

**Carmichael Coal Mine Project-Groundwater Level Data
August 2021**

Groundwater Level Data -August 2021 (VWP Bores)

VWP ID	Wire number	Formation	Sample date	Time	Ground surface level	Depth below ground	Aug-21	
							Equivalent metres of head	Relative water level
							m AHD	m
<small>m AHD = metres Australia Height Datum</small>								
C056VWP	VWP3	Rewan	13/08/2021	8:34:00	283.86	240	195.30	239.17
	VWP2	AB Seam				312	253.30	225.14
	VWP1	CD Sandstone				408	285.70	161.60
C555VWP	VWP2	Rewan	15/08/2021	11:18:00	241.15	241.15	219.50	200.16
	VWP1	AB Seam				241.15	336.00	231.20
C558VWP	VWP3	AB Seam	17/08/2021	7:38:00	250.05	73	38.80	215.80
	VWP2	C Seam Interburden				120	78.70	208.75
	VWP1	D Seam				178	137.80	209.80
C842VWP	VWP3	Rewan	15/08/2021	9:50:00	238.89	130	104.70	213.60
	VWP2	AB Seam				177.5	158.50	219.84
	VWP1	C Seam Interburden				235	216.30	220.20
C851VWP	VWP3	Rewan	14/08/2021	9:28:00	244.67	103.7	88.00	228.93
	VWP2	AB Seam				145.7	125.90	224.86
	VWP1	CD Sandstone				209.7	190.20	225.20
C966VWP	VWP4	Rewan	13/08/2021	8:26:00	288.7	258	221.60	252.31
	VWP3	Rewan				302.5	227.10	213.32
	VWP2	AB Seam				348.5	190.60	130.77
	VWP1	AB Seam Interburden				355	183.40	117.12
C968VWP	VWP5	AB Seam	13/08/2021	8:14:00	279.18	244	156.90	192.05
	VWP4	AB Interburden				258	178.20	199.35
	VWP3	C Seam				302.5	253.00	177.19
	VWP2	D Seam				348.5	332.80	263.48
	VWP1	D Seam Interburden				355	259.0	283.18
C9553VWP	VWP3	Rewan	17/08/2021	9:25:00	294.56	265.43	208.00	237.09
	VWP2	AB Seam				348.43	308.50	254.67
	VWP1	D Seam				467.43	400.70	227.80
C9556VWP	VWP3	Rewan	14/08/2021	16:02:00	260.4	216	174.10	218.50
	VWP1	D Seam				410	394.50	244.90
V9836VWP	VWP3	Rewan	15/08/2021	14:48:00	236.8	130	112.40	219.19
	VWP1	CD Sandstone				296	276.00	216.80
C14200VWP	VWP3	Rewan	12/08/2021	11:50:00	247.08	101	102.60	248.70
	VWP2	Rewan				199	184.70	232.78
	VWP1	AB Seam				224	210.20	233.30
C14203VWP	VWP2	Rewan	15/08/2021	10:10:00	230.55	77	113.70	267.22
	VWP1	CD Sandstone				247	242.30	225.83
C14206VWP	VWP2	Rewan	15/08/2021	9:10:00	277.15	355	312.50	234.70
	VWP1	AB Seam				464	434.10	247.30
C14207VWP	VWP2	Rewan	16/08/2021	14:52:00	305.17	400	340.70	245.91
	VWP1	AB Seam				504	412.30	213.48
C19842CVWP	VWP1	Rewan	16/08/2021	7:46:00	239.771	313.5	305.30	321.57
C19031SPVWP	VWP1	Colinlea Sandstone	16/08/2021	7:34:00	238.919	601.4	577.40	214.88

Groundwater Level Data -August 2021 (Artesian Bores)

