

**APA Group**



**2007 ANNUAL REPORT**

**TO**

**PRIMARY INDUSTRIES AND  
RESOURCES SA  
(Petroleum & Geothermal Group)**

**ON**

**Pipeline Licence No 16**

**SESA PIPELINE**

**March 2008**

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## **1. Introduction**

The SESA Pipeline is operated and maintained by APT O&M Services Pty. Ltd. (herein referred to as APT O&M) a company within the APA Group. APT O&M previously traded as Origin Energy Asset Management Services and was sold to APA Group on 2 July 2007.

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 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 16, an annual review of the SESA pipeline operations for the 2007 calendar year is provided herein.

## **2. Pipeline Throughput**

The pipeline throughput for the year 2007 was approximately 3,010 TJ

## **3. Statement of Expenditure**

Commercial in confidence

## **4. Safety and Environment**

There were no reported safety or environmental incidents on the SESA Pipeline during 2007.

### **4.1 Environmental Management**

To comply with the requirements of Australian Standard AS2885 "Pipelines – Gas & Liquid Petroleum" and the Petroleum Act 2000, APT O&M operates the pipeline in accordance with the SESA pipeline Statement of Environmental Objectives (SEO) and the SESA Pipeline Operations Environmental Management Plan. An annual summary of SEO compliance is contained in Appendix 1.

All environmental objectives were achieved in 2007 other than the objective to have no unauthorised activity on the easement. Six unauthorised crossovers for heavy machinery were installed on the pipeline easement in the second quarter of 2007. The proper construction of the crossovers meant that there was no threat to the integrity of the pipeline however the offending landowner/occupier, Timbercorp has been provided with the Pipeline Awareness Presentation and explained the importance of notifying the pipeline operator of all activity on the easement.

### **4.2 Environmental Audits**

An environmental audit was conducted from 3-5 December 2007 to assess the performance of the SESA Pipeline activities in accordance with the requirements of the SESA Pipeline Licence PL16 (SA) & PL 255 (Vic) and environmental objectives specified in the Statement of Environmental Objectives (SEO) for the SESA Pipeline (Feb 2005).

The environmental audit was commissioned by the SA Pipelines Group to inspect the condition of the pipeline corridor and associated infrastructure sites and assess potential impacts associated with operational and maintenance activities on sensitive areas and the general environment in accordance with environmental objectives for the pipeline. The audit also extended to the potential impacts of environmental conditions and third party activities on the integrity of the pipeline and associated infrastructure.

The environmental audit involved a ground inspection of the SESA Pipeline & Right of Way (ROW) and found that activities associated with the operation and maintenance of the SESA Pipeline are generally being performed in accordance with the environmental objectives specified in the Statement of Environmental Objectives (SEO). Recommendations for improvement in environmental performance of pipeline activities and environmental conditions were identified during the course of the environmental audit. In total 9 recommendations for improvement were made which included observations of subsidence on the pipeline easement, the management of native & non-native vegetation, and weed management. Actions associated with the recommendations will be completed in 2008.

## **5. Inspection and Maintenance Activities**

### **5.1 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. This has consisted of monthly patrols of the pipeline line of sight and monthly gas chromatograph and moisture analyser maintenance, 6 monthly patrols of the pipeline right of way (ROW), 6 monthly maintenance of valves and other mechanical equipment and annual maintenance of electrical and instrumentation components.

### **5.2 Non-Routine Maintenance**

The following non-routine maintenance was carried out during 2007:

- There were several regulator failures on the pressure reducing runs supplying gas to both gas turbines in the Ladbroke Grove Power Station. On investigation, it was found that under normal operating conditions the regulators were only just opening, which resulted in a high gas velocity past the seat and caused erosion of the seats. This operating position also contributed to slow response of the monitor regulators. It was concluded that the regulators were oversized and they were replaced. The regulators on the pressure reducing runs supplying gas to the South East Pipeline (SEP) and the spare pressure reducing run were also replaced.
- There was a communications failure at Ladbroke Grove and communications were reset by Control Corp in September 2007.
- Flame failures on heater 2 and heater 3 at the Ladbroke Grove Pressure Reducing Meter Station were experienced on different occasions and the UV Sensors on these heaters were replaced.
- The power source, dryer and cell on the moisture analyser at Ladbroke Grove failed and were replaced between March and April 2007.

## **6. 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.

The effectiveness of the cathodic protection system is monitored by carrying out regular potential surveys. Routine checks of test points along the pipeline in 2007 demonstrated that all sections of the pipeline were at fully protected potentials. A summary of the CP potential survey results carried out December 2007 have been tabulated in Appendix 2 with the associated graphical summary in Appendix 3.

