



# **Tritton and Girilambone Operations**

Monthly Environmental Monitoring  
Report

December 2015

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**DECEMBER 2015 – GROUNDWATER MONITORING REPORT**  
**GIRILAMBONE OPERATIONS LICENCE NO.4501**

Licensee: TRITTON RESOURCES LIMITED					
EPL No. 4501					
Sample Point	Monitoring Frequency	Sampled	Parameter	Measurement	Unit
EPA ID No. 2 - GIP224	Monthly	04/12/2015	Arsenic	<0.010	mg/L
			Barium	0.025	mg/L
			Beryllium	<0.010	mg/L
			Cadmium	<0.0010	mg/L
			Chloride	9010	mg/L
			Chromium	<0.010	mg/L
			Cobalt	<0.010	mg/L
			Conductivity (EC)	30700	µS/cm
			Copper	0.069	mg/L
			Iron	<0.50	mg/L
			Lead	<0.010	mg/L
			Manganese	0.2	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.012	mg/L
			pH	7.05	pH Unit
			Sulfate	4380	mg/L
			Vandium	<0.10	mg/L
			Zinc	0.083	mg/L
SWL	4.96	m			
EPA ID No. 3 - GIP225	Monthly	10/12/2015	Arsenic	<0.010	mg/L
			Barium	0.03	mg/L
			Beryllium	<0.010	mg/L
			Cadmium	0.002	mg/L
			Chloride	6160	mg/L
			Chromium	<0.010	mg/L
			Cobalt	<0.010	mg/L
			Conductivity (EC)	32600	µS/cm
			Copper	0.109	mg/L
			Iron	<0.50	mg/L
			Lead	<0.010	mg/L
			Manganese	0.558	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.021	mg/L
			pH	7.21	pH Unit
			Sulfate	12800	mg/L
			Vandium	<0.10	mg/L
			Zinc	0.288	mg/L

			SWL	11.08	m
EPA ID No. 7 - GIP274	Monthly	04/12/2015	Arsenic	<0.010	mg/L
			Barium	0.013	mg/L
			Beryllium	<0.010	mg/L
			Cadmium	<0.0010	mg/L
			Chloride	10100	mg/L
			Chromium	<0.010	mg/L
			Cobalt	<0.010	mg/L
			Conductivity (EC)	31800	µS/cm
			Copper	<0.010	mg/L
			Iron	<0.50	mg/L
			Lead	<0.010	mg/L
			Manganese	0.064	mg/L
			Mercury	<0.0001	mg/L
			Nickel	<0.010	mg/L
			pH	6.89	pH Unit
			Sulfate	3430	mg/L
			Vandium	<0.10	mg/L
			Zinc	<0.050	mg/L
SWL	17.69	m			
EPA ID No. 12 - GIP290	Monthly	09/12/2015	Arsenic	<0.001	mg/L
			Barium	0.018	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	0.022	mg/L
			Chloride	3690	mg/L
			Chromium	<0.001	mg/L
			Cobalt	0.096	mg/L
			Conductivity (EC)	16100	µS/cm
			Copper	0.178	mg/L
			Iron	0.07	mg/L
			Lead	0.005	mg/L
			Manganese	8.69	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.02	mg/L
			pH	6.76	pH Unit
			Sulfate	4100	mg/L
			Vandium	<0.01	mg/L
			Zinc	0.43	mg/L
SWL	15.14	m			
EPA ID No. 13 - GIP291	Monthly	09/12/2015	Arsenic	<0.010	mg/L
			Barium	0.02	mg/L
			Beryllium	<0.010	mg/L
			Cadmium	0.0034	mg/L
			Chloride	8480	mg/L
			Chromium	<0.010	mg/L

			Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vandium Zinc SWL	0.01 26500 0.096 <0.50 <0.010 0.153 <0.0001 <0.010 6.84 3480 <0.10 0.104 9.71	mg/L µS/cm mg/L mg/L mg/L mg/L mg/L pH Unit mg/L mg/L mg/L m
EPA ID No. 14 - GIP292A	Monthly	09/12/2015	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vandium Zinc SWL	0.082 <0.010 0.097 3.23 2590 0.064 50 32900 224 135 <0.010 543 <0.0001 16.1 3.73 31300 <0.10 216 5.92	mg/L mg/L mg/L mg/L mg/L mg/L µS/cm mg/L mg/L mg/L mg/L mg/L pH Unit mg/L mg/L mg/L m
EPA ID No. 16 - GIP292AS	Monthly	09/12/2015	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury	0.382 <0.010 0.56 7.52 1500 0.187 96.2 32200 896 1240 <0.010 408 0.0001	mg/L mg/L mg/L mg/L mg/L mg/L µS/cm mg/L mg/L mg/L mg/L mg/L

