

Environmental

## Water monitoring results

**Red** highlighted results = 2 or more trigger points exceeded at 1 sample point – retest as per license.  
**Red** highlighted results = 1 trigger points exceeded at 1 sample point – no retest as per license.  
**Green** highlighted results = trigger points exceeded at different sample points – may/may not require retesting.

TSS trigger point exceedances at sample point No 2 and 3 only must be looked into, possible retest.

### Monitoring point No 1 Entering the site

Date	Arsenic <0.012 mg/l	Boron <0.180 mg/l	Chrome <0.002 mg/l	Copper <0.002 mg/l	pH 6.5 to 8.5	TSS <50 mg/l
18.05.2015	<0.018	<0.050	<0.003	<0.004	6.9	4
01.06.2015				<0.004		
07.07.2015	<0.018	<0.027	<0.003	<0.004	6.7	3
license variation						
06.08.2015	Arsenic <0.024 mg/l	Boron <0.370 mg/l	Chrome <0.001 mg/l	Copper <0.0014 mg/l	pH 6.5 to 8.5	TSS <50 mg/l
09.11.2015	0.002	<0.05	<0.001	<0.001	7.07	<5
<b>2016</b>						
26.05.2016	No flow	No flow	No flow	No flow	No flow	No flow
30.11.2016	No flow	No flow	No flow	No flow	No flow	No flow
<b>2017</b>						
04.05.2017	<0.001	<0.05	<0.001	<0.001	7.03	<5
08.11.2017	<0.001	<0.05	<0.001	<0.001	7.25	<5
<b>2018</b>						
31.05.2018	No flow	No flow	No flow	No flow	No flow	No flow
01.11.2018	<0.001	<0.05	<0.001	<0.001	7.06	<5
<b>2019</b>						
30.05.2019	No flow	No flow	No flow	No flow	No flow	No flow
25.11.2019	No flow	No flow	No flow	No flow	No flow	No flow
<b>2020</b>						
27.04.2020	<0.001	<0.05	<0.001	<0.001	2.53	9
12.11.2020	No flow	No flow	No flow	No flow	No flow	No flow
<b>2021</b>						
05.05.2021	<0.001	0.07	<0.001	0.001	7.17	6
16.11.2021	<0.001	<0.05	<0.001	<0.001	7.09	8
<b>2022</b>						
25.05.2022	<0.001	<0.005	<0.001	<0.001	6.83	<5
08.11.2022	<0.001	<0.05	<0.001	<0.001	7.93	<5
<b>2023</b>						
05.05.2023	<0.001	<0.05	<0.001	<0.001	7.31	<5

**Monitoring point No 2**  
**Exit second dam.**

Date	Arsenic <0.012 mg/l	Boron <0.180 mg/l	Chrome <0.002 mg/l	Copper <0.002 mg/l	pH 6.5 to 8.5	TSS <50 mg/l
18.05.2015	<0.018	<0.050	<0.003	<0.004	6.9	6
07.07.2015 CHH Re test	<0.018	0.050	<0.003	<0.004	6.8	3
<b>License variation</b>						
06.08.2015	Arsenic <0.024 mg/l	Boron <0.370 mg/l	Chrome <0.001 mg/l	Copper <0.0014 mg/l	pH 6.5 to 8.5	TSS <50 mg/l
09.11.2015	0.018	<u>0.70</u>	<u>0.015</u>	<u>0.023</u>	7.00	<u>60</u>
03.12.2015		<u>0.44</u>	<u>0.006</u>	<u>0.017</u>	7.11	<u>110</u>
17.12.2015	No flow	No flow	No flow	No flow	No flow	No flow
12.01.2016	No flow	No flow	No flow	No flow	No flow	No flow
27.01.2016	No flow	No flow	No flow	No flow	No flow	No flow
<b>2016</b>						
26.05.2016	No flow	No flow	No flow	No flow	No flow	No flow
10.06.2016		<u>0.57</u>	<u>0.010</u>	<u>0.012</u>		39
30.11.2016	No flow	No flow	No flow	No flow	No flow	No flow
<b>2017</b>						
04.05.2017	0.003	<0.05	0.002	0.002	7.24	<5
08.11.2017	0.010	0.22	<u>0.004</u>	<u>0.007</u>	7.18	39
06.12.2017			<u>0.009</u>	<u>0.021</u>		
22.12.2017			No flow	No flow		
09.01.2018			<u>0.003</u>	<u>0.004</u>		
<b>2018</b>						
31.05.2018	No flow	No flow	No flow	No flow	No flow	No flow
01.11.2018	<u>0.030</u>	0.20	<u>0.004</u>	<u>0.006</u>	7.10	34
12.11.2018	0.007		<u>0.003</u>	<u>0.010</u>		
29.11.2018			<u>0.009</u>	<u>0.014</u>		
<b>2019</b>						
30.05.2019	No flow	No flow	No flow	No flow	No flow	No flow
25.11.2019	No flow	No flow	No flow	No flow	No flow	No flow
<b>2020</b>						
27.04.2020	0.003	0.06	<0.001	<0.001	6.78	8
12.11.2020	No flow	No flow	No flow	No flow	No flow	No flow
<b>2021</b>						
05.05.2021	0.006	0.08	<u>0.005</u>	<u>0.008</u>	7.28	44
24.05.2021			<0.001	<u>0.003</u>		
16.11.2021	0.011	0.11	<u>0.011</u>	<u>0.012</u>	6.81	35
02.12.2021	0.003	<0.05	0.002	<u>0.003</u>		
<b>2022</b>	<0.001	<0.05	<0.001	<0.001	6.90	<5
25.05.2022	>0.001	<0.005	<0.001	<u>&lt;0.001</u>	6.83	5
08.11.2022	<0.001	<0.05	<0.001	<0.001	7.73	5

