

# Narrabri CCC Monthly Update



## APRIL 2016

The following is a monthly update for the Narrabri CCC regarding activities undertaken by the NSW Environment Protection Authority (EPA) relating to PEL 238 (Narrabri Gas Project). It includes both activities undertaken relating to Environment Protection Licence (EPL) 20350 and the EPA functions conducted under the NSW Gas Plan.

Attachments to this month's update:

- Gas Regulation Inspections – March 2016
- Media Link – EPA inspection of Santos site
- Feature Article – What is Sulphate Reducing Bacteria?

## EPA ACTION ITEMS SINCE LAST NCCC

Alleged leakage from Leewood pond  
Methane Gas venting to atmosphere  
Alleged waste dumped beside road in the Pilliga

## INVESTIGATIONS

### Background

19 February 2013 the EPA became responsible for investigating environmental incidents that occurred during coal seam gas activities under the provisions of the *Protection of the Environment Operations Act 1997* (POEO) and issued Environment Protection Licenses.

1 July 2015 the EPA commenced its new role as the lead regulator for compliance with and enforcement of conditions of approval for gas activities in NSW, including consent conditions and activity approvals issued by other agencies (excluding work health and safety). In carrying out this role the EPA will work 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

#### March 2016 – Alleged leakage from Leewood pond

10 March 2016

The EPA received advice from Santos in relation to a story on Twitter alleging that one of the ponds at Leewood was leaking. Additional complaints were received by Environment Line. EPA officers visited the Leewood site on Friday 11 March 2016 and inspected the water storage ponds and met with Santos staff.

During the inspection, EPA officers found no evidence that produced water was leaking into the environment. In relation to the pond that has been emptied, the EPA understands that Santos has pumped water from that pond into other ponds at Leewood for operational purposes.

The EPA is currently reviewing data and information relating to the ponds at Leewood. The EPA will communicate its findings when the review has been completed.

The EPA review ongoing.

### **March 2016 – Methane Gas venting to atmosphere**

27 March 2016

The EPA received an Environment Line report advising that a vent had been left open, was unattended and venting methane gas into the atmosphere along Bohena Creek Road.

Santos have approval to vent gas from the high and low point vents located along the water gathering lines on the premises for safety and operational purposes. This is done manually by a field operator.

Additional information is being sought from the complainant and Santos.

The EPA review ongoing.

### **March 2016 – Alleged waste dumped beside road in the Pilliga**

18 March 2016

The EPA received a complaint via the Environment Line advising of a 'foamy residue' material left along Beehive Road near the Santos Pilliga operations. The caller returned a few days later with a Geiger counter and alleged that the reading recorded was above background and was linked to the high point and low point vents used in the CSG operation.

An EPA officer spoke to the complainant whom advised that the high and low point vents were a few kilometres away from the area of concern and that they have no evidence to support the claim.

In February 2016 the EPA inspected and sampled foamy residue in another location of the Pilliga which was determined to be from a natural event, likely due to the decomposition of organic material. No evidence has been provided to link the Geiger reading to the CSG operation.

The EPA review ongoing.

## **Recently Completed**

### **March 2016 – Alleged spray drift of produced water from dust suppression activities Leewood**

15 March 2016

The EPA received a report alleging that a truck was observed spraying water along the fence line of the Leewood Water Treatment Facility for dust mitigation. A report followed on Twitter that Santos were using produced water for dust suppression. Santos confirmed that they have never used produced water for dust suppression.

The EPA reviewed available data confirming the use of raw water from the on-site bore at the time of the allegation. No evidence was provided to the EPA to support the allegation that it was produced water.

The EPA reviewed video footage taken by the complainant showing the water spray landing between the internal and property boundary fence. The Leewood activities are approved for the entire Lot and Development Plan which includes land up-to the old existing property fence line.

Dust suppression is a legitimate activity which is supported by the EPA and is included as a requirement within the issued EPL.