			Nickel	28.2	mg/L
			pH	3	pH Unit
			Sulfate	58800	mg/L
			Vandium	1.1	mg/L
			Zinc	477	mg/L
			SWL	5.56	m
EPA ID No. 17 - GIP293	Monthly	15/12/2015	Arsenic	0.044	mg/L
			Barium	<0.010	mg/L
			Beryllium	0.013	mg/L
			Cadmium	2.4	mg/L
			Chloride	4020	mg/L
			Chromium	<0.010	mg/L
			Cobalt	31.7	mg/L
			Conductivity (EC)	40200	µS/cm
			Copper	39	mg/L
			Iron	1.23	mg/L
			Lead	0.017	mg/L
			Manganese	529	mg/L
			Mercury	0.0004	mg/L
			Nickel	10.6	mg/L
			pH	4.09	pH Unit
			Sulfate	29600	mg/L
			Vandium	<0.10	mg/L
			Zinc	107	mg/L
			SWL	12.61	m
EPA ID No. 18 - GIP294	Monthly	15/12/2015	Arsenic	0.022	mg/L
			Barium	<0.010	mg/L
			Beryllium	<0.010	mg/L
			Cadmium	3.46	mg/L
			Chloride	1880	mg/L
			Chromium	<0.010	mg/L
			Cobalt	42.9	mg/L
			Conductivity (EC)	45700	µS/cm
			Copper	168	mg/L
			Iron	<0.50	mg/L
			Lead	<0.010	mg/L
			Manganese	298	mg/L
			Mercury	0.0006	mg/L
			Nickel	13.4	mg/L
			pH	4.92	pH Unit
			Sulfate	37800	mg/L
			Vandium	<0.10	mg/L
			Zinc	233	mg/L
			SWL	12.96	m
EPA ID	Monthly	04/12/2015	Arsenic	<0.010	mg/L

No. 19 - GIP295			Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vandium Zinc SWL	0.051 <0.010 0.0012 9340 <0.010 <0.010 29700 0.076 <0.10 <0.010 0.572 <0.0001 <0.010 7.12 3060 <0.10 0.087 18.29	mg/L mg/L mg/L mg/L mg/L mg/L μS/cm mg/L mg/L mg/L mg/L mg/L pH Unit mg/L mg/L mg/L m
EPA ID No. 20 - GIP296	Monthly	15/12/2015	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vandium Zinc SWL	<0.001 0.012 <0.001 0.0007 2240 <0.001 0.006 17600 0.058 0.08 <0.001 0.028 <0.0001 0.007 6.8 6340 <0.01 0.093 8.08	mg/L mg/L mg/L mg/L mg/L mg/L μS/cm mg/L mg/L mg/L mg/L mg/L pH Unit mg/L mg/L mg/L m
EPA ID No. 21 - GIP297	Monthly	04/12/2015	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC)	0.007 <0.001 <0.001 <0.0001 81 <0.001 <0.001 1030	mg/L mg/L mg/L mg/L mg/L mg/L μS/cm

			Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vandium Zinc SWL	0.015 0.09 <0.001 0.007 <0.0001 <0.001 8.34 204 <0.01 0.022 25.84	mg/L mg/L mg/L mg/L mg/L mg/L pH Unit mg/L mg/L mg/L mg/L m
EPA ID No. 22 - GIP298	Monthly	10/12/2015	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vandium Zinc SWL	<0.010 <0.010 <0.010 0.001 9740 <0.010 <0.010 30800 0.056 <0.50 <0.010 0.051 <0.0001 <0.010 6.7 3260 <0.10 0.094 21.16	mg/L mg/L mg/L mg/L mg/L mg/L mg/L μS/cm mg/L mg/L mg/L mg/L mg/L pH Unit mg/L mg/L mg/L m
EPA ID No. 23 - GIP299	Monthly	04/12/2015	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH	<0.010 <0.010 <0.010 0.0032 7480 <0.010 <0.010 30500 0.026 <0.50 <0.010 0.033 <0.0001 <0.010 6.78	mg/L mg/L mg/L mg/L mg/L mg/L mg/L μS/cm mg/L mg/L mg/L mg/L mg/L mg/L pH Unit

			Sulfate	7780	mg/L
			Vandium	<0.10	mg/L
			Zinc	0.083	mg/L
			SWL	27.25	m
EPA ID No. 24 - GIP300	Monthly	15/12/2015	Arsenic	<0.010	mg/L
			Barium	0.011	mg/L
			Beryllium	<0.010	mg/L
			Cadmium	0.0024	mg/L
			Chloride	6730	mg/L
			Chromium	<0.010	mg/L
			Cobalt	<0.010	mg/L
			Conductivity (EC)	30800	µS/cm
			Copper	0.019	mg/L
			Iron	<0.50	mg/L
			Lead	<0.010	mg/L
			Manganese	0.29	mg/L
			Mercury	<0.0001	mg/L
			Nickel	<0.010	mg/L
			pH	6.61	pH Unit
			Sulfate	9390	mg/L
			Vandium	<0.10	mg/L
			Zinc	0.058	mg/L
			SWL	19.31	m
EPA ID No. 25 - GIP301	Monthly	04/12/2015	Arsenic	<0.001	mg/L
			Barium	0.035	mg/L
			Beryllium	<0.001	mg/L
			Cadmium	0.001	mg/L
			Chloride	4870	mg/L
			Chromium	<0.001	mg/L
			Cobalt	0.007	mg/L
			Conductivity (EC)	16800	µS/cm
			Copper	0.079	mg/L
			Iron	0.06	mg/L
			Lead	<0.001	mg/L
			Manganese	0.605	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.012	mg/L
			pH	7.04	pH Unit
			Sulfate	2380	mg/L
			Vandium	<0.01	mg/L
			Zinc	0.099	mg/L
			SWL	14.9	m
EPA ID No. 26 - GIP302	Monthly	10/12/2015	Arsenic	<0.010	mg/L
			Barium	0.013	mg/L
			Beryllium	<0.010	mg/L



			Cadmium	0.0014	mg/L
			Chloride	6680	mg/L
			Chromium	<0.010	mg/L
			Cobalt	0.058	mg/L
			Conductivity (EC)	29900	µS/cm
			Copper	0.015	mg/L
			Iron	<0.50	mg/L
			Lead	<0.010	mg/L
			Manganese	10.3	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.066	mg/L
			pH	6.21	pH Unit
			Sulfate	9670	mg/L
			Vandium	<0.10	mg/L
			Zinc	0.219	mg/L
			SWL	15.02	m