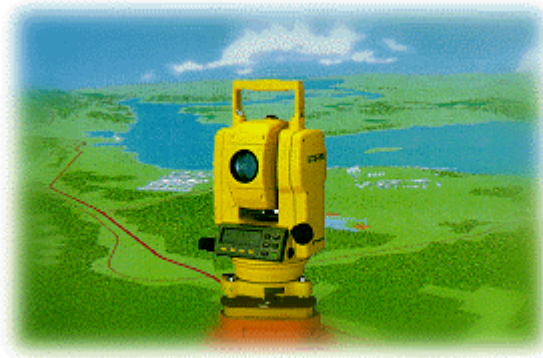


AMCOR Lateral Pipeline Preliminary Survey Licence



Environmental Impact Report



February 2001



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Executive Summary

Epic Energy SA Pty Ltd plan to construct a 10km pipeline to supply natural gas to the proposed AMCOR glass factory approximately 2km south-west of Roseworthy. The pipeline will connect to the Angaston Lateral Pipeline at the Freeling Meter Station (refer to Figure 1).

This Environmental Impact Report has been prepared in support of an application for a Preliminary Survey Licence (PSL) to allow engineering and environmental investigations to be conducted in a 2km wide corridor for the AMCOR Lateral Pipeline. The activities to be covered by the PSL are:

- Land Survey;
- Geo-technical Survey;
- Ecological Survey; and
- Heritage Survey.

This document outlines the environmental hazards associated with the preliminary survey activities and identifies the following potential consequences:

- Landowner disturbance;
- Damage to crops / pasture;
- Disturbance to stock;
- Dust generation;
- Weed / disease introduction;
- Damage to native vegetation;
- Visual impacts; and
- Soil disturbance.

Mitigation strategies have been proposed and all impacts have been assessed as being of **low significance**, based on their high degree of predictability and manageability.

1 Introduction

1.1 Background

Epic Energy SA Pty Ltd (Epic Energy) plan to construct a pipeline to supply natural gas to the proposed AMCOR glass factory approximately 2km to the south-west of Roseworthy. The pipeline, referred to as “the AMCOR Lateral Pipeline” will be in the order of 10km long, commencing at the Freeling Meter Station (refer to Plate 1), on the Angaston Lateral Pipeline, and terminating at the proposed factory site on Argent Road (refer to Figure 1).

Epic Energy currently own and operate the Angaston Lateral Pipeline under Pipeline Licence No.1, which authorises operation of the main Moomba to Adelaide Pipeline and a number of pipeline extensions, laterals and loopings. It is proposed that the AMCOR Lateral Pipeline be similarly authorised as an extension to Pipeline Licence No.1.

Epic Energy are currently seeking a Preliminary Survey Licence (PSL), to allow engineering and environmental investigations to be conducted in a 2km wide corridor for the AMCOR Lateral Pipeline.

1.2 Regulatory Framework

To support an application for the licence extension, Epic Energy must prepare:

- an Environmental Impact Report (EIR) - in accordance with Section 97 of the South Australian *Petroleum Act 2000* (the Act) and Regulation 10 of the *Petroleum Regulations 2000* (the Regulations); and
- a Statement of Environmental Objectives (SEO) - in accordance with Section 99 and 100 respectively, of the Act and Regulations 12 and 13.

However, in order to adequately plan the project, design the pipeline and conduct the necessary environmental investigations, Epic Energy and its contractors require access to the land within the project area, to conduct preliminary surveys.

Preliminary survey activities associated with a proposed pipeline are “regulated activities” under Section 10 of the Act and as can only be conducted under a PSL. The licencing process for preliminary surveys is separate from that of the pipeline licence and requires the preparation of a separate EIR and SEO.

