

Appendix E-3 Sediment Quality Summary Statistics

APPENDIX E-3

**Santos Fairview Water Release Scheme
Preliminary Documentation**

Summary Sediment Quality Statistics - 2009 - 2021 - Waterhole and Dawson River

	LoR	Units	REMP LT WH / DR	ANZG (2018) DGV	WLMP1-2015-2022								WLMP4-2015-2022									
					Number of data	No. >LoR	% detection	Minimum	20th Percentile	Median	80th Percentile	95th Percentile	Maximum	Number of data	No. >LoR	% detection	Minimum	20th Percentile	Median	80th Percentile	95th Percentile	Maximum
Physicochemical Parameters																						
Electrical Conductivity @ 25C	1	µS/cm	No LT	No DGV	13	13	100	37	70	121	387	2,018	3,530	13	13	100	27	30	47	45	57	69
Electrical Conductivity (Saturated Paste)	0.01	µS/cm	No LT	No DGV	3	3	100	180	184	190	196	199	200	3	3	100	80	92	110	110	128	140
Metals and Metalloids																						
Aluminium	50	mg/kg	13,933 / 5,191	No DGV	13	13	100	5,030	5,964	8,180	14,140	15,120	15,300	13	13	100	5,230	6,104	6,700	8,149	11,560	12,600
Arsenic	5	mg/kg	20 / 20	20	13	4	31	5	5	5	6	8	9	13	2	15	5	NC	NC	NC	NC	7
Boron (Total via USEPA_6010)	50	mg/kg	18.8 / 17.9	No DGV	13	0	0	NC	NC	NC	NC	NC	<50	13	0	0	NC	NC	NC	NC	NC	0
Boron (N via Rayment et al., 2011)	0.2	mg/kg	18.8 / 17.9	No DGV	8	8	100	1	1	3	4	4	4	8	8	100	0	1	2	2	3	3.3
Cadmium	1	mg/kg	1.5 / 1.5	1.5	13	0	0	NC	NC	NC	NC	NC	<1	13	0	0	NC	NC	NC	NC	NC	0
Chromium	2	mg/kg	80 / 80	80	13	13	100	4	5	6	11	11	12	13	13	100	5	6	6	7	9	11
Copper	5	mg/kg	65 / 65	65	13	13	100	9	10	13	16	16	17	13	13	100	9	10	11	11	13	15
Iron	50	mg/kg	17,867 / 9,353	No DGV	13	13	100	8,320	11,140	14,100	18,820	20,620	21,100	13	13	100	8,210	9,610	13,000	13,119	16,440	17,900
Lead	5	mg/kg	50 / 50	50	13	13	100	8	11	13	17	18	20	13	13	100	10	12	13	14	16	17
Manganese	5	mg/kg	648 / 230.5	No DGV	13	13	100	270	420	475	585	767	919	13	13	100	234	296	442	509	671	1,050
Mercury (via APHA_3112_CV_FIMS)	0.1	mg/kg	0.15 / 0.15	0.15	13	0	0	0	NC	NC	NC	NC	<0.1	13	0	0	NC	NC	NC	NC	NC	0
Nickel	2	mg/kg	21 / 21	21	13	13	100	6	7	9	12	13	14	13	13	100	7	7	9	9	11	12
Selenium	5	mg/kg	1 / 1.73	No DGV	13	0	0	NC	NC	NC	NC	NC	<5	13	0	0	NC	NC	NC	NC	NC	0
Zinc	5	mg/kg	200 / 200	200	13	13	100	29	38	50	66	68	69	13	13	100	31	34	38	42	54	61
Nutrients																						
Ammonia as N	20	mg/kg	No LT	No DGV	12	8	67	20	20	30	50	55	60	3	3	100	29	35	44	43	51	55
Nitrate as N (Sol.)	0.1	mg/kg	No LT	No DGV	13	4	31	NC	NC	NC	NC	NC	1	13	1	8	NC	NC	NC	NC	NC	0.2
Total Kjeldahl Nitrogen as N	20	mg/kg	No LT	No DGV	13	13	100	620	2,038	2,880	4,532	4,736	4,760	13	13	100	450	1,262	1,440	1,679	1,944	4,570
Notes																						
REMP Local Trigger WH = Waterhole / DR = Dawson River																						
Results in Bold exceed the REMPT LT or ANZG (2018) DGV																						