The next complete cathodic protection survey is scheduled to be carried out in June 2008.

## **7. Right of Way Management**

### **7.1 Right of Way Patrols**

A ground patrol of the SESA Pipeline line of sight is carried out monthly, and a full patrol of the entire pipeline route was carried out on a six monthly basis to identify and monitor any subsidence or other issues along the pipeline route. All Pipeline patrols are carried out in accordance with APT O&M procedure 9017 Pipeline Patrols.

Two full Right of Way patrols were carried out during 2007 in the months of May and December. The patrol found several areas of subsidence along the pipeline route which will be rectified when ground conditions are favourable and access can be gained without creating damage to surrounding areas. Six unauthorised crossovers were identified on the pipeline easement in Timbercorp's property during the May 2007 ROW Patrol, as discussed in section 4.1.

### **7.2 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 routine patrols.

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.

All signage has been rebranded to reflect the change in pipeline ownership and operator name. This includes the rebranding of station and right of way pipeline markers.

### **7.3 Landholder Contacts**

There are 16 landowners/occupiers along the route of the South Australian section of the SESA Pipeline and 4 landowner/occupiers in the Victorian section of the pipeline. A landowner/occupier liaison scheme is in place with the objective of visiting each owner or occupier at least annually. This is to ensure that ongoing communication is maintained with landowners and occupiers and to identify and address any issues arising. Additional contact is made with respective landowners and/or occupiers in the course of routine pipeline operations and maintenance activities (e.g: corrosion surveys through properties, routine patrols).

Contact was made with all of the landowners and occupiers in November 2007. Each landowner/occupier was reminded of their obligations to ensure pipeline safety and presented with information relating to Pipeline Safety and the Dial Before you Dig Service. Landowners/occupiers were asked if they had any issues regarding the right of way and were also made aware of requirements and obligations with respect to pipeline easement. There were no landowner/occupier complaints received during 2007.

All landowners were advised of the change in pipeline owner and operator name and reminded of their obligation to ensure pipeline safety in a letter sent out in September 2007.

### **7.4 Pipeline Awareness Programme**

In addition to the landowner/occupier visits, a formal Pipeline Awareness Programme for the SESA Pipeline is in place. The 2007 awareness programme included visits to Mount Gambier Metro Fire Services, Penola and Millicent Country Fire Services, Police, Wattle Range Council, West Wimmera Council, Timbercorp, Auspine, Earthmoving Contractors and various community members. A formal presentation was given to highlight pipeline safety and awareness. The focus of the visits is 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.

## **7.5 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 10 locations were requested during 2007. All locations resulted in supervision of third party activity within the pipeline easement. All works carried out within the pipeline easement were conducted under the "Permit to Work" System. The works are constantly supervised to ensure the safety and integrity of the pipeline system and personnel.

## **8. Emergency Management**

### **8.1 Emergency Response Plan**

The Emergency Response Plan for the SESA Pipeline was reviewed and updated in June 2007 to incorporate owner and operator name changes and changes to the organisation structure. The Emergency Response Plan for the SESA Pipeline is due for review in June 2008.

### **8.2 Emergency Response Exercise**

APT O&M's emergency response training requires that one emergency exercise is carried out every year, being either a desktop exercise or a field emergency simulation. At the conclusion, a comprehensive report identifying any areas of change or improvement to the Emergency Response Plan is produced.

In December 2007, APT O&M conducted a desktop emergency exercise, code named "SESA 07". The exercise was held out of hours and was designed to test the communication and teamwork of APT O&M along with the Emergency Response Plan developed for the SESA Pipeline. The exercise involved responding to a situation where field operatives discovered serious damage to above ground Pipework at Ladbroke Grove Pressure Reducing Metering Station (PRMS) during an after hours visit. The exercise required communication between the emergency response team, Ladbroke Grove Staff, SEA Gas Control Room personnel and other APT O&M staff members. Overall the response to the scenario proceeded smoothly and out of hours contact could be made with the necessary persons. Personnel and equipment necessary to temporarily repair the damaged area and make it safe were available. The exercise resulted in some minor recommendations for improvement. All recommendations will be actioned in 2008.

## **9 Compliance**

During 2007 the SESA Pipeline has been operated and maintained in compliance with the Petroleum Act 2000, SA Petroleum Regulations 2000, the Statement of Environmental Objectives and Pipeline Licence 16. Compliance with the Victorian Pipeline Act 2005, Pipeline Regulations 2007 and Pipeline Licence 255 has also been achieved.

