



Moomba Wilton Pipeline – Pipeline Licence 7

2015 Annual Report for Moomba Wilton Pipeline

Pipeline Licence 7

**East Australian Pipeline
Proprietary Limited**
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Version:	1.2
Released:	3 February 2016

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1 PURPOSE

This report is prepared in accordance with the requirements of Pipeline Licence 7, the *Petroleum & Geothermal Energy Act 2000* (SA) and the *Petroleum & Geothermal Energy Regulations 2013* (SA).

2 SCOPE

East Australian Pipeline Proprietary Limited (EAPL) owns the South Australia section of the Moomba-Wilton Natural Gas Pipeline (Licence 7). APA Group, as the owner of EAPL, operates and maintains the pipeline on its behalf.

This report provides information to the Department of State Development in accordance with requirements of the Petroleum and Geothermal Energy Act 2000 and Section 33 of the Petroleum and Geothermal Energy Regulations 2013 and AS2885.3.

The pipeline in this report begins at the Moomba gas fields in South Australia and ends at the SA / QLD border. The entire section includes approximately 101 km of 864mm OD pipeline and the Moomba Interconnect Pipeline approximately 1km of 660 mm OD pipeline. The pipeline interconnects with the QSN facilities near Moomba.

This report is applicable to APA's activities in Pipeline Licence 7 (the South Australia Section of Moomba-Wilton Natural Gas Pipeline) during the period 1st July 2014 to 30th June 2015.

3 REGULATED ACTIVITIES

This report a summary of the regulated activities conducted under the licence during the year.

4 PIPELINE OPERATION

APA operates and maintains the Moomba to Wilton pipeline and its associated facilities in accordance with AS2885.3 and other relevant standards.

Preventative, corrective and reactive maintenance activities are managed within APAs Works Management System. Preventative and corrective works are scheduled and monitored for completion using this system through the generation of work orders for maintenance staff to complete.

A description of the Operations and Maintenance activities is provided below.

4.1 Inline Inspection (ILI)

No inline inspections were carried out in the report period

4.2 Pipeline integrity

The annual MOP review conducted in April 2015 confirmed the pipeline MOP for a further 12 months.

8 excavations were performed during Oct-Dec 2014 in the South Australian section of the pipeline in order to monitor external corrosion growth and inspect features identified by corrosion growth modelling as requiring repair prior to 2017/2018. One feature was sleeved as a preventative measure based on the repair criteria for an MAOP of 6,378kPag with all other features inspected and recoated.

27 excavations were performed in Oct-Dec 2014 to inspect cracking detected by EMAT in line inspection. 12 repair sleeves were installed.

4.3 Corrosion control

4.3.1 Annual Pipe to Soil Potential Survey

No cathodic protection survey was undertaken during the report period. Survey of the pipeline is currently scheduled for September 2015.

4.3.2 Cathodic Protection System

Within SA the 864mm OD pipeline has impressed current CP units installed at MW10, MW29, MW40, MW65 and MW83, with a separate impressed current unit installed at Moomba (MW00) protecting the buried pipe within the Moomba Station. Cross bonds are installed between the 864mm and 660mm pipelines to provide protection to the 1km operating section (MIP) and the 9km decommissioned section of the 660mm OD line.

Solar battery banks for the CP units at MW29, MW40, MW65 and MW83 failed during the report period. These have been replaced to restore nominal protection to the pipeline and associated buried infrastructure. The CP unit at MW00 operated reliably while the CP unit at MW10 was recommissioned to provide additional protection to the pipeline.

Easement acquisitions are underway for a new CP installation at MW95 with construction currently scheduled for September 2015.

4.4 Electrical and Mechanical Maintenance

Routine six-monthly maintenance was performed at MW00, MW10, MW29, MW55, MW65 and MW83 as per the maintenance schedule. This includes all line valves and coolers at the Moomba inlet station. Santos operators inspected the Moomba cooler inlet station each week.

Quarterly leak and security inspections (“O” service) were completed at each valve site.

4.5 Communications/SCADA

The SCADA continued to function correctly throughout the year without incident.

4.6 Emergency Response

An emergency response exercise was conducted on the MSP during the reporting period.

The MSP emergency response exercise was conducted to assess emergency response preparedness for the NSW field services team. The exercise consisted of a desktop and a mobilisation exercise.