License variation						
06.08.2015	Arsenic <0.024 mg/l	Boron <0.370 mg/l	Chrome <0.001 mg/l	Copper <0.0014 mg/l	pH 6.5 to 8.5	TSS <50 mg/l
<b>2023</b>						
05.05.2023	0.009	0.14	<u>0.007</u>	<u>0.009</u>	7.11	31
29.05.2023			<u>0.003</u>	<u>0.004</u>		
14.06.2023						

**Monitoring point No 3**  
**Railway culvert**

Date	Arsenic <0.012 mg/l	Boron <0.180 mg/l	Chrome <0.002 mg/l	Copper <0.002 mg/l	pH 6.5 to 8.5	TSS <50 mg/l
18.05.2015	<0.018	<0.050	<0.003	0.007	7.1	6
01.06.2015				0.005		
07.07.2015	<0.018	0.054	<0.003	<0.004	6.9	3
<b>License variation</b>						
06.08.2015	Arsenic <0.024 mg/l	Boron <0.370 mg/l	Chrome <0.001 mg/l	Copper <0.0014 mg/l	pH 6.5 to 8.5	TSS <50 mg/l
09.11.2015	0.012	0.69	0.010	0.018	7.19	44
03.12.2015		0.47	0.004	0.017		
17.12.2015	No flow	No flow	No flow	No flow	No flow	No flow
12.01.2016	No flow	No flow	No flow	No flow	No flow	No flow
27.01.2016	No flow	No flow	No flow	No flow	No flow	No flow
<b>2016</b>						
26.05.2016	No flow	No flow	No flow	No flow	No flow	No flow
10.06.2016		0.52	0.008	0.011		
31.11.2016	No flow	No flow	No flow	No flow	No flow	No flow
<b>2017</b>						
04.05.2017	0.002	<0.05	<0.001	<0.001	7.42	<5
08.11.2017	0.006	0.19	0.002	0.004	7.44	10
06.12.2017			0.020	0.031		
22.12.2017			No flow	No flow		
09.01.2018			0.003	<0.001		
<b>2018</b>						
31.05.2018	No flow	No flow	No flow	No flow	No flow	No flow
01.11.2018	0.008	0.18	0.003	0.005	2.17	45
12.11.2018			0.001	0.002		
29.11.2018			0.001	0.004		
<b>2019</b>						
30.05.2019	No flow	No flow	No flow	No flow	No flow	No flow
25.11.2019	No flow	No flow	No flow	No flow	No flow	No flow
<b>2020</b>						
27.04.2020	0.002	0.07	<0.001	<0.001	7.2	6
12.11.2020	No flow	No flow	No flow	No flow	No flow	No flow
<b>2021</b>						
05.05.2021	0.005	0.07	0.005	0.007	7.29	49
24.05.2021			<0.001	<0.001		
16.11.2021	0.011	0.11	0.009	0.010	7.0	21
02.12.2021	0.002	<0.05	<0.001	0.002		
<b>2022</b>						
25.05.2022	<0.001	<0.05	<0.001	<0.001	6.95	<5
08.11.2022	0.002	<0.05	<0.001	<0.001	7.64	<5
28.11.2022						17

