

Review of AGL Rosalind Park Gas Plant Continuous Emission Monitoring System (CEMS)

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**Damon Roddis
General Manager, PAEHolmes**



AGL Rosalind Park Gas Plant CEMS Review Presentation Overview

- Background
- What air monitoring is required?
- What are the current discharge levels?
- What is the cause of breakdown?
- Potential for environmental harm?
- Conclusion

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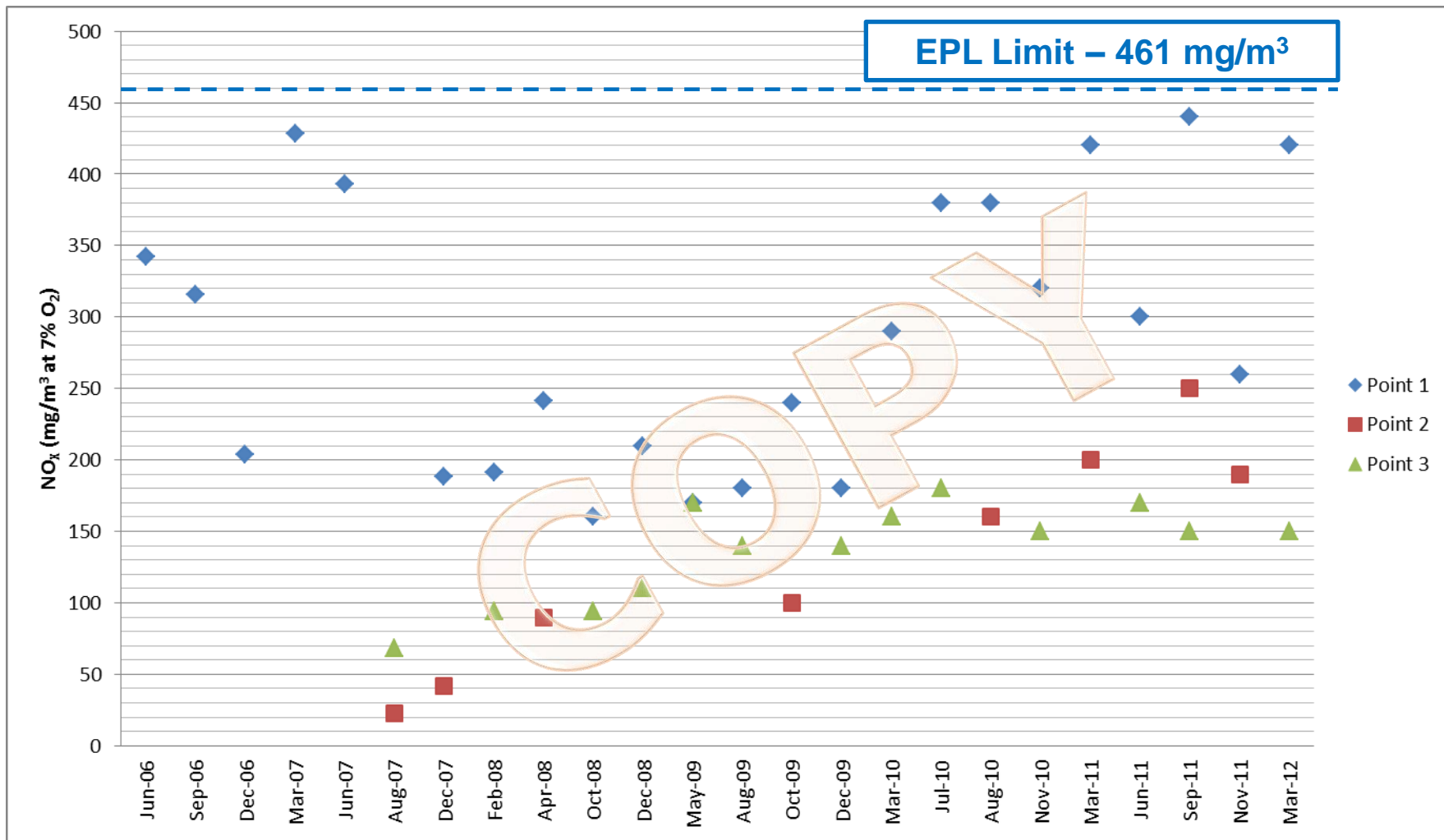
AGL Rosalind Park Gas Plant CEMS Review Background / Monitoring Requirements

