Memorandum

From	Tim Collins	Date	08/02/2016
Document number	Q-4100-15-RP-038_01		
Subject	**DA2073 – Australia Pacific LNG, Rockwood - Talinga Pond D** **Addendum to Ecology Assessment Report (Q-4100-15-RP-038)**		

This memo provides specific information regarding additional ecology survey activities carried out within Lot 1 on RG491 and Lot 32 on RG247 on the 30th of January 2016, by Origin Senior Field Environmental Advisors Anjeanette Schimpf & Tim Collins.

The additional survey was required to delineate existing Regional Ecosystem (RE) mapping that indicated areas of sub-dominant threatened vegetation within heterogenous polygons that were mapped within proximity of proposed works around the existing Talinga Pond A. The Survey Area for the work is defined by a 200m buffer from all proposed works on-site and can be seen on Figure 1: Survey Area, within Appendix A to this memorandum. The scope of this survey was focussed solely on correcting/updating the existing RE mapping for the area and did not include any investigation into other environmental matters within the Survey Area.

All areas of vegetation and all existing mapped polygons within the Survey Area were re-investigated and either confirmed, extended or corrected to reflect the current status.

Survey methodologies employed for the ecology survey have been applied in accordance with:

- The *Methodology for Survey and Mapping of Regional Ecosystems and Vegetation Communities in Queensland* (Neldner et al. 2005)
- In line with the methodology described in the *Environmental Constraints Planning and Field Development Protocol* (Q-LNG01-15-MP-0109, Australia Pacific LNG 2011).

Tables 1 and 2 provide a summary of the ecological values recorded as a result of the additional ecology survey activities.

Spatial data recorded as a result of the additional survey activities has been submitted to OE GIS for inclusion into relevant corporate datasets (e.g. Integrated Regional Ecosystem layer).

Revision	Date	Description	Originator	Checked	QA/Eng	Approved
0	08/02/2016	Issued for Use	A Schimpf	T Collins	T Collins	L Merton

Table 1: Commonwealth Environmental Matters – Field Survey Results

Commonwealth environmental matters	Present (Y/N)	Location	Description	EPBC Act Status	Condition *[TECs only]*	Comments
TECs	Y	Lot 1 on RG491	Brigalow (*Acacia harpophylla* dominant and co-dominant).	Endangered	In good condition due to its location within a large tract of remnant vegetation that remains largely intact.	One small patch of RE11.4.3 approximately 0.56ha in area. Located in remnant vegetation away from previous clearing activities to the west of Talinga Pond A – refer Figure 2 within Appendix A of this report.

Table 2: State environmental matters – field survey results

State environmental matters	Present (Y/N)	Location	Description	Biodiversity, NC Act or LP Act Status	Comments
Endangered regional ecosystems (biodiversity status)	Y	1RG491	RE11.4.3 – *Acacia harpophylla* and/or *Casuarina cristata* shrubby open forest on Cainozoic plains	Endangered	Relict to small patches within the Survey Area and present either as discrete stands OR fringing the margin of larger tracts of vegetation on less fertile soils – refer to Figure 3 within Appendix A of this report.
	Y	32RG247	RE11.4.10 – *Eucalyptus populnea or E. woollsiana*, *Acacia harpophylla*, *Casuarina cristata* open forest to woodland on margins of Cainozoic clay plains.	Endangered	One small patch of vegetation exists as not much greater than a shade line of vegetation within the Survey Area. Previous impacts to the extent of this vegetation were evident as a result of petroleum activities (clearing for well placement) – refer to Figure 3 within Appendix A of this report.
Of concern regional ecosystems (biodiversity status)	N	--	--	--	--
No Concern at Present regional ecosystems	Y	1RG491 & 32RG247	11.5.1 - *Eucalyptus crebra* and/or *E. populnea*, *Callitris glaucophylla*, *Angophora*	NCaP	Recorded as both remnant and regrowth forms. Some disturbance evident as a result previous

