

MAY 2017

The following is a monthly update for the Narrabri Community Consultative Committee (CCC) regarding activities undertaken by the NSW Environment Protection Authority (EPA) relating to PEL 238, PAL 2 and PPL 3 (Narrabri Gas Project).

It includes activities relating to the regulation of Environment Protection Licence (EPL) 20350 and the EPA's functions conducted under the NSW Gas Plan.

Attachments to this month's update:

- Running Log – Old Investigations of PEL 238 Outcomes
- Inspections undertaken by EPA – May 2017
- EPA Site Inspection Map – May 2017
- Feature Article – Rehabilitation of gas sites

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EPA ACTION ITEMS SINCE LAST NCCC

Nil.

INVESTIGATIONS

Background

On 19 February 2013 the EPA became responsible for investigating environmental incidents that occur during coal seam gas activities under the provisions of the *Protection of the Environment Operations Act 1997* (POEO) and issuing Environment Protection Licences (EPL) for coal seam gas activities.

On 1 July 2015 the EPA commenced a new role as the lead regulator for compliance with, and enforcement of, conditions of approval for gas activities in NSW. This includes regulating consent conditions and activity approvals issued by other agencies (excluding work health and safety). In carrying out this role the EPA works with the relevant experts and NSW Government agencies.

Gas activities must comply with a broad range of regulatory controls, including Acts, regulations, codes of practice, titles, approvals and other controls.

The prioritisation of investigations is determined using a risk assessment for investigations that considers the level of environmental impact and the likelihood of environmental harm occurring.

Current Investigations

Bohena 13C and Bohena South 2C (PAL 2)

The EPA is reviewing Bohena 13C and Bohena South 2C following the submission of ESF2 rehabilitation documents from Santos. The EPA has undertaken an unaccompanied inspection of the site and is following up on some matters with the company. As part of the rehabilitation security process the EPA will not recommend return of securities until it is satisfied that rehabilitation meets the legal requirements. No environmental harm has been identified from this inspection.

A community call to the EPA Environment Line has also been lodged with regard to Bohena 13C. The EPA will investigate further and provide an update to the complaint, the company and the community.

Groundwater pH levels at Dewhurst 14C (EPL 20350)

The EPA investigated data from groundwater monitoring bore, Dewhurst 14C, following an Environment Line call on 17 February 2017. The call raised concern with data published on the Santos Water Portal, showing alkaline results (pH>9.5) for water samples collected from monitoring well Dewhurst 14C.

The concern was investigated by the EPA's technical unit. Findings indicated the alkaline pH reported for Dewhurst 14C was the result of local geological and groundwater conditions, and that there is no evidence that the groundwater chemistry in Dewhurst 14C has been modified because of water pollution. The investigation has been finalised, with no issues identified.

Running Log – Old Investigations PEL 238 Outcomes

Incident	Outcome
February 2017 <u>Tintsville Flare Incident (PEL 238)</u> On 24 February 2017, the EPA were notified by Santos of an incident relating to unauthorised access to Wilga Park, resulting in damage to the Tintsville Flare.	Investigation confirmed that the gas pipe had not been ruptured and there was no environmental harm. The EPA has concluded its investigation.
December 2016 <u>Leewood Northern Sediment Dam</u> EPA Officers Investigated Leewood Northern Sediment Dam following an Environment Line call alleging an overflow incident from Leewood Ponds Water Treatment Facility.	Incident was investigated and samples taken, with lab results confirming no BTEX present and the materials classed as organic; dried sun bleached algae; and a naturally occurring protozoa. Investigation finalised, with no issues identified.
November 2016 <u>Bohena Creek</u> Report alleging that Bohena Creek was impacted by the Bibblewindi Water Treatment Plant and gas wells.	EPA officers visited the area of Bohena Creek that the reporter referenced. There was no evidence that environmental harm has occurred.
September 2016 <u>Leewood (PAL002)</u> Report alleging Leewood produced water dams were overflowing.	The EPA officers visited the site and all ponds were observed to be operating with adequate freeboard. There was no evidence of any overflow or spill from the ponds.