Some of the key objectives for the exercise, included:

- Provide an opportunity for the NSW Emergency Response Team (ERT) to become familiar with ER procedures related to assets managed by APA in the region.
- Provide training to the NSW field services team on the APA Group Emergency Response system and procedures.
- To provide training to new starters to the business on the APA Group Emergency Response system and procedures.
- Evaluate the effectiveness of the ER procedures for assets managed by APA in the region.
- Observe and assess the ability of the NSW field services team to respond to an emergency incident in a timely and effective manner.
- Identify any opportunities for improvement, either with personnel, equipment, systems and processes.

This ER exercise is intended to provide an opportunity for training and refining emergency response actions, systems and processes. The element of surprise was not included in this exercise.

The exercise was conducted on 5-6 May 2015 at the Young maintenance base and the Boorowa valve site.

In general, the emergency response process was executed fluently, with personnel involved understanding their role in the exercise. Observations and recommendations for improvement were noted.

The exercise due on 28 March 2015 was conducted on 5-6 May 2015, later than two years as required under Petroleum and Geothermal Energy Regulations 2013 s31(3). The Emergency Exercise Report was submitted to the Department later than required under Petroleum and Geothermal Energy Regulations 2013 s31(5).

4.7 Pipeline Construction

APA Group has commissioned the Moomba gas compressor station approximately 800 metres downstream of Moomba. The compressor station utilises a portion of the 660mm Moomba bypass pipeline to feed gas from Moomba through to the compressor station. This section of the bypass pipeline is now designated as the “Moomba Interconnect Pipeline” or (MIP). The MAOP for this section has been upgraded to a higher value.

The asset management review of the 660 mm Moomba bypass pipeline was finalised and the remaining portion of the pipeline has been decommissioned and will not be used for the foreseeable future.

4.8 Landowner and emergency services activities

The annual landowner liaison program was undertaken during FY15. This included a landowner package being sent to landowners and direct liaison as required. Visits were also conducted to landowners affected by the SCC project

Council and Emergency services were contacted and, where possible, gas awareness presentations delivered as per APA Easement Stakeholder Management program.

4.9 Aerial Surveillance and Maintenance

Aerial patrols of the pipeline route were completed each month with additional vehicle patrols conducted in association with other maintenance activities.

Access road signage was improved and faded signs replaced when identified.

4.10 Health Safety and Environment

APA Group recorded no LTI, MTI or environmental incidents on the pipeline in South Australia during the reporting period.

APA has implemented a HSE Management System called Safeguard to comply with the national work health and safety requirements.

Safeguard provides a framework by which the processes relating to the company's Health, Safety and Environment (HSE) activities are written, approved, issued, communicated, implemented and controlled.

Safeguard applies to all HSE-related matters arising out of all activities and operations controlled by APA and its related companies (together the company) and the impact of those activities and operations on employees, contractors, the environment and the communities in which the company operates.

Additionally, Safeguard (Including HSE Policies) is also subject to review and improvement to ensure objectives and obligations are continually satisfied, including:

- Performance, measurement and reporting;
- Management review; and
- Audit and self-assessment.

The above requirements are supported by APA Group procedures. The HSE policy is a controlled document subject to three yearly reviews as a minimum.

4.11 Environment

There were no environmental incidents during the report period.

The five yearly review of the PL7 SEO was completed and submitted to the Department during the reporting period. The documents are in the process of being finalised following receipt of consultation comments. It is anticipated that the updated SEO and EIR will be submitted during September 2015.

An assessment of compliance against the SEO objectives in regards to the SCC rectification works program and general maintenance activities is included in Appendix 1.

5 COMPLIANCE

APA ensures that the pipeline is operated in accordance with the relevant Acts of Parliament, licence conditions and the requirements of AS2885.

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

Changes in legislation are tracked and communicated through the Technical Regulatory Manager.

APA maintains a compliance database, MARCIS, which tracks legislative compliance throughout the organisation. Obligations are assigned to responsible staff, who must supply evidence that the obligation has been satisfied within a specified time period.



APA Group maintains an action tracking system for improvements to its systems, which is fully traceable through to close out of individual items.

Significant items are reported through to DSD, and would be raised at the quarterly compliance meetings held between DSD and APA.

During the reporting period, notwithstanding details outlined in this report, there were no known breaches of licence or regulatory requirements.

5.1 Management System Audits

The annual independent PMS audit was conducted by Ken Cameron & Associates during May 2015.