1.3 About this Document

This document is the EIR prepared in support of the application for a Preliminary Survey Licence for the AMCOR Lateral Pipeline. The document:

- Describes the preliminary survey activities (Section 2);

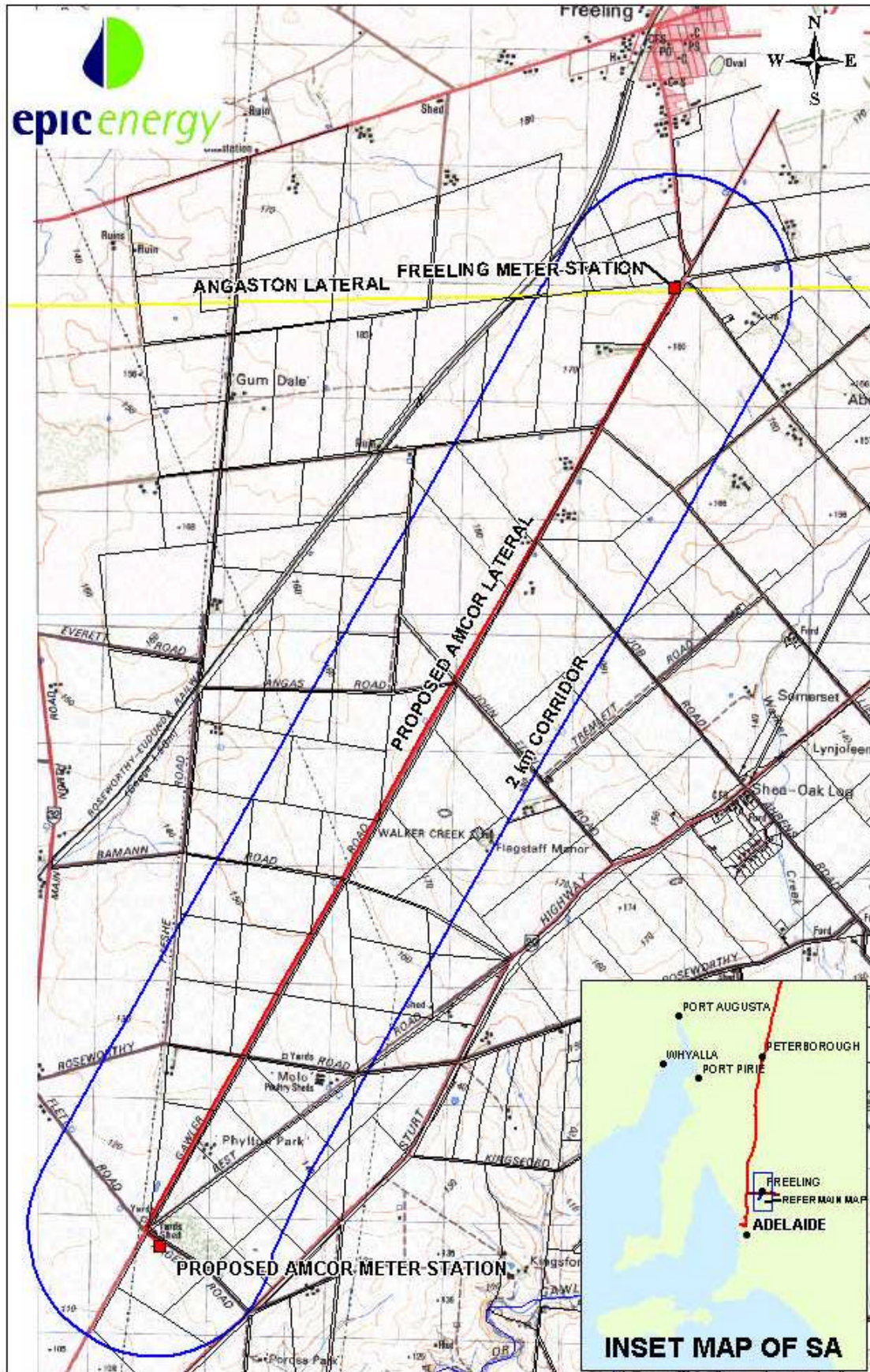


Figure 1: Location of Project Area

- Describes the specific features of the environment that can reasonably be expected to be affected by the activities (Section 3);
- Identifies potential environmental hazards and consequences (Section 4); and
- Proposes measures to mitigate potential consequences (Section 4).

