

EPIC ENERGY  
South Australia Pty Ltd



**2014 Annual Report**

**SOUTH EAST PIPELINE**

**Pipeline Licences 3 & 4**

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## LIST OF ABBREVIATIONS

ALARP	As Low As Reasonably Practical
AS2832	Australian Standard 2832 Part 1 – Cathodic Protection – Pipelines and Cables
AS2885	Australian Standard 2885 Pipelines – Gas and Liquid Petroleum
AS4801	Occupational Health and Safety Management System
AVT	Accuracy Verification Test
CGR	Corporate Governance Risk
CMMS	Computerised Maintenance Management System (MAXIMO)
CP	Cathodic Protection
Cu/CuSO <sub>4</sub>	Copper/Copper Sulphate
DBYD	Dial Before You Dig
DCGV	Direct Current Voltage Gradient
DSD	Department of State Development
EESA	Epic Energy South Australia Pty Ltd
EMS	Environmental Management System
ESD	Emergency Shut Down
GUF	Gas unaccounted for
HAZID	Hazard Identification
HSE	Health, Safety and Environment
ILI	In Line Inspection
MAOP	Maximum Allowable Operating Pressure
MLV	Mainline Valve
PCR	Pipeline Control Room
PL3 & 4	Pipeline Licence 3 and Pipeline Licence 4
RCD	Residual Current Device
SCADA	Supervisory Control and Data Acquisition
SEO	Statement of Environmental Objectives
SEP	South East Pipeline
SESA	South East South Australia Pipeline
SMS	Safety Management Systems
SWER	Single Wire Earth Return
TJ	Tera Joule
WHS	Workplace Health and Safety

## 1. Purpose

This report is submitted in accordance with the requirements of Pipeline Licence 3 (PL3) and Pipeline Licence 4 (PL4) and the South Australian Petroleum and Geothermal Energy Act 2000 and Regulations 2013.

## 2. Scope

Pipeline Licence 3 (PL3) and Pipeline Licence 4 (PL4), known as the South East Pipeline (SEP), is owned, operated and maintained by Epic Energy South Australia Pty Ltd (EESA).

This report reviews the operations carried out during 2014 and the intended operations for 2015. In accordance with the Petroleum and Geothermal Energy Regulations 2013, a performance assessment is also provided with regards to the Statement of Environmental Objectives (SEO) for PL3 and PL4.

## 3. Technical Aspects

Table 1 summarises the technical aspects of SEP. Figure 1 indicates the pipeline location and layout.

**Table 1 – SEP Technical Data**

	Katnook to Apcel	Glencoe to Mount Gambier	Nangwarry	Safries
Pipeline Licence	PL3	PL3	PL4	PL3
Date Constructed	1990-1991	1990-1991	2001	1990
Date Commissioned	March 1991	April 1991	August 2001	January 1991
Length	46.1 km	18.9 km	11.5km	4.5 km
External Diameter	168.3mm	168.3mm	88.9mm	60.3mm
Wall Thickness <ul style="list-style-type: none"> <li>• Normal</li> <li>• Special crossings (roads, rivers etc)</li> </ul>	4.2mm 5.0mm	4.2mm 5.0mm	3.2mm 4.0mm	3.9mm 3.9mm
Pipe Grade	API 5L x42	API 5L x42	API 5L x56	ASTM A106 Gr B
MAOP	10,000kPa	10,000kPa	9,850kPa	10,000kPa
Coating	Yellow Jacket	Yellow Jacket	Yellow Jacket	Yellow Jacket
Cathodic Protection	Sacrificial Anode	Sacrificial Anode	Sacrificial Anode	Sacrificial Anode
MLV	3	2	U/S and D/S isolation valves	U/S and D/S isolation valves
Actuators	Manual	Manual	Manual	Manual
Compressor Stations	Nil	Nil	Nil	Nil
Meter Stations	1 – Apcel (Kimberley Clarke)	1 – Mount Gambier	1 Nangwarry	1 – Safries



Figure 1 – SEP route map



## **4. Operational and Maintenance Activities**

### **4.1. Risk Management Review**

A five yearly Safety Management Study (SMS) review for the SEP was carried out in 2012 as per the requirements of AS2885 (refer to EESA document number S-32-108-RAE-G-002).

This workshop review did not identify any significant threats that had not been identified in previous workshops, nor did it identify any significant shortcomings in the controls required to be applied in accordance with AS2885.

### **4.2. Training**

EESA continues to meet its contractual, operational and technical requirements in a safe and competent manner by ensuring its employees and contractors have the relevant competencies to meet the challenges of the gas transmission industry.

On an ongoing basis our training and development team, along with key personnel ensure that current employee skills and competencies are of the highest level, in alignment with legislative requirements and industry standards.

Training is maintained by utilising an Learning Management System program. The system identifies individuals requiring to complete mandatory training, ensuring the employee has the right skills & knowledge to confidently continue to carry out their duties; also eliminating any potential non-conformance.

When individuals or groups are identified as requiring training, there are a number of methods and platforms used, including: In-house - self-paced modules, group presentations and one on one sessions; External - Registered Training Organisations; Professionals offering certified and specialised courses; Lectures seminars and conferences.