### **9.1 Compliance Audits**

#### **9.1.1 ESV Audit**

A second party desk top audit of the SESA Pipeline Safety Management System for Threat Mitigation was conducted in February by Energy Safe Victoria (ESV).

There was sufficient evidence to support the threat mitigation practices detailed in the SESA Pipeline Safety Case, dated 21 April 2004. Twelve observations were made as a result of this audit and all of these actions have been addressed.

### 9.1.2 Facilities Audit

An Above Ground Facilities Audit for the SESA Pipeline was conducted in December 2007 against the requirements of AS 2885.3 – 2001 Section 5 part 5.8. The audit found that the above ground facilities are being maintained in accordance with the requirements. There were 3 low risk recommendations highlighted during the course of the audit which will be actioned in 2008.

## 10 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 applies across every part of 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 HAZOPs, safety reviews, job safety analysis, incident reports and investigations, audits and inspections together with the AS2885 risk assessment.
- The APT O&M Gas Transmission Pipeline Operations and Maintenance Procedure Manual containing 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 recognised 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 all 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 programme that assesses contractor and operational management performance.
- An electronic database system called the Management of Audits, Regulatory Compliance and Incident System (MARCIS). The system provides ready access to all electronic copies of legislation, regulations, codes, licenses, etc through an associated intranet facility. Using this system APT O&M 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.

## 11 Reports Generated in 2007

APT O&M generated the following reports in 2007:

- PL 16 Annual Report for 2006 - March 2007
- Quarterly reports against Statement of Environmental Objectives
- 2006 Emergency Response Exercise – 'SESA 06' – January 2007
- Emergency Response Exercise Report 'SESA 07' - December 2007

- Cathodic Protection Survey report - May 2007 and December 2007
- SESA Pipeline Full Right of Way Patrol Report - May 2007
- Above Ground Facilities Audit for the SESA Pipeline – December 2007
- SESA Environmental Audit Report – December 2007
- Pipeline Flow/Pressure Reductions and Load Characteristics – August 2007

## **12 Known or Foreseeable Activities Affecting the Pipeline**

GPA are currently working on modifications to the PLC at Poolajelo to change the control system, such that when the PLC loses the flow signal it places the PID control loop into pressure control mode rather than set % open control mode. An urgent alarm for when there is a loss of flow signal and for when the PID control loop switches into set % open mode will also be added. This work was scheduled to be completed in December; however it has been delayed due to an issue with the flow computer software.

## **13 Future Operations**

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

- Routine preventative maintenance in accordance with the SESA Pipeline Safety and Operating Plan.
- An Emergency Response Exercise.
- Environmental monitoring of the pipeline as required by the Statement of Environmental Objectives and Environmental Management Plan for the SESA pipeline.
- Regular liaison with landowners/occupiers along the pipeline route.
- Pipeline Awareness seminars with third parties.
- Monitoring of cathodic protection on the pipeline. .
- A Compliance audit of the SESA Pipeline Safety and Operating Plan.

**APPENDIX 1 - SEO OPERATIONS OBJECTIVES AND ASSESSMENT CRITERIA**

<b>OBJECTIVE</b>	<b>GOAL</b>	<b>COMPLIANCE CRITERIA</b>	<b>ACHIEVED</b>	<b>COMMENTS</b>
11. To maintain soil stability / integrity on the easement	11.1 To remediate erosion or subsidence as a result of pipeline operations in a timely manner	No evidence of erosion, subsidence, vegetation loss on easement as compared to adjacent land. Inspections undertaken as part of regular patrols, following specific works, following significant storm events.	Achieved	Some soil subsidence was identified during the SESA Pipeline Full Right of Way Patrol conducted in May 2007. Rectifications of the subsidence identified will be completed in 2008 when weather conditions are favourable.
	11.2 To prevent soil inversion	No evidence of soil discolouration, success of vegetation return as an indicator.	Achieved	In the 2007 SESA Environmental Audit it was found that in some pastures, vegetation cover along the ROW was more sparse than in surrounding areas. These areas will continue to be monitored.
	11.3 To mitigate soil compaction	Regular patrols undertaken or following specific work.	Achieved	There is no evidence of soil compaction or associated poor plant growth on the pipeline easement.
12. To minimise and manage impacts to water resources	12.1 To maintain current surface drainage patterns	Regular patrols undertaken to look for evidence of erosion, abnormal vegetation growth or death.	Achieved	
	12.2 Minimise disruption to third party use of surface waters	Minimising period of disturbance for any excavation or land disturbance and prompt reinstatement of easement in sections of easement intersecting or adjacent to water bodies.	Achieved	
13. To avoid land or water contamination	13.1 To prevent spills occurring	No evidence of soil or water discolouration, vegetation or fauna death during patrols. Incident / Spill reports. Ensure personnel are trained in spill response procedures Containment of all hazardous substances and liquid waste in appropriate vessels/containment areas.	Achieved	There have been no spills or leaks to areas not designated to contain spills.
	13.2 To ensure that rubbish and waste material are disposed of in an appropriate manner	No wastes evident on or off the easement arising from pipeline operations.  Documented waste disposal records to confirm appropriate disposal.	Achieved	Waste material is contained and disposed of in accordance with Environment Protection Act.
	13.3 To prevent impacts as a result of hydrotest water, trench water and waste water (washdown water) disposal	Water disposed of in a manner that prevents discharge or runoff to watercourses or environmentally sensitive areas.	Achieved	