The document also outlines the proposed environmental objectives that Epic Energy commit to achieving. These objectives have been identified on the basis of the potential hazards and consequences highlighted by this assessment and are carried over into the accompanying SEO.

1.4 About Epic Energy

Epic Energy is one of Australia's largest transmission companies, with more than \$3.5 billion invested in energy infrastructure. Epic Energy owns 3,300km of pipeline in Australia and operates another 891km on behalf of other owners. Epic Energy's major transmission pipelines are:

- The Dampier to Bunbury Natural Gas Pipeline in Western Australia;
- The South West Queensland Pipeline in Queensland; and
- The Moomba to Adelaide Pipeline system in South Australia.

Epic Energy's gas customers include base load electricity generators, gas distribution companies and industrial users.

Epic Energy was established in 1994 and employs more than 250 people. Major shareholders in the company are El Paso Energy Corporation, Consolidated Natural Gas Company, AMP Asset Management Australia Limited, Deutsche Asset Management (Australia) Limited and Hastings Funds Management Limited.

1.5 Environmental Commitment

Epic Energy is committed to responsible environmental management of all phases of the AMCOR Lateral Pipeline project. All planning, construction and operation activities will be conducted in accordance with Epic Energy's Environmental Policy (refer Appendix 1). Epic Energy is committed to achieving the environmental objectives outlined in the SEO.

2 Preliminary Survey Activities

As part of the engineering and environmental planning for the AMCOR Lateral Pipeline, Epic Energy and its contractors will undertake a range of field based preliminary survey activities, associated with:

- Land Survey;
- Geo-technical Survey;
- Ecological Survey; and
- Heritage Survey.

These activities are briefly described below.

2.1 Land Survey

The proposed pipeline alignment will need to be identified both physically in the field and legally on maps, plans and land titles. To enable this a number of activities will need to be conducted during the preliminary survey phase of the project, including:

- Installing marker pegs at regular intervals. These will usually be installed adjacent to fencelines and at bends in the proposed alignment. Minimal equipment is required for this task, and is limited to the access vehicle¹, wooden pegs, flagging tape and hand tools (eg. hammer).
- Recording the legal (or cadastral) location of the alignment. This may not be undertaken until after construction, and so may be covered by the Pipeline Licence extension. However, there is a possibility that during the preliminary survey phase, licenced land surveyors may undertake site work. Minimal equipment is required for this task and is limited to the access vehicle, survey equipment (such as theodolite and survey rule) and hand tools.

2.2 Geo-technical Survey

In order to adequately design the pipe and plan construction, a limited geo-technical survey may be conducted. This would be limited to:

- Minor excavation works at selected locations to identify the presence and nature of rock. Small holes up to 1.5m deep would be excavated and equipment would be limited to the access vehicle and a small backhoe.
- Soil sampling (particularly soil resistivity testing) to assist in planning the cathodic protection system. This involves collection of soil samples for later

¹ Access vehicles, unless otherwise stated, are standard four-wheel drives (Toyota Landcruiser or similar).

analysis. Minimal equipment is required for this task and is limited to the access vehicle and hand auger.

2.3 Ecological Survey

In order to determine the significance of potential ecological impact, a basic field survey will be conducted. This will involve:

- Gaining access to areas of native vegetation, identifying plant species and noting the condition of vegetation communities and potential wildlife habitats. Small cuttings may be collected from some plant species for off-site identification, if necessary. Minimal equipment is required for this task and is limited to the access vehicle and hand tools (eg. secateurs) and handheld camera.