No further action required.

## Running Log - Old Investigations PEL 238 Outcomes

Incident	Outcome
<p><b>March 2013</b> Biblewindi Water Treatment Facility Pond Liner failure</p>	<p><b>11 Feb 2014</b> 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 these</p>
<p><b>March 2013</b> Tintsville Ponds – Detection of elevated levels salinity and metals</p>	<p>Insufficient evidence to determine if the changes detected in groundwater were the result of leaks from the Tintsville ponds or were from natural factors. A PRP was added to EPL 20350. <a href="#">Media release: No environmental harm but improvements needed</a></p>
<p><b>February 2014</b> Namoi Waste Storage of Santos drilling mud onsite</p>	<p><b>6 May 2014</b> 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.</p>
<p><b>January 2015</b> Santos Dewhurst Southern Water Flow Line</p>	<p>No breach of EPL 20350 identified. Santos varied operational practices for high point vents following negotiations with the EPA. <a href="#">Media release: No environmental harm but improvements needed</a></p>
<p><b>September 2015</b> Bohena Creek Piezometer located in creek</p>	<p>No regulatory action required</p>
<p><b>January 2016</b> Leewood Water Treatment Facility 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 and that no regulatory action was required</p>
<p><b>January 2016</b> Santos Operations in the Pilgla 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><b>February 2016</b> Santos sites at Pilgla Report of 35,000 litre spill at unmanned Santos facility</p>	<p>Investigations proved no spills had occurred in NSW Santos sites It was revealed a spill had occurred sometime earlier in Queensland No action was required <a href="#">Media release: Water Run-off From Leewood Water Treatment Facility in Narrabi Cleaned Up</a></p>

## EPA ACTIVITIES

The following tables present actions undertaken by the EPA

Inspections				
Site ID	Date Inspected	Reasons	Action/Outcome	Status
Bohena 2	11 March 2016	Rehabilitation progress inspection	Santos made clear progress with weed management at this site	Rehabilitating/Active
Leewood Water Treatment Facility	11 March 2016	Inspect Cell 4 following allegations that pond was leaking.	EPA has requested R3 report from Santos and is currently reviewing this information	Rehabilitating/Active

## MEDIA

11th March 2016

Media release: [NSW EPA Inspection of Santos Leewood site Friday 11th March 2016](#)

## FEATURE ARTICLE

### Sulphate Reducing Bacteria

Sulphate reducing bacteria (SRB) is a micro-organism which occurs naturally in environments that have little or no oxygen. It can be found in soils and many geological formations.

Given the prolific nature of microbes in all environments, drilling bores or other human activities can potentially stimulate bacterial activity if they create ideal conditions.

SRB can also potentially be introduced into bores by drilling equipment or when pumps are removed for servicing and laid out on the ground or through open bores.

Similar to other micro-organisms found in groundwater, its presence can impact on the operation of the bores, pumps, pipes etc. by causing corrosion or clogging through further chemical interactions.

The management of bacteria in bores needs to be undertaken by the bore owner/operator.

Maintaining good bore hygiene is an important first step. The bore should be appropriately constructed for the environment in which it is located, that is both the surface and subsurface conditions.

The [Minimum Construction Requirements for Water Bores in Australia](#) outlines the mandatory requirements and additional good industry practice which includes disinfection of drilling equipment.

The construction of CSG wells must also comply with more stringent construction requirements as outlined in the Code of Practice for Coal Seam Gas Well Integrity.

