

RICHMOND QUARRY
WATER RE-USE DAM (MP7) - pH RESULTS

Monitoring Point	Date	pH	Comments	EAL
ANZECC Trigger Value		6.5-8.5 ¹		
MP7	17/06/2014	5.24		
MP7	24/06/2014	5.32		
MP7	7/07/2014	5.51		
MP7	15/07/2014	5.72		
MP7	22/07/2014	5.27		
MP7	29/07/2014	5.49		
MP7	5/08/2014	5.70		
MP7	12/08/2014	5.27		
MP7	18/08/2014	5.36		
MP7	26/08/2014	5.41		
MP7	3/09/2014	5.51		
MP7	9/09/2014	5.85		
MP7	18/09/2014	5.72		
MP7	24/09/2014	5.63		
MP7	2/10/2014	5.81		
MP7	9/10/2014	5.70		
MP7	15/10/2014	5.76		
MP7	23/10/2014	5.54		
MP7	28/10/2014	5.68		
MP7	4/11/2014	5.71		
MP7	11/11/2014		Tester Unavailable	
MP7	19/11/2014	5.62		
MP7	24/11/2014	5.65		
MP7	2/12/2014	5.53		
MP7	9/12/2014	5.61		
MP7	17/12/2014	5.57		
MP7	26/12/2014	5.81		
MP7	2/01/2015	5.76		
MP7	7/01/2015	5.71		
MP7	13/01/2015	5.72		
MP7	22/01/2015	5.29		
MP7	28/01/2015	5.45		
MP7	4/02/2015	5.49		
MP7	11/02/2015	5.56		
MP7	18/02/2015	5.61		
MP7	25/02/2015	5.58		
MP7	4/03/2015	5.72		
MP7	6/03/2015	5.74		
MP7	12/03/2015	5.79		
MP7	18/03/2015	5.68		
MP7	25/03/2015	5.73		
MP7	1/04/2015	5.66		

Monitoring Point	Date	pH	Comments	EAL
ANZECC Trigger Value		6.5-8.5 ¹		
MP7	7/04/2015	5.71		
MP7	14/04/2015	5.67		
MP7	22/04/2015	5.57		
MP7	29/04/2015	5.86		
MP7	6/05/2015	5.65		
MP7	13/05/2015	5.72		
MP7	21/05/2015	5.77		
MP7	30/05/2015	5.65		
MP7	5/06/2015	5.61		
MP7	10/06/2015	5.68		
MP7	17/06/2015	5.71		
MP7	24/06/2015	5.67		
MP7	1/07/2015	5.69		
MP7	8/07/2015	5.73		
MP7	15/07/2015	5.67		
MP7	22/07/2015	5.72		
MP7	28/07/2015	5.71		
MP7	4/08/2015	5.61		
MP7	13/08/2015	5.47		
MP7	19/08/2015	5.51		
MP7	27/08/2015	5.53		
MP7	2/09/2015	5.47		
MP7	8/09/2015	5.51		
MP7	15/09/2015	5.56		
MP7	22/09/2015	5.67		
MP7	30/09/2015	5.72		
MP7	7/10/2015	5.61		
MP7	13/10/2015	5.67		
MP7	20/10/2015	5.58		
MP7	28/10/2015	5.53		
MP7	4/11/2015	5.51		
MP7	10/11/2015	5.61		
MP7	19/11/2015	5.71		
MP7	26/11/2015	5.65		
MP7	4/11/2015	5.62		
MP7	10/11/2015	5.61		
MP7	19/11/2015	5.71		
MP7	26/11/2015	5.65		
MP7	2/12/2015	5.62		
MP7	9/12/2015	5.70		
MP7	18/12/2015	4.42		
MP7	24/12/2015	5.04		
MP7	2/01/2016	5.17		
MP7	9/01/2016		Tester Unavailable	
MP7	13/01/2016	5.21		