2.4 Heritage Survey

In order to determine the significance of potential impacts to cultural heritage, a basic field survey will be conducted. This may involve:

- Traversing the alignment and surrounding lands (up to 100m) and examining bare or cleared areas for the presence of historical and/or pre-historical artefacts. Shallow excavations, conducted by hand, may be undertaken if potential sites are identified. Due to the predicted low sensitivity of the project area (refer to Section 3.5), test pitting² is not expected to be undertaken during the preliminary survey phase. The work will be conducted by a qualified archaeologist and may involve field inspection by representatives of the local Aboriginal community.

² Test pitting involves use of a test probe, hand auger or back-hoe to sample or excavate sub-surface soils to detect the presence of artefacts.

3 Existing Environment

The project area lies on the northern Adelaide plains on the western foothills of the North Mount Lofty Ranges (refer to Figure 1). The area has a well-defined Mediterranean climate, with long dry summers and cool to mild winters. Rainfall has a strong seasonal distribution (i.e. distinct winter rainfall) and a mean annual rainfall of 440mm at Roseworthy.

The proposed pipeline route runs south-east along Gawler Road, from the Freeling meter station just south of Freeling to the proposed glass plant near the intersection of Argents Road and Gawler Road. The approximate length of the pipeline is 10km.

3.1 Land Use

Agriculture is the dominant landuse within the project area and consists of mainly of broadacre farming and grazing (refer to Figure 2). The principal crops are wheat, barley, wool/mutton and beef.

Land parcels are medium to large and as a result the population density is moderate to low. No rural living blocks are present.

The proposed alignment crosses approximately 10 properties. In accordance with Regulation 10(1)(e), all landowners that may be impacted by the preliminary survey work are listed in Appendix 2³.

There are no noted areas of conservation significance within the project area, with the closest conservation reserve, proclaimed under the *National Parks and Wildlife Act 1972*, being Sandy Creek Conservation Park which is some 12 km south-east of the closest section of the pipeline route.

3.2 Landform and Soils

The project area is characterised by a gently undulating plain of metasediments, with broad floodplains. Regionally, intramontane basins (with red duplex soils) occur, separated by low but distinct northerly trending strike ridges. The dominant geological features of the region are comprised of Tertiary terrestrial sands, gravels, ferruginous weathering zones and marine limestones. However, soils in the Freeling area are characterised as red duplex, moderately deep, well drained and tending alkaline.

³ It should be noted that only landowners on the proposed alignment are listed, as it is considered impractical and unnecessary to list all landowners in the 20km² area to be covered by the PSL. Should it be necessary to access additional lands (eg. as a result of an alignment change), PIRSA will be notified in writing.

The surrounding region comprises the burra precambrian group, the earliest product of erosion which accumulated in the shallow-water environment. Soils associated with this geological characteristic are therefore dominated by shallow well drained sands.

3.3 Surface Water Resources

The project area contains no defined watercourses⁴.

3.4 Flora and Fauna

The project area has largely been cleared of original native vegetation (refer to Figure 2). That which remains occurs as isolated trees and shrubs or small stands, particularly around homesteads. A number of planted windbreaks are present in the area, commonly along fencelines (refer Plate 3).

The only significant vegetation in the region is found in scattered patches of open forest dominated by sugar gum (*Eucalyptus cladocalyx*) or by long sugar gum (*E. gonicalyx*) and blue gum (*E. leucoxylon*). Degraded stands of remnant blue gums and peppermint box (*E. odorata*) are still evident, although these are restricted to stony crests and steep slopes. Mallee vegetation and tussock sedgeland (*Lomandra* spp), which originally were found on the sandy soils of the region, have virtually disappeared.

3.5 Cultural Heritage

It is not likely that the project area would have been used extensively by Aboriginal people prior to European settlement, due to the absence of unique or unusual resources or notable environmental features (such as stony rises, lakes or watercourses). In addition, the area has been highly disturbed by vegetation clearing and farming practices over the last 150 years. As a result, the project area is unlikely to contain sites, features or material of cultural heritage significance⁵.

⁴ Defined watercourses are those marked and named on State Government 1:50,000 map series.