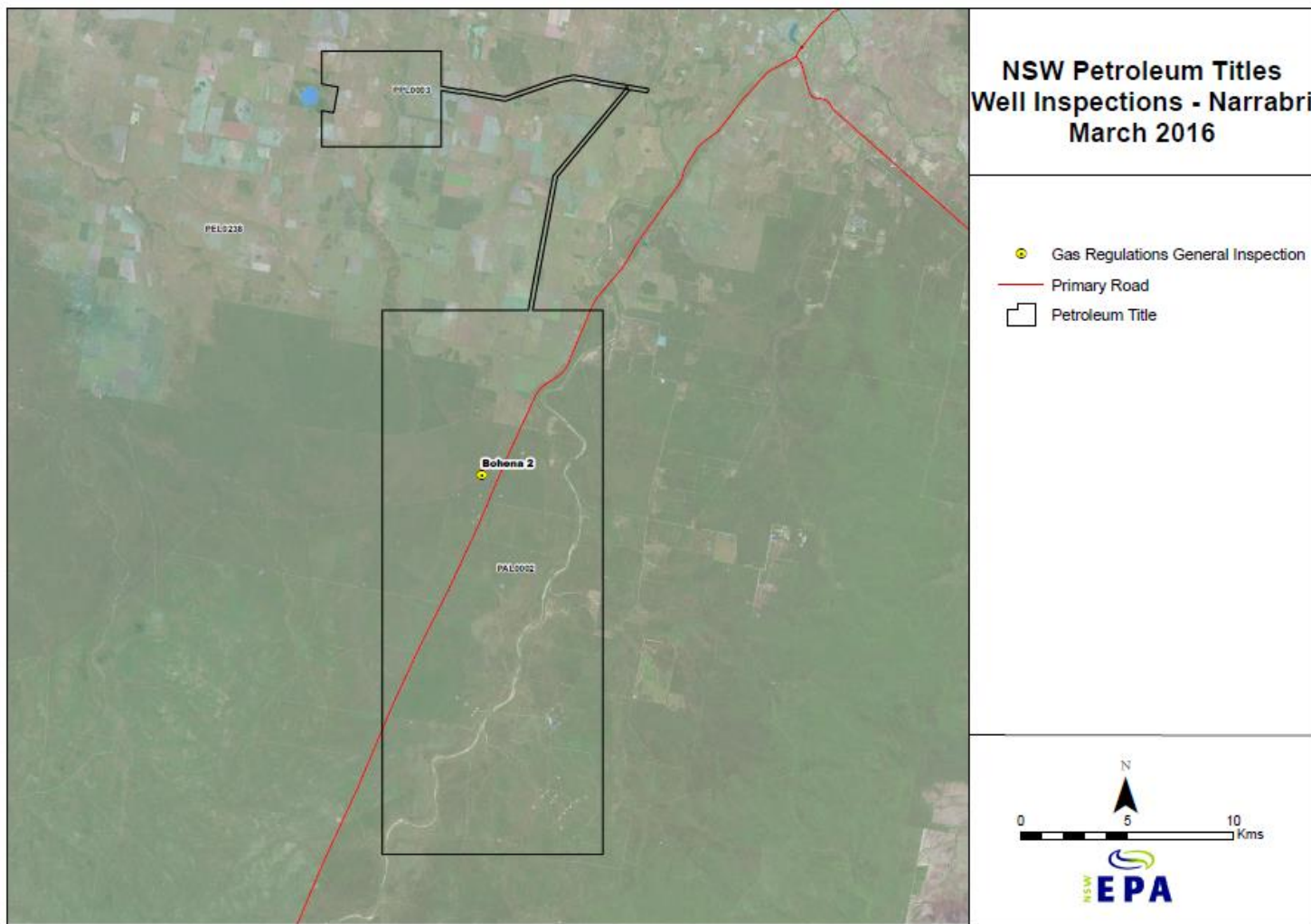
If SRB proliferate in a bore the owner/operator may need to undertake maintenance to manage the SRB.

There are several treatments to remove bacteria in water bores. Those that involve bactericide treatment should be done by an experienced contractor.

While SRB has not been considered an issue that requires management in NSW, sulphate levels in groundwater are analysed as part of a standard suite of anions and cations in the Department of Primary Industry: Water monitoring program.

# Narrabri

## EPA Site Inspections March 2016



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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