Courses and training undertaken by both Epic personnel and contract labour is listed in Table 2:



ACA Corrosion & Prevention Conference 2013	Accommodation Rules.	Alcohol & other Drugs	Apply First Aid
AS 2885.3 Pipelines Gas & Liquid Petroleum – O & M In house	Australian Standards	Basic Fire Prevention & Control	Basic Fire Training
CGR Software in-house	Chainsaw – Basic Operations & Maintenance	Chemical Hazards	Chemical use and you
Class C Drivers Licence Validity	Combustion Basics	Compressor Training	Confine Space
Confine Space with 'BA'	Corrosion Control Introduction	Dry Creek Induction on-line	EEHA
Elevated Work Platform WP	Engineering Workshop	Environmental Induction on-line	Epic Field Introduction and familiarisation in-house
Excavation of Pipelines in-house	Excel Introduction	Fire Aware & Extinguisher	First Aid in the field
Gas safety	Gas Test Atmospheres 2013	GC700 (Rosemount) Basics & Overview	Hazard & Incident Reporting
Heat Stress	Heat Stress – Santos (Epic SA)	High Risk Licence	HR Class Licence-Heavy Rigid 8t -9t
HSR level 2	Human Resource Training	Hydrocarbon Basic	Hydrocarbon Properties & Principle
Inductions contract personnel	Inductions Epic Personnel	Isolation - SSOW	JHA - SSOW
Land Access Code & Cultural Heritage	Learning & Development Kiosk – in house	Liquids Line	LVR / CPR
Manual Handling	Mercury Awareness	Operate Vehicles in field	Operations Field Induction on-line
Permit to work	Personnel Movement & Tracking	Pipeline location – General Epic Module	Pipeline Excavation
Pipeline Location	Pipeline Surveillance	Pipeline Voice Communications	Preventing Discrimination & Harassment

**Table 2 – Courses and Training**

### **4.3. Operations and Maintenance Activities**

Operations and maintenance activities have been conducted in accordance with AS2885.3 and other relevant standards. Work is programmed in accordance with the 2014 Annual Maintenance Plan.

All maintenance activities are programmed in EESA's Computerised Maintenance Management System (CMMS), a scheduling system which generates work orders for maintenance staff to complete. Some of the key items in the 2014 maintenance schedule include:

- Monthly Road Patrols;
- Inspection and maintenance of dust and coalescer filter vessels;
- Monthly Meter, Off-take & Scraper site inspections carried out by EESA authorised contractors;
- Inspection and servicing of all fire extinguishers;
- Six monthly maintenance was carried out on all Mainline Valves (MLV) and Pig Vessels during the year;
- Six monthly Cathodic Protection (CP) surveys;
- Six monthly mechanical and electrical/instrumentation maintenance carried out on all meter stations and associated equipment;
- Three monthly Accuracy Verification Testing (AVT) at all operating meter stations;
- Administration of the free call 1100 "Dial Before You Dig" (DBYD) system with 24 calls received throughout the year relating directly to the SEP system; and
- Landowner Contact and Community Pipeline Safety Awareness program.

A summary of the Operations and Maintenance activities completed in 2014 is provided below.

#### **4.4. Pipeline Patrol Activities**

Monthly road patrols were completed in accordance with AS2885.3 criteria to ensure the following issues are assessed:

- Signage is in suitable condition and if not, repairs are affected as soon as is practically possible. Any issues not addressed during the patrol are fed back into the CMMS;
- That there are no third party activities being carried within the vicinity of the pipeline easement with potential to cause pipeline integrity issues;
- Soil erosion due to wind and water is assessed and where necessary restored to maintain the required depth of cover;
- There are no leaks occurring at the pipeline facilities or along the pipeline route;
- All sites are secure and kept in a good, clean and tidy state; and
- Inspections of above ground pipe coating condition, fences, gates, padlocks, signage, fire extinguishers, weeding and housekeeping at the meter station.

There were no significant issues identified during road patrols in 2014.

#### **4.5. Cathodic Protection**

The annual CP full line survey was undertaken in November 2014 . Due to the sacrificial anode design of the CP system, historically only ON potential surveys have been carried out. Whilst this approach is acceptable under AS2832.1 Cathodic Protection of Metals – Pipes and Cables (and equivalent NACE Standards), the use of switching gear was included in the November survey to allow ON/OFF potentials to be taken.

The collection of OFF potentials provides a more direct indication of the CP system performance. As detailed by the data provided in Appendix B, CP levels on all SEPS pipelines were compliant with AS2832.1.

#### **4.6. Coating Integrity**

The most recent coating defect survey was conducted on the SEP in May 2014. This Direct Current Voltage Gradient (DCVG) survey reported eight coating defects. These were minor and below inspection criteria, and will be reassessed during the next coating survey planned in 2019. SEP coating is considered to be in good condition.

#### **4.7. Pipeline Integrity**

There have been previous concerns with occasional out-of-specification gas in the SEP leading to potential internal corrosion. This was due to the combination of higher CO<sub>2</sub> content SEAGas gas from the South East South Australia Pipeline (SESA) connection with higher moisture content gas from the Katnook Plant, which created the potential for the formation of carbonic acid. However, the Katnook Plant ceased operation in late 2011, so there is now only one source of gas in the SEP.



An in-line inspection (ILI) was carried out on the Glencoe Junction to Mt Gambier section of the SEP in June 2013. The inspection reported three internal corrosion anomalies of between 10 and 19% wall thickness loss.

An ILI was also carried out on the Katnook to Apcel section of SEP in 2012. This inspection similarly reported a small number of locations with 'light' internal metal loss.

The reported locations of two dents reported in the 2013 ILI report were excavated in March 2014. No dents were found, so whilst it is likely the dents were reported in error due to the ILI tool, future inspection runs will consider the use of a geometry tool to more accurately assess the potential presence of dents.

Based on the ILI results, even though some minor corrosion activity is evident, the location of highest corrosion growth was from 13% to 15% wall thickness loss between inspections. This translates to a corrosion rate of approximately 0.014 mm/yr. This is considered low, and safe allowable operating pressure calculations show that all detected corrosion defects are acceptable for the pipeline Maximum Allowable Operating Pressure (MAOP) of 10 MPa.

Corrosion anomaly locations will be programmed for excavation and inspection as part of routine integrity management activities. It is also noted that SEPS is normally operated between 5 and 6 MPa, well below the pipeline MAOP.

#### **4.8. Electrical and Instrumentation Maintenance Activities**

AVT was completed on a three monthly basis at all active meter stations on the SEP. There were no significant issues associated with the gas metering.

Electrical compliance testing was carried out on all portable electrical equipment and residual current devices (RCDs) at all sites.

Scheduled six monthly maintenance was carried out at all active stations which involved calibration of all non-billing transmitters, testing all remotely operated valves, calibration of all switches and testing of all associated systems.