- Required to manage air emissions through Condition M2 of EPL 12003
- Quarterly monitoring of exhaust air parameters (NO_x , SO_2 , SO_3 , CO , O_2 , velocity, T, volumetric flow from 6 air emission sources
- Continuous emission monitoring (CEM) of NO_x , O_2 , T, moisture and volumetric flow from the 3 gas compressors



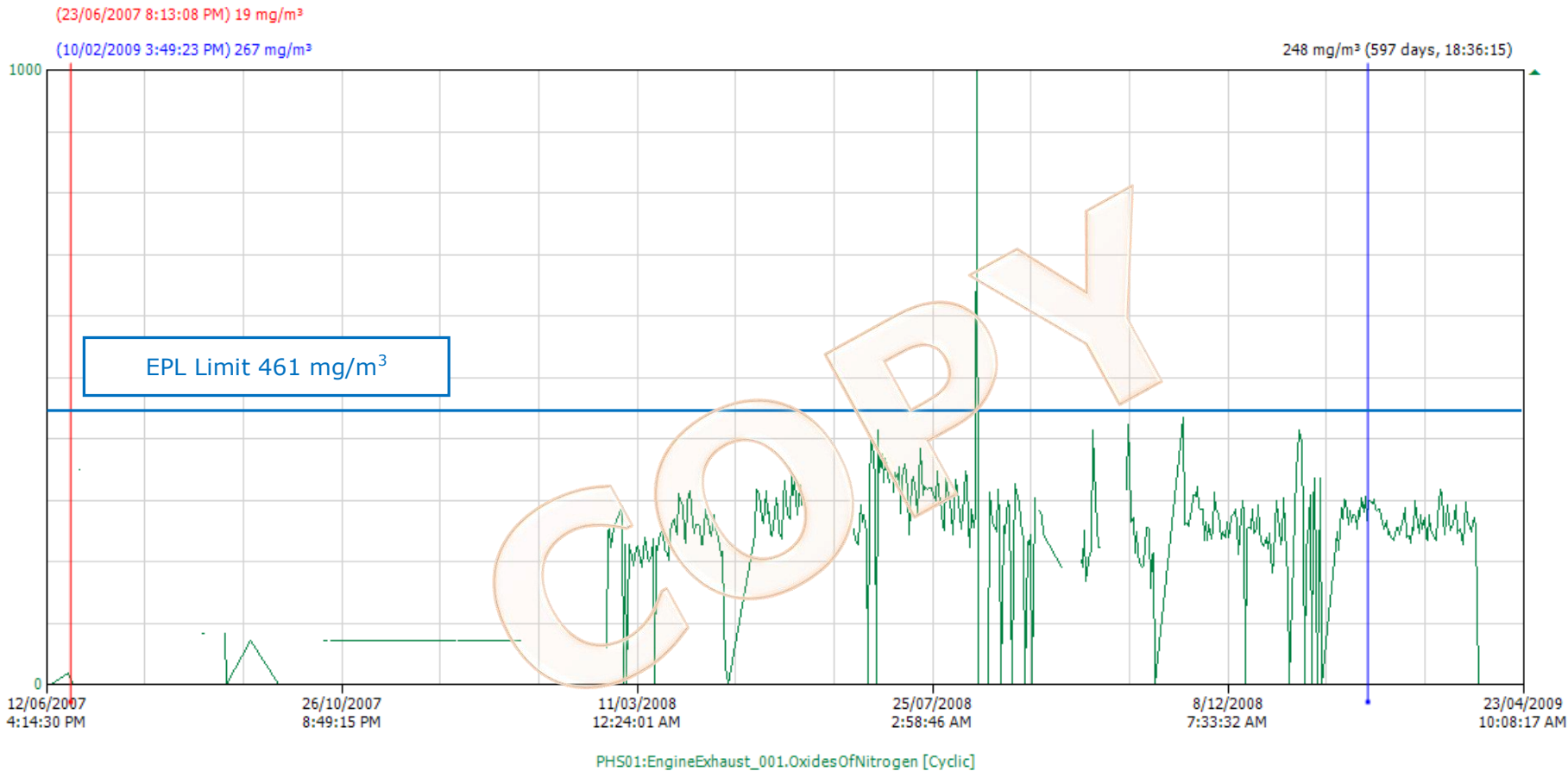
AGL Rosalind Park Gas Plant CEMS Review

Current Discharge Levels – Quarterly Monitoring



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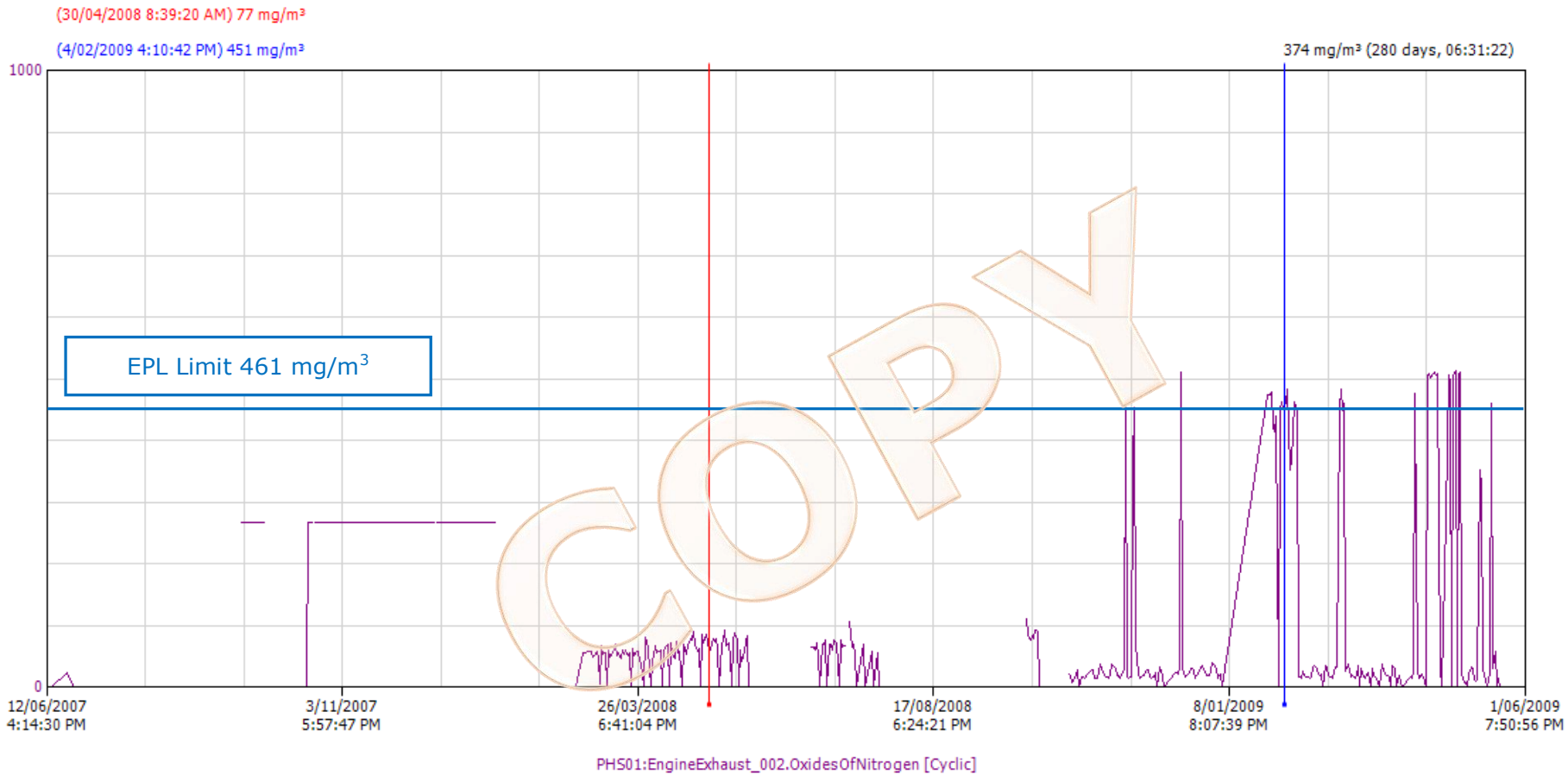
Discharge Levels – CEMS Point 1