The audit results are summarised below:

- Corrective Action Requests: The 2015 PMS audit recorded 2 Corrective Action Requests.
- Observations: The 2015 PMS audit recorded 7 Observations.

APA also completed a number of management system audits during the year under its internal audit program. APAs auditing program offers the opportunity to identify and promote continual improvement within APA.

5.1.1 Rectification of Non-Compliance

The 2015 Pipeline Management System (PMS) audit found that one of two Corrective Action Requests (CAR) raised during the 2014 PMS audit was accepted by the auditors as being rectified. The remaining CAR will be addressed with the implementation of a national process during 2015.

5.2 Health and Safety Audits

An internal audit schedule of the Safety Management System was maintained during 2015.

5.3 Reports

5.3.1 Reports Submitted to DSD

- APA Group Data or Reports or Annual Report (this report)
- 2015 Pipeline Management System Audit report by external auditor
- Pipeline Integrity Management Plan: Moomba Sydney Pipeline System
- Fitness for Purpose Report (2010-2015)
- Statement of Environmental Objectives – 5 yearly Review
- MSP Emergency Response Exercise Report – Note: The Emergency Response Exercise and Report were finalised later than required under *Petroleum and Geothermal Energy Regulations 2013* s31(5). The exercise due on 28 March 2015 was completed on 5-6 May 2015 and the exercise report was submitted on 16 July 2015, later than required under the Regulation.

5.4 Incident Reports

There were no incidents during the reporting period.

5.5 Licence Variation

Following completion of the Moomba compressor station, works commenced in 2014 to install additional pipework and re-configure the station to facilitate the backhauling of gas from the Moomba Sydney Pipeline. This is known as the Moomba Compressor Station Variation 1 (V1) project. The licence was varied in March 2015 for this project.

PL7 was renewed in July 2015.

5.6 Threat Prevention, Mitigation

SCC and metal-loss corrosion are active, but managed.

There are no reasonably foreseeable threats on this pipeline.

5.7 Risk Management Review

A SMS / risk assessment was conducted for the pipeline in February 2015. This study was carried out by a multi-disciplinary team with an intimate knowledge of the pipeline with a highly experienced facilitator. Threats were identified and assessed according to AS2885.1-2012. The safety management study concluded that the requirements for AS2885.1-2012 are met for the pipeline for location classification and with all mitigating measures in place and the recommended actions undertaken the risk to the pipeline integrity and all stakeholders is acceptable in accordance with AS2885.1-2012.

5.8 Future Work Program

All maintenance operations will continue to be completed as scheduled to ensure that the integrity of the pipeline system is being maintained, as well as the safety and efficiency of APA Group's operations.

No specific activities are planned for FY16. The following activities are scheduled:

- MFL and geometry in line inspection (2017/2018)
- EMAT in line inspection (2017).

6 EXPENDITURE STATEMENT

The approximate operational expenditure for the pipeline is commercial in confidence.

7 PIPELINE OPERATION

The quantity of gas transported through the South Australian section of the Moomba-Wilton Pipeline system for the year ended 30 June 2015 is shown in the following table.

Date	Transported	Peak Day	
	GJ	GJ	Day
Jul-14	8,151,592.92	293,817.39	14/7/2014
Aug-14	6,939,544.04	267,952.56	3/8/2014
Sep-14	6,751,981.01	268,547.53	8/9/2014
Oct-14	7,330,931.61	290,717.31	15/10/2014
Nov-14	6,544,174.06	277,056.75	2/11/14
Dec-14	5,905,358.89	229,799.39	18/12/14
Jan-15	1,982,793.95	194,986.50	16/01/2015
Feb-15	2,748,020.91	155,772.73	13/02/2015
Mar-15	3,416,103.67	193,761.88	13/03/2015
Apr-15	3,687,937.47	174,743.08	23/04/2015
May-15	4,050,709.53	185,066.27	20/05/2015
Jun-15	6,360,474.21	281,438.84	4/06/2015
Total - GJ	63,869,622.27		