⁵ Note: Cultural heritage databases/records were not searched as part of this assessment, due to the limited potential for preliminary survey activities to impact sites of significance AND because a detailed cultural heritage survey will form part of the preliminary survey activities.



Figure 2: Aerial Photo of Proposed Pipeline

4 Environmental Hazards, Potential Consequences and Management Strategies

The environmental hazards associated with the preliminary survey activities and their potential consequences are outlined in Table 1. Strategies to mitigate potential consequences and the proposed environmental objectives to be achieved are outlined in Table 2.

The content of these tables has been compiled to meet the requirements of Regulation 10(1). In particular, the tables:

- List the activities to be conducted as part of the preliminary survey that have the potential to result in environmental impact;
- Identify the hazards associated with these activities including atypical hazards;
- Provide an indication of the frequency of hazards;
- Identify potential consequences and their expected duration;
- Outline mitigation measures.

In addition, Regulation 10(1) requires:

- an explanation of the basis on which the hazards and their frequency and consequence have been predicted (see below);
- an assessment of the extent to which consequences can be addressed.

These requirements are addressed below.

Prediction of Hazards and Frequency and Consequence

Records of potential hazards and consequences associated with preliminary survey activities are not well documented. Hazards and consequences have therefore been identified by engineering, lands and environmental staff of Epic Energy and environmental planners from Ecos Consulting (Aust) based on first hand industry experience gained over many years.

Preliminary survey activities are conducted over a short period. The frequency with which hazards occur can be confidently estimated based on the number of occasions that the activities are.

Table 1: Potential Environmental Hazards and Consequences

Activity	Hazard	Frequency	Potential Consequence	Duration of Consequences
Land Survey	Vehicle access ¹	<ul style="list-style-type: none"> ▪ Initial alignment pegging - once per property. ▪ Cadastral survey - once per property. 	▪ Landowner disturbance	▪ Approximately half a day per property.
			▪ Damage to crops / pasture (restricted to vehicle wheel tracks).	▪ One year.
			▪ Disturbance to stock	▪ Approximately half a day per property.
			▪ Dust generation	▪ Approximately half a day per property.
			▪ Weed / disease introduction	▪ Possibly long term (>5yrs).
Installation of alignment markers	▪ Once per property.	▪ Visual impacts	▪ Up to six months.	
Set-up of survey equipment	▪ Once per property.	▪ Damage to native vegetation	▪ Permanent loss of some foliage and possibly tree limbs,	
Geo-technical Survey	Vehicle access ¹	<ul style="list-style-type: none"> ▪ Twice for selected properties only (associated with initial excavation and reinstatement, respectively). 	▪ Landowner disturbance	▪ Approximately one day per property.
			▪ Damage to crops / pasture (restricted to vehicle wheel tracks).	▪ One year.
			▪ Disturbance to stock	▪ Approximately one day per property.
			▪ Dust generation	▪ Approximately one day per property.
			▪ Weed / disease introduction	▪ Possibly long term (>5yrs).

