evidence that native fauna are utilising habitat within the rehabilitation area i.e. tracks, scats, burrows etc.	• Infill seeding • Soil amelioration • Weed management • Pest management • Fire management
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Example Land System - Tanumbirini