

# STACK MONITORING DATA

EPL 546



EPA Point 4 - Plant 1 – Horsley Park

Date			25/11/2019	23/01/2020	21/04/2020	11/8/2020	6/10/2020	22/10/2020
Analytes	Units	Limits						
Total Solid Particles (TSP)	mg/m <sup>3</sup>	100	7	41	17	22	13	14
Coarse Particulates	mg/m <sup>3</sup>	N.A	0.59	25	0.41	1.8	0.76	3.4
Fine Particulates (PM10)	mg/m <sup>3</sup>	N.A	6.4	17	16	20	12	11
Sulphur Oxides (SOX) SO <sub>2</sub> +SO <sub>3</sub>	mg/m <sup>3</sup>	N.A	112.6	262.2	241.9	214.6	191.4	173.4
Nitrogen Oxides (NOX)	mg/m <sup>3</sup>	2000	73	68	79	50	56	48
Hydrogen Fluoride (HF)	mg/m <sup>3</sup>	50	85	81	120	87	64	98
Cadmium	mg/m <sup>3</sup>	N.A	0.0003	0.0003	<0.0002	0.0003	0.0005	0.0003
Dry Gas Density	kg/m <sup>3</sup>	N.A	1.31	1.31	1.31	1.31	1.31	1.31
Fluorine	mg/m <sup>3</sup>	N.A	75	77	110	83	61	93
Hydrogen Chloride	mg/m <sup>3</sup>	N.A	67	99	93	51	27	55
Hydrogen Sulfide	µg/m <sup>3</sup>	N.A	0.01	0.01	0.01	1.4	9.1	0.13
Mercury	mg/m <sup>3</sup>	N.A	0.0077	0.0071	0.017	0.00048	0.01	0.0019
Moisture	%	N.A	5.8	7.2	7.93	7.167	7.3	7.57
Molecular weight of stack gases	g/g-mole	N.A	29.3	29.3	29.30	29.40	29.3	29.37
Oxygen	%	N.A	16.9	15.5	15.6	15.6	16.1	16.4
Sulfuric acid mist (SO <sub>3</sub> )	mg/m <sup>3</sup>	N.A	2.6	2.2	1.9	4.6	1.4	3.4
Sulphur dioxide (SO <sub>2</sub> )	mg/m <sup>3</sup>	N.A	110	260	240	210	190	170
temperature	degress Celcius	N.A	216	217.00	219.33	202.67	214	211.33
Type 1 Substances	mg/m <sup>3</sup>	N.A	0.017	0.015	0.024	0.0071	0.02	0.0084
Type 2 Substances	mg/m <sup>3</sup>	N.A	0.037	0.063	0.028	0.012	0.038	0.046
Velocity	m/sec	N.A	13	9.00	11	11.00	12	13.33
Volatile Organic Compounds as n-propane equivalent	mg/m <sup>3</sup>	N.A	5.9	3.3	4	2.7	9.1	2.2
Volumetric Flow rates	m <sup>3</sup> /sec	N.A	14	9.17	11.33	12.00	12.67	14

## STACK MONITORING DATA

EPL 546

EPA Point 5 - Plant 2 – Horsley Park

**Site not in operation**



## STACK MONITORING DATA

EPL 546

EPA Point 6 - Plant 3 – Horsley Park (Swindell)



Date			17.12.20	22.1.2020
Analytes	Units	Limits		
Total Solid Particles (TSP)	mg/m <sup>3</sup>	100	33	20
Coarse Particulates	mg/m <sup>3</sup>	N.A	1.8	1.5
Fine Particulates (PM10)	mg/m <sup>3</sup>	N.A	32	18
Sulphur Oxides (SOX) SO <sub>2</sub> +SO <sub>3</sub>	mg/m <sup>3</sup>	N.A	251	98.6
Nitrogen Oxides (NOX)	mg/m <sup>3</sup>	2000	66	41
Hydrogen Fluoride (HF)	mg/m <sup>3</sup>	50	37	37

Kiln is currently not operational

# STACK MONITORING DATA

EPL 546

EPA Point 7 - Plant 3 Horsley Park (Ceric)



Date			17.12.19- 18.12.19	17/2/20- 18/2/20	22/04/2020	15/06/2020	29/09/2020	20/10/2020
Analytes	Units	Limits						
Total Solid Particles (TSP)	mg/m <sup>3</sup>	100	27	39	31	52	50	31
Coarse Particulates	mg/m <sup>3</sup>	N.A	5.5	28	17	25	25	16
Fine Particulates (PM10)	mg/m <sup>3</sup>	N.A	21	12	13	27	25	15
Sulphur Oxides (SOX) SO2+SO3	mg/m <sup>3</sup>	N.A	171.8	110.2	55.3	132.6	60.75	87.53
Nitrogen Oxides (NOX)	mg/m <sup>3</sup>	2000	110	73	63	98	79	89
Hydrogen Fluoride (HF)	mg/m <sup>3</sup>	50	22	4.2	2	2.8	3.9	5.2
Cadmium	mg/m <sup>3</sup>	N.A	0.0003	0.0004	0.0005	0.0003	0.0005	0.0004
Dioxins and Furans	ng/m <sup>3</sup>	N.A	1.1	1.2	0.9	Not required	Not required	Not required
Dry Gas Density	kg/m <sup>3</sup>	N.A	1.31	1.3	1.30	1.31	1.30	1.30
Fluorine	mg/m <sup>3</sup>	N.A	21	3.9	1.9	1.4	3.7	4.9
Hydrogen Chloride	mg/m <sup>3</sup>	N.A	19	51	24	100	39	49
Hydrogen Sulfide	µg/m <sup>3</sup>	N.A	0.02	0.01	0.0049	0.086	0.009	0.03
Mercury	mg/m <sup>3</sup>	N.A	0.0057	0.0041	0.0056	0.0032	0.015	0.0065
Moisture	%	N.A	6.125	7.53	6.4	6.6	6.43	5.30
Molecular weight of stack gases	g/g-mole	N.A	29.30	29.2	29.2	29.40	29.2	29.2
Oxygen	%	N.A	15.3	17	17.2	16.3	17.4	17.4
Sulfuric acid mist (SO3)	mg/m <sup>3</sup>	N.A	1.8	0.2	1.3	2.6	0.74	0.53
Sulphur dioxide (SO2)	mg/m <sup>3</sup>	N.A	170	110	54	130	60	87
temperature	°Celcius	N.A	171.25	192.25	147.5	149.00	161.75	161
Type 1 Substances	mg/m <sup>3</sup>	N.A	0.013	0.011	0.016	0.0098	0.021	0.018
Type 2 Substances	mg/m <sup>3</sup>	N.A	0.047	0.038	0.073	0.031	0.047	0.18
Velocity	m/sec	N.A	19	13	13.25	14.67	15	14.67
Volatile Organic Compounds as n-propane equivalent	mg/m <sup>3</sup>	N.A	2.5	0.45	0.61	1.4	1	0.51

STACK MONITORING DATA

EPL 546



Volumetric Flow rates	m <sup>3</sup> /sec	N.A	17.75	17.75	20.25	22.67	23	22.33
-----------------------	---------------------	-----	-------	-------	-------	-------	----	-------