Table 1 (cont): Potential Environmental Hazards and Consequences

Activity	Hazard	Frequency	Potential Consequence	Duration of Consequences
Geo-technical Survey	Localised excavation	<ul style="list-style-type: none"> Twice for selected properties only (associated with initial excavation and reinstatement, respectively). 	<ul style="list-style-type: none"> Damage to crops / pasture (approx 20m² per site) 	<ul style="list-style-type: none"> One year.
			<ul style="list-style-type: none"> Soil disturbance (approx 20m² per site) 	<ul style="list-style-type: none"> Approximately one day per property.
			<ul style="list-style-type: none"> Damage to native vegetation 	<ul style="list-style-type: none"> Permanent loss of individual trees or shrubs.
			<ul style="list-style-type: none"> Dust generation 	<ul style="list-style-type: none"> Approximately one day per property.
			<ul style="list-style-type: none"> Weed / disease introduction 	<ul style="list-style-type: none"> Possibly long term (>5yrs)
			<ul style="list-style-type: none"> Visual impacts 	<ul style="list-style-type: none"> Up to one month.
	Soil sampling	<ul style="list-style-type: none"> Once for selected properties only. 	<ul style="list-style-type: none"> Damage to crops / pasture (<1m²) 	<ul style="list-style-type: none"> One year.
			<ul style="list-style-type: none"> Soil disturbance (<1m²). 	<ul style="list-style-type: none"> Approximately half a day per property.
Ecological Survey	Vehicle access ¹	<ul style="list-style-type: none"> Once for selected properties only. 	<ul style="list-style-type: none"> Landowner disturbance 	<ul style="list-style-type: none"> Approximately half a day per property.
			<ul style="list-style-type: none"> Damage to crops / pasture (restricted to vehicle wheel tracks). 	<ul style="list-style-type: none"> One year
			<ul style="list-style-type: none"> Disturbance to stock 	<ul style="list-style-type: none"> Approximately half a day per property.
			<ul style="list-style-type: none"> Dust generation 	<ul style="list-style-type: none"> Approximately half a day per property.
			<ul style="list-style-type: none"> Weed / disease introduction 	<ul style="list-style-type: none"> Possibly long term (>5yrs).
	Collection of vegetation samples	<ul style="list-style-type: none"> Once for selected properties only. 	<ul style="list-style-type: none"> Damage to vegetation 	<ul style="list-style-type: none"> Permanent loss of some foliage.

Table 1 (cont): Potential Environmental Hazards and Consequences

Heritage Survey	Vehicle access ¹	▪ Once for selected properties only.	▪ Landowner disturbance	▪ Approximately half a day per property.
			▪ Damage to crops / pasture (restricted to vehicle wheel tracks).	▪ One year.
			▪ Disturbance to stock	▪ Approximately half a day per property.
			▪ Dust generation	▪ Approximately half a day per property.
			▪ Weed / disease introduction	▪ Possibly long term (>5yrs).
	Localised shallow excavations	▪ Once for selected properties only.	▪ Damage to crops / pasture (<5m ²)	▪ One year.
			▪ Soil disturbance	▪ Approximately half a day per property.
Note 1: Each type of survey may be undertaken independently, thus resulting in cumulative impacts. As noted in Table 2, efforts will be made to rationalise visits where possible				

Table 2: Environmental Objectives and Mitigation Strategies

Potential Consequence	Environmental Objectives	Issue Specific Mitigation Strategies	Extent to which consequence can be addressed	Significance of Consequence
<ul style="list-style-type: none"> ▪ Landowner disturbance 	<ul style="list-style-type: none"> ▪ To minimise disturbance to landowners. 	<ul style="list-style-type: none"> ▪ Appoint Lands Officer with specific responsibility for maintaining contact with all potentially affected landowners. ▪ Consult with landowners prior to preliminary survey activities to identify specific requirements. ▪ Accommodate landowners' specific requirements wherever practicable. ▪ Advise landowners of the scope, schedule and duration of preliminary survey activities. ▪ Plan / rationalise preliminary survey activities to ensure the number of site visits is as few as practicable. ▪ Provide landowners with adequate prior notice of proposed land access. 	Adverse consequences can be managed in the short term.	LOW
<ul style="list-style-type: none"> ▪ Damage to crops / pasture 	<ul style="list-style-type: none"> ▪ To minimise damage to crops and pasture. 	<ul style="list-style-type: none"> ▪ Plan / rationalise preliminary survey activities to ensure the number of site visits is as few as practicable. ▪ Use existing tracks where available. ▪ Restrict the area utilised for excavation to the smallest practicable. ▪ Restrict disturbance to proposed construction right-of-way where practicable. ▪ Keep topsoil separate from subsoil. ▪ Restore soil profile and contours to landowner satisfaction, as soon as practicable 	Adverse consequences can be managed in the short term.	LOW