Tag Name	Description	Server	Color	Units	Minimum	Maximum	IO Address	Time Off...
<input checked="" type="checkbox"/> EngineExhaust_001.OxidesOfNitrogen	The UserDefined object ...	PHS01	Green	mg/m ³	0	1000	\\PHS01\InSQL_MDAS\MDAS\EngineExhaust_001.OxidesOfNitrogen	0:00:00.000

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Discharge Levels – CEMS Point 2



Tag Name	Description	Server	Color	Units	Minimum	Maximum	IO Address	Time Off...
<input checked="" type="checkbox"/> EngineExhaust_002.OxidesOfNitrogen	The UserDefined object ...	PHS01		mg/m ³	0	1000	\\PHS01\InSQL_MDASIMDASIEngineExhaust_002.OxidesOfNitrogen	0:00:00.000

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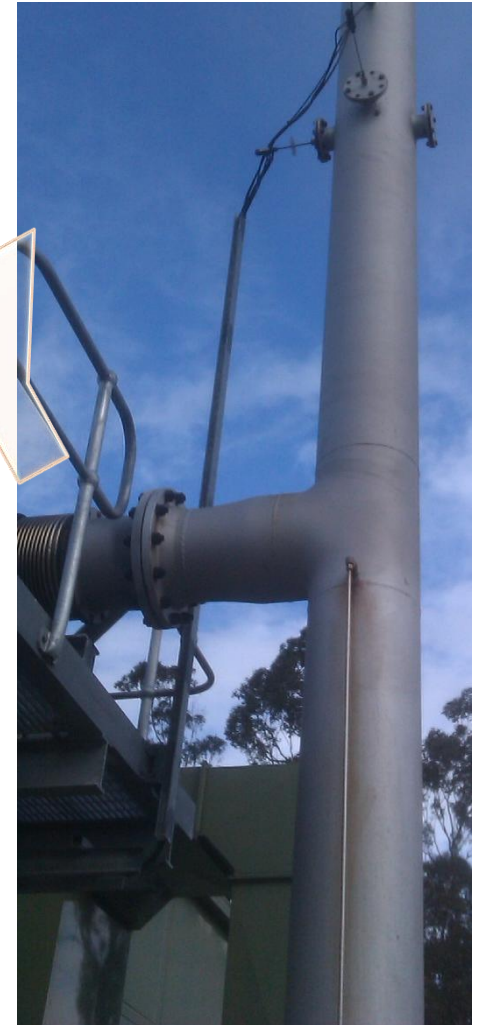
Cause of Breakdown

- Repeated failures associated with the operating environment:
 - Vibration
 - Contamination
 - Heat
- Historical data acquisition issues
- AGL now manually downloading