#### **4.9. Mechanical Maintenance Activities**

All routine mechanical maintenance activities were completed as scheduled on the SEPS. This work involved MLV servicing, station filter inspections and replacement and vessel servicing and maintenance.

Routine inspection and maintenance was carried out on the pressure regulation, pressure relief and Emergency Shut Down (ESD) valves at all SEP Meter Stations on a 6 monthly basis.

- Maintenance tasks for the pressure control systems consisted of the inspection/overhaul of regulator seats, pilots and instrumentation filters to ensure correct operation of set points of the active, monitor and bypass regulation systems;
- Pressure Safety Valves were checked to confirm correct set point, operation and alarming functions. Where applicable, overpressure isolation valve functions were tested to ensure satisfactory operation; and
- All routine 6 monthly maintenance is documented via ESSA CMMS and file copies are located within the central filing system.

All buildings and structures are inspected and maintained as part of routine maintenance procedures.

The inlet pressure to Safries Meter Station was isolated on the 1<sup>st</sup> January 2014 due to the closure of the Safries facility. The longer term strategy for this site will be determined by potential customer need in 2015.

All other reactive faults were classified as minor and tended to immediately without incident.

#### **4.10. Leak Detection**

EESA monitors and operates all of its pipeline assets using a Telvent OASyS DNA 7.4 Supervisory Control and Data Acquisition (SCADA) system from the Dry Creek control room.

The SCADA system has leak detection functionality that is configured to monitor the flows in and out of the system, line-pack inventory, gas quality and pressure and temperature change rates. Alarms identify the pipeline section with the anomalous readings, allowing the pipeline controller to investigate further and take actions as appropriate (i.e. mobilizing on-call field staff to close manually operated isolation valves). These 'leak alarms' are augmented by maintenance activities along the pipeline which include regular patrols and inspections for the identification of leaks, and isolation valves are routinely tested to ensure operability.

In addition to the field maintenance activities, control room staff also perform daily gas balancing of all accountable gas sources and has a procedure to follow if Gas Unaccounted For (GUF) falls outside accepted limits.

There were no pipeline leaks for the SEP in 2014.

#### **4.11. Communications**

EESA operates and controls the SEP from the Pipeline Control Room (PCR) in Dry Creek, South Australia. There is also an emergency control centre in Mawson Lakes, South Australia.

The SCADA system is a distributed, dual redundant system, which utilizes EESA and third party communications providers, to communicate to the remote field telemetry devices.

There were no significant communication faults reported in 2014 for the SEP.

## **5. Incident Reporting**

There were no serious or reportable incidents associated with the SEP during 2014.

## **6. Land Management**

### **6.1. Land Owner Liaison**

There are 83 landholders along the SEP. In January 2014 EESA began an 18 month Land Owner Liaison Program to visit all properties (or other nominated contact addresses), completing a questionnaire during the visit, updating contact details, current and proposed land use, awareness of the pipeline location and reminding landowners of their responsibilities with

respect to working in the pipeline vicinity. Where landholders were not available to be seen in person, the questionnaire is completed via telephone. Landowners who have been involved with encroachments or near-misses in the past will be visited twice during the extended program. EESA is currently on target for completion in June 2015, and will then revert to a 12 month program aligned with the Financial Year rather than Calendar Year.

As part of EESA's pipeline awareness program, all landowners were also contacted via mail on two occasions, with a newsletter sent in May 2014 emphasising the importance of using the DBYD system and a 2015 EESA calendar containing information on pipeline safety and their responsibilities sent in December 2014.

## **6.2. Pipeline Safety Awareness**

EESA implements a Community Awareness Program, which entails holding awareness meetings with communities, Councils, government departments, utilities, emergency services and contractors along the pipeline route. In 2014 twenty three of these meetings were held with services or contractors working in close proximity to the SEP.

The presentation focused on the general properties of the gas transported, location of the high pressure gas pipelines in the regions concerned, correct procedures when working within pipeline easements, pipeline threats and dealing with emergency situations.

## **6.3. Pipeline Locations and Referral Services**

EESA continues to provide a free service to locate any pipeline that they own or operate on behalf of third parties. Historically this service was primarily used by companies and third parties carrying out civil works in the vicinity of the pipelines, with contact made via either direct telephone to EESA or via the free call 1100 DBYD asset referral service.

In 2014 EESA continued emphasising to all landowners the importance of using the free DBYD service for any works near a pipeline.

EESA received 11 DBYD enquiries in relation to third party activity in the vicinity of the SEP in 2014.

In 2014 EESA updated the 'Managing Third Party Works Procedure' to provide a clear and well defined process for managing significant land disturbing activities near the pipeline.

# **7. Environmental Management**

## **7.1. Control Document and Training**

EESA regularly reviews and updates elements of the Environmental Management System (EMS) including the relevant environmental procedures and work instructions and specific environmental management plans.

In 2014 EESA updated online environmental training module and provided training to all employees and contractors entering the field on behalf of EESA. This induction provides an overview of environmental risks, control measures and responsibilities.

The documents reviewed and updated in 2014 were:

- African Rue Management Plan;
- Bushfire Management Procedure;
- National Pollutant Inventory Reporting Procedure; and
- Weed Management Procedure

## **7.2. Soil Erosion and Subsidence Management**

No erosion or subsidence was identified on the SEP in 2014.

Appendix A contains the “Assessment of Declared Objectives” completed for the SEP.

## **8. Emergency Response**

The Petroleum and Geothermal Energy Regulations 2013 require that an Emergency Response exercise is to be conducted on the SEP once every two years and in addition to this exercise a set of Emergency Response procedures is to be developed and maintained. These procedures are detailed in EESA’s Incident Management Plan.

EESA have reviewed the outcomes of the 2012 exercise and have developed an Emergency Response Plan in line with the new EESA organisational structure.

Exercise “Meter Station Fire - Mount Gambier” was carried out on the 20 May 2014 involving the South Australian Police, EESA personnel at Dry Creek, the PCR and the EESA Field Contractor. The exercise was deemed a success and the observations/minor issues identified during the conduct of the exercise have been resolved since. The report was forwarded to Department of State Development (DSD) in accordance with the regulatory requirements.