License variation						
06.08.2015	Arsenic <0.024 mg/l	Boron <0.370 mg/l	Chrome <0.001 mg/l	Copper <0.0014 mg/l	pH 6.5 to 8.5	TSS <50 mg/l
2023						
05.05.2023	0.002	0.09	<u>0.002</u>	<u>0.002</u>	7.04	21
29.05.2023			0.001	<0.001		

**Monitoring point No 4**  
**Tallawudjah Creek Road**

Date	Arsenic <0.012 mg/l	Boron <0.180 mg/l	Chrome <0.002 mg/l	Copper <0.002 mg/l	pH 6.5 to 8.5	TSS <50 mg/l
18.05.2015	<0.018	<0.050	<0.003	<0.004	6.9	7
07.07.2015	<0.018	0.036	<0.003	<0.004	6.9	4
<b>license variation</b>						
06.08.2015	Arsenic <0.024 mg/l	Boron <0.370 mg/l	Chrome <0.001 mg/l	Copper <0.0014 mg/l	pH 6.5 to 8.5	TSS <50 mg/l
09.11.2015	0.011	0.30	0.006	0.006	7.03	49
03.12.2015		0.32	0.005	0.012		
17.12.2015	No flow	No flow	No flow	No flow	No flow	No flow
12.01.2016	No flow	No flow	No flow	No flow	No flow	No flow
27.01.2016	No flow	No flow	No flow	No flow	No flow	No flow
<b>2016</b>						
26.05.2016	No flow	No flow	No flow	No flow	No flow	No flow
10.06.2016			0.004	0.007		
30.11.2016	No flow	No flow	No flow	No flow	No flow	No flow
<b>2017</b>						
04.05.2017	0.004	<0.05	<0.001	0.001	7.25	<5
08.11.2017	0.009	0.10	0.002	0.002	7.30	61
06.12.2017			0.001	0.003	7.18	8
22.12.2017			No flow	No flow		
09.01.2018			0.002	0.001		
<b>2018</b>						
31.05.2018	No flow	No flow	No flow	No flow	No flow	No flow
01.11.2018	0.005	0.18	<0.001	<0.001	6.98	5
<b>2019</b>						
30.05.2019	No flow	No flow	No flow	No flow	No flow	No flow
25.11.2019	No flow	No flow	No flow	No flow	No flow	No flow
<b>2020</b>						
27.04.2020	0.004	<0.05	0.001	<0.001	7.23	6
12.11.2020	No flow	No flow	No flow	No flow	No flow	No flow
<b>2021</b>						
05.05.2021	0.006	<0.05	0.006	0.006	7.27	43
24.05.2021			<0.001	<0.001		
16.11.2021	0.004	0.10	<0.001	0.001	7.13	<5
<b>2022</b>						
25.05.2022	0.006	<0.05	0.002	0.007	7.03	7
15.06.2022			<0.001	0.004		
08.11.2022	0.005	<0.05	0.002	0.002	7.51	86
28.11.2022						15

license variation						
06.08.2015	Arsenic <0.024 mg/l	Boron <0.370 mg/l	Chrome <0.001 mg/l	Copper <0.0014 mg/l	pH 6.5 to 8.5	TSS <50 mg/l
05.05.2023	0.010	0.07	<u>0.004</u>	<u>0.003</u>	7.04	9
29.05.2023			<u>0.007</u>	<u>0.006</u>		
14.06.2023						