Monitoring Point	Date	pH	Comments	EAL
ANZECC Trigger Value		6.5-8.5 ¹		
MP7	21/01/2016	5.01		
MP7	27/01/2016	4.98		
MP7	3/02/2016	4.91		
MP7	10/02/2016	4.96		
MP7	17/02/2016	4.87		
MP7	24/02/2016	4.90		
MP7	4/03/2016	4.88		
MP7	10/03/2016	4.86		
MP7	16/03/2016	4.85		
MP7	23/03/2016	4.89		
MP7	30/03/2016	5.01		
MP7	6/04/2016	5.03		
MP7	13/04/2016	4.91		
MP7	20/04/2016	4.95		
MP7	27/04/2016	5.07		
MP7	4/05/2016	5.22		
MP7	11/05/2016	5.33		
MP7	18/05/2016		Tester Unavailable	
MP7	26/05/2016	5.62		
MP7	1/06/2016	5.01		
MP7	10/06/2016	4.48		
MP7	15/06/2016	4.61		
MP7	22/06/2016	4.72		
MP7	29/06/2016	4.74		
MP7	6/07/2016	4.68		
MP7	13/07/2016	4.79		
MP7	20/07/2016	4.61		
MP7	27/07/2016	4.59		
MP7	3/08/2016		Tester Unavailable	
MP7	10/08/2016	4.72		
MP7	17/08/2016	4.81		
MP7	24/08/2016	4.76		
MP7	31/08/2016	4.80		
MP7	7/09/2016	4.71		
MP7	14/09/2016	4.77		
MP7	21/09/2016	4.86		
MP7	28/09/2016	4.76		
MP7	5/10/2016	4.79		
MP7	12/10/2016	4.80		
MP7	19/10/2016	4.91		
MP7	26/10/2016	5.00		
MP7	2/11/2016	5.25		
MP7	9/11/2016	5.38		
MP7	16/11/2016	5.55		
MP7	23/11/2016	5.45		

Monitoring Point	Date	pH	Comments	EAL
ANZECC Trigger Value		6.5-8.5 ¹		
MP7	30/11/2016	5.49		
MP7	7/12/2016	5.41		
MP7	14/12/2016	5.37		
MP7	21/12/2016	5.17		
MP7	28/12/2016		Tester Unavailable	
MP7	4/01/2017			
MP7	11/01/2017	5.35		
MP7	18/01/2017	5.50		
MP7	25/01/2017	5.57		
MP7	1/02/2017	5.51		
MP7	8/02/2017	5.48		
MP7	15/02/2017	5.49		
MP7	21/02/2017	5.55		
MP7	1/03/2017	5.48		
MP7	8/03/2017	5.57		
MP7	15/03/2017	5.51		
MP7	22/03/2017	5.48		
MP7	29/03/2017	5.40		
MP7	5/04/2017	5.38		
MP7	11/04/2017	5.35		
MP7	21/04/2017	5.30		
MP7	26/04/2017	5.27		
MP7	3/05/2017	5.23		
MP7	10/05/2017	5.15		
MP7	17/05/2017	5.18		
MP7	24/05/2017	5.11		
MP7	31/05/2017	5.05		
MP7	8/06/2017	4.99		
MP7	14/06/2017	4.90		
MP7	21/06/2017	4.95		
MP7	28/06/2017	5.05		
MP7	7/07/2017	5.01		
MP7	10/07/2017	4.90		
MP7	17/07/2017	4.87		
MP7	26/07/2017	4.92		
MP7	2/08/2017	4.96		
MP7	9/08/2017	4.85		
MP7	16/08/2017	4.91		
MP7	23/08/2017	5.01		
MP7	30/08/2017	5.21		
MP7	6/09/2017	5.46		
MP7	12/09/2017	5.36		
MP7	20/09/2017	5.41		
MP7	27/09/2017	5.38		
MP7	4/10/2017	5.32		

