

Appendix 4.8.2 – Amulsar Groundwater Monitoring Network

Area	Monitoring Well ID (Lydian)*	Lithology of Screened Unit	Installation	Easting	Northing	Year of build	Elevation Headworks (masl)*	Inclination from Horizontal (degrees)	Vertical Depth/Base of Screen (where details known) (mbgl)	Screen top (mbgl)
Wider Project Area (Valley east of BSRF)	RCAW399	Fresh andesite porphyry	Piezometer, screened near base, gravel annular fill to surface	560702	4402856	2011	2501	90	53.0	-
	RCAW400	Argillically altered and fresh andesite porphyry		561263	4402314	2011	2528	90	45.0	-
	RCAW401	Argillically altered andesite porphyry		561336	4403138	2011	2436	90	66.0	-
	RCAW403	Cenozoic Basalts		562432	4402226	2011	2325	90	24.0	-
	DDAW001	Argillically altered andesite porphyry	Uncertain	561107	4403076	2010	2439	90	30.0	-
	DDAW002	Cenozoic Basalts		562169	4402759	2010	2338	90	32.0	-
	DDAW003	Fresh andesite porphyry		561490	4402807	2010	2365	90	28.0	-
	DDAW004	Fresh andesite porphyry		560814	4402150	2010	2551	90	94.0	-
	DDAGLP267	Very weak argillic tuff	Piezometer, screened near base, annular fill unknown	561252	4402552	2011	2441	90	31.0	-
	DDAGLP268	Very weak argillic tuff		561886	4402447	2011	2389	90	35.0	-
DDAGLP269	Very weak argillic tuff	562201		4402587	2011	2349	90	32.2	-	
Tigranes and Erato	RCAW404	Silica alunite altered volcano-clastics and	near base, gravel annular fill	561717	4397364	2011	2958	62	173.0	-

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		argillically altered andesite porphyry								
	RCAW406	Silica clay and silica alunite altered volcano-clastics		562083	4398009	2011	2792	60	150.0	-
	RCAW407	Silica clay altered andesite porphyry with silicified volcano-clastics above		561625	4398616	2011	2806	60	108.0	-
	RCAW408	Silicified volcano-clastics with silica alunite alteration above		560871	4397975	2011	2664	68	71.0	-
	RCAW405A	Silicified volcano-clastics		561640	4397780	2011	2904	90	128.0	-
	RCAW286	Argillically altered andesite porphyry		561533	4398618	2010	2826	90	80.0	-
	RCAW287	Massive silica alunite altered volcano-clastics		561003	4397849	2010	2823	84	104.0	-
	RCAW288	Argillically altered andesite porphyry	Uncertain	560562	4398393	2010	2583	58	35.0	-

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	RCAW289	Argillically altered andesite porphyry		560537	4398497	2010	2593	90	30.0	-
	DDAW007	Argillically altered andesite porphyry	screened near base, grouted to surface	561248.5	4399368.2	2013	2768.1	90	81.3	75.3
	DDAG369	Fine grained upper volcanics (VCF)	Piezometer	560714	4399630	2012	2883	70	279.8	-
	DDAG371	Undifferentiated lower volcanic package (LV) and mixed breccia (MBX)	Piezometer	560647	4399251	2012	2893	60	103.9	-
	DDAW005	Argillically altered andesite porphyry	Piezometer, screened near base, grouted to surface	560158.7	4401266.6	2013	2599.7	90	60.0	42
	DDAW008	Massive silica altered volcanics		560799.9	4400235.9	2013	2878.1	90	64.0	52
	DDAW009	Bedrock, lithology not specified on log (assumed argillically altered andesite)		559939	4399819	2013	2451	90	114.0	106
bank of Vorotan River)	DDGW001	Conglomerate, Basalt	Uncertain	565751	4397752	2010	2268	90	60.0	-
	DDGW002	Healed tuff breccia, Basalt		565685	4396431	2010	2232	90	50.0	-

