

APA Group



2010 ANNUAL REPORT

ON

Pipeline Licence No 16

SESA PIPELINE

March 2011

TABLE OF CONTENTS

1. LIST OF ABBREVIATIONS 4

2. INTRODUCTION 5

3. PIPELINE DESCRIPTION..... 5

4. PIPELINE THROUGHPUT 6

5. STATEMENT OF EXPENDITURE 6

6. COMPLIANCE 6

7. SAFETY AND ENVIRONMENT 6

 7.1 Environmental Management.....6

 7.2 Environmental Audits.....7

 7.3 Health, Safety and Environmental Reviews/Audits7

8. INSPECTION AND MAINTENANCE ACTIVITIES..... 8

 8.1 Routine Inspection and Maintenance.....8

 8.2 Non-Routine Operations and Maintenance8

9. CORROSION CONTROL..... 8

10. RIGHT OF WAY MANAGEMENT 10

 10.1 Signage10

 10.2 Landholder Contacts.....10

 10.3 Pipeline Awareness Programme10

 10.4 Pipeline Location Service10

11. EMERGENCY MANAGEMENT 11

 11.1 Emergency Response Plan.....11

 11.2 Emergency Response Exercise.....11

12. COMPLIANCE AUDITS 11

 12.2 ESV Compliance Audit.....11

13. MANAGEMENT SYSTEMS..... 12

14. PIPELINE INTEGRITY MANAGEMENT 13

 14.1 Safety Management Study13

 14.2 Maximum Allowable Operating Pressure (MAOP) Review14

 14.3 Over Pressure Protection Review14

 14.4 Direct Current Voltage Gradient (DCVG) Survey15

15. REPORTS GENERATED IN 2010 15

16. KNOWN OR FORESEEABLE ACTIVITIES AFFECTING THE PIPELINE 15

17. FUTURE OPERATIONS 16

APPENDIX 1 – SEO OPERATIONS OBJECTIVES AND ASSESSMENT CRITERIA 17

APPENDIX 2: SESA PIPELINE POTENTIAL SURVEY RESULTS – MAY 2010..... 21

APPENDIX 3: GRAPHICAL RESULTS FROM CATHODIC PROTECTION POTENTIAL SURVEY – MAY 2010 22

1. List of Abbreviations

ALARP	As Low As Reasonably Practical
APT O&M	Australian Pipeline Trust Operations and Maintenance
AS2885	Australian Standard 2885 – Pipelines-Gas and Liquid Petroleum
CP	Cathodic Protection
Cu/CuSO ₄	Copper/Copper Sulphate
DBYD	Dial Before You Dig
DCVG	Direct Current Voltage Gradient
ERE	Emergency Response Exercise
ERT	Emergency Response Team
ERP	Emergency Response Plan
ESV	Energy Safety Victoria
FE	Flow Element
FFP	Fitness for Purpose
GIS	Geographical Information System
GT	Gas Turbine
HAZCHEM	Hazardous Chemicals
HAZOP	Hazard and Operability Study
HSE	Health Safety and Environment
HSEMS	Health Safety Environmental Management System
MAOP	Maximum Allowable Operating Pressure
MFS	Metropolitan Fire Service
MLV	Mainline Valve
Mx	Computerised Maintenance Management System (Maximo)
OE	Origin Energy
OEMP	Operations Environmental Management Plan
PIRSA	Primary Industries and Resources of South Australia (Petroleum & Geothermal Group)
PL 16	Pipeline Licence Number 16
ROW	Right of Way
RTU	Remote Telemetry Unit
SAOP	Safety and Operating Plan
SCADA	Supervisory Control and Data Acquisition
SEO	Statement of Environmental Objectives
SESA	South East South Australia
SMS	Safety Management Study
TJ	Terajoules
TOSA	Transmission Operations South Australia

2. Introduction

The South East South Australian (SESA) Natural gas Transmission Pipeline is owned and operated by APT O&M Services Pty. Ltd. (herein referred to as APT O&M) part of the APA Group. This annual report has been prepared by APT O&M on behalf of APT Pipelines (SA) Pty Ltd, the pipeline licensee, in accordance with section 33 of the Petroleum and Geothermal Energy Regulations (SA) 2000. This annual report also meets the requirements of section 11 (2) of the Pipeline Regulations (Vic) 2007.

As required by Pipeline Licence (PL) 16, an annual review of the SESA transmission pipeline operations for the 2010 calendar year is provided herein.

3. Pipeline Description

A description of the pipeline System is provided in Table 1.