AGL Rosalind Park Gas Plant CEMS Review Potential for Environmental Harm

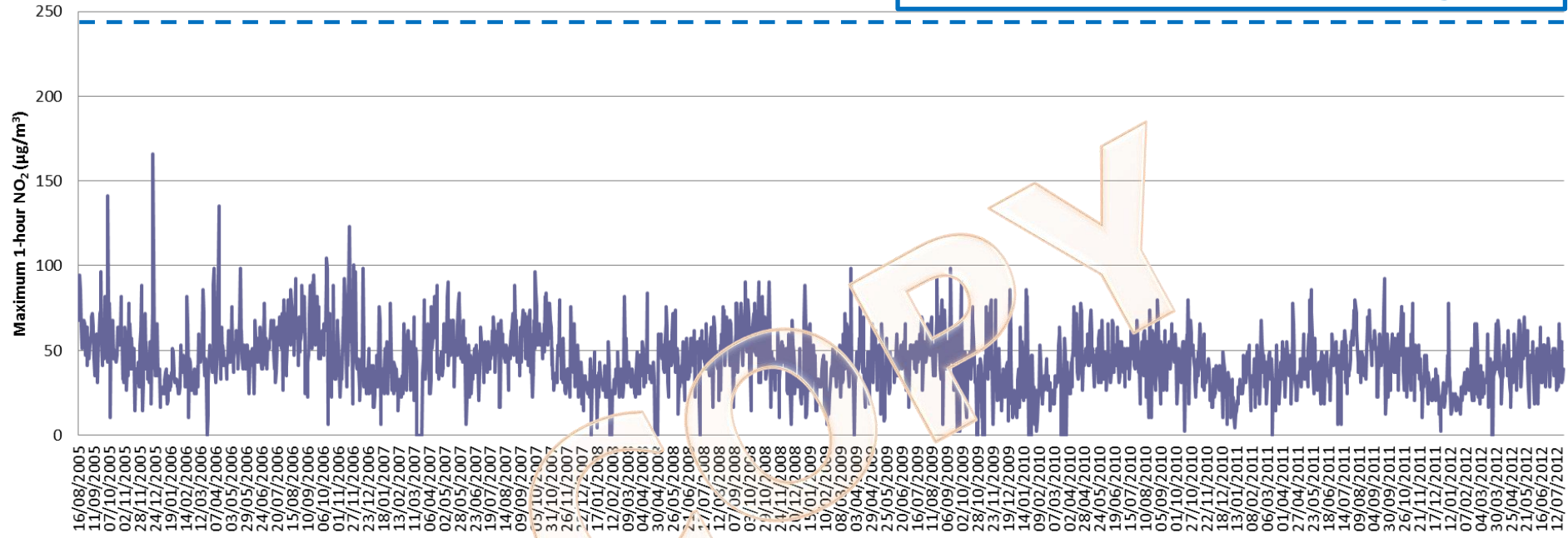
- NO_x regulated for:
 - Ground level impacts of NO_2 (local)
 - Role in photochemical smog formation (regional)
- AGL environmental assessment demonstrates that ground level concentrations of NO_2 are unlikely to be a concern