State environmental matters	Present (Y/N)	Location	Description	Biodiversity, NC Act or LP Act Status	Comments
(biodiversity status)			*Leiocarpa*, *Allocasuarina luehmannii* woodland on Cainozoic sand plains and/or remnant surfaces.		clearing activities – refer to Figure 3 within Appendix A of this report.
	Y	1RG491	11.7.7 - *Eucalyptus fibrosa subs. Nubila* +/- *Corymbia spp*. +/- *Eucalyptus spp*. woodland on Cainozoic lateritic duricrust.	NCaP	Evident in remnant form to the west of Talinga Pond A. This community remained largely in-tact with little evidence of previous disturbance aside from being dissected in some places as a result of petroleum activities (access tracks to leases within the vegetation) – refer to Figure 3 within Appendix A of this report.
	Y	1RG491 & 32RG247	11.3.14 - *Eucalyptus spp*., *Angophora spp*., *Callitris spp*. woodland on alluvial plains.	NCaP	Present as linear tracts of vegetation proximal to a drainage feature that dissected the Survey Area. In some instances, clearing had occurred to the outer extend of this vegetation while in another location; it was seen within a larger patch of remnant RE11.5.1 – refer to Figure 3 within Appendix A of this report.
NC Act listed flora (Endangered, Vulnerable, Near Threatened)	N	--	--	--	Refer to Flora Survey Report Q-4100-15-RP-054

1. Appendix A: Map suite

Figure 1: Site Location and Survey Points

Legend

Survey Location

Vegetation Community Survey Point

Queensland Waterways Zoning

Risk of Impact

1 - Low

Boundary

Surveyed Cadastral

Petroleum Lease

Survey Area

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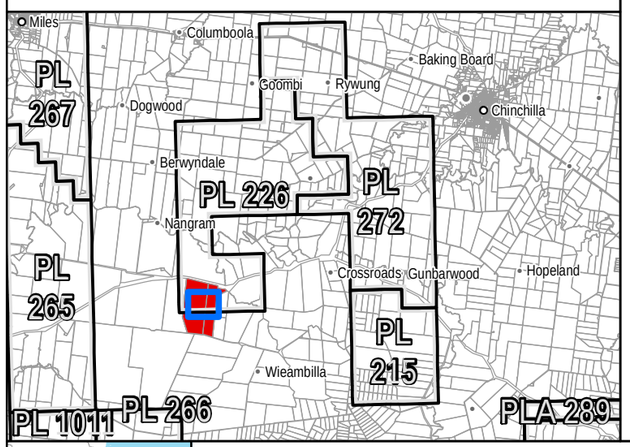

