

Questions to Santos July 2019 NGPCCC from P4P Delegate

1. The first lot of questions are from the Santos Ltd Sustainability Performance Data 2017 and 2018.

<https://www.santos.com/media/4450/2017-santos-sustainability-performance-data.pdf>

<https://www.santos.com/sustainability/>

link to document from 'here' as seen on above document when downloaded and read.

<https://www.santos.com/media/4771/santos-sustainability-performance-data-2018.pdf>

Looking over and comparing the actual printed *Santos Ltd Sustainability Performance Data Reports* (referred to as 'the Report') as put out for 2017 and 2018 it is noticed that there are different figures for 2015, 2016 and 2017 listed in the 2018 Report to those figures displayed in the 2017 Report.

Most noticeable examples (see Fig1 and Fig 2) being the Oxides of Nitrogen, there are also large discrepancies in the Total Volatile Organic Compounds and Sulphur Dioxide.

There are other smaller, but by no means insignificant, differences in the amounts listed in the 2017 Report to those listed in for the years 2015, 2016 and 2017 in the 2018 Report.

Q1a. Can Santos explain why this has occurred?

Most information in the Reports is for Santos' Australia wide operation.

Q1b. Has Santos the capacity to break the entire Report into States and if so what are the figures for the NSW Operation?

Santos does have a disclaimer at the bottom of each page of every Report which is provided below, however that disclaimer should not be used as an reason to excuse the discrepancies'.

"All reasonable effort has been made to provide accurate information; however, Santos does not warrant or represent its accuracy."

Q1c. Why has Santos placed this disclaimer on Santos own document which is clearly intended to show how responsible Santos is when it comes to Santos' Sustainability Performance, especially the Environmental Sustainability side of the Reports?

Specific questions taken from the comparisons of the Reports dated years 2017 and 2018

Q1d. In the 2017 Report Oxides of Nitrogen are listed as being 16838 tonnes, yet in the 2018 Report the listing for 2017 is now listed as being only 16137 tonnes. That is a miss report of just over 700 tonnes. While the 2016 figures are listed as 17083 tonnes in the 2017 Report, this figure was changed down to 16215 in the 2018 Report, a difference of 868 tonnes. Why the recalibration of the figures for Oxides of Nitrogen years after the initial Report?

Q1e. There are also other much smaller differences between the two years. Will Santos explain these differences?

I have not placed the entire Reports for both years in the Question, but rather example pages of the worst discrepancies (see following images).

Pollutant emissions (Santos Australian operations, gross operated, calendar year)						
	Units	2013	2014	2015	2016	2017
Arsenic & compounds	Tonnes	0.016	0.018	0.021	0.022	0.026
Benzene	Tonnes	42	45	42	30	26
Beryllium & compounds	Tonnes	0.004	0.004	0.005	0.006	0.006
Cadmium & compounds	Tonnes	0.021	0.022	0.020	0.017	0.014
Carbon monoxide	Tonnes	7,641	10,678	9,826	10,838	9,747
Chromium III Compounds	Tonnes	0.054	0.050	0.046	0.042	0.041
Copper & compounds	Tonnes	0.047	0.039	0.031	0.031	0.029
Cumene	Tonnes	1.3	3.9	4.1	3.4	2.9
Cyclohexane	Tonnes	33	27	23	23	20
Ethylbenzene	Tonnes	47	47	47	40	35
n-Hexane	Tonnes	508	486	442	414	366
Hydrogen sulphide	Tonnes	35	44	39	61	47
Lead & compounds	Tonnes	0.059	0.028	0.026	0.025	0.023
Mercury & compounds	Tonnes	0.006	0.007	0.036	0.000	0.000
Methanol	Tonnes	78	57	37	150	147
Nickel & compounds	Tonnes	0.035	0.038	0.036	0.034	0.031
Oxides of Nitrogen	Tonnes	12,257	13,444	11,329	17,083	16,538
Particulate Matter (less than 2.5 micrometres)	Tonnes	275	314	219	234	219
Particulate Matter (less than 10.0 micrometres)	Tonnes	279	313	225	238	223
Phenol	Tonnes	21	23	31	33	33
Polychlorinated dioxins and furans (TEQ)	Tonnes	0.001	0.000	0.000	0.000	0.000
Polycyclic aromatic hydrocarbons	Tonnes	0.048	0.006	0.046	0.015	0.005
Sulphur dioxide	Tonnes	30	38	23	19	20
Toluene (methylbenzene)	Tonnes	83	79	70	64	56
Total Volatile Organic Compounds	Tonnes	8,897	8,002	6,552	7,072	6,263
Xylenes	Tonnes	61	63	61	50	44

Notes: Pollutant emissions to air, land and water, including waste transfers, are reported on a calendar year basis in accordance with the Australian National Pollutant Inventory compliance reporting requirements

All reasonable effort has been made to provide accurate information in this spreadsheet, however, Santos does not warrant or represent its accuracy.