Table 1 – SESA Pipeline Description

Pipeline Licence term	PL 16 (SA) Commences 23/2/05 Expires 22/2/26 PL 255 (Vic) Commences 1/3/05 Expires 1/3/26
Pipeline construction dates	Pipeline: Mar – May 2005 Facilities: Mar – Sep 2005
Main pipeline length	45km Total (22km Victoria & 23km South Australia)
Main pipeline outer diameter	219.1mm (8" NB)
Pipeline nominal wall thickness	Sections of 6.77mm and 4.01mm
Main pipeline depth of cover	Minimum 750mm (ROW cross country sections), 1200mm (road/creek crossings), 1200mm (fire break)
Grade of pipeline Material	API 5L X60 welded steel pipe
Main pipeline protective coating	1mm extruded HDPE "yellow jacket" with 0.2mm adhesive coated
Normal pipeline operating pressure	9,300 kPa
Maximum Allowable Operating Pressure	10,200 kPa
Hydrotest Pressure	14,170kPa
Operating temperatures	-5°C and + 55°C.
Pipeline capacity	Design capacity of 40 Terajoules/ day (Max free-flow capacity of 70TJ/day, subject to inlet conditions)
Number of Metering/ Regulating facilities	2 (Poolajelo and Ladbrooke Grove Pressure Reducing Meter Stations)

Number of main line valves	Nil (Remote actuation valves are installed at either end of pipeline in the PRMS facilities.)
Odorised Gas	Yes
Compression Station(s)	Nil

4. Pipeline Throughput

The SESA pipeline throughput for the year 2010 was approximately 4,780TJ.

5. Statement of Expenditure

'Commercial in confidence'.

6. Compliance

During 2010 the SESA Pipeline was operated and maintained in compliance with the *South Australia (SA) Petroleum and Geothermal Energy Act and Regulations 2000*. Compliance with the Victorian Pipeline Act 2005, Pipeline Regulations 2007 and Pipeline Licence 255 has also been achieved.

7. Safety and Environment

7.1 Environmental Management

To comply with the requirements of the Petroleum and Geothermal Energy Act 2000, APT O&M operates the pipeline in accordance with the SESA SEO and Operations Environmental Management Plan (EMP). Although the SEO is only required for Pipeline Licence approval in South Australia its contents is applied to both the South Australian and Victorian sections of the pipeline.

During 2010 the SESA SEO was revised to meet the requirements of a 5 Yearly review. The review incorporated an objective related to the security of supply and objectives associated with construction were added to ensure that environmental objectives associated with any additions or modifications (construction) are considered and achieved. An SEO assessment to measure the achievement of environmental performance objectives is submitted to PIRSA on a quarterly basis. An annual summary of SEO (October 2010) compliance for the SESA Pipeline is contained in Appendix 1.

7.2 Environmental Audits

An environmental audit was carried out during 30 March to 1 April 2009 to assess the impact of the SESA Pipeline operational and maintenance activities in accordance with the requirements of PL's 16 (South Australia) and 255 (Victoria) and environmental objectives specified in the Statement of Environmental Objectives (SEO) for the SESA Pipeline (Feb 2005).

In total 4 recommendations for improvement were made (4 low rated) relating to training records, weed management and pipeline identification marker posts. 3 recommendations were addressed during 2009 and one recommendation was addressed during the first half of 2010. The next Environmental Compliance Audit is scheduled to be carried out along the SESA Pipeline during the first half of 2011.

7.3 Health, Safety and Environmental Reviews/Audits

7.3.1 Health Safety and Environmental Systems Audit

The Brief Group were engaged during 2010 to conduct an independent review of the Health Safety and Environmental (HSE) Systems nationally throughout APA. During the review, the Brief Group consultants attended 12 locations and conducted 87 interviews and 37 system reviews with people at all levels of the business. The review also encompassed an online survey to which 147 responses, from the sample group of 175, were received. The review looked at the most critical 5 elements of APA's HSE Management system and culture and took the form of an analysis of the current workplace safety management system, work practices and processes. Overall a number of areas for improvement were identified, these included the need for a National APA Group Safety Management System and some cultural and communication issues which could further be improved. To address the identified issues and improve the perception and performance of the HSE Management System, a National Health Safety and Environmental Improvement Project has been initiated and will be ongoing until July 2012.