AGL Rosalind Park Gas Plant CEMS Review

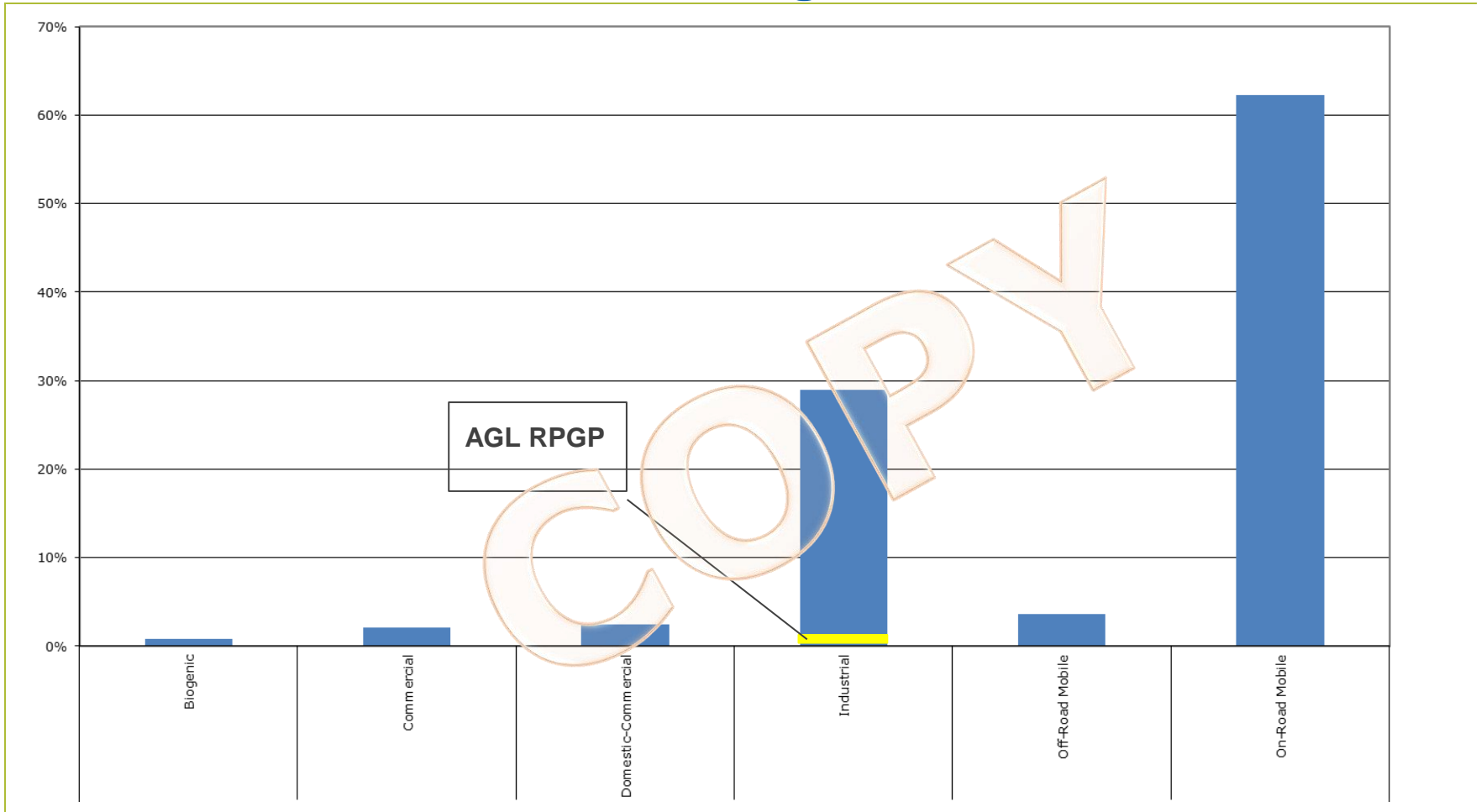
Local Environmental Harm – Macarthur AQMS