OBJECTIVE	GOAL	COMPLIANCE CRITERIA	ACHIEVED	COMMENTS
14. To promote and maintain native vegetation cover on the easement	14.1 To promote and maintain regrowth in native vegetation areas on the easement to be consistent with surrounding area	Regular land survey to look for evidence of disturbance to vegetation on easement (apart from access tracks) Revegetation of areas on the easement where remnant vegetation has been cleared during construction with appropriate native species.	Achieved	Species abundance and distribution on the easement is reasonably consistent with the pre-construction conditions.
	14.2 To minimise additional clearing of native vegetation as part of operational activities	Vegetation trimmed rather than cleared where possible.  Annual environmental survey to look for evidence of disturbance to vegetation on easement (apart from access tracks).	Achieved	Vegetation clearing within the easement or on land adjacent to the easement is limited to previously disturbed areas or areas assessed to be of low sensitivity, unless prior regulatory approval obtained under the <i>Native Vegetation Act 1991</i> .
	14.3 To ensure maintenance activities are planned and conducted in a manner that minimises impacts on native fauna	Annual environmental survey to look for evidence of disturbance to vegetation on easement (apart from access tracks).	Achieved	
15. To prevent the spread of weeds and pathogens	15.1 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).	Achieved	Weed control is implemented to prevent weed spread.
16. To adequately protect heritage sites and values during operations and maintenance	16.1 To ensure that identified heritage sites are not disturbed	Management of identified heritage sites in consultation with traditional custodians. Compliance with work instructions in relation to heritage site management.  Compliance with Legislative requirements of Aboriginal Heritage Act 1988 and Heritage Act 1993 in respect of previously identified and potentially 'new' sites along the pipeline easement.	Achieved	
17. To minimise noise due to operations	17.1 To ensure operations comply with noise standards	No noise related complaints from landholders or third parties. Compliance with Legislative requirements of Environment Protection Act 1993 in respect of noise emissions.	Achieved	No complaints received.
18. To minimise atmospheric emissions	18.1 To eliminate uncontrolled atmospheric emissions	No unintentional gas emissions reported. No complaints from third parties in respect of air quality.	Achieved	No uncontrolled atmospheric emissions.
	18.2 To minimise the generation of dust	Compliance with Legislative requirements of <i>Environment Protection Act 1993</i> in respect of gaseous and dust emissions.	Achieved	

OBJECTIVE	GOAL	COMPLIANCE CRITERIA	ACHIEVED	COMMENTS
19. To avoid unnecessary disturbance to third party infrastructure, landholders or land used	19.1 To minimise disturbance or damage to infrastructure / land use and remediate where disturbance cannot be avoided	No complaints from landholders in relation to land use modification or infrastructure damage.	Achieved	No unnecessary disturbance of third party infrastructure, landholders or land used. No complaints received.
	19.2 To minimise disturbance to landholders	Landholders are appropriately consulted regarding pipeline activities which may affect their particular property.	Achieved	Contact was made with landowners/occupiers during the course of pipeline operations and maintenance activities. There were no complaints received.
20. To minimise the risk to public health and safety	20.1 To adequately protect public safety	No occupational health, safety and welfare incident or accidents involving third parties.	Achieved	No injuries or incidents involving the public.
	20.2 To avoid fires associated with pipeline maintenance activities	No fire outbreaks arising from pipeline operations.	Achieved	No pipeline related fires.
	20.3 To prevent unauthorised activity on the easement that may adversely impact on the pipeline integrity	No un-authorized activity on the pipeline easement.	Not Achieved	Six unauthorised crossovers were installed on the pipeline easement