8 APPENDIX 1: ASSESSMENT OF COMPLIANCE AGAINST SEO OBJECTIVES

Objective	Goal	Assessment Criteria	Objective achieved	Supporting Comment
1. To maintain soil stability / integrity on the easement.	1.1 To remediate erosion or subsidence as a result of pipeline operations in a timely manner.	No unremediated subsidence. The extent of soil erosion on the easement is consistent with surrounding land. No excessive erosion on areas adjacent to corridor as a result of easement.	Yes	Soil type in the region is characteristic of arid outback condition with sand dunes and sandy plains. The SCC team performed an aerial audit of all dig locations using HD video. Excavations have varied vegetative recovery dependant on rainfall. Due to weather conditions, soil erosion and subsides are anticipated in and around recently excavated areas.
	1.2 To prevent soil inversion.	Vegetation cover is consistent with surrounding land. No evidence of subsoil on surface (colour).	Yes	Different soil types were stockpiled separately during excavation work to assist in restoration during backfill. No soil inversion issues were identified during project work inspections or aerial patrols. In EMP and confirmed with site HSE officer.
	1.3 To mitigate soil compaction if necessary by remedial action	No visual evidence of soil compaction following remediation of pipeline easement (e.g. hard soil, local water pooling)	Yes	The project team performed an audit of all previously excavated sites and performed remedial actions as required. Ongoing monitoring will occur during routine aerial patrols.
	1.4 To reinstate soil and terrain as near as practicable to pre-existing contours and conditions	Surface contours consistent with adjacent land	Yes	Excavation sites were reinstated to as near pre-existing condition as practicable. Ongoing monitoring occurred during routine aerial patrols showing no adverse effects.
2. To minimise and manage impacts to water resources.	2.1 To maintain current surface drainage patterns.	For excavations, surface drainage profiles restored. For existing easement, drainage is maintained to pre-existing conditions or better.	Yes	There are no major permanent watercourses within close proximity to any of the dig sites, and impacts to surface water flow or ground water from project works are considered to be negligible. No issues identified during routine aerial patrols.
	2.2 To minimise disruption to third party use of waters.	No reasonable complaints received from landholders or third party users in relation to use of surface waters.	Yes	There are no major permanent watercourses within close proximity to any of the dig sites, and impacts to surface water flow or ground water from project works are considered to be negligible. No complaints were received.

Objective	Goal	Assessment Criteria	Objective achieved	Supporting Comment
3. To avoid land or water contamination.	3.1 To prevent spills occurring and if they occur minimise their impact.	No soil or water contamination as a result of pipeline activities. Compliance with <i>Environment Protection Act 1993</i>	Yes	No environmental incidents were recorded. Spill kits were located at refuelling sites for the project duration.
	3.2 To ensure that rubbish and waste material are disposed of in an appropriate manner.	No pipeline related rubbish or litter on easement or at facilities or on surrounding land. Waste material is contained and disposed of in accordance with APA approved procedures and <i>Environment Protection Act 1993</i>	Yes	Waste produced by project works included coal tar enamel coating (containing asbestos and fibreglass), general rubbish, equipment and repair materials and oils/fluids. All coal tar enamel coating, rubbish and used repair material containers were stored in designated areas until they could be disposed of properly [in accordance with DEC (EPA) guidelines]. Camp also had facilities for grey water, sewage and general waste handling and removal. No issues identified during site inspections or HSE audit.
	3.3 To prevent impacts as a result of hydrotest water, trench water and waste water (e.g. wash-down water) disposal.	Discharge water meets appropriate ANZECC and EPA criteria for point of disposal. No evidence of impacts to soil, water and vegetation as a result of water disposal (e.g. soil erosion, dead vegetation, water discoloration).	Yes	No discharge water was disposed on easement. Camp had approved wash down, grey water, sewage and maintenance workshop, and kitchen facilities.
	3.4 To ensure the safe and appropriate disposal of camp wastewater (grey water, sewage).	No soil or water contamination as a result of camp wastewater disposal.	Yes	Camp had compliant and approved wash down, grey water, sewage, workshop and kitchen facilities.
4. To promote and maintain native vegetation cover on the easement.	4.1 To promote and maintain regrowth on the easement to be consistent with the surrounding area.	Species abundance and distribution on the easement is reasonably consistent with surrounding areas. Note: assessment of the consistency with surrounding areas will take into account that regrowth is a time and rainfall dependent process.	Yes	Soil type in the region is characteristic of arid outback condition with sand dunes and sandy plains. Regrowth concerns minimal as relatively free of vegetation. Any vegetation management required has been ongoing as part of the easement maintenance program.
	4.2 To minimise additional clearing of native vegetation as part of operational activities.	Vegetation clearing within the easement or on land adjacent to the easement is limited to previously disturbed areas, unless prior regulatory approval obtained under the <i>Native Vegetation Act 1991</i> .	Yes	The majority of works occurred within the pipeline easement, which has a history of disturbance and is relatively free of vegetation. No clearing required.