Potential Consequence	Environmental Objectives	Issue Specific Mitigation Strategies	Extent to which consequence can be addressed	Significance of Consequence
<ul style="list-style-type: none"> ▪ Disturbance to stock 	<ul style="list-style-type: none"> ▪ To minimise disturbance to stock. 	<ul style="list-style-type: none"> ▪ Plan / rationalise preliminary survey activities to ensure the number of site visits is as few as practicable. ▪ Consult with landowners prior to preliminary survey activities to identify specific requirements. ▪ Provide landowners with adequate prior notice of proposed land access. ▪ Drive vehicles at appropriately slow speeds to avoid undue disturbance. ▪ Leave gates as found. 	Adverse consequences can be managed in the short term.	LOW
<ul style="list-style-type: none"> ▪ Dust generation 	<ul style="list-style-type: none"> ▪ To minimise generation of dust. 	<ul style="list-style-type: none"> ▪ Plan / rationalise preliminary survey activities to ensure the number of site visits is as few as practicable. ▪ Drive vehicles at appropriately slow speeds to avoid undue disturbance. 	Adverse consequences can be managed in the short term.	LOW
<ul style="list-style-type: none"> ▪ Weed / disease introduction 	<ul style="list-style-type: none"> ▪ To avoid the introduction of weeds or disease. 	<ul style="list-style-type: none"> ▪ Identify local weed and disease management issues prior to the commencement of preliminary survey activities. ▪ Ensure all vehicles and equipment are free of soil and vegetative matter prior to entry to properties. ▪ Plan / rationalise preliminary survey activities to ensure the number of site visits is as few as practicable. ▪ Consult with landowners prior to preliminary survey activities to identify specific requirements. 	Adverse consequences can be avoided or it is highly unlikely that they will occur.	LOW
<ul style="list-style-type: none"> ▪ Damage to vegetation 	<ul style="list-style-type: none"> ▪ To avoid or minimise damage to vegetation. 	<ul style="list-style-type: none"> ▪ Prohibit clearing native vegetation as part of land survey. ▪ Conduct soil excavations away from areas of native vegetation. ▪ Samples of native vegetation are to be collected by qualified botanists under appropriate permits from the Department of Environment and Heritage. 	Adverse consequences can be avoided or it is highly unlikely that they will occur.	LOW

Potential Consequence	Environmental Objectives	Issue Specific Mitigation Strategies	Extent to which consequence can be addressed	Significance of Consequence
<ul style="list-style-type: none"> ▪ Visual impacts 	<ul style="list-style-type: none"> ▪ To minimise visual impacts. 	<ul style="list-style-type: none"> ▪ Limit the use of marker pegs to those essential for identifying the proposed alignment. ▪ Install marker pegs on fencelines, where practicable. ▪ Conduct excavations in areas away from general public view, where practicable. ▪ Restore excavations as soon as practicable. 	Adverse consequences can be managed in the short term.	LOW
<ul style="list-style-type: none"> ▪ Soil disturbance 	<ul style="list-style-type: none"> ▪ To minimise soil disturbance. 	<ul style="list-style-type: none"> ▪ Restrict the area utilised for excavation to the smallest practicable. ▪ Restrict disturbance to proposed construction right-of-way where practicable. ▪ Keep topsoil separate from subsoil. ▪ Restore soil profile and contours to landowner satisfaction, as soon as practicable. 	Adverse consequences can be managed in the short term.	LOW

4.1 Mitigation Strategies

In addition to the issue specific mitigation strategies outlined in Table 2, Epic Energy will implement the following general management procedures:

Awareness Program

All personnel involved with field-based preliminary survey activities will be provided with a copy of Tables 1 and 2 of this EIR. Epic Energy will ensure that all personnel are adequately aware of the relevant impact mitigation strategies.

Job Environmental Analysis

Epic Energy will subject preliminary survey activities to Job Environmental Analysis⁶. The Lands Officer will coordinate the JEA process.