An exercise was conducted by the Workplace Health and Safety (WHS) Officer in the SEP on the 13 November 2014 to test the reaction time for the In Vehicle Monitoring System. A number of improvement opportunities were identified as a result of the exercise.

## **9. Regulatory Compliance**

EESA ensures that design, manufacture, construction, operation and maintenance and testing of all appropriate facilities is carried out in accordance with the relevant Acts of Parliament, licence conditions and AS2885 requirements.

EESA attends quarterly meetings with DSD, where operational regulatory compliance is discussed in an open manner.

EESA manages legislative changes through SAI Global, an organisation which monitors, tracks and advises EESA of legislative changes that could affect the operation of the pipeline.

EESA is not aware of any regulatory non-compliance for this pipeline, and believe it is fulfilling its obligations in relation to the following requirements:

- Petroleum and Geothermal Energy Act 2000;
- Petroleum and Geothermal Energy Regulations 2013;

- Pipeline Licence 3 (PL3);
- Pipeline Licence 4 (PL4); and
- The Statement of Environmental Objectives (SEO) for PL3 and PL4

Significant items are reported through to DSD and are raised at quarterly compliance meetings held between DSD and EESA.

There have not been any significant regulatory compliance issues during this reporting period.

## 10. Risk Management

EESA has continued to use the SMS that was established during 2013 to facilitate compliance with obligations under the harmonised WHS legislation and AS2885:2012; and is aligned to AS4801 – Occupational Health and Safety Management Systems.

The WHS Safety Management System consists of an overarching Safety Management Plan, Policies, Guidelines, Procedures and Work Instructions; and has been implemented across all elements of the business.

EESA utilise an online Risk Management database known as Corporate Governance Risk (CGR). CGR is a web-based risk management platform that performs the following key functions:

- a) Risks, which incorporates HAZID style workshop outcomes, eg risks, causes, controls, consequences and risk rankings;
- b) Learnings, which captures Health Safety and Environment (HSE0 and operational lessons learnt, including related actions;
- c) Actions, which tracks actions from risk workshops, incident reporting, inspections/audits and meetings;
- d) Incidents, which records information on incidents in the areas of clinical health, injury, environment, asset, reputation, security, legal and financial; and
- e) Audits, which allow audits and other checklists to be created and generated.

Recommendations arising from the checklists can be elevated to actions and transferred to the action component.

## 11. Management System Audits

### 11.1. Health and Safety

WHS audits are undertaken by EESA to provide assurance and to assess the effectiveness of WHS management practices to determine if they are effective for ongoing and future management of significant risks in line with best industry practice and company policies. Audits also identify opportunities for WHS continuous improvement.

WHS audits are important to provide a health check on all WHS governance activities and to provide confidence that WHS risks are being managed to levels that are As Low As Reasonably Practicable (ALARP). These audit and assurance activities are also conducted to provide due diligence WHS reporting data to the officers of EESA to assist them in discharging their WHS due diligence requirements under the WHS Act (SA) 2012.

A schedule of audits was developed in order to ensure adequate planning and preparation with a combination of internal and external audits conducted.

In addition to these systems audits, EESA have established, as part of its Tasks and Targets for Supervisors and Managers, tools to conduct field based quality assurance inspections to ensure that the system is being appropriately utilised in the field.

A legal compliance audit was conducted by the firm Norton Rose Fullbright in April/May 2014. As a result of the audit, a comprehensive 3 Year WHS Plan was established identifying 7 key areas for the company to work on.

Audits undertaken during 2014 are listed below:

- Norton Rose Fullbright legal compliance review;
- WHS and Assurance;
- DSD Self-Assessment audit alignment to AS4801; and
- 63 field based safe systems of work observations / audits

### **11.2. Management Audit**

EESA completed a number of management audits during 2014. These were a combination of EESA's internal audit program and external audits by industry experts initiated by EESA.

The following topics were subject to audit during 2014:

- Aviation Audits;
- Compliance with National Greenhouse and Energy Reporting Scheme (NGERS);
- Short Term Trading Market (STTM) Compliance; and
- Single Wire Earth Return (SWER) Maintenance Plan;

The auditing program offers the opportunity to identify and promote continual improvement within EESA and completion of these audits is recognised as a key performance indicator by management and the Board.

## **12. Reports Issued during the Reporting Period**

The following reports were issued for PL3 and 4 during 2014:

- 2013 SEP PL3 and 4 Annual Report;
- 2013 SEP PL3 and PL4 Fitness for Purpose Report;
- APCEL Meter Station Hazardous Area Dossier;
- Emergency Exercise Report SEPS Meter Station Fire – Mount Gambier;
- Excavation Report for Mt Gambier Dig No 1; and
- Excavation Report for Mt Gambier Dig No 2

## **13. Volume of Product Transported**

Approximately 2,452 TJ of natural gas was transported through the SEP in 2014.



## **14. Proposed Operational Activities for the next year**

During 2015 the following activities are planned for the SEPS:

- Completion of all routine maintenance activities in accordance with the SEP maintenance plan;
- suspension of the Safries lateral (subject to confirmation by customers);
- The current suspended condition of the Nangwarry Lateral will also be reviewed to ensure the ongoing safety and integrity of this pipeline section that has not flowed since 2010; and
- CP system upgrades will be considered to install permanent GPS synchronising units to allow ON/OFF readings during full line surveys

## **15. Statement of Expenditure**

Information relating to expenditure in relation to the regulated activities of the pipeline is provided as “Commercial in Confidence” in accordance with *sub regulation 33(9)* of the *Petroleum and Geothermal Energy Regulations 2013*, where public disclosure is not required in accordance with *sub regulation 33(4)*.

## **16. Conclusion**

The maintenance and inspection programs carried out on the SEP during 2014 have ensured the pipeline is fit for service and capable of operating within the set parameters.