Objective	Goal	Assessment Criteria	Objective achieved	Supporting Comment
	4.3 To ensure maintenance activities are planned and conducted in a manner that minimises on native fauna.	Native fauna casualties associated with operations restricted to as low as reasonably practical.	Yes	While native fauna may have been disturbed as a result of project activities through vehicle movements and equipment noise, this disturbance was temporary in nature and of short duration. Consultation was undertaken with landowners prior to works to determine if there was livestock in the vicinity of works. All excavations left unattended for any period of time were fenced. Excavations were also monitored during project works.
5. To avoid the spread of weeds and pathogens.	5.1 To ensure that weeds and pathogens are controlled at a level that is at least consistent with adjacent land.	The presence of weeds on the easement is consistent with or better than adjacent land. No new outbreak or spread of weeds or pathogens as a result of pipeline activities.	Yes	The EMP states that <i>"If weeds are identified on the pipeline easement prior to works, they will be removed and disposed of (weeds should not be of a higher density on the easement than the surrounding landscape). Vehicles and equipment will be checked and cleaned as required to minimise the introduction and spreading of weeds."</i> No issues were reported or complaints received.
6. To adequately protect heritage sites and values during operations and maintenance.	6.1 To ensure that identified heritage sites are not disturbed.	No impact to known heritage sites without approval under the <i>Aboriginal Heritage Act 1988</i> or the <i>Heritage Places Act 1993</i> . Any new sites identified are reported to appropriate authority and recorded.	Yes	All project works occurred in areas previously disturbed during pipeline construction. EMP states that: <i>"If any items of heritage significance are uncovered as a result of project activities, all works that may further disturb the item shall cease and the appropriate authority contacted"</i> . No items were identified during the work program.
7. To minimise noise due to operations.	7.1 To ensure operations comply with noise standards.	No reasonable complaints received.	Yes	Given the remoteness of the work sites, adjoining properties comprise large parcels of land, and there are no homesteads within close proximity to the dig sites. Noise is not considered to be an issue during works. HSE toolbox meetings, PPE and JHA included standard noise control measure during the project. No complaints were received and liaison with landowners occurred.
8. To minimise atmospheric emissions.	8.1 To minimise controlled and uncontrolled atmospheric emissions.	No uncontrolled atmospheric emissions (e.g. due to malfunction or mis-operation).	Yes	No uncontrolled emissions occurred.

Objective	Goal	Assessment Criteria	Objective achieved	Supporting Comment
	8.2 To minimise the generation of dust.	No reasonable complaints received.	Yes	No complaints were received. Vehicles and equipment operating within the work area and accessing the site have the potential to create dust issues. Due to the remoteness of the work site, and no nearby homesteads, dust is not considered to be an issue during works. Project vehicle movements were monitored and toolbox meeting covered remote driving hazards, including dust generation and traversing sand dunes.
9. To avoid unnecessary disturbance to third party infrastructure, landholders or landuse.	9.1 To minimise disturbance or damage to infrastructure / land use and remediate where disturbance cannot be avoided.	Where disturbance is unavoidable or accidental, infrastructure or land use is restored to the satisfaction of the landholder or as near as practicable to undisturbed condition. Duration of disturbance does not exceed agreed timeframe. No reasonable complaints received.	Yes	Consultation with landowners occurred. Due to remoteness of operation, disturbance to third party was minimal. No complaints were received.
	9.2 To minimise disturbance to landholders.	No reasonable landholder complaints. Landholder activities not restricted or disturbed as a result of pipeline activities unless by prior arrangement.	Yes	Consultation with landowners occurred. Due to remoteness of operation, disturbance to third party was minimal. No complaints were received.
10. To minimise the risk to public health and safety.	10.1 To adequately protect public safety during operations.	No injuries or incidents involving the public.	Yes	No public injuries or incidents occurred during pipeline operation or project work
	10.2 To avoid fires associated with pipeline maintenance activities.	No pipeline related fires.	Yes	No pipeline related fires occurred.
	10.3 To prevent unauthorised activity on the easement that may adversely impact on the pipeline integrity	No unauthorised activity on the easement that has the potential to impact on the pipeline integrity.	Yes	The area is very remote. Dial before You Dig, Landowner consultation and aerial patrols have not identified any unauthorised activity on the easement.