<p>September 2016 <u>Bohena 2</u> Report alleging Santos were using produced water from Leewood for watering program at Bohena 2 salinity site.</p>	<p>Environment Line complaint alleging Santos were using produced water from Leewood for the watering program at Bohena 2 salinity site following a Namoi Waste truck seen leaving Leewood and heading to Bohena 2 salinity site. EPA Officers attended the site, investigated and took water samples. Lab results indicate that the source of water is not consistent with produced water. The EPA sent a response letter to complainant advising this.</p>
<p>April 2016 <u>Bohena Creek Road</u> Methanol Drum on road.</p>	<p>Santos staff located a 44 gallon drum labelled 'Methanol' dumped on Bohena Creek Road near the Leewood Water Treatment Facility. Police and HAZMAT attended and secured the item. The drum was not on the Santos site, nor related to its activities as per media Tweet by the EPA.</p>
<p>March 2016 <u>Leewood Pond</u> Alleged leaking.</p>	<p>EPA officer inspected storage ponds and met with Santos staff. No evidence that produced water was leaking. No further action was required.</p>
<p>March 2016 <u>Bohena Creek Road</u> Report that a vent had been left open, unattended and emitting methane gas.</p>	<p>Santos has approval to vent gas from high and low point vents along the water gathering lines for safety and operational purposes – this is performed manually by a field operator. Santos has amended the manual venting operating procedure. The procedure clearly notes that a high point vent is not operated without an operator present.</p>
<p>March 2016 <u>Santos Pilliga</u> Report received that there was a 'foamy residue' left along Beehive Road. The complainant returned to the site some days later with a Geiger counter and recorded a reading allegedly linked to the high and low point vents.</p>	<p>An EPA Officer spoke to the complainant who advised that the location they took the Geiger counter reading was a few kilometres away from the area of concern and there was no evidence to support the initial claim. No further action required.</p>
<p>March 2016 <u>Leewood Water Treatment Facility</u> Report alleging a truck was spraying produced water between the internal fence and the property boundary fence for dust mitigation.</p>	<p>An EPA Officer viewed available data confirming raw water from an on-site bore was used for dust suppression at the time of the allegation. The EPA supports dust suppression which is a requirement of the Santos EPL. No further action required as at 15 March 2016.</p>
<p>February 2016 <u>Santos Pilliga</u> Report of 35,000 litre spill at unmanned Santos facility.</p>	<p>Investigations proved minor water run off with no environmental or health risks. Media release: Water Run-off From Leewood Water Treatment Facility in Narrabri Cleaned Up</p>
<p>January 2016 <u>Leewood Water Treatment Facility</u> Alleged discharge of sediment laden water.</p>	<p>The rainwater discharge followed heavy rain. Santos undertook immediate works to prevent further discharge from the site installing coir mats and construction of bunding. The EPA inspected site and determined no environmental harm had occurred and that no regulatory action was required.</p>
<p>January 2016 <u>Santos Pilliga</u> Report a 'foamy caramel coloured' material on the roadside near operation site.</p>	<p>The EPA inspected the site and collected samples. Analysis determined it was a natural event, likely due to the decomposition of organic material. No further action was required.</p>
<p>September 2015 <u>Bohena Creek</u> Piezometer located in creek.</p>	<p>No regulatory action required.</p>