7.3.2 Occupational Health and Safety System Review and Site Hazard Identification

An Occupational Health and Safety (OH&S) System Review and Site Hazard Identification was carried out by Choose Safety Pty Ltd on the 23rd of July 2010. The assessment consisted of a physical walk through inspection of the areas and departments present at the Kidman Park site. The emphasis of the inspection was on safety related hazards and work areas/stations to ensure compliance with South Australian Occupational Health Safety and Welfare legislation. Overall there were several areas for improvement identified as a result of the inspection; these relate to general house keeping practices and workplace inspection processes. These actions are currently being addressed and are due to be implemented during 2011.

8. Inspection and Maintenance Activities

8.1 Routine Inspection and Maintenance

Routine maintenance on the pipeline has been carried out in accordance with the maintenance schedule contained in the SESA Pipeline Safety and Operating Plan (SAOP). A review of all operation and maintenance activities related to the SESA Pipeline is scheduled to occur in the first half of 2011.

During 2010 activities carried out on the SESA Pipeline included; monthly road patrols of the pipeline line of sight, 3 monthly gas chromatograph and moisture analyser maintenance, 6 monthly mechanical and electrical inspections, 6 monthly maintenance of valves and other mechanical equipment and annual maintenance (October 2010) of electrical and instrumentation components. The SESA Pipeline Annual Cathodic Protection and Soil to Air Interface Inspection was carried out during May 2010.

Aerial surveillance to guard against third party interference and other naturally occurring threats was carried out monthly along the SESA Pipeline.

8.2 Non-Routine Operations and Maintenance

The following non-routine maintenance was carried out during 2010:

- Existing nuts and stud bolts at Ladbroke Grove and Poolajelo are being systematically replaced with electro-zinc plated where practicable.
- Thirteen Pressure Safety Valves along the SESA Pipeline were replaced as part of a periodic replacement program.
- The above ground pipe-work at Ladbroke Grove Pressure Reducing Metering Station was painted.

9. Corrosion Control

To mitigate corrosion, the SESA Pipeline is coated with a high density polyethylene coating system which serves to isolate the external pipeline surfaces from corrosive elements in the surrounding environment. Field joints are coated with a field applied tape system. Secondary protection is achieved by applying an impressed current cathodic protection system.

A full line Cathodic Protection Survey was carried out along the SESA Pipeline during May 2010, the survey provided a basic review of the pipeline 'On' and 'Off' potentials. All pipe potentials were measured with respect to a saturated copper/copper sulphate reference electrode. Survey results have been tabulated in Appendix 2 with the associated graphical summary in Appendix 3. There were no abnormalities identified as a result of the spot potential survey.

During the survey, data loggers were set at three locations along the pipeline, TP1, TP15 and TP37. It was noted on the data logger chart at TP37 that anodic excursion occurred at 8:00PM at the Ladbroke grove end of the pipeline. The reason for this hasn't been ascertained. The interference is within the limit of acceptance, indicated in Section 2.2.2.6 of AS2832.1 and will continue to be monitored in future surveys. Other data logger charts demonstrated that the pipeline is protected over 24h period.

As part of the survey the CP current density for the pipeline has been estimated (from the Cathodic Protection Unit output) to be approximately $0.33\mu\text{A}/\text{m}^2$. This shows coating of the pipeline is in a very good condition.

Soil/Air interface inspections are carried out as part of the Cathodic Protection Survey on an annual basis and Pipe Support Inspections are carried out 2 yearly. Pipe support insulation was found to be in a good condition at both stations, Poolaijelo and Ladbroke Grove. No Soil/Air Interface defects were identified at these stations and no corrosion was identified on the above ground pipeline surfaces at Ladbroke Grove, although 0.5% rust was found at Poolaijelo. In accordance with Section 10.2 of the AS2312, it has been recommended that the above ground pipework at Poolaijelo be repainted.

The earth bed test results indicated an increase in resistance between the earth bed and the soil. These readings will be repeated during the next survey to clarify the reason for this.

Overall the May 2010 CP Survey revealed that the pipeline is protected in accordance with the original design specification and applicable standards, to further improve the integrity of the pipeline the above ground pipework at Poolaijelo is scheduled to be painted during the first quarter of 2011. It was also recommended that the earth bed resistance be measured during the next survey to distinguish the reasons of a substantial increase. A Cathodic Protection Survey is scheduled to occur during the first half of 2011.

10. Right of Way Management

10.1 Signage

All signage on the SESA Pipeline is installed in accordance with AS2885 and maintains "Line of Sight". The pipeline signage is monitored and replaced as required, as part of the operations and maintenance activities along the pipeline.