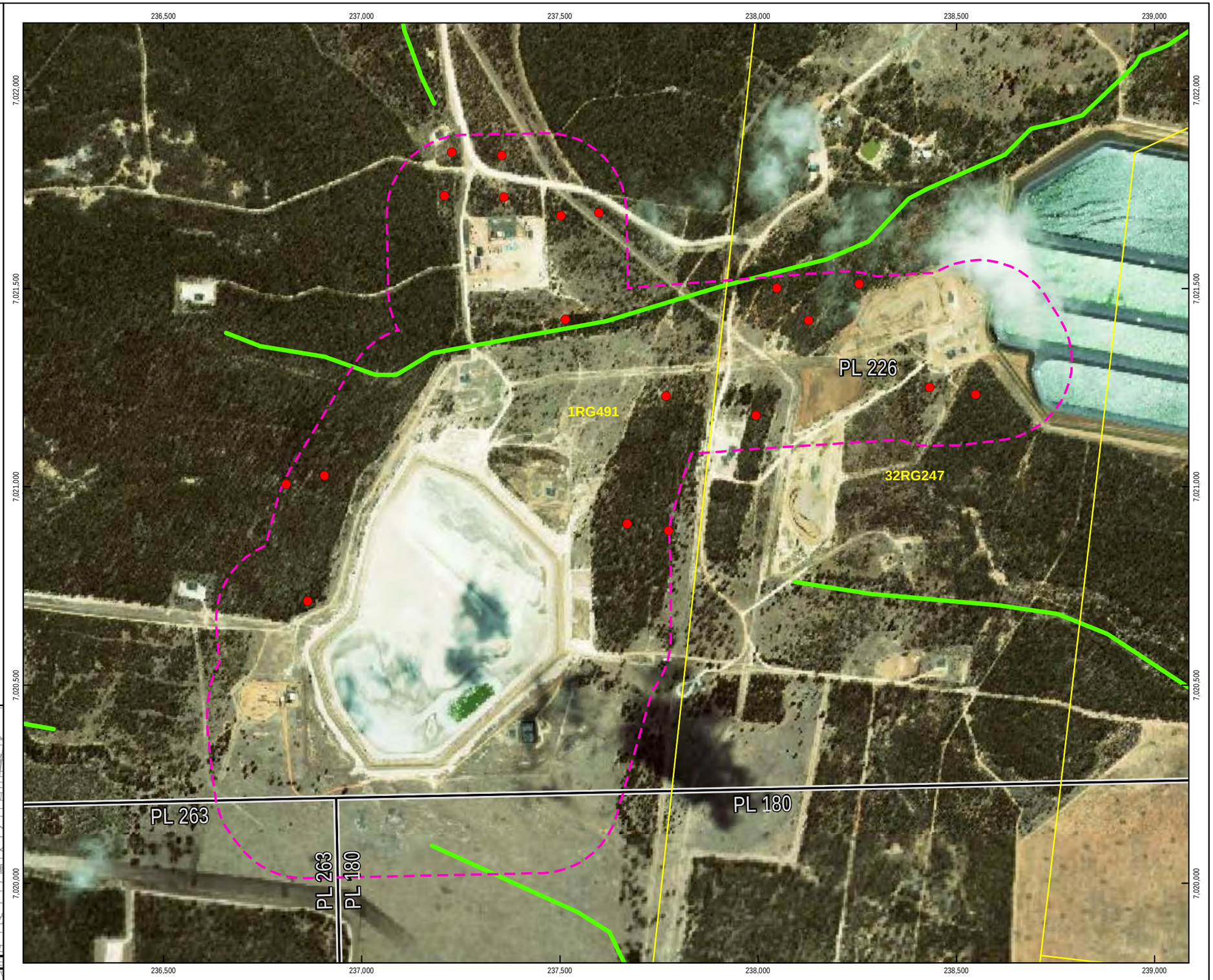

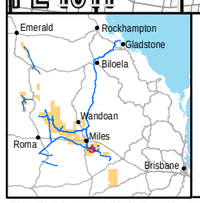

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Scale 1:10,000 (at A3)

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Metres

Coordinate System: GDA 1994 MGA Zone 56

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Figure 1 :
Site Location and Survey Points
Date: 5 February 2016

Map Number	Doc No	Rev
1 of 1	Q-4100-15-RP-038_1	0
	Map ID GISWR_30386	

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Figure 2: Ground Truthed Threatened Ecological Communities

Legend

Ground Truthed Threatened Ecological Communities

- Brigalow (RE 11.4.3)

Boundary

- Surveyed Cadastral
- Petroleum Lease
- Survey Area

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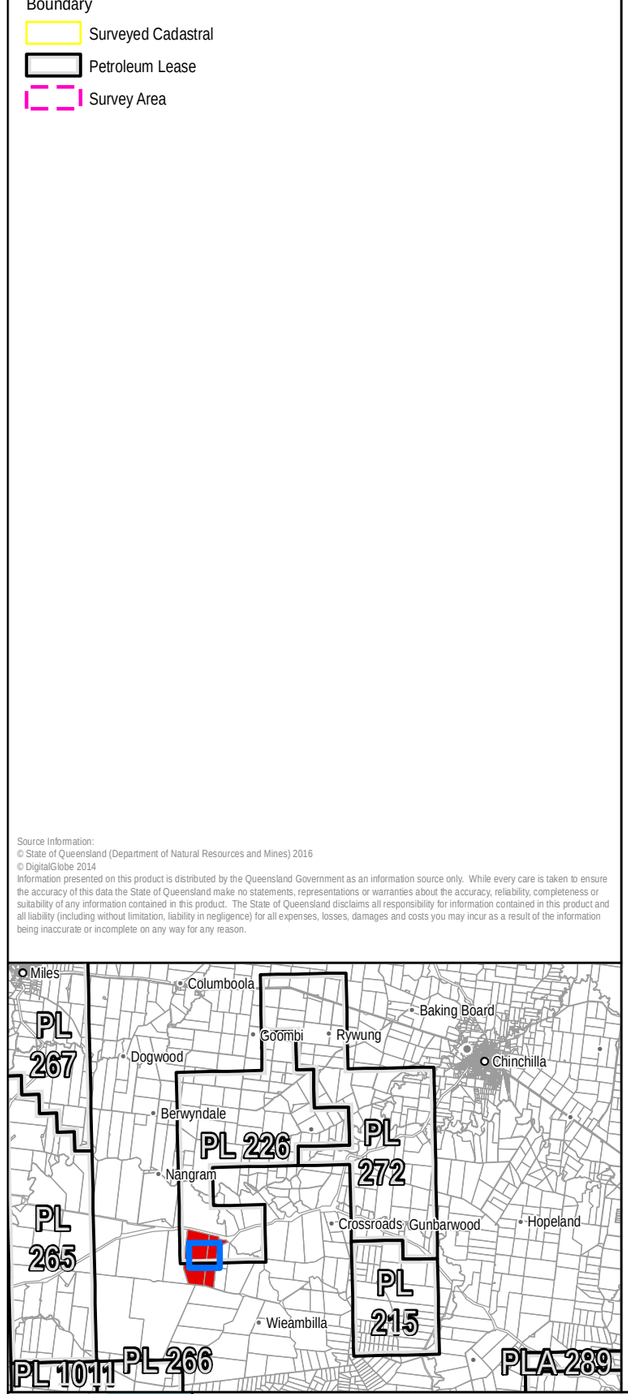