Monitoring Point	Date	pH	Comments	EAL
ANZECC Trigger Value		6.5-8.5 ¹		
MP7	11/10/2017	5.39		
MP7	18/10/2017	5.25		
MP7	25/10/2017	5.31		
MP7	1/11/2017	5.22		
MP7	8/11/2017	5.28		
MP7	14/11/2017	5.35		
MP7	22/11/2017	5.53		
MP7	29/11/2017	5.67		
MP7	7/12/2017	5.71		
MP7	13/12/2017	5.69		
MP7	21/12/2017	5.78		
MP7	28/12/2017		Tester Unavailable	
MP7	3/01/2018	5.58		
MP7	10/01/2018	5.63		
MP7	17/01/2018	5.69		
MP7	24/01/2018	5.75		
MP7	31/01/2018	5.62		
MP7	7/02/2018	5.78		
MP7	14/02/2018	5.65		
MP7	21/02/2018	5.79		
MP7	28/02/2018	5.68		
MP7	7/03/2018	5.75		
MP7	14/03/2018	5.85		
MP7	21/03/2018	5.82		
MP7	28/03/2018	5.81		
MP7	4/04/2018	5.72		
MP7	11/04/2018	5.69		
MP7	18/04/2018	5.71		
MP7	26/04/2018	5.61		
MP7	2/05/2018	5.59		
MP7	9/05/2018	5.67		
MP7	16/05/2018	5.71		
MP7	23/05/2018	5.68		
MP7	30/05/2018	5.51		
MP7	6/06/2018	5.72		
MP7	13/06/2018	5.69		
MP7	21/06/2018	5.40		
MP7	28/06/2018		Tester Unavailable	
MP7	5/07/2018	5.48		
MP7	16/07/2018	5.26		
MP7	20/07/2018	5.49		
MP7	27/07/2018	5.47		
MP7	3/08/2018		Faulty pH meter	
MP7	10/08/2018	5.34		
MP7	24/08/2018	5.38		

Monitoring Point	Date	pH	Comments	EAL
ANZECC Trigger Value		6.5-8.5 ¹		
MP7	31/08/2018	5.21		
MP7	7/09/2018	4.73		
MP7	14/09/2018	4.84		
MP7	21/09/2018	4.78		
MP7	28/09/2018	4.88		
MP7	5/10/2018	4.77		Yes
MP7	12/10/2018	4.79		
MP7	19/10/2018	4.81		Yes
MP7	26/10/2018	4.80		
MP7	2/11/2018	5.12		Yes
MP7	9/11/2018	6.22		Yes
MP7	16/11/2018	6.60		
MP7	23/11/2018	6.10		
MP7	30/11/2018	6.60		
MP7	7/12/2018	6.50		
MP7	14/12/2018	6.65		
MP7	21/12/2018	7.23		
MP7	28/12/2018	7.12		
MP7	4/01/2019	6.76		
MP7	11/01/2019	6.7		
MP7	18/01/2019	6.8		
MP7	25/01/2019	6.84		
MP7	1/02/2019	6.5		
MP7	8/02/2019	5.9		
MP7	15/02/2019	6.6		
MP7	22/02/2019	6.8	All sediment ponds cleaned out	
MP7	1/03/2019	6.6		
MP7	8/03/2019	4.78		
MP7	15/03/2019	4.54		
MP7	22/03/2019	4.62	ponds cleaned out	
MP7	29/03/2019	4.71		
MP7	5/04/2019	4.53		
MP7	12/04/2019	4.46		
MP7	18/04/2019	4.39	Ponds cleaned out	
MP7	26/04/2019	4.22		
MP7	3/05/2019	4.25		
MP7	10/05/2019	4.23	Ponds cleaned out	
MP7	17/05/2019	5.27		
MP7	24/05/2019	5.56		
MP7	31/05/2019	4.98		
MP7	7/06/2019	4.63		
MP7	14/06/2019	4.52		
MP7	21/06/2019	4.45		
MP7	28/06/2019	4.54		