EPA 1-hour criterion – 246 $\mu\text{g}/\text{m}^3$



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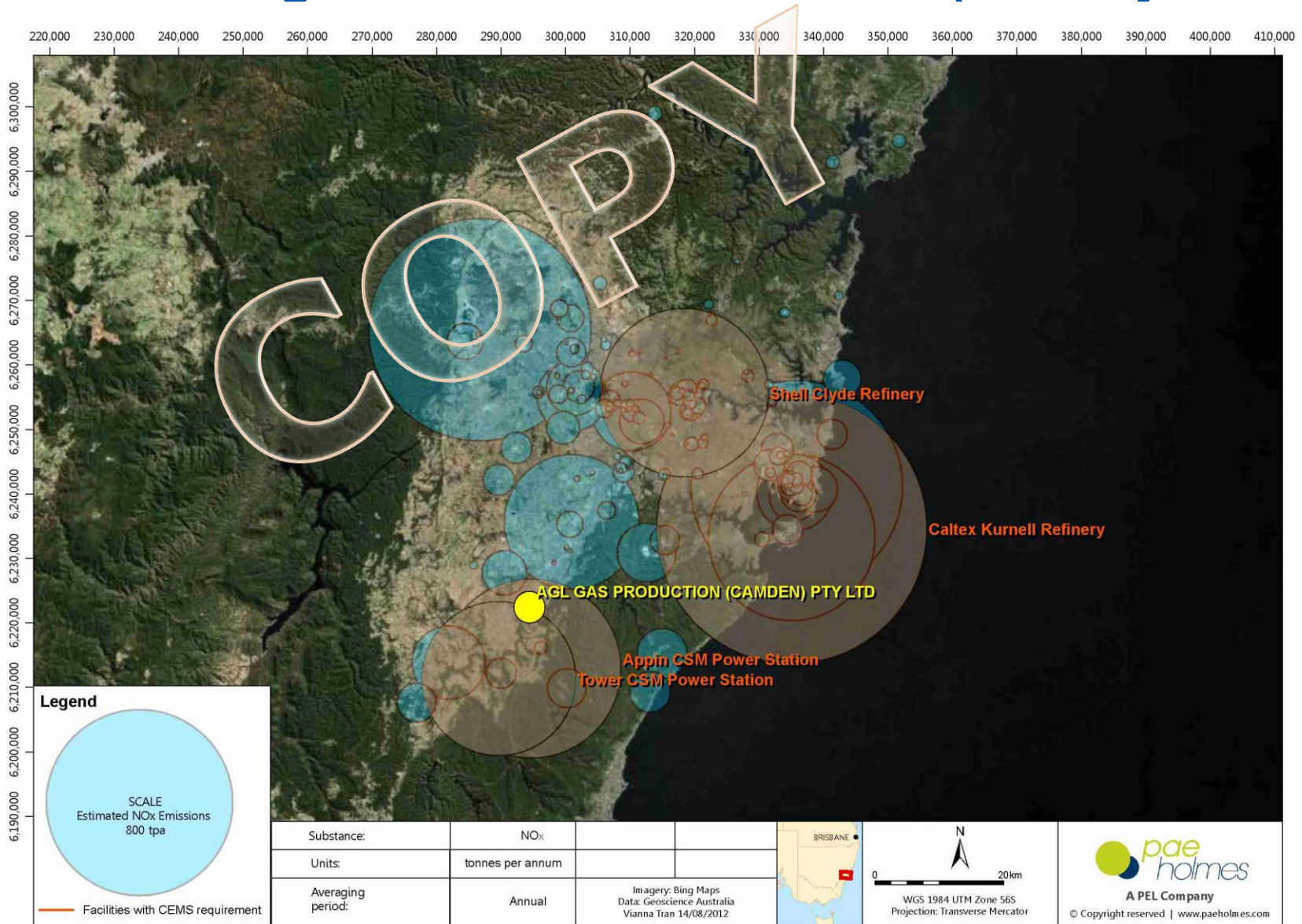
Regional Environmental Harm