**Monitoring point No 5**  
**Ground water**

Date	Arsenic <0.012 mg/l	Boron <0.180 mg/l	Chrome <0.002 mg/l	Copper <0.002 mg/l	Water table height
18.05.2015	<0.018	<0.050	<0.003	0.006	2.0 m
01.06.2015				0.004	2.0 m
07.07.2015	<0.018	0.054	<0.003	<0.004	2.0 m
<b>License variation</b>					
06.08.2015	Arsenic <0.024 mg/l	Boron <0.370 mg/l	Chrome <0.001 mg/l	Copper <0.0014 mg/l	Water table height
09.11.2015	0.003	<0.05	<0.001	0.001	2.5 mtrs
<b>2016</b>					
26.05.2016	0.008	<0.05	0.004	0.008	4.0 mtrs
07.06.2016	0.002	<0.05	0.002	0.005	2.0 mtrs
04.07.2016	<0.001	<0.05	<0.001	0.002	2.0 mtrs
30.11.2016	0.015	<0.05	0.044	0.056	3.0 mtrs
12.12.2016	0.002	<0.05	0.005	0.008	3.0 mtrs
18.01.2017	<0.001	<0.05	0.002	0.003	4.0 mtrs
08.02.2017	<0.001	<0.05	0.002	0.008	4.0 mtrs
<b>2017</b>					
04.05.2017	<0.001	<0.05	<0.001	0.001	3.0 mtrs
08.11.2017	0.002	<0.05	0.003	0.007	2.5 mtrs
06.12.2017			<0.001	0.003	2.5 mtrs
<b>2018</b>					
31.05.2018	<0.001	<0.05	<0.001	<0.001	3.0 mtrs
01.11.2018	0.001	<0.05	0.006	0.009	3.0 mtrs
12.11.2018			0.002	0.003	3.0 mtrs
29.11.2018			<0.001	0.008	3.0 mtrs
<b>2019</b>					
30.05.2019	0.002	<0.05	0.004	0.004	2.5 mtrs
25.11.2019	0.002	<0.05	0.014	0.010	3.0 mtrs
03.12.2019			0.048	0.036	3.5 mtrs
12.12.2019			0.003	0.007	3.5 mtrs
<b>2020</b>					
27.04.2020	0.007	<0.05	0.004	0.004	3.5 mtrs
13.05.2020			<0.001	0.001	3.5 mtrs
12.11.2020	<0.001	<0.05	<0.001	<0.001	3.0 mtrs
<b>2021</b>					
05.05.2021	0.004	<0.05	0.001	0.002	2.0 mtrs
16.11.2021	0.10	<0.05	0.002	0.002	2.0 mtrs
02.12.2021	<0.001	<0.05	<0.001	0.001	2.0 mtrs
<b>2022</b>					
25.05.2022	0.007	<0.05	0.003	0.001	1.5 mtrs
08.11.2022	0.015	<0.05	0.004	0.012	2.0 mtrs
28.11.2022			<0.001	0.008	2.0 mtrs



License variation					
06.08.2015	Arsenic <0.024 mg/l	Boron <0.370 mg/l	Chrome <0.001 mg/l	Copper <0.0014 mg/l	Water table height
<b>2023</b>					
05.05.2023	0.005	<0.05	0.002	0.008	3.0 mtrs
29.05.2023			0.011	0.038	3.0 mtrs
14.06.2023					

**Monitoring point No 6**  
**Downstream railway line**

License variation						
06.08.2015	Arsenic <0.024 mg/l	Boron <0.370 mg/l	Chrome <0.001 mg/l	Copper <0.0014 mg/l	pH 6.5 to 8.5	TSS <50 mg/l
<b>2017</b>						
04.05.2017	0.003	<0.05	<0.001	<0.001	6.77	<5
08.11.2017	0.020	0.12	<u>0.019</u>	<u>0.031</u>	6.83	<u>62</u>
06.12.2017			<u>0.013</u>	<u>0.027</u>	6.83	<u>77</u>
22.12.2017			No flow	No flow		No flow
09.01.2018			<0.001	0.002	6.9	7
<b>2018</b>						
31.05.2018	No flow	No flow	No flow	No flow	No flow	No flow
01.11.2018	0.006	<0.05	<0.001	<0.001	6.58	<5
<b>2019</b>						
30.05.2019	No flow	No flow	No flow	No flow	No flow	No flow
25.11.2019	No flow	No flow	No flow	No flow	No flow	No flow
<b>2020</b>						
27.04.2020	0.005	<0.05	<0.001	<0.001	7.09	8
12.11.2020	No flow	No flow	No flow	No flow	No flow	No flow
<b>2021</b>						
05.05.2021	0.006	<0.05	<u>0.008</u>	<u>0.005</u>	7.29	24
24.05.2021			<0.001	<0.001		
16.11.2021	0.006	<0.05	<0.001	<0.001	6.88	<5
<b>2022</b>						
25.05.2022	0.002	<0.05	<u>0.005</u>	<u>0.003</u>	6.80	46
08.11.2022	0.001	<0.05	<0.001	<0.001	7.0	7
28.11.2022						21
<b>2023</b>						
05.05.2023	<0.001	<0.05	<0.001	<0.001	6.95	6

Review Date	Reviewed By	Approved by	Comments or Changes
July 2015	CHH RMcC		Initial issue
Sept 2015	CHH		Added License variations
Jan 2017	CHH		Added Monitoring point No 6