Monitoring Point	Date	pH	Comments	EAL
ANZECC Trigger Value		6.5-8.5 ¹		
MP7	5/07/2019	5.02		
MP7	12/07/2019	5.27		
MP7	19/07/2019	5.3		
MP7	26/07/2019	5.57		
MP7	2/08/2019	6.67		
MP7	9/08/2019	6.94		
MP7	16/08/2019	7.99		
MP7	23/08/2019	7.43		
MP7	30/08/2019	6.86		
MP7	2/09/2019	6.54		
MP7	13/09/2019	7.24		
MP7	20/09/2019	7.17		
MP7	27/09/2019	6.97		
MP7	4/10/2019	6.94		
MP7	11/10/2019	6.96		
MP7	18/10/2019	6.98		
MP7	25/10/2019	6.96		
MP7	1/11/2019	6.95		
MP7	8/11/2019	6.96		
MP7	15/11/2019	6.98		
MP7	22/11/2019	7.02		
MP7	29/11/2019	7.06		
MP7	6/12/2019	7.05		
MP7	13/12/2019	7.11		
MP7	20/12/2019	7.18		
MP7	27/12/2019	7.15		
MP7	3/01/2020	7.12		
MP7	10/01/2020	7.22		
MP7	17/01/2020	7.19		
MP7	24/01/2020	7.01		
MP7	31/01/2020	6.82		
MP7	7/02/2020	6.56		
MP7	14/02/2020	6.30		
MP7	21/02/2020	6.05		
MP7	28/02/2020	5.85		
MP7	6/03/2020	6.20		
MP7	13/03/2020	7.42		
MP7	20/03/2020	7.34		
MP7	27/03/2020	7.25		
MP7	3/04/2020	7.27		
MP7	10/04/2020	6.89		
MP7	17/04/2020	6.91		
MP7	24/04/2020	6.95		
MP7	1/05/2020	6.87		
MP7	8/05/2020	6.85		
MP7	15/05/2020	6.71		
MP7	22/05/2020	6.73		
MP7	29/05/2020	6.69		
MP7	5/06/2020	6.54		
MP7	12/06/2020	6.28		
MP7	19/06/2020	5.93		
MP7	26/06/2020	5.91		
MP7	3/07/2020	5.87		
MP7	10/07/2020	5.82		
MP7	17/07/2020	5.75		
MP7	24/07/2020	5.69		

Monitoring Point	Date	pH	Comments	EAL
ANZECC Trigger Value		6.5-8.5 ¹		
MP7	31/07/2020	6.52		
MP7	7/08/2020	6.54		
MP7	14/08/2020	6.61		
MP7	21/08/2020	6.59		
MP7	28/08/2020	6.72		
MP7	4/09/2020	6.75		
MP7	11/09/2020	6.78		
MP7	18/09/2020	7.14		
MP7	25/09/2020	6.89	All sediment ponds cleaned out	
MP7	2/10/2020	6.77		
MP7	9/10/2020	6.52		
MP7	16/10/2020	6.31		
MP7	23/10/2020	6.27		
MP7	30/10/2020	6.03		
MP7	6/11/2020	5.96		
MP7	13/11/2020	5.82		
MP7	20/11/2020	5.74		
MP7	27/11/2020	5.65		
MP7	4/12/2020	5.47		
MP7	11/12/2020	5.41		
MP7	18/12/2020	5.53	Rainfall discharge required.	
MP7	25/12/2020		Sampler not available.	
MP7	1/01/2021		Sampler not available.	
MP7	8/01/2021	6.84	Rainfall discharge required.	
MP7	15/01/2021	5.64	Rainfall discharge required.	
MP7	22/01/2021	5.51	Rainfall discharge required.	
MP7	29/01/2021	5.43	Rainfall discharge required.	
MP7	5/02/2021	5.38	Rainfall discharge required.	
MP7	12/02/2021			

Monitoring Point	Date	pH	Comments	EAL
ANZECC Trigger Value		6.5-8.5 ¹		

Notes

1. Initially data will be compared against ANZECC pH Trigger Values with the aim to develop site specific trigger levels once a larger data set is available to evaluate the optimum outcome for the water quality of discharge waters. Specifically it is noted that the pH of nearby soil and receiving waters are mildly acidic pH4.5-pH5.3. The natural acidic soil conditions encountered at the Project Site and subsequent influence on runoff may require that maintenance of ambient condition is the preferred water quality goal.

2. Data in **bold** indicates the data is outside the trigger levels.