Compound signage providing contact details, emergency "Toll Free" numbers, site location and "HAZCHEM" details are installed at all facilities on the SESA Pipeline. This signage is maintained in conjunction with routine activities.

10.2 Landholder Contacts

There are 16 landholders along the route of the South Australian section of the SESA Pipeline and 4 landholders in the Victorian section of the pipeline. A landholder liaison scheme is in place with the objective of visiting each landholder at least annually to ensure that ongoing communication is maintained and address any issues arising. Additional contact is made in writing during the course of routine pipeline operations and maintenance activities.

All landholder visits were carried out during December 2010. During the visits each landholder was reminded of their obligations to ensure pipeline safety and presented with information relating to Pipeline Safety and the Dial Before you Dig Service. Landholders were also asked if they had any issues regarding the right of way. There were no complaints received during 2010.

10.3 Pipeline Awareness Programme

During the second half of 2010 the Pipeline Awareness programme for the SESA Pipeline was reviewed with a view of combining APA's Awareness Programme with other Pipeline Operators and PIRSA whereby a consolidated formal presentation will be provided to improve the awareness of pipeline operations and to provide the community with key contacts to enable sound management of activities in the vicinity of the pipeline assets.

Initially a Pipeline Awareness Presentation was scheduled for November 2010 but at the request of the attendees, was postponed to the first half of 2011.

10.4 Pipeline Location Service

APT O&M provides a free pipeline location service to utilities and third parties carrying out civil work in the vicinity of the pipeline. This is administered through the "Dial Before You Dig" (1100) organisation.

In total 3 locations were requested during 2010 and resulted in supervision of third party activity within the pipeline easement.

11. Emergency Management

11.1 Emergency Response Plan

The Emergency Response Plan (ERP), APT O&M Document 0478 was revised during December 2010 to be an integrated management plan, APT O&M Document 0611 to ensure an effective, consistent and coordinated response to incidents on the pipelines. The ERP sets out the procedures and resources to be deployed in the event of an incident which affects the transmission pipelines operated by Transmission Operations South Australia.

The ERP will be tested by a simulated incident event at least once per annum and will be reviewed on a 12 monthly basis unless deemed otherwise.

Post Annual Note – PIRSA granted approval (letter dated 10 February 2011) to amalgamate licences for the purposes to satisfy Emergency Response Exercise requirements.

11.2 Emergency Response Exercise

A simulated desktop emergency exercise along the SESA Pipeline is scheduled to occur during the first half of 2011.

12. Compliance Audits

12.1 Operations Compliance Audit

An Operations Compliance audit was carried out along the SESA Pipeline during March 2010 in accordance with Australian Standards (AS 2885.3 Section 4 part 4.2.3). The audit determined the level of compliance to the Safety and Operating Plan (SAOP - Document No. 0477) and the SESA Operations and Maintenance Schedule. It was confirmed that the pipeline is generally being maintained in accordance with the requirements of the SAOP and the requirements of AS 2885. To ensure the integrity of the SESA Pipeline is maintained a total of 9 (low rated) recommendations were made as a result of the audit. All actions were uploaded onto the action tracking system, 4 actions were addressed during 2010 and 5 actions, relating to document review are pending and scheduled for completion in the first half of 2011.

12.2 ESV Compliance Audit

A second party audit was carried out on the SESA Pipeline Emergency Management System on 26 May 2010 by Energy Safe Victoria (ESV). Upon completion of the audit there were no non

conformances or observations but there were 6 recommendations made to further improve the Emergency Management System. These actions are scheduled to be addressed in the first half of 2011.

13. Management Systems

APT O&M utilises a number of management systems to ensure effective operations and management of the pipeline, including:

- A Health Safety and Environment Management System that governs all APT O&M operations as they impact occupational health, safety and environmental matters.
- A Risk Management System to ensure that hazards are identified and risks evaluated and managed. Hazards are identified using HAZOP studies, safety reviews, job safety analyses, incident reports and investigations, audits and inspections together with the AS2885 safety management studies.
- The APT O&M Gas Transmission Pipeline Operations and Maintenance Procedure Manual contains standards and practices for the operation and maintenance of transmission pipelines managed by APT O&M. These procedures are continually reviewed and periodically updated as appropriate.
- An Asset Protection Operations and Maintenance Manual containing standards and practices for activities such as coatings, pipeline patrols, leakage management, cathodic protection, earthing and DCVG surveys.
- A Document Management System which allows the controlled updating, distribution and viewing of pipeline documentation.
- A Management of Change System that assesses proposed changes to the pipeline across all engineering disciplines, operational parameters and documentation. This system interfaces with the Document Management System to ensure relevant documentation affected by the change is updated and distributed.
- An audit program that assesses contractor and operational management performance.