## **Appendix A - SEO Assessment of Declared Objectives**

## Assessment of Declared Objectives

OBJECTIVE	GOAL	MEASURE/HOW	OBJECTIVE ACHIEVED	OBJECTIVE ACHIEVED? YES/NO	SUPPORTING COMMENTS
<p><b>1.</b> To avoid unnecessary disturbance to 3<sup>rd</sup> party infrastructure, landholders or land use</p>	<p><b>1.1</b> To minimise disturbance or damage to infrastructure/ land use and remediate where disturbance cannot be avoided</p>	<p>Incident reports. Records of communications with adjacent landholders / 3<sup>rd</sup> party prior to &amp; during maintenance work. Landholder contact records database. Photo points or inspection reports, specifically to look at: removal of waste products, re-instatement of soil profiles, adequate re-contouring of surface profile, return of land use. Where disturbance is unavoidable or accidental, infrastructure or land use is restored as near as is practicable to its pre-disturbed condition or as agreed between the relevant parties. Duration of disturbance does not exceed agreed timeframe.</p>	<p>No reasonable landholder complaints</p>	<p>Yes</p>	<p>All landowners / land occupiers were visited in 2014 with no complaints received. There have been no incidents in 2014.</p>
	<p><b>1.2</b> To minimise disturbance to landholders</p>	<p>Records of communications with adjacent landholders / 3<sup>rd</sup> party prior to &amp; during maintenance work. Landholder contact records database. Landholder activities not restricted as a result of pipeline activities. Completed disturbance checklist.</p>	<p>No reasonable landholder complaints. Landholder activities not restricted or disturbed as a result of pipeline activities unless by prior arrangement.</p>	<p>Yes</p>	<p>There have been no incidents or negative communications with landholders / third parties during 2014.</p>

OBJECTIVE	GOAL	MEASURE/HOW	OBJECTIVE ACHIEVED	OBJECTIVE ACHIEVED? Yes/No	SUPPORTING COMMENTS
2. To maintain soil stability/ integrity	2.1 To remediate erosion as a result of pipeline operations in a timely manner	Timed photo points or annual land survey, specifically to look at evidence of erosion, subsidence, vegetation loss on easement & compare to adjacent land. Inspections undertaken as part of regular patrols, following specific works, following significant storm events. Preventative measures implemented and monitored in susceptible areas	The extent of soil erosion on the easement is consistent with surrounding land.	Yes	Regular vehicle patrols are conducted to identify anomalies on the easement.  No erosion was reported or repaired in 2014.
	2.2 To prevent soil inversion	Annual land survey to look for soil discolouration, success of vegetation return as an indicator. Disturbance checklist signed off to indicate top soil/subsoil are stockpiled separately and soil profiles appropriately reinstated following the re-instatement of works/excavations.	Vegetation cover is consistent with surrounding land. No evidence of subsoil on surface (colour). No landholder complaints.	Yes	Land surveys did not identify areas of soil inversion restricting rehabilitation of vegetation following land disturbance. Photo points recorded to monitor revegetation at disturbed sites in following years.  Excavation checklists were completed for all excavations, demonstrating compliance with the environmental requirements of EESA's Excavation Procedure.
3. To maintain native vegetation cover on the easement	3.1 To maintain regrowth of native vegetation on the easement to be consistent with surrounding area	Annual land survey to look for evidence of disturbance to vegetation on easement (apart from access tracks). Disturbance checklist (including timed photos) signed off to indicate adequate steps undertaken to facilitate regrowth. Follow-up rehabilitation work undertaken where natural regeneration has been inadequate.	Species abundance and distribution on the easement.  Note: assessment of the consistency with surrounding areas will take into account that re-growth is a time and rainfall dependent process.	Yes	Land surveys did not identify areas of vegetation disturbance.  The native vegetation within the pipeline easement is consistent with surrounding environment.  The majority of the SEPS alignment is through private farming land or road verge where native vegetation clearing is not required.

OBJECTIVE	GOAL	MEASURE/HOW	OBJECTIVE ACHIEVED	OBJECTIVE ACHIEVED? Yes/No	SUPPORTING COMMENTS
	<p><b>3.2</b> To minimise additional clearing of native vegetation as part of operational activities</p>	<p>Annual land easement survey to review vegetation regrowth. Records demonstrating compliance with AS2885. Vegetation removed in accordance with the <i>Native Vegetation Act 1991</i> and <i>Development Act 1993</i>.</p>	<p>No pipeline interference due to vegetation cover.</p>	<p>Yes</p>	<p>Two excavations were carried out during 2014, both on grass land. Excavation checklists were completed. No previously undisturbed vegetation was cleared on the SEPS in 2014.</p>
	<p><b>3.3</b> To minimise additional clearing of native vegetation as part of operational activities</p>	<p>Annual land survey to look for evidence of disturbance to vegetation on easement (apart from access tracks). Use of Disturbance checklist and photo points before, during &amp; after any excavation or land disturbance activity. Vegetation trimmed rather than cleared where possible. Consideration of sensitive vegetation during vegetation trimming and / or clearing activities in line with government legislation and regulations. Where practicable approval obtained under <i>Native Vegetation Act 1991</i> for any clearance of native vegetation.</p>	<p>Vegetation clearance is limited to previously disturbed areas or areas assessed to be of low sensitivity, unless prior regulatory approval obtained.</p>	<p>Yes</p>	<p>Land surveys did not identify areas of vegetation disturbance. The native vegetation within the pipeline easement is consistent with surrounding environment. No previously undisturbed vegetation was cleared on the SEPS in 2014. Vegetation is trimmed rather than cleared to maintain line of sight within pipeline easement.</p>