Bore ID	Formation	Sample Date	Time	Reference Level	Aug-21		
					Digital pressure	Groundwater level	
				m AHD	kPa	m (converted)	m AHD
<i>Artesian Bores (6.9 kPa = 0.7 m head). m AHD = metres Australia Height Datum</i>							
C034P1	Bandanna Formation	14/08/2021	17:55	228.24	12.1	1.23	229.47
C832SP**	Bandanna Formation	15/08/2021	14:00	224.85	0.34	0.34	224.51
C18001SP	Clematis Sandstone	16/08/2021	13:09	247.35	31.46	3.21	250.56
C19014SP	Clematis Sandstone	16/08/2021	8:40	240.132	20.65	2.11	242.24
HD03A	Clematis Sandstone	11/08/2021	17:43	230.16	13.85	1.41	231.57
C034P3	Colinlea Sandstone	14/08/2021	7:24	228.264	12.59	1.28	229.55
C833SP**	Colinlea Sandstone	15/08/2021	14:43	224.61	3.12	3.12	221.49
C834SP**	Colinlea Sandstone	15/08/2021	14:04	224.53	2.43	2.43	222.10
C14005SP	Composite Bore (Tertiary / Joe Joe)	12/08/2021	15:36	219.607	28.22	2.88	222.48
C14029SP	Composite Bore (Tertiary / Joe Joe)	14/08/2021	7:41	218.17	89.21	9.10	227.27
C14031SP	Composite Bore (Tertiary / Joe Joe)	12/08/2021	14:04	222.02	123.63	12.61	234.63
C180120SP	Composite Bore (Tertiary / Joe Joe)	14/08/2021	10:21	223.60	152.46	15.55	239.15
C180122SP	Composite Bore (Tertiary / Joe Joe)	12/08/2021	14:23	224.14	84.12	8.58	232.72
C19011SP	Dunda Beds	15/08/2021	8:28	238.868	42.35	4.32	243.19
C19015SP	Dunda Beds	16/08/2021	16:57	240.365	34.32	3.50	243.86
C14006SP	Joe Joe Group	14/08/2021	12:39	219.68	33.16	3.38	223.06
C14008SP	Joe Joe Group	14/08/2021	12:14	220.66	40.05	4.08	224.74
C14015SP	Joe Joe Group	12/08/2021	11:27	229.30	66.95	6.83	236.13
C14016SP	Joe Joe Group	14/08/2021	8:10	222.72	86.32	8.80	231.52
C14017SP	Joe Joe Group	12/08/2021	15:11	230.428	147.37	15.03	245.46
C14032SP	Joe Joe Group	12/08/2021	13:56	222.44	133.45	13.61	236.05
C180119SP	Joe Joe Group	14/08/2021	10:00	224.33	105.68	10.78	235.11
C180123SP	Joe Joe Group	12/08/2021	14:52	227.85	149.65	15.26	243.11
C914030SPR	Joe Joe Group	14/08/2021	7:48	218.06	91.73	9.35	227.41
C914108PTR	Joe Joe Group	12/08/2021	13:51	222.30	134.54	13.72	236.02
C9180124SPR	Joe Joe Group	12/08/2021	14:29	224.29	104.11	10.62	234.91
C9180125SPR	Joe Joe Group	14/08/2021	10:24	223.80	158.82	16.20	240.00
C919016SPR	Rewan Formation	16/08/2021	17:07	240.23	54.93	5.60	245.83
C9180121SPR	Tertiary	12/08/2021	14:56	227.745	132.38	13.50	241.24

** Groundwater level sub artesian.

Groundwater Level Data -August 2021 (Sub-Artesian Bores)