**APPENDIX 2 - SESA PIPELINE POTENTIAL SURVEY RESULTS (DECEMBER 2007)**

Location	Test Point Number	km	ON Potential Dec 2007	OFF Potential Dec 2007	A.C. Voltage	ON Potential May 2007	TP Type	Required Level of CP	Comments
Poolaijelo PRMS	1	0.052	-1186	-1009	0.020	-1170	PM	-850	
Gravel Rd	2	1.544	-1214	-1007	0.020	-1168	PM/RP	-850	data logger 14
Gravel Rd	3	3.024	-1207	-1109	0.010	-1200	PM	-850	
Gravel Rd	4	4.477	-1198	-1121	0.030	-1160	PM	-850	
Unmade Government road	5	6.02	-1177	-998	0.030	-1160	PM	-850	
Rippons Rd - not installed	6	7.5						-850	No TP installed
Rippons Rd	7	8.341	-1188	-1001	0.020	-1140	PM/LFI	-850	data logger 1
Track	8	9.96	-1158	-1107	0.020	-1200	PM	-850	
Rippons Rd	9	11.344	-1172	-1052	0.050	-1165	PM	-850	
Government road	10	12.784	-1132	-1080	0.020	-1150	PM	-850	
Government road	11	13.959	-1168	-1101	0.050	-1160	PM/LFI	-850	
Comaum Rd	12	15.482	-1070	-1045	0.070	-1130	PM	-850	
Powerline easement	13	16.999	-1180	-1090	0.070	-1140	PM	-850	
TP deleted	14	17.378						-850	No TP installed
Waterloo Rd	15	18.341	-1045	-905	0.060	-1142	PM/CPU	-850	
Powerline easement	16	19.506	-1120	-1099	0.070	-1141	PM	-850	
Dergholm - Penola Rd	17	20.762	-1151	-1109	0.010	-1135	PM/LFI	-850	data logger 9
Border Rd	18	21.52	-1163	-1080	0.020	-1160	PM	-850	

Location	Test Point Number	km	ON Potential Dec 2007	OFF Potential Dec 2007	A.C. Voltage	ON Potential May 2007	TP Type	Required Level of CP	Comments
Dergholm - Penola Rd	19	23.515	-1123	-1077	0.030	-1110	PM	-850	
Dergholm - Penola Rd	20	24.622	-1168	-1079	0.020	-1152	PM/RP	-850	
Dergholm - Penola Rd	21	26.019	-1109	-1080	0.020	-1153	PM	-850	
Fence	22	27.761	-1121	-1088	0.010	-1155	PM	-850	
Fence	23	29.477	-1143	-1089	0.030	-1142	PM	-850	
Gravel Rd	24	30.53	-1110	-1090	0.040	-1178	PM	-850	Shift TP outside fence - Kelvin
Shepherds Lane	25	31.698	-1160	-1120	0.040	-1163	PM	-850	
Robert Rymill Rd	26	33.088	-1170	-1110	0.600	-1170	PM	-850	Data logger 5
Track and Fence	27	34.451	-1180	-1020	0.050	-1128	PM	-850	
Penola - Mount Gambier Rd	28	36.711	-1114	-1090	0.050	-1123	PM	-850	Data logger 2
Track and Fence	29	38.26	-1112	-1080	0.020	-1130	PM	-850	
Unmade Government road	30	39.188	-1090	-1020	0.010	-1144	PM	-850	TP Knocked over cattle
Rail Crossing (pipe)	31	41.215	-1112	-990	0.010	-1168	CC	-850	
Rail Crossing (casing)	31	41.215	-587			-600	PM	-850	
Millers Rd	32	42.319	-1114	-990	0.020	-1150	FS	-850	Data logger 7
Gas Flowline Crossing	33	43.569	-1115	-998	0.010	-1151	FS	-850	
Gas Flowline Crossing	34	44.167	-1107	-980	0.010	-1125	FS	-850	
Gas Flowline Crossing	35	44.21	-1112	-990	0.010	-1134	FS	-850	
Gas Flowline Crossing	36	44.211	-1117	-990	0.010	-1136	FS	-850	
End of pipeline	37	44.385	-1101	-980	0.010	-1105	PM/RP	-850	

**APPENDIX 3 - GRAPHICAL RESULTS FROM CATHODIC PROTECTION POTENTIAL SURVEY DECEMBER 2007**