OBJECTIVE	GOAL	MEASURE/HOW	OBJECTIVE ACHIEVED	OBJECTIVE ACHIEVED? Yes/No	SUPPORTING COMMENTS
	<b>3.4</b> To ensure maintenance activities are planned and conducted in a manner that minimises impacts on native fauna	Use of Disturbance checklist and photo points before, during & after any excavation or land disturbance activity. In event of pipeline repair, open trenches are monitored daily and not left open for more than 72 hours.	The excavation procedure is followed at all times, which requires the implementation of good fauna management practices.	Yes	Two excavations were carried out during 2014, both on grass land. Excavation checklists were completed.
<b>4.</b> To prevent the spread of weeds and pathogens	<b>4.1</b> To ensure that weeds and pathogens are controlled at a level that is at least consistent with adjacent land	Regular patrols undertaken to look for evidence of weeds on easement and adjacent land (if weeds on easement but not adjacent land must implement control to prevent spread). Records of outbreaks found, weed control activities and photo-monitoring of significant outbreaks. Where appropriate, closure of access tracks.	The presence of weeds and pathogens on the easement is consistent with or better than adjacent land. No new outbreak or spread of weeds reported.	Yes	The presence of weeds and pathogens on the easement is consistent with adjacent land.
<b>5.</b> To minimise the impact of the pipeline operations on surface water resources	<b>5.1</b> To maintain current surface drainage patterns	Regular patrols and annual survey undertaken to look for evidence of erosion, abnormal vegetation growth or death. Observations also to be undertaken following significant storm events. Use of Disturbance checklist and photo points before, during and after excavations, CP installation, construction activities, etc.	For excavations, surface drainage profiles restored. For existing easement, drainage is maintained to pre-existing conditions or better.	Yes	There were no alterations made to existing landscapes or drainage patterns during 2014.



OBJECTIVE	GOAL	MEASURE/HOW	OBJECTIVE ACHIEVED	OBJECTIVE ACHIEVED? Yes/No	SUPPORTING COMMENTS
6. To avoid land or water contamination	6.1 To prevent spills occurring, and if they occur, minimise their impact	<p>Evidence of soil discolouration, vegetation or fauna death during patrols.</p> <p>Incident / Spill reports.</p> <p>Use of spill protection methods where work is completed within or adjacent to environmentally sensitive areas.</p> <p>Containment of all hazardous substances and liquid waste in appropriate vessels.</p> <p>In the event of a spill, the spill was:</p> <ul style="list-style-type: none"> <li>• Reported</li> <li>• Contained</li> <li>• Cleaned-up, and</li> <li>• Cause investigated and corrective and/or preventative action implemented.</li> </ul> <p>Prevention program including pigging, intelligent pigging and pipe maintenance.</p> <p>Compliance with relevant sections of the <i>Environment Protection Act</i>.</p>	<p>No soil or water contamination as a result of pipeline activities.</p> <p>No land or water contamination as a result of spills during pipeline operation activities.</p>	Yes	<p>No spills were recorded in 2014.</p> <p>All hazardous substances are stored in appropriate vessels and banded.</p>
	6.2 To remediate and monitor areas of known contamination arising from pipeline operations.	<p>Incident / Spill reports.</p> <p>Active remediation methods implemented where it is determined that contamination is spreading or level of contamination is not decreasing.</p> <p>Use of groundwater monitoring bores.</p> <p>Use of soil farms for remediation.</p>	<p>Contamination confined to known area.</p> <p>Level of contamination continually decreasing, ultimately to meet EPA guidelines.</p>	Yes	<p>There are no known contaminated areas from pipeline operations on the SEPS.</p>

OBJECTIVE	GOAL	MEASURE/HOW	OBJECTIVE ACHIEVED	OBJECTIVE ACHIEVED? Yes/No	SUPPORTING COMMENTS
	<p><b>6.3</b> To prevent the spread of contamination where then easement intersects known contaminated sites.</p>	<p>Use of Disturbance checklist and photo points before, during &amp; after excavations, CP installation, construction activities, etc. Identification of contaminated sites along easement and establishment of monitoring points.</p>	<p>No evidence of movement of contaminated material along easement (i.e. vegetation death, soil discolouration, subsidence).</p>	<p>Yes</p>	<p>Refer to 6.2</p>
	<p><b>6.4</b> To ensure that rubbish and waste material is disposed of in an appropriate manner.</p>	<p>Regular patrols or annual survey undertaken to look for evidence of rubbish, spills (soil discolouration). Waste disposal records, chemical manifests. Appropriately licensed contractors used for any hazardous waste disposal and records are maintained for all hazardous waste disposal. Use of Disturbance checklist and photo points before, during &amp; after excavations, CP installation, construction activities, etc.</p>	<p>No evidence of rubbish or litter on easement or at facilities. Waste material is contained and disposed of in accordance with EPA approved procedures.</p>	<p>Yes</p>	<p>All waste materials are disposed by a licensed carrier in accordance with EESA's Waste Management Procedure.</p>

OBJECTIVE	GOAL	MEASURE/HOW	OBJECTIVE ACHIEVED	OBJECTIVE ACHIEVED? Yes/No	SUPPORTING COMMENTS
	<p><b>6.5</b> To prevent impacts as a result of waste water disposal</p>	<p>Water disposed of in a manner that prevented discharge or runoff to watercourses or environmentally sensitive areas.</p> <p>Water discharged onto stable ground, with no evidence of erosion as a result of discharge.</p> <p>Records on source of water and discharge method/location.</p> <p>Testing of water quality prior to release/disposal of waste water.</p> <p>Inspection of water disposal sites for evidence of water entering a watercourse or environmentally sensitive area.</p> <p>Compliance with the <i>Environment Protection (Water Quality) Policy 2003</i>.</p>	<p>No evidence of impacts to soil, water and vegetation as a result of water disposal (ie. soil erosion, dead vegetation, water discoloration).</p>	<p>Yes</p>	<p>No waste water disposal was carried out on the SEPS during 2014.</p>
	<p><b>6.6</b> To ensure the safe and appropriate disposal of grey and black water (sullage, sewage)</p>	<p>Compliance with the relevant local government regulations or relevant health and sanitation regulations.</p>	<p>No evidence of non-compliance with local or state government regulations.</p>	<p>Yes</p>	<p>Currently not applicable practice on the SEPS.</p>
<p><b>7.</b> To minimise the risk to public health and safety</p>	<p><b>7.1</b> To adequately protect public safety during normal operations</p>	<p>Job Hazard Analysis.</p> <p>Records of Annual Reports, Fitness for Purpose Reports, Risk Assessments and inspections.</p> <p>Records (including above) demonstrating compliance to AS2885.</p> <p>Emergency procedures implemented and personnel trained.</p>	<p>No injuries or incidents involving the public.</p>	<p>Yes</p>	<p>All pipeline signage is considered to be fit for purpose and is maintained at a standard to meet AS2885 requirements.</p> <p>All landowners on the pipeline were contacted by an EESA representative during 2014.</p>