- An electronic database system called the Management of Audits, Regulatory Compliance and Incident System (MARCIS). This system provides ready access to all electronic copies of legislation, regulations, codes, licenses, etc through an associated intranet facility. Using this system, APA Group has adopted a 'compliance grid' approach to summarising requirements into an easily understood and manageable format. Where requirements are dated and periodically actionable, the system is designed to automatically advise the responsible manager of the pending requirement and track the requirement through to completion.
- A computer based maintenance management system (MAXIMO) to manage all routine maintenance activities. A Maintenance Service Request (MSR) access database to manage and record all 'non-routine' maintenance activities.
- A computer based chemicals management and data system. The 'Chemwatch' System has been implemented throughout APT O&M nationally to ensure compliance with International, Federal and local regulations as well as provide continual updates on any new information related to chemical products.
- WorkWise is a standardised system, used throughout APT O&M nationally, to effectively manage and record all work related injuries, incidents, hazards and near misses. This system interfaces with the HSE Management Auditing System to ensure that the adoption and implementation of APT O&Ms 15 HSE Management System Standards are being adhered too. Non-conformances and outcomes of the audits are documented in WorkWise and tracked through to completion by responsible Managers.
- A Geographic Information System (GIS) which manages the mapping of asset locations and records asset property history. This system can interface directly to the MAXIMO, pipeline modelling packages and pipeline locations (DBYD).

14. Pipeline Integrity Management

14.1 Safety Management Study

The safety management process in AS 2885 is designed to identify all threats that may impact on the integrity of the pipeline and then apply multiple independent controls to each identified threat so that all risks associated with the pipeline are reduced to an acceptable level.

To accord with the requirements of AS 2885 a five year review of the Safety Management Study (SMS) for the SESA Pipeline was undertaken during 2010 to meet the requirements of AS 2885.3. Validation workshops included representatives from APA, PIRSA and GPA Engineering.

The SMS incorporated a location class review, which identified any changes to the land use and activities along the pipeline. It also included a review of the threats to the pipeline and the protective measures in place to mitigate any risks arising from these threats.

Overall the pipeline is generally well protected from external threats and there were no threats identified that had the potential to cause a loss of integrity to the Pipeline for which adequate protection measures had not been put in place. Some land use changes were identified, notably the change from agricultural/grazing land to timber (blue gum) plantations. Three recommendations were made as a result of the SMS; these have been loaded onto the action tracking system (MARCIS) and are scheduled to be completed in the first half of 2011.

14.2 Maximum Allowable Operating Pressure (MAOP) Review

A MAOP review was carried out along the SESA Pipeline during July 2010 and it was concluded that the MAOP overall for the SESA Pipeline is 10,200 kPag and pipework downstream of the active monitor regulator sets at Ladbroke Grove, supplying gas to the power station turbines designated GT1 and GT2 are rated ANSI 300, and has an MAOP of 5,100 Kpa. The next MAOP review is to take place no later than July 2015.

14.3 Over Pressure Protection Review

An Overpressure Protection review was carried out on the SESA Pipeline during August 2010 to accord with Section 8 of AS2885.3. For APA managed transmission pipelines, the Overpressure Protection reviews are carried out at the same time as MAOP reviews i.e. not less than 5 yearly intervals, and whenever changes occur which could affect the integrity of the pipeline or the safety of the public or operating personnel.

Pressure control and overpressure protection systems on the supply to the SESA Pipeline were reviewed for suitability and effectiveness in controlling the pressure within the approved MAOP. Pressure control and protection systems at Poolaijelo and Ladbroke Grove Stations are currently effective at ensuring the gas delivery pressure and MAOP do not exceed the specifications. A review of the Alarm Management Manual found that all high pressure alarm settings allow sufficient margins between the MAOP of the pipeline and the alarm activation pressure setting. All design changes were verified as having no adverse effect on any of the existing emergency/safety shut down valves, pressure safety valves or regulators at any of the above ground facilities. Overall there were 3 (low rated) recommendations made as a result of the review. These have been uploaded onto the action tracking system and are scheduled to be addressed during 2011.

14.4 Direct Current Voltage Gradient (DCVG) Survey

Gippsland Cathodic Protection services were commissioned to carry out a coating defect and protection assessment survey along the SESA Pipeline during November 2010. The basic principal of operation was to apply a signal voltage between the pipeline and earth. This signal voltage was used to assess protection attenuation characteristics and locate coating defects and IR loss by soil voltage gradient measurements. Overall the results indicated that the pipeline coating was extremely good with very high dielectric properties and only 1 defect was detected which was not significant measuring 0.01%IR.