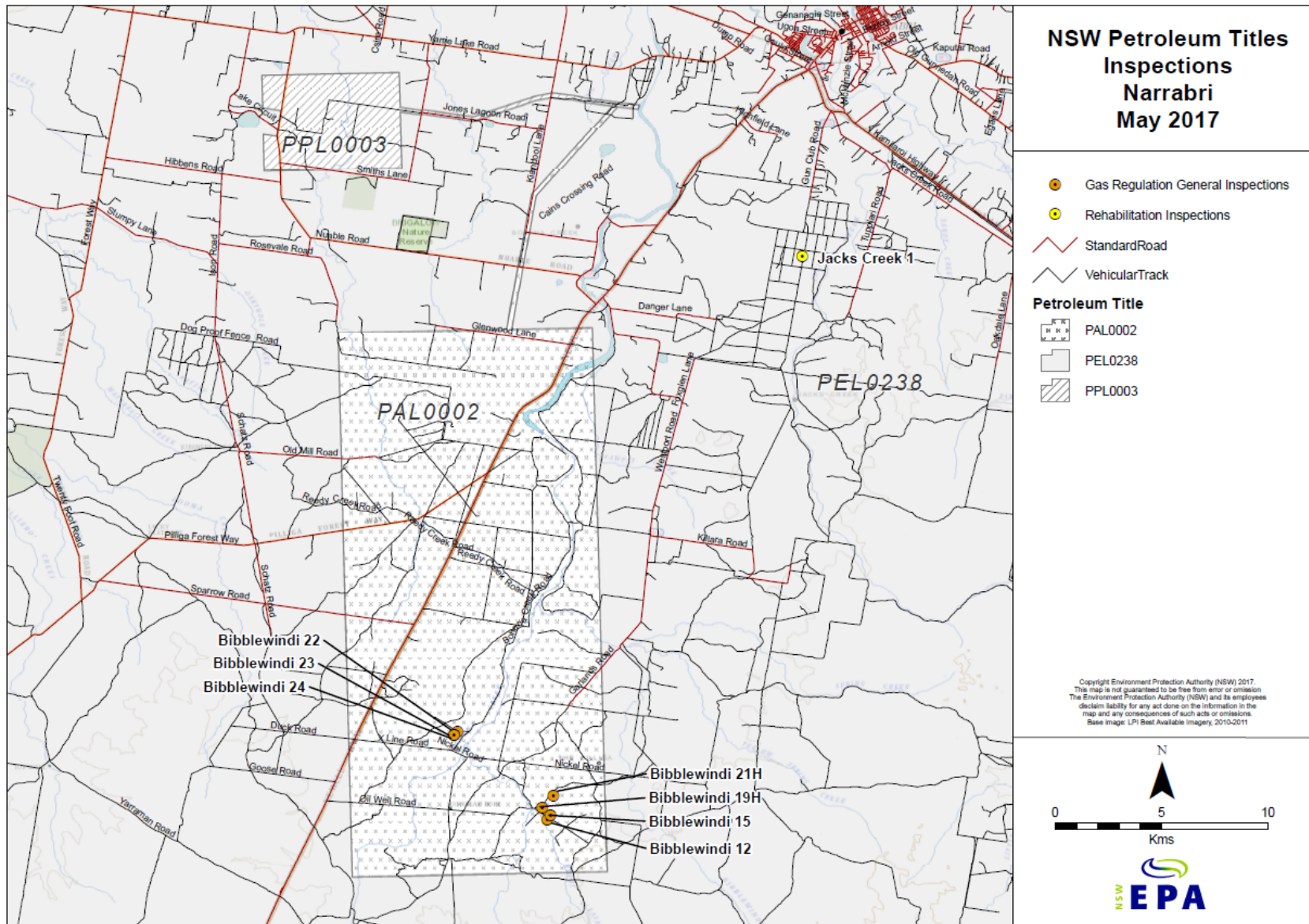
January 2015 <u>Santos Dewhurst Southern</u> Water flow line.	No breach of EPL 20350 identified. Santos varied operational practices for high point vents following negotiations with the EPA. Media release: No environmental harm but improvements needed
February 2014 <u>Namoi Waste</u> Storage of Santos drilling mud onsite.	6 May 2014 The EPA issued Namoi Waste Corp with a Penalty Notice for breach of s145 of the POEO Act. Note - The Penalty Notice issued was not related to the original complaint regarding waste from coal seam gas, rather other waste material identified during the course of the investigation. Media release: EPA issues Naracor and Namoi Wastecorp with penalty notices for unlawful waste transport and storage
March 2013 <u>Bibblewindi Water Treatment Facility</u> Pond liner failure.	11 Feb 2014 The EPA issued a Penalty Notice for s120 Pollution of Waters. A Pollution Reduction Program (PRP) was added to EPL 20350 (Environment Protection Licence) requiring the development of a Remediation and Monitoring Plan and the implementation of this plan.
March 2013 <u>Tintfield Ponds</u> Detection of elevated levels salinity and metals.	Insufficient evidence to determine if the changes detected in groundwater were the result of leaks from the Tintfield ponds or were from natural factors. A PRP was added to EPL 20350. Media release: No environmental harm but improvements needed

Inspections undertaken by the EPA – May 2017

Inspections					
Site ID	Date Inspected	Reasons	Action/Outcome	Site Status	Statutory Document
Jacks Creek 1	18/05/2017	Rehabilitation Inspection (ESF2 Rehabilitation Relinquishment)	Compliant – No further action Rehabilitated	Rehabilitated	PEL 238
Bibblewindi 12	18/05/2017	General Site Inspection	Compliant – No further action	Active	PAL 2
Bibblewindi 15H	18/05/2017	General Site Inspection	Compliant – No issues	Active	PAL 2
Bibblewindi 19H	18/05/2017	General Site Inspection	Compliant – No issues	Active	PAL 2
Bibblewindi 21H	18/05/2017	General Site Inspection	Compliant – No issues	Active	PAL 2
Bibblewindi 22	18/05/2017	General Site Inspection	Compliant – No issues	Active	PAL 2
Bibblewindi 23	18/05/2017	General Site Inspection	Compliant – No issues	Active	PAL 2
Bibblewindi 24	18/05/2017	General Site Inspection	Compliant – No issues	Active	PAL 2

SITE INSPECTION MAP

EPA site inspections undertaken at Narrabri during May 2017



FEATURE ARTICLES

What does rehabilitation mean?

A summary of the regulatory processes around rehabilitation of gas sites

Rehabilitation is the responsible remediation of impacted land throughout the entire life-cycle of a gas exploration and production site. Rehabilitation can include removal of infrastructure, landscape contouring and revegetation.

Rehabilitation should be undertaken so areas disturbed by petroleum exploration activities are left in a condition that is safe and stable. This means the final condition of the area needs to be the same or better than it was prior to exploration activities, or in a condition that allows the proposed final land use, to be sustained.