OBJECTIVE	GOAL	MEASURE/HOW	OBJECTIVE ACHIEVED	OBJECTIVE ACHIEVED? Yes/No	SUPPORTING COMMENTS
	<p><b>7.2</b> To adequately protect public safety during maintenance</p>	<p>Job Hazard Analysis'. Records of communications with adjacent landholders prior to and during maintenance work including advice on the nature and schedule of maintenance activities. Use of signage or bunting to identify all potentially hazardous areas. Adequate implementation of traffic management practices. Records of regular emergency response training for employees and review of procedures. Incident Reports.</p>	<p>No injuries or incidents involving the public. Emergency procedures implemented and personnel trained.</p>	<p>Yes</p>	<p>No injuries or incidents involving the public occurred in 2014.  Established safe systems of work including the use of approved work instructions and procedures, job hazard analysis, permit to work and experienced staff all contributes to EESA meeting this objective.</p>
	<p><b>7.3</b> To avoid fires associated with pipeline maintenance activities</p>	<p>Incident reports. Records of regular fire safety and emergency response training for all operations personnel and review of procedures. Established procedures for minimising fire risk during maintenance. Emergency procedures implemented and personnel trained.</p>	<p>No pipeline related fires.</p>	<p>Yes</p>	<p>There were no fires on the SEPS during 2014.</p>

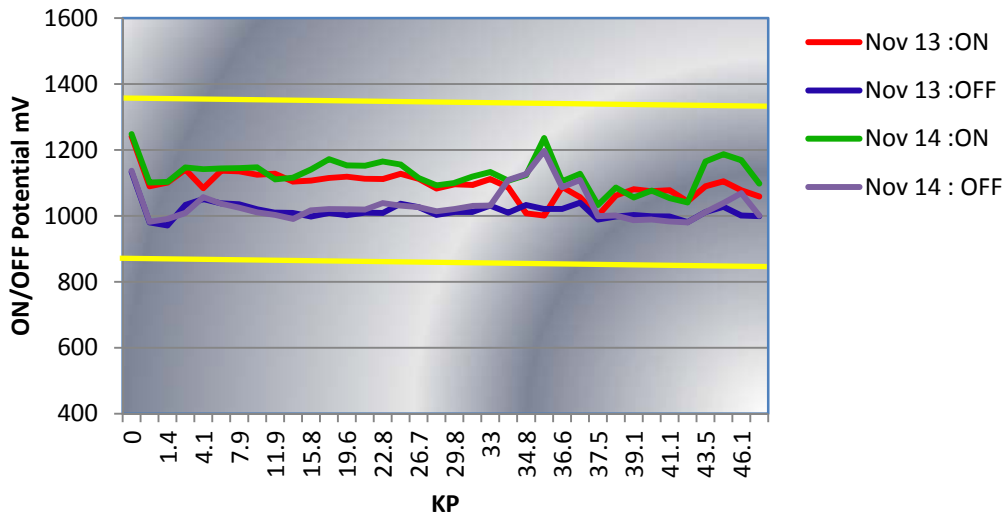
OBJECTIVE	GOAL	MEASURE/HOW	OBJECTIVE ACHIEVED	OBJECTIVE ACHIEVED? Yes/No	SUPPORTING COMMENTS
	<b>7.4</b> To prevent unauthorised activity on the easement that may adversely impact on the pipeline integrity	<p>Inspection / Patrol reports and records.</p> <p>Comprehensive landholder and other stakeholder pipeline awareness program and records of communications with these.</p> <p>Community education program implemented in Regional areas.</p> <p>'Dial before you dig' number available and widely advertised.</p> <p>Clear identification of the pipeline by signs installed in accordance with AS2885.</p> <p>All reports of unauthorised activity are reported and investigated.</p>	No unauthorised activity on the easement that has the potential to impact on the pipeline integrity.	Yes	<p>There were no reported unauthorised activities within the pipeline easement during 2014.</p> <p>11 DBYD's received during 2014.</p> <p>Danger signage installed in accordance with AS2885.</p> <p>23 Pipeline Awareness Presentations conducted in 2014.</p>
8. Minimise impact of emergency situations	<b>8.1</b> To minimise the impact as a result of an emergency situation or incident	<p>Incident reports.</p> <p>Emergency response trials (carried out at least annually) and associated documentation.</p> <p>Records of regular emergency response training for all personnel and review of procedures.</p> <p>Link between ER exercises and Risk assessment.</p>	<p>Emergency response procedures are effectively implemented in the event of an emergency.</p> <p>Emergency response exercises are aligned with credible threats and consequences identified in the risk assessment.</p>	Yes	<p>No emergency situations have been recorded or managed during this reporting period.</p> <p>EESA conducted three emergency response exercises in 2014, including one on the SEPS in May.</p> <p>All personnel have current 'Apply First Aid' certificates.</p>
	<b>8.2</b> To restore any damage that may occur as a result of an emergency situation	Refer to previous criteria (Objective 1, 2, 3 & 6).	Refer to previous criteria (Objective 1, 2, 3 & 6).	Yes	No emergency situations have arisen during this reporting period.