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Figure 3: Ground Truthed Regional Ecosystems

Legend

- DNRM Stream Order

Ground Truthed Regional Ecosystems (RE) Biodiversity Status

Remnant Vegetation

- Endangered RE
- No Concern at Present

Regrowth Vegetation

- Contains Endangered RE
- Not of Concern RE

Boundary

- Surveyed Cadastral
- Petroleum Lease
- Survey Area

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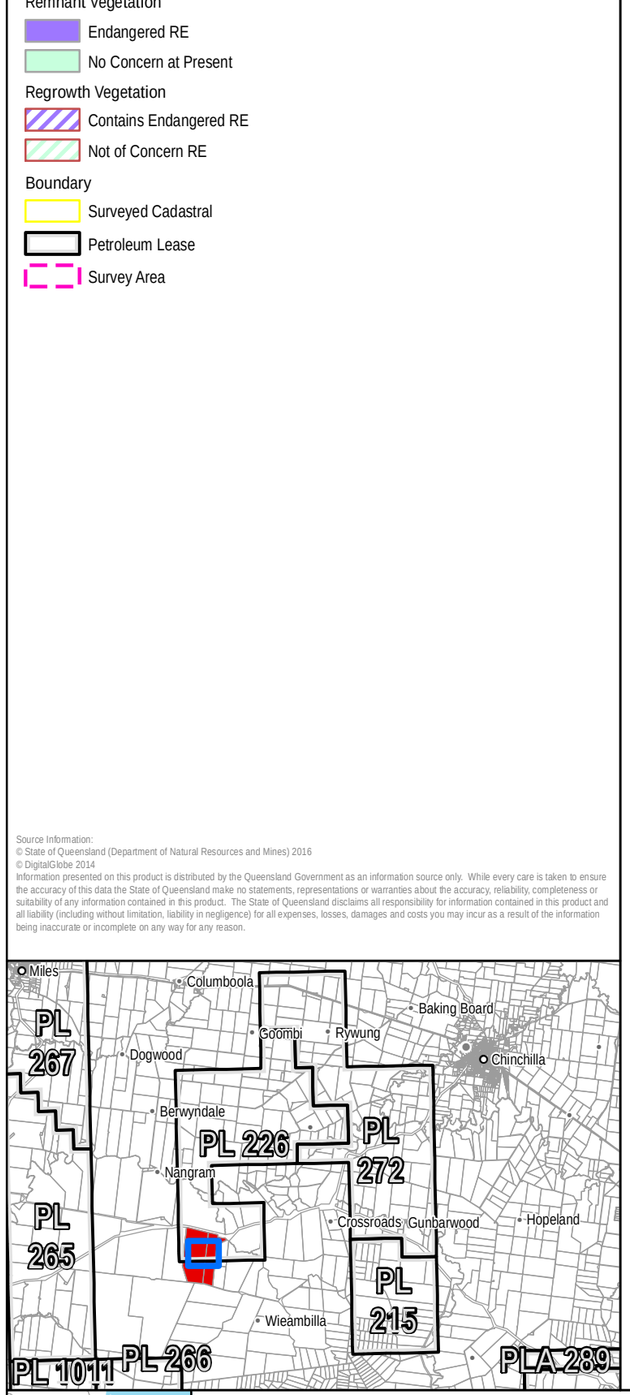