The petroleum title holder is responsible for the full rehabilitation of its exploration and production sites. If a title is sold, or transferred to a different party, the responsibility for rehabilitation generally transfers to the new owner.

Rehabilitation conditions can be found in petroleum titles and approval documents

Rehabilitation conditions can be found in a range of statutory documents which govern a gas activity. These statutory documents are often developed in consultation with the relevant government agencies and administered by more than one agency.

Conditions regarding rehabilitation can be found in the petroleum title which covers a site. Petroleum titles include *Petroleum Exploration Licence (PEL)*, *Petroleum, Assessment Lease (PAL)* and *Petroleum Production Lease (PPL)*. The petroleum title gives titleholders exclusive rights to explore or produce petroleum (depending on the type of title licence which they hold) within a title area.

Rehabilitation conditions and commitments can also be found in documents such as review of environmental factors, project approvals, development consents and operational plans.

Statutory documents may also require a titleholder to provide annual and final reports which include details of rehabilitation progress and forecast.

The Rehabilitation Code of Practice sets industry standards

The Exploration Code of Practice – Rehabilitation details mandatory requirements and provides title holders an indication of expected performance to ensure that exploration is undertaken in a manner that minimises risks and subsequently achieves sustainable rehabilitation outcomes. Importantly, it sets out enforceable mandatory requirements relating to rehabilitation.

This code allows titleholders to commit to measurable performance outcomes, monitor performance, take corrective action if outcomes are not being achieved, and keep and maintain records of activities and actions.

The EPA can issue notices

A Notice is an enforceable statutory instrument, and it is an offence for a titleholder not to meet the requirements of a Notice. The EPA is now the lead regulator of the gas industry in NSW, including for rehabilitation which means the EPA is responsible for issuing rehabilitation related Notices when they are needed. This was formerly the responsibility of the Department of Resources and Geoscience (DRG).

The EPA can issue a company or titleholder with a Notice to require the company to rehabilitate areas or impacts which are not covered by a petroleum title or other statutory document.

The EPA can implement a regulatory response to address non-compliance with a Notice, in the same manner as non-compliance with a condition on a licence. More information about the EPA's regulatory response procedures can be found in the [EPA Compliance Policy](#).

The EPA checks the rehabilitation is compliant

The rehabilitation of gas sites in NSW is assessed by the EPA.

The titleholder is required to lodge a rehabilitation security bond with the DRG which can be used to cover the cost of rehabilitation activities in the event the titleholder does not do so. The bond is calculated on potential rehabilitation costs, and held as a condition of the title.

The titleholder will submit rehabilitation and relinquishment information to the DRG to indicate the rehabilitation is complete. The EPA will visit the site to confirm compliance with rehabilitation conditions and check that the environment is protected. The security bond will not be returned to the titleholder in full, and the titleholder may not relinquish the site until the EPA advises the DRG that rehabilitation is complete.

Titleholders are subject to regular inspections by the EPA to check they are compliant with statutory requirements.

What if the rehabilitation takes a long time to be compliant?

Rehabilitation may take longer in some areas due to extent of the impact, soil and vegetation type, final land use type or climate, as well as setbacks due to unforeseen events. The EPA will check the rehabilitation is complete to the required standards before the titleholder can relinquish the site.

Under the Petroleum (Onshore) Act 1991, the titleholder must commence rehabilitation of a site as soon as practicable following the completion of activities on that site. Progressive rehabilitation is an effective way to provide stability for disturbed areas, improve visual amenity and reduce the timeframe required to return the site to a condition where it is capable of supporting the intended final use.

Where can I find out more?

The *Exploration Code of Practice: Rehabilitation* can be downloaded at the [Rehabilitation](#) page on the DRG website.

The EPA [Compliance Policy](#) can be downloaded from the EPA website.

The EPA has produced a range of [gas industry related fact sheets](#), including a Rehabilitation Fact Sheet which can also be downloaded from the EPA website.

CONTACT US

Want to know more about what the EPA does? Want to understand a process used by the gas industry in a bit more detail? ...

...Tell us what you would like discussed in a Feature Article!

The feature article in this newsletter each month is an opportunity for the EPA to provide additional information and address any questions you have. Your feedback is key to ensuring we are providing the sort of information the community would like to see, and so, we would like to hear from you all.

Previous editions of this newsletter have included articles on 'who we are and what we do', groundwater quality monitoring, specific EPA projects and decommissioning and rehabilitation of gas well sites – these examples may give you an idea of a question you would like to ask.

Please send us any activities, processes, questions or information you would like to see in a feature article to gas.reg@epa.nsw.gov.au.

We look forward to hearing from you!

Every effort has been made to ensure that the information in this document is accurate at the time of publication. However, as appropriate, readers should obtain independent advice before making any decision based on this information.

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