OBJECTIVE	GOAL	MEASURE/HOW	OBJECTIVE ACHIEVED	OBJECTIVE ACHIEVED? Yes/No	SUPPORTING COMMENTS
9. To minimise noise due to operations	9.1 To ensure operations comply with noise standards	Incident reports. Monitoring results, where deemed necessary (e.g. frequent complaints).	Operational activities comply with noise regulations, under the <i>Environment Protection (Noise) Policy 2007</i> . No complaints received.	Yes	No complaints were received during 2014. Maintenance activities performed during the reporting period did not contribute to any increased noise levels.
10. To minimise atmospheric emissions	10.1 To eliminate uncontrolled atmospheric emissions	Maintenance Program Following relevant operational procedures Compliance with <i>Environment Protection (Air Quality) Policy 1994</i> .	No uncontrolled atmospheric emission.	Yes	No uncontrolled atmospheric emissions occurred or were reported in 2014.
	10.2 To minimise the generation of dust	Incident reports. Compliance with EMS Procedures (vehicle movement, dust suppression, etc).	No complaints received. No dust related injuries recorded.	Yes	No dust complaints were received in 2014. EESA maintains vegetation cover on the pipeline easement which aids dust suppression.
11. To adequately protect cultural heritage sites and values during operations and maintenance	11.1 To ensure that identified cultural sites are not disturbed	Consultation with relevant heritage groups if operations occurring outside known surveyed areas. Records of site locations on operations GIS. Use of Disturbance checklist prior to undertaking maintenance works. Site examined for cultural heritage material prior to work involving off-easement disturbance or in an area of archaeological potential or in an area identified as being of known medium to high archaeological sensitivity. Any new sites identified are recorded in Land Management System and reported to appropriate authority.	No impact to known sites without approval under the <i>Aboriginal Heritage Act 1988</i> or the <i>Heritage Places Act 1993</i> .	Yes	EESA maintains a GIS database of known cultural sites and previous cultural survey areas. EESA has an Aboriginal and Cultural Heritage Management Procedure that provides guidance on the requirement to undertake cultural surveys. No operation or maintenance activities occurred that would have had the potential to impact on any cultural heritage sites located in the SEPS.

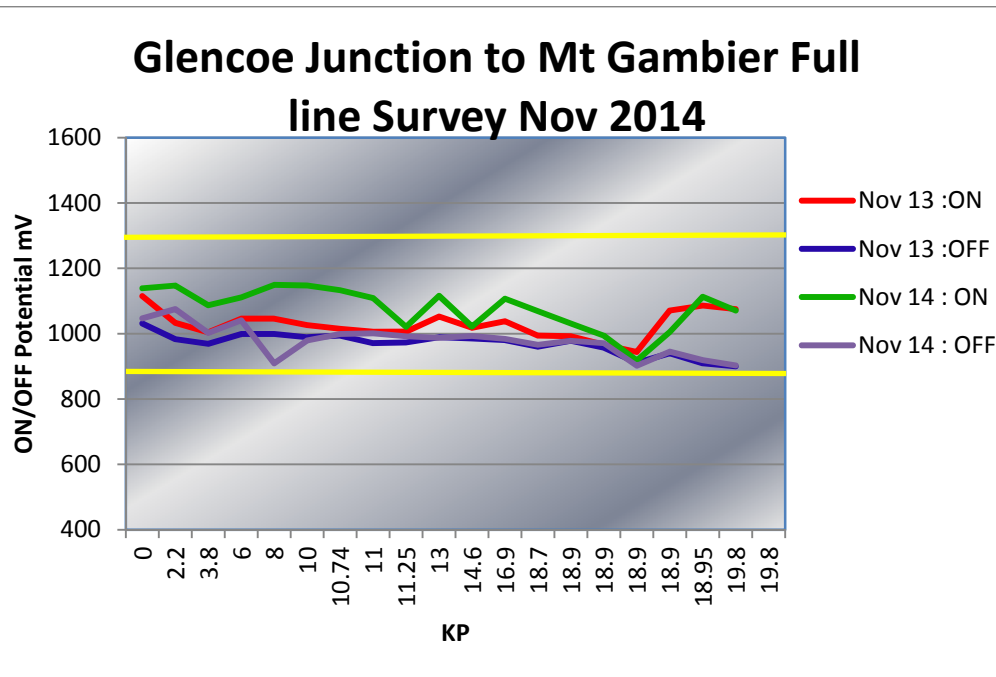


## **Appendix B - 2014 SEPS Cathodic Protection Data**

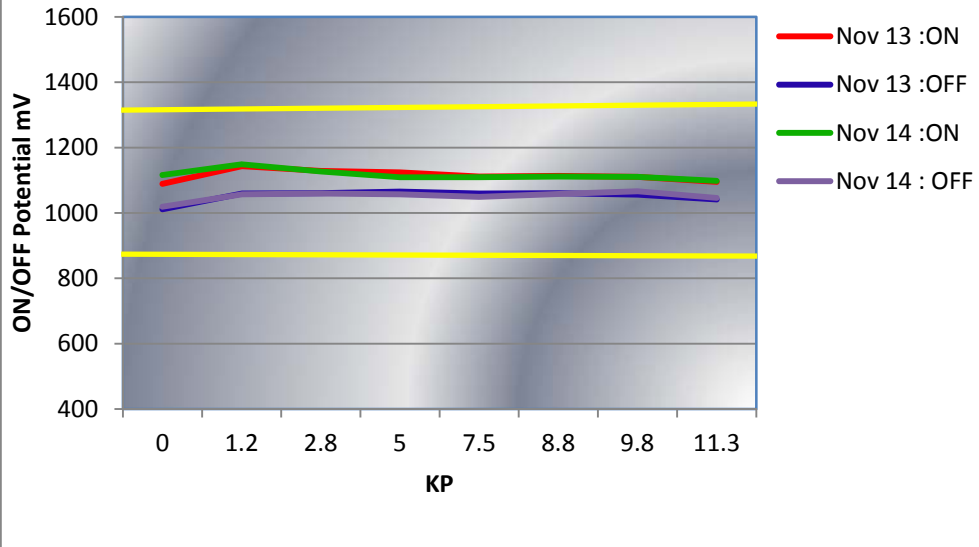
### Katnook Plant to Apcel Full line Survey Nov 2014



### Glencoe Junction to Mt Gambier Full line Survey Nov 2014



### Nangwarry Lateral Full line Survey Nov 2014



### Katnook Plant to Safries Lateral Full line Survey Nov 2014