APPENDIX E-3

**Santos Fairview Water Release Scheme
Preliminary Documentation**

Summary Sediment Quality Statistics - 2009 - 2021 - Waterhole and Dawson River

WLMP5-2015-2022									DRR1-2015-2022								
Number of data	No. >LoR	% detection	Minimum	20th Percentile	Median	80th Percentile	95th Percentile	Maximum	Number of data	No. >LoR	% detection	Minimum	20th Percentile	Median	80th Percentile	95th Percentile	Maximum
13	13	100	14	21	28	42	88	152	13	13	100	19	25.8	30	60.4	109.8	174
3	3	100	100	104	110	140	155	160	2	2	100	100	102	105	108	109.5	110
13	13	100	6,200	8,104	11,700	13,540	16,280	17,600	13	13	100	550	1,174	4,150	7,742	10,600	11,500
13	0	0	NC	NC	NC	NC	NC	<5	13	2	15	5	5	5	5	5	5
13	0	0	NC	NC	NC	NC	NC	<50	13	0	0	NC	NC	NC	NC	NC	NC
8	8	100	1	2	3	7	9	9	8	8	100	0.2	0.2	0.2	0.3	0.4	0.5
13	0	0	NC	NC	NC	NC	NC	<1	13	0	0	NC	NC	NC	NC	NC	NC
13	13	100	6	8	10	12	13	13	13	10	77	2	3	5	6	9	9
13	13	100	12	13	15	16	18	19	13	8	62	6	6	9	11	12	12
13	13	100	9,900	12,580	14,500	16,720	18,960	21,000	13	13	100	1,680	3,144	10,300	13,620	16,600	18,400
13	13	100	11	14	16	17	17	18	13	8	62	5	5	8	13	14	15
13	13	100	199	302	373	488	549	553	13	13	100	49	88	277	380	544	721
13	0	0	NC	NC	NC	NC	NC	<0.1	13	0	0	NC	NC	NC	NC	NC	NC
13	13	100	7	8	10	12	13	13	13	10	77	2	2	6	9	10	11
13	0	0	NC	NC	NC	NC	NC	<5	13	0	0	NC	NC	NC	NC	NC	NC
13	13	100	33	40	56	60	68	76	13	10	77	5	8	23	35	44	48
13	10	77	20	24	50	102	144	180	13	4	31	20	20	20	36	58	70
13	9	69	0.1	0.1	0.1	0.3	0.4	0.6	13	1	8	0	0	0	0	1	1.2
13	13	100	710	2,912	3,790	4,892	5,810	6,470	13	13	100	80	150	530	1,128	1,380	1,620

APPENDIX E-3

**Santos Fairview Water Release Scheme
Preliminary Documentation**

Summary Sediment Quality Statistics - 2009 - 2021 - Waterhole and Dawson River

DRMP1 2015-2022									S4 2015-2022								
Number of data	No. >LoR	% detection	Minimum	20th Percentile	Median	80th Percentile	95th Percentile	Maximum	Number of data	No. >LoR	% detection	Minimum	20th Percentile	Median	80th Percentile	95th Percentile	Maximum
13	13	100	12	15	19	36	70	111	12	12	100	10	12.4	17	24.8	30.15	34
2	2	100	86	107	138	169	185	190	2	2	100	29	40	56.5	73	81.25	84
15	15	100	370	610	1,450	3,016	4,122	4,220	12	12	100	360	706	980	2,926	4,800	5,300
13	0	0	NC	NC	NC	NC	NC	<5	12	0	0	NC	NC	NC	NC	NC	<5
13	0	0	NC	NC	NC	NC	NC	<50	12	0	0	NC	NC	NC	NC	NC	<50
8	1	13	NC	NC	NC	NC	NC	0.2	8	2	25	0	0.2	0.2	0.3	1.8	2.6
13	0	0	NC	NC	NC	NC	NC	<1	12	0	0	NC	NC	NC	NC	NC	<1
13	4	31	3	3	4	4	4	4	12	4	33	2	2	2	3	4	4
13	1	8	NC	NC	NC	NC	NC	7	12	1	8	5	5	5	5	6	7
13	13	100	1,030	2,176	3,700	5,428	7,382	8,300	12	12	100	950	1,646	2,450	6,352	9,547	10,900
13	2	15	NC	NC	NC	NC	NC	8	12	3	25	5	5	5	6	8	10
13	13	100	22	66	98	216	328	430	12	12	100	18	42	51	102	308	459
13	0	0	NC	NC	NC	NC	NC	<0.1	12	0	0	NC	NC	NC	NC	NC	<0.1
13	13	100	2	2	2	4	4	5	12	4	33	2	2	2	3	4	5
13	0	0	NC	NC	NC	NC	NC	<5	12	0	0	NC	NC	NC	NC	NC	<5
13	9	69	5	5	8	15	22	23	12	6	50	5	5	6	15	23	26
13	0	0	NC	NC	NC	NC	NC	<20	12	0	0	NC	NC	NC	NC	NC	<20
13	1	8	NC	NC	NC	NC	NC	0.1	12	0	0	NC	NC	NC	NC	NC	<0.1
13	12	92	20	60	150	274	392	470	12	12	100	50	60	115	356	1,600	2,980