Contractual Obligations

All contacts with companies undertaking preliminary survey activities for Epic Energy on the AMCOR Lateral Pipeline project will include a requirement to:

- Operate in a manner consistent with Epic Energy's Environmental Policy; and
- To adopt mitigation strategies outlined in this EIR.

Reporting

Any complaints from landowners that arise as a direct result of preliminary survey activities will be recorded by the Lands Officer and reported to the Epic Energy Lands and Environmental Manager.

4.2 Significance of Consequences

A subjective assessment has been made of the significance of the potential environmental consequences, using the methodology outlined in PIRSA (2000), which proposes an assessment based on the following criteria:

- The predictability (or certainty) of hazards and consequences, with regard to their:
 - size, scope, duration, likelihood and stakeholder concerns; and
- The degree to which consequences can be managed in relation to:
 - being avoided, likelihood of occurring, duration; size and scope, cumulative effects and stakeholder concerns.

⁶ Job Environmental Analysis is a system used by Epic Energy to ensure all potential hazards and consequences are identified and mitigation measures (including implementation strategies) are identified and recorded by field staff.

The result of the assessment was that all potential impacts were of **LOW** significance on the basis that:

Predictability criterion significance score = 1

i.e. All hazards and consequences can be accurately predicted to a high level of confidence.

Manageability criterion significance score = 1 or 2

i.e. Adverse consequences can be avoided or it is highly unlikely that they will occur. Or
Adverse consequences can be managed in the short term.

5 Consultation

No consultation with external stakeholders has been conducted as part of the preparation of this EIR. However, during the preliminary survey activities, planning, design and pre-construction phases, Epic Energy will consult with:

- State Government Departments (in particular PIRSA, Department of Environment and Heritage and Department of Water Resources).
- The Light Regional Council.
- Landowners.
- Relevant non-government organisations (eg. local conservation groups, farmers groups, Aboriginal communities, native title claimants).

References

The following references were reviewed as part of the preparation of the EIR:

Laut P., Heyligers P.C., Keig G., Loffler E., Margules C., Scott R.M. and Sullivan M.E. (1977) *Environments of South Australia, Province 3 Mt Lofty*. CSIRO, Canberra.

Petroleum Group (PIRSA) (2000) *Criteria for Classifying the Level of Environmental Impact of Regulated Activities: Requirements under Part 12 Petroleum Act 2000*. <http://www.pir.sa.gov.au>

Twidale C.R., Tyler M.J. and Webb B.P. (1988) *Natural History of the Adelaide Region*. Royal Society of South Australia (Inc).

Abbreviations

Ecos	Ecos Consulting (Aust) Pty Ltd
EIR	Environmental Impact Report prepared in accordance with Section 97 of the <i>Petroleum Act 2000</i> and Regulation 10.
JEA	Job Environmental Analysis
km	Kilometre
mm	Millimetre
PIRSA	Primary Industries and Resources, South Australia
PSL	Preliminary Survey Licence issued in accordance with Section 10 of the <i>Petroleum Act 2000</i> .
SEO	Statement of Environmental Objectives prepared in accordance with Section 99 and 100 of the <i>Petroleum Act 2000</i> and Regulations 12 and 13.

Appendix 1

Environmental Policy

Appendix 2

Landowner List

Landowners whose property is traversed by the proposed pipeline and who may be affected by preliminary survey activities:

Landowner	Title Reference
N and R Molo	CT5536/332
PM Kemp	CT5535/323
KW Haesy	CT5148/740 CT5148/743
PM and AF Kemp	CT5635/11 CT5400/562
CK Tremlett Ltd	CT5367/22 CT5803/18
CJ Teusner	CT5174/65
CR and AG Neldner	CT5521/808
JE Nelder Ltd	CT5095/979
NW Schuster	CT5381/103
DJ Shanahan	CT5734/900
MS Shanahan	CT5532/711

Appendix 3

Plates



Plate 1: Freeling Meter Station



Plate 2: Typical Topography of the Project Area



Plate 3: Example of Planted Windbreak Vegetation in Project Area