2

Fig1. Copy of the Pollutant emissions page from the 2017 Report

Pollutant emissions (Santos Australian operations, gross operated, calendar year)							
	Units	2013	2014	2015	2016	2017	2018
Arsenic & compounds	Tonnes	0.016	0.018	0.021	0.022	0.026	0.026
Benzene	Tonnes	42	45	41	30	26	27
Beryllium & compounds	Tonnes	0.004	0.004	0.005	0.006	0.006	0.006
Cadmium & compounds	Tonnes	0.021	0.022	0.020	0.017	0.014	0.017
Carbon monoxide	Tonnes	7,641	10,678	10,148	9,807	8,915	9,674
Chromium III Compounds	Tonnes	0.054	0.050	0.046	0.042	0.041	0.043
Copper & compounds	Tonnes	0.047	0.039	0.032	0.031	0.029	0.031
Cumene	Tonnes	1.3	3.9	4.1	3.4	2.9	3.7
Cyclohexane	Tonnes	33	27	23	23	20	19
Ethylbenzene	Tonnes	47	47	47	40	35	41
n-Hexane	Tonnes	508	486	457	414	366	364
Hydrogen sulphide	Tonnes	35	44	47	61	47	45
Lead & compounds	Tonnes	0.059	0.028	0.026	0.025	0.023	0.025
Mercury & compounds	Tonnes	0.006	0.007	0.006	0.006	0.005	0.006
Methanol	Tonnes	78	57	59	150	147	145
Nickel & compounds	Tonnes	0.035	0.038	0.036	0.034	0.031	0.034
Oxides of Nitrogen	Tonnes	12,257	13,444	11,988	16,215	16,137	16,246
Particulate Matter (less than 2.5 micrometres)	Tonnes	275	314	242	241	225	215
Particulate Matter (less than 10.0 micrometres)	Tonnes	279	313	247	245	229	218
Phenol	Tonnes	21	23	31	33	33	34
Polychlorinated dioxins and furans (TEQ)	Tonnes	0.001	0.000	0.000	0.000	0.000	0.000
Polycyclic aromatic hydrocarbons	Tonnes	0.048	0.006	0.046	0.015	0.005	0.009
Sulphur dioxide	Tonnes	30	38	34	19	20	20
Toluene (methylbenzene)	Tonnes	83	79	74	64	56	53
Total Volatile Organic Compounds	Tonnes	8,897	8,002	7,278	7,350	6,537	6,644
Xylenes	Tonnes	61	63	62	50	44	50

Notes: Pollutant emissions to air, land and water, including waste transfers, are reported on a calendar year basis in accordance with the Australian National Pollutant Inventory compliance reporting requirements

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2

Fig2. Copy of the Pollutant emissions page from the 2018 Report

Looking over the "Water" section of 2017 Data Report it was noticed that the evaporation from the NSW Operation was 261 x 1000 m³ and the beneficial use was 110 x 1000m³ while the formation water extracted was 171 x 1000 m³. Ignoring the Beneficial figures, and just looking at the Evaporation and Formation water figures one can see a big discrepancy in the two, so there must have been formation water from another source in the mix that is not accounted for in the 2017 Report. From the figures in the 2017 Report it looks like the NSW Santos venture is operating their storage ponds as Evaporation ponds which is allowable if Santos held at the time, all the required approvals and Licences to do so.

Q1f. DOES SANTOS HOLD THOSE REQUIRED LICENCES AND APPROVALS, IF SO WHEN WERE THEY GRANTED?

In the 2017 and 2018 Reports, there is a section titled Incidents and spills. Ignoring the entry marked Fines.

Q1g. Will Santos provide a State by State breakdown of this section or at least the breakdown for NSW?

In both the 2017 and 2018 Reports under "Footprint of operations", there is a notation "Operations within protected areas". Looking only at New South Wales:

Q1h. Will Santos supply the information as to where the 'protected 6 ha' is that Santos is currently operation in?

Q1i. Will Santos explain what is meant by the use of "Protected areas within tenements"?

Q1j. If these protected areas are within State owned and controlled land with public access and will the Public still have full use of the areas with the exception of the gas well and infrastructure sites?

2. Question based on the following extract is from the Santos PWMP of 2018 as found on pages 17 & 18

"Santos is exploring opportunities to beneficially reuse brine from its water treatment operations. Over the next approximately 12 months, Santos is planning to transfer a quantity of brine stored at Leewood to a third party mine for use in site trials as an alkalising agent. The third party mine operator is required to obtain all necessary approvals to use the brine. Transfer of the brine would be in accordance the Protection of the Environment Operations (Waste) Regulation 2014 requirements including waste tracking."