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	DDGW003	Cenozoic Basalts		566545	4395357	2010	2153	90	50.0	-
	DDGG001	Superficial deposits		566044	4395779	2011	2195.4	90	90.0	-
	DDGG002	Superficial deposits		566143	4395433	2011	2184.2	90	90.0	-
	DDGG003	Superficial deposits		566499	4395774	2011	2155	90	90.0	-
	DDGW005	Cenozoic Basalts		563068	4403536	2010	2394	90	52.0	-
	DDGW006	Cenozoic Basalts		563496	4403815	2010	2407	90	58.0	-
	DDGW007	Cenozoic Basalts		564001	4404566	2010	2422	90	58.0	-
Wider Project Area (North-east of VLF)	GGDW002	Cenozoic Basalts	Piezometer, screened near base, grouted to surface	555308.9	4401313.5	2013	2030.8	90	100.5	73.6
	GGDW001	Cenozoic Basalts		554995.6	4402402.5	2013	1998.6	90	30.9	18
	GGDW003A	Cenozoic Basalts		556155.5	4401408.5	2013	2106.9	90	100.0	89
	GGDW004	Cenozoic Basalts		557280.3	4402879.7	2013	2301.2	90	113.0	104
	GGDW005	Cenozoic Basalts		556023.5	4402133.7	2013	2099.5	90	83.8	75
	GGDW006	Cenozoic Basalts		557305.5	4402291.7	2013	2329.0	90	112.0	104.7
	GGSC012	Superficial deposits	Open hole (not installed)	556710.2	4401058.5	2013	2159.2	90	5.0	-
	GGSC013	Superficial deposits		557081.1	4401562.3	2013	2198.3	90	7.0	-
	GGSC014	Superficial deposits		556642	4401562.4	2013	2134.7	90	11.5	-
	GGSC002	Superficial deposits		555494.7	4402142.6	2013	2054.0	90	14.5	-

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	GGSC004	Superficial deposits		555705.8	4402529.1	2013	2046.5	90	8.0	-
	GGSC015	Superficial deposits		556115.8	4402567.8	2013	2101.6	90	11.0	-
	GGSC017	Superficial deposits		556594.5	4402799.8	2013	2183.7	90	8.0	-
VTA	GGSC035	Clayey sand (to 9 m) overlying sandy clay	Piezometer, screened near base, grouted to surface	552753.9	4398474.5	2013	1636.4	90	11.0	4
	GGDW016A**	Cenozoic Basalts		552170.1	4398445.1	2013	1587.0	90	12.0	6
	GGDW016**	Altered andesite (SW, R3)		552174	4398443	2013	1587.0	90	59.0	53
	GGDW014	Cenozoic Basalts (FR, R3)		552384.7	4398975.3	2013	1677.5	90	79.5	70.5
	GGDW013A	Altered andesite (SW, R3)		553230.7	4399013.1	2013	1664.5	90	21.0	13
	GGDW013	Andesite (SW, R2)		553219.9	4399010.3	2013	1663.4	90	60.0	54
	GGDW010A	Argillic tuff - andesite (SW, R2)		553901.6	4399558.1	2013	1794.2	90	22.6	16.6
	GGDW010B	Andesite - basalt (SW)		553897.9	4399556.6	2013	1793.9	90	69.0	60
	GGDW015	Andesite (SW, R2)		554003.1	4399202.9	2013	1794.1	90	59.0	53
	GGDW007	Andesite		552536	4398302	2013	1620.9	90	126.5	120.5

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	GGDW008	Andesite		552932.2	4398566.3	2013	1653.2	90	58.5	52.5
	GGDW011	Argillic andesite (SW, R3)		554714.3	4399712.5	2013	1918.3	90	59.0	50
	GGDW012	Argillic andesite (SW)		553947.5	4398843.2	2013	1818.7	90	69.9	60.9
	GGDW009A			552980.3	4399664.7	2013	1695.9	90	26.0	-
	GGDW009	Andesite		552978.5	4399659.5	2013	1695.8	90	117.0	108
BSRF	GGSC037	Sandy clay, intersecting (basalt) bedrock surface at 16.2 m		560789.8	4403154.4	2013	2425.8	90	16.7	11.3
	GGSC049	Sandy clay (colluvium?)		560063.3	4401492.7	2013	2553.6	90	19.0	13
	GGSC050	Gravelly clay		560542.5	4401892.4	2013	2518.0	90	15.5	9.5
	DDAW011	Cenozoic Basalts	Failed	559895.2	4401845.6	2013	2627.9	90	77.0	70
	DDAW011A	Cenozoic Basalts	Piezometer, screened near base, grouted to surface	559883.7	4401860.6	2013	2628.1	90	29.0	23
	DDAW013	Scoria (underlying basalt to 94 m)		560225	4402622.1	2013	2525.3	90	99.0	93
	DDAW012	Argillic andesite		560817.2	4401621.6	2013	2585.0	90	33.0	27

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Wider Project Area	DDGW004		Unknown (not installed?)	562224	4403369	2010	2385	-	-	-

*Elevations shown in bold are surveyed, elevations shown in normal text are hand held GPS estimated (accuracy +/- 20 m), elevations shown in italics are estimated from the topographic contours (accuracy +/- 20 m).

**In 2015, Geoteam has reported data for the deeper well in the GGDW016/A pair as GGDW16A and the shallower well as GGDW016, however the values in the table represent the best understanding of the monitoring well identification scheme.

- Screen details not known or annulus unsealed allowing free inflow from above the screen section.