15. Reports Generated in 2010

APT O&M generated the following reports in 2010:

- PL 16 Annual Report for 2010 - March 2011
- Quarterly reports against Statement of Environmental Objectives
- Cathodic Protection Survey Report – May 2010
- ‘SESA 09’ Emergency Response Exercise Report – December 2009
- 5-Yearly Fitness For Purpose Report – July 2010
- Direct Current Voltage Gradient (DCVG) Survey Report – November 2010
- 5-Yearly Leakage Survey Report – November 2010
- 5-Yearly Statement of Environmental Objectives Review – October 2010
- 5-Yearly Safety Management Study – April 2010
- Assessment of the SESA Pipeline Against AS 2885-1 2007 Clauses 4.7.2 and 4.7.3
- 5-Yearly Maximum Allowable Operating Pressure (MAOP) Review – July 2010
- 5-Yearly Overpressure Protection Review – August 2010

16. Known or Foreseeable Activities Affecting the Pipeline

- Y-Strainer type filters located at Poolajelo will be replaced with vertical filters during 2011.
- 5-Yearly overhauls of the water bath heaters located at the Ladbroke Grove Pressure Reduction and Metering Station will be carried out during 2011.
- The Poolajelo Pressure reduction station will be repainted during Q1/2011.
- Cathodic Protection monitoring via SCADA will be installed at the Transformer Rectifier Site during 2011.

17. Future Operations

Future operations planned for the SESA Pipeline during the next 12 months include:

- Routine preventative maintenance in accordance with the Safety and Operating Plan.
- An Emergency Response Exercise
- An ESV Desk-top Audit
- Regular liaison with landowners/occupiers along the pipeline route.
- Pipeline Awareness seminars with third parties and local contractors
- Monitoring of cathodic protection on the pipeline
- SESA Environmental Compliance Audit
- SESA Operation & Maintenance Review

APPENDIX 1 – SEO OPERATIONS OBJECTIVES AND ASSESSMENT CRITERIA

OBJECTIVE	GOAL(S)	Guide to How Objectives Can Be Achieved ¹	ASSESSMENT	COMMENTS
1. To maintain soil stability/ Integrity on the easement.	1.1 To minimise the potential for soil erosion, inversion, compaction and/or subsidence along the pipeline easement. 1.2 To manage soil rehabilitation areas in an appropriate manner.	Inspections undertaken as part of regular patrols. Preventative measures implemented and monitored in susceptible areas in a timely manner.	Achieved	
2. To minimise and manage impacts to water resources.	2.1 To ensure that operation and maintenance activities do not give rise to pollution of watercourses. 2.2 To maintain current surface drainage patterns	Regular patrols undertaken to look for evidence of erosion, windrow development or any changes to the easement that could alter surface hydrology conditions. Observations undertaken following significant storm events. To promote and maintain water drainage patterns	Achieved	
3. To avoid land or water contamination.	3.1 To prevent spills and if they occur minimise their impact. 3.2 To ensure that rubbish and waste material are disposed of in an appropriate manner. 3.3 To prevent the spread of contamination where the easement intersects known contaminated sites. 3.4 To prevent impacts as a result of hydrotest water, trench water and waste water (wash down water) disposal.	To ensure that all wastes are removed from the site and appropriately disposed. To conduct all activities associated with pipeline operation in a manner that reduces the production of waste. Regular patrols carried out to look for evidence of rubbish, spills (soil discolouration). Spills/contamination remediated in consultation with regulatory bodies and agencies. Ensure appropriate spill response equipment is available and personnel are trained in spill Response Procedures. Testing of hydrotest water if potentially harmful chemicals added.	Achieved	Waste material is contained and disposed of in accordance with the Environment Protection Authority legislative requirements and APA Policies and procedures.


¹ This column is provided for information only. Under the Petroleum and Geothermal Energy Act 2000, only objectives and assessment criteria are approved.