Campbelltown LGA NO_x Emissions by Sector

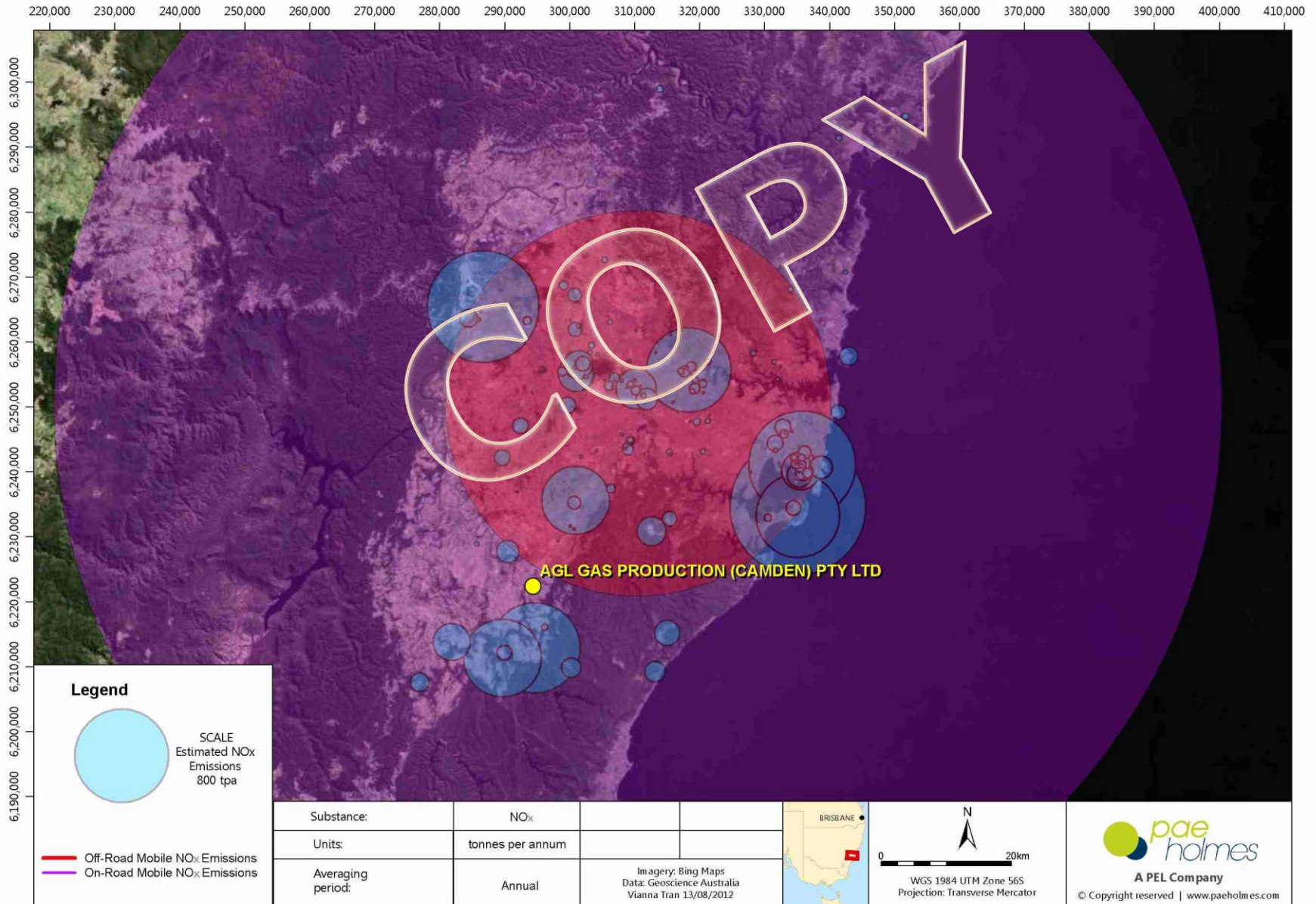
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Regional Environmental Harm (industry alone)



AGL Rosalind Park Gas Plant CEMS Review

Regional Environmental Harm (industry and mobile)



AGL Rosalind Park Gas Plant CEMS Review Conclusion

- Risk of harm to human health & environment due to NO_x from RPGP is low
- Emissions less than 2% of NO_x from vehicles in Campbelltown
- Negligible increase in potential for risk to human health / environment arising from the non-compliance



Questions

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