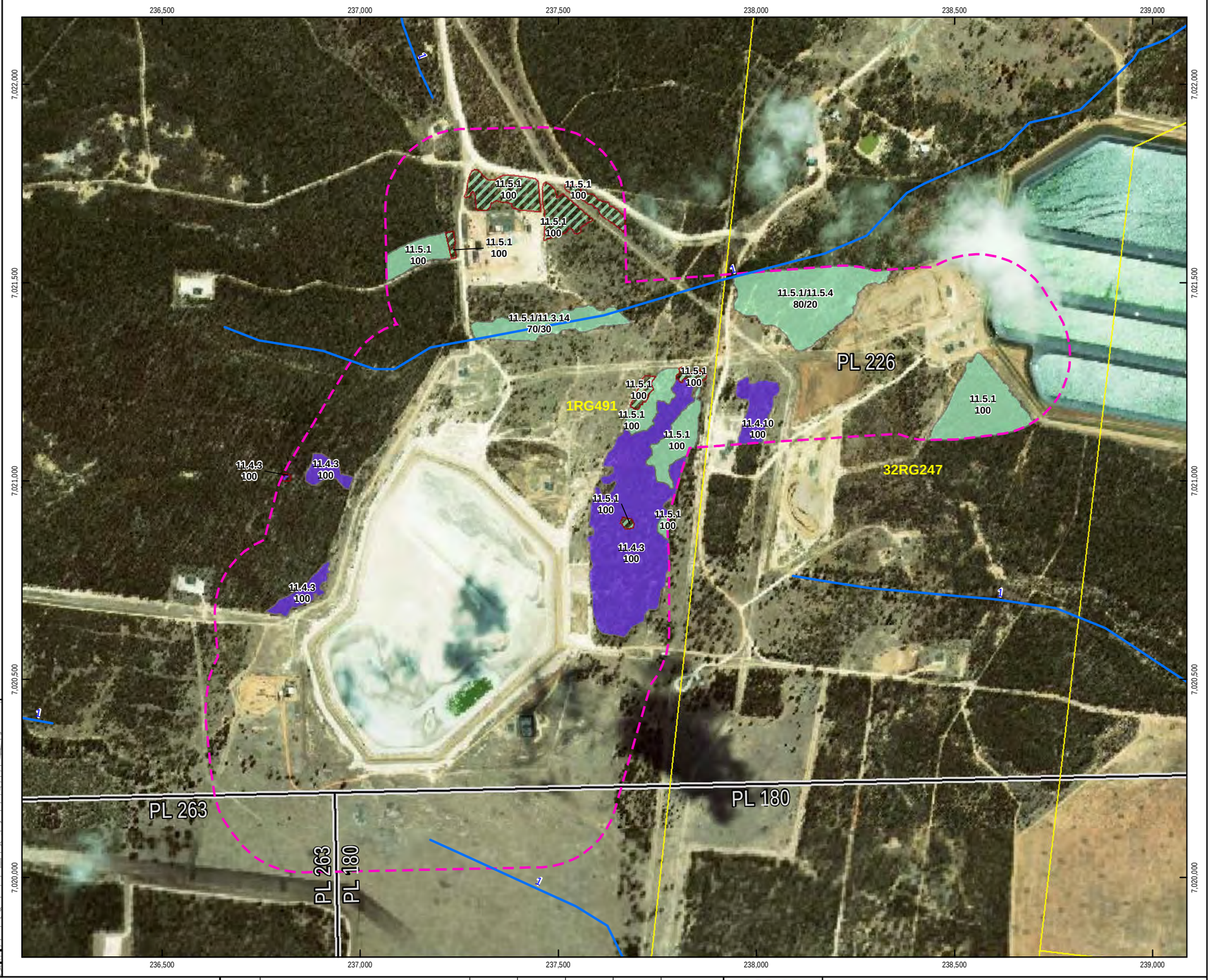

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Figure 3 :
Ground Truthed Regional Ecosystems
Date: 5 February 2016

Map Number	Doc No	Rev
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