OBJECTIVE	GOAL(S)	Guide to How Objectives Can Be Achieved ¹	ASSESSMENT	COMMENTS
<p>4. To promote and maintain native vegetation cover on the right-of-way and prevent the spread of weeds and pathogens.</p>	<p>4.1 To promote and maintain regrowth on the easement to be consistent with surrounding areas.</p> <p>4.2 To minimise additional clearing of native vegetation as part of operational activities.</p> <p>4.3 To manage vegetation on the easement so that it does not interfere with the integrity of the pipeline.</p> <p>4.4 To ensure maintenance activities are planned and carried-out in a manner that minimises impacts to native fauna.</p> <p>4.5 To ensure that weeds and pathogens are controlled at a level that is consistent with adjacent land.</p>	<p>Encourage regrowth of native grasses and shrubs along the right-of-way, within 3m of the pipeline centreline, where appropriate (i.e. – not in farmland used for cropping or pasture).</p> <p>Revegetation of easement where remnant vegetation has been cleared during construction.</p> <p>Maintain vegetation in accordance with pre-existing conditions and ensure environmental weeds and pathogens along the right-of-way are managed in a manner consistent with adjoining land.</p> <p>Prompt reinstatement and revegetation of cleared native vegetation.</p> <p>Implementation of control of weeds and pathogens on easement.</p> <p>Records of outbreaks found, weed control activities and photo monitoring of significant outbreaks.</p> <p>Vehicle cleaning and wash down procedures in place.</p>	<p>Achieved</p>	<p>Species abundance and distribution along the easement is reasonably consistent with pre construction conditions.</p> <p>Weed control is implemented to prevent the spread of weeds.</p>
<p>5. To adequately protect heritage sites and values.</p>	<p>5.1 To ensure that identified heritage sites are undisturbed and appropriately managed during pipeline operations and maintenance activities.</p>	<p>To implement an effective communication strategy with relevant heritage groups.</p> <p>To manage identified Aboriginal and European heritage sites in accordance with prescribed procedures.</p> <p>To appropriately manage any newly identified heritage sites in accordance with prescribed procedures.</p>	<p>Achieved</p>	
<p>6. To minimise noise due to operations.</p>	<p>6.1 To ensure operations comply with noise standards</p>	<p>To ensure that operations comply with noise standards and where possible ensure that landholders are not disturbed.</p> <p>Monitoring results and incident reports.</p> <p>Design any facilities to meet the noise requirements under the <i>Environment Protection Act 1993</i>.</p>	<p>Achieved</p>	

OBJECTIVE	GOAL(S)	Guide to How Objectives Can Be Achieved ¹	ASSESSMENT	COMMENTS
7. To minimise atmospheric emissions	<p>7.1 To minimise controlled and uncontrolled atmospheric emissions.</p> <p>7.2 To minimise the generation of dust.</p>	<p>To ensure that uncontrolled atmospheric emissions that affect an area, not designed to contain such an escape, are managed to accord with the requirements of the Petroleum and Geothermal Energy Act 2000.</p> <p>To minimise dust generation by management of vehicle operations along the easement.</p>	Achieved	There have been no spills or leaks in areas not designed to contain such escapes.
8. To avoid unnecessary disturbance to third party infrastructure, landholders or land use.	<p>8.1 To minimise disturbance or damage to infrastructure/land use and remediate where disturbance can not be avoided.</p> <p>8.2 To maintain appropriate consultation with all relevant landholders.</p>	<p>To minimise disturbance to land use and damage to infrastructure.</p> <p>To develop site-specific land management strategies in consultation with landholders, for likely impacts arising from temporary land use disturbance.</p> <p>To inform landholders of likely land use disturbance as a direct result of operations.</p> <p>Measures undertaken to minimise third party use of right-of-way.</p>	Achieved	No unauthorised activity on the pipeline.
9. To minimise the risks to public and third party health and safety.	<p>9.1 To ensure that adequate measures are in place to protect public and third party safety during operations.</p> <p>9.2 To minimise the risk of fire during routine operations.</p> <p>9.3 To prevent unauthorised activity on the easement that may adversely impact on the integrity of the pipeline.</p>	<p>To prevent unauthorised activities along the pipeline which have the potential to result in a risk to the safety of the public and third parties.</p> <p>Job Safety Analysis (JSAs) carried out to identify potential hazards and implement controls.</p> <p>Inspection/patrol reports and records.</p> <p>Adequate implementation of traffic management processes.</p> <p>Comprehensive landholder liaison program and records of communication with landholders.</p> <p>Clear identification of the pipeline to accord with AS2885.</p> <p>Reports of unauthorised activity on the ROW prepared to adhere with the <i>guidelines for Reportable and Serious Incidents</i>.</p> <p>Regular emergency response exercises and reviews of emergency response processes.</p>	Achieved	<p>No injuries or incidents involving the public.</p> <p>No pipeline related fires.</p>