Q2. As the above supply of brine from Santos' Leewood operation is mentioned in a publically available document listed on the Santos web site, Santos is asked to explain how exactly the brine will be used , on what waste or other material will the brine be used and what safeguards are in place by Santos, to protect the environment bearing in mind that Santos could be held partially responsible should any environmental or other damage occur, ie, Human or animal health, loss of income to irrigators, etc. should a leakage from the 'trial' or from any future supply of brine, enter the Namoi River or any aquifer which is used for town or stock and domestic water supplies.

3. Questions based on the gas quality and Reserves of the gas wells, pilots & coal seams that are supplying gas to Wilga Park and the Flares.

Q3. In light of recent press by Santos that appraisal of the coal seam gas seams in PAL 2 and in PEL 238 is still ongoing, will Santos provide the NGPCCC with most recent gas compositional and reserves breakdown for the gas extracted from the Hoskissons, Black Jack & Maules Creek formations that the company intends to target for their proposed Narrabri Gas Project?

Can this breakdown be done Pilot by Pilot. Eg-Bibblewindi West, Dewhurst South, Tintfield and Bibblewindi East (sometimes referred to as Bibblewindi Laterals Pilot).

4.Question based on information to hand that there was a recent incident (20190701) involving a broken gas line that closed the Strzelecki Track (see attached article).

Q4a. Will Santos explain the type of pipeline construction material, the circumstances of the cause of the rupture, the resultant damage both to the pipeline and to any public infrastructure and the action taken by Santos in relation to the incident?

Q4b. And if the gas line had gas flowing through it, what was the pressure and how long did it take to shut the gas flow down and empty the pipeline of all residual gas?

Q4c. In regard to the proposed Narrabri Gas Field. What safety measures do Santos in place with regard to interrupted gas flow and sudden loss of pipeline pressure?

(Reason for questions are because one of the doubts that the community have is Santos ability to avoid such an event in the Narrabri Gas Project Area and with any gas well or pilot that may in the future have gas transmission lines that leave the confines of the well pad).

Q4d. What safety measures does Santos currently have to prevent such an event from happening with the gas flow lines associated with the current operations in PEL238, Pa12 and PPL3, including does Santos currently have an automatic as well as a manual shut-down on the flow lines should there be a sudden loss of gas flow line pressure due to a rupture or leak?

Q4e. Are the local Emergency Services and Santos field Staff adequately trained, staffed and equipped with respect to all types of gas related incidents? Fire, leaks large volume spillages, etc..

Q4d. Does Santos have an inert gas system located in Narrabri, for the Narrabri Operation which can be attached at points along their existing gas transmission pipe lines in order to reduce or prevent gas explosions or fires and “make safe” for repairs, should a gas transmission pipe line leak or rupture?



Santos pipeline leak shuts down road

ON Monday, scheduled maintenance works at Santos' Cooper Basin gas fields went awry after a gas pipeline ruptured causing a long stretch of the Strzelecki Track between the town of Innamincka and Merty Merty to be closed.



Operations >
Maintenance-
shutdowns

Santos said once the pipeline is depressured, the release would be investigated and any required repair work would be undertaken.

Comments

5. General questions.

Q5. Has Santos ever had cause to place tracking devices on any vehicle visiting the proposed NGP area, other than Santos own vehicles?

6. Special Question on how will the supply of gas from the NGP lower all energy consumption costs including households.

Even though the following question is the last the people I represent are confused as to how the gas from the Narrabri Gas Project will reduce their energy bills given that Santos has stated that is a wholesaler of gas and not a retailer and that there still has to be a pipeline constructed to transport the gas to NSW Market, added to this there is the absence of any current Application for a large power station infrastructure build for the Narrabri Area using gas as the primary fuel which has been quoted to assist in driving down electricity cost.

The 2019070 interview on Sky News of the APPEA staff, along with recent remarks by some Politicians and the Newspaper Reports have all fuelled this confusion, while all through this Santos has remained very quiet on detail on this very subject.

It has been recently quoted that Narrabri Gas is currently cheaper to produce than Queensland Gas.

But what about the costs to get this gas to the end consumer and households, how do these costs affect the final price. Well head price is one thing; the actual cost to the eventual consumer including households using all forms of energy derived from gas usage is another.

Q6. Given the current economic climate that exists in NSW, will Santos explain exactly how the gas from the Narrabri Gas Project will put downward pressure on gas prices in NSW and as a result will reduce the cost of household energy bills, that is, gas and electricity, should the Narrabri Gas Project be approved?

Mr A J Pickard.

Delegate to the NGPCCC for People for the Plains and the wider community.

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