OBJECTIVE	GOAL(S)	Guide to How Objectives Can Be Achieved ¹	ASSESSMENT	COMMENTS
<p>10. To ensure that security of natural gas supplies are maintained to gas consumers.</p>	<p>10.1 To minimise the potential for significant disruption of gas supply to customers in line with contractual agreements.</p>	<p>Emergency Response Exercises carried out to determine prompt and effective response.</p> <p>In the event of an emergency where gas supplies are disrupted, ensure that the pipeline system is returned efficiently to a safe, operational state with minimum customer and environmental impact.</p> <p>Mapped processes of responding to breakdown and emergencies.</p>	<p>Achieved</p>	<p>No loss of supply.</p>

APPENDIX 2: SESA PIPELINE POTENTIAL SURVEY RESULTS – MAY 2010

									
Location	km	Test Point Number	ON Potential Dec 2009	OFF Potential Dec 2009	ON Potential May 2010	OFF Potential May 2010	Minimum desirable CP	Measurement Type	Comments
Poolajelo PRMS	0.052	1	-1150	-1085	-1044	-965	-850	Spot	
Gravel Rd	1.544	2	-1159	-1074	-1045	-970	-850	Spot	
Gravel Rd	3.024	3	-1144	-1086	-1030	-955	-850	Spot	
Gravel Rd	4.477	4	-1183	-1101	-1026	-956	-850	Spot	
Unmade Government road	6.02	5	-1181	-1087	-1059	-986	-850	Spot	
Rippons Rd	8.341	6	-1133	-1010	-1043	-972	-850	Spot	
Track	9.96	7	-1133	-1010	-1059	-982	-850	Spot	
Rippons Rd	11.344	8	-1121	-1089	-1073	-1001	-850	Spot	
Government road	12.784	9	-1166	-1144	-1064	-998	-850	Spot	
Government road	13.959	10	-1181	-1162	-1100	-1031	-850	Spot	
Comaum Rd	15.482	11	-1174	-1167	-1059	-996	-850	Spot	
Powerline easement	16.999	12	-1142	-1056	-1049	-980	-850	Spot	
Waterloo Rd	18.341	13	-1144	-1070	-1071	-990	-850	Spot	
Powerline easement	19.506	14	-1156	-1079	-1042	-957	-850	Spot	
Dergholm - Penola Rd	20.762	15	-1228	-1201	-1050	-981	-850	Spot	
Border Rd	21.52	16	-1156	-1079	-1075	-1003	-850	Spot	
Dergholm - Penola Rd	23.515	17	-1151	-1076	-1067	-997	-850	Spot	
Dergholm - Penola Rd	24.622	18	-1180	-1106	-1083	-1010	-850	Spot	
Dergholm - Penola Rd	26.019	19	-1148	-1075	-1075	-1006	-850	Spot	
Fence	27.761	20	-1192	-1113	-1052	-990	-850	Spot	
Fence	29.477	21	-1184	-1104	-1060	-990	-850	Spot	
Gravel Rd	30.53	22	-1181	-1098	-1047	-952	-850	Spot	
Shepherds Lane	31.698	23	-1166	-1092	-1030	-949	-850	Spot	
Robert Rymill Rd	33.088	24	-1159	-1083	-1037	-957	-850	Spot	
Track and Fence	34.451	25	-1160	-1093	-1020	-937	-850	Spot	
Penola - Mount Gambier Rd	36.711	26	-1147	-1073	-1001	-911	-850	Spot	
Track and Fence	38.26	27	-1140	-1069	-996	-905	-850	Spot	
Unmade Government road	39.188	28	-1134	-1061	-998	-901	-850	Spot	
Rail Crossing (pipe)	41.215	29	-1178	-1109	-1019	-898	-850	Spot	
Millers Rd	42.319	30	-1157	-1086	-1041	-930	-850	Spot	
Gas Flowline Crossing	43.569	31	-1176	-1102	-1070	-957	-850	Spot	
Gas Flowline Crossing	44.167	32	-1170	-1102	-1095	-970	-850	Spot	
Gas Flowline Crossing	44.21	33	-1164	-1100	-1059	-950	-850	Spot	
Gas Flowline Crossing	44.211	34	-1176	-1108	-1052	-945	-850	Spot	
End of pipeline	44.385	35	-1193	-1123	-1058	-973	-850	Spot	

APPENDIX 3: GRAPHICAL RESULTS FROM CATHODIC PROTECTION POTENTIAL SURVEY – MAY 2010