Bore ID	Formation	Sample Date	Time	Reference Level m AHD	Aug-21	
					DTW m bRL	SWL m AHD
m AHD = metres Australia Height Datum, m bRL = metres below Reference						
C027P1	Alluvium	17/08/2021	14:31	227.615	5.9	221.72
C029P1	Alluvium	14/08/2021	17:33	226.048	11.84	214.21
C14027SP	Alluvium	15/08/2021	11:32	218.126	14.52	203.61
C14028SP	Alluvium	15/08/2021	12:42	219.629	14.09	205.54
C19001SP	Alluvium	15/08/2021	15:22	227.94	12.93	215.01
C19019SP*	Alluvium	13/08/2021	7:36	255.91	15	240.91
C19021SP*	Alluvium	13/08/2021	5:52	265.55	15	250.55
C19023SP*	Alluvium	18/08/2021	11:29	225.91	15	210.91
C19024SP*	Alluvium	15/08/2021	17:18	254.527	15	239.53
C19025SP*	Alluvium	17/08/2021	15:20	248.413	15	233.41
HD03B	Alluvium	11/08/2021	17:15	230.16	4.86	225.30
C006P1	Bandanna Formation	18/08/2021	8:40	234.11	27.51	206.60
C007P2	Bandanna Formation	15/08/2021	13:13	238.61	54.26	184.35
C008P2	Bandanna Formation	14/08/2021	7:15	238.805	45.91	192.90
C011P1	Bandanna Formation	17/08/2021	9:38	255.22	25.11	230.11
C014P2	Bandanna Formation	16/08/2021	17:24	256.90	47.37	209.53
C016P2	Bandanna Formation	17/08/2021	12:07	295.08	46.54	248.54
C018P1	Bandanna Formation	17/08/2021	12:50	281.89	36.96	244.93
C018P2	Bandanna Formation	17/08/2021	13:21	282.06	39.88	242.18
C032P2	Bandanna Formation	14/08/2021	13:55	256.92	24.94	231.98
C035P2	Bandanna Formation	14/08/2021	14:40	236.67	5.05	231.62
C19018SP	Bandanna Formation	16/08/2021	8:33	239.559	17.7	221.86
C19027SP	Bandanna Formation	17/08/2021	15:29	263.34	42.98	220.36
C823SP	Bandanna Formation	17/08/2021	18:17	247.33	52.03	195.30
C844SP	Bandanna Formation	14/08/2021	15:40	236.46	6.66	229.80
C847SP	Bandanna Formation	14/08/2021	10:28	237.92	6.63	231.29
C9839SPR	Bandanna Formation	15/08/2021	16:18	229.59	3.23	226.36
C14011SP	Clematis Sandstone	16/08/2021	11:05	312.435	69.69	242.75
C14012SP	Clematis Sandstone	16/08/2021	9:33	287.063	44.51	242.55
C14013SP	Clematis Sandstone	16/08/2021	9:53	287.256	44.97	242.29
C14021SP	Clematis Sandstone	15/08/2021	8:25	278.591	32.85	245.74
C14033SP	Clematis Sandstone	17/08/2021	8:27	297.35	46.78	250.57

C18002SP	Clematis Sandstone	16/08/2021	11:45	249.28	5.58	243.70
C19002SP	Clematis Sandstone	16/08/2021	15:21	306.266	57.35	248.92
C19010SP	Clematis Sandstone	15/08/2021	9:00	239.70	1.26	238.44
HD02	Clematis Sandstone	16/08/2021	15:20	237.42	3.2	234.22
C006P3R	Colinlea Sandstone	18/08/2021	8:33	234.36	49.3	185.06
C011P3	Colinlea Sandstone	17/08/2021	10:17	255.08	27.88	227.20
C018P3	Colinlea Sandstone	17/08/2021	12:58	281.98	39.78	242.20
C024P3	Colinlea Sandstone	17/08/2021	11:23	259.16	30.27	228.89
C180112SP	Colinlea Sandstone	15/08/2021	16:50	227.17	56.62	170.55
C19003SP	Colinlea Sandstone	12/08/2021	17:15	231.36	0.11	231.25
C19004SP	Colinlea Sandstone	14/08/2021	9:00	239.355	7.67	231.69
C19026SP	Colinlea Sandstone	14/08/2021	6:30	239.28	52.2	187.08
C19029SP	Colinlea Sandstone	15/08/2021	15:31	225.445	34.36	191.09
C827SP	Colinlea Sandstone	15/08/2021	17:055	232.65	52.84	179.81
C840SP	Colinlea Sandstone	15/08/2021	16:14	229.85	4.17	225.68
C848SP	Colinlea Sandstone	14/08/2021	10:05	237.835	7.19	230.65
C975SP	Colinlea Sandstone	17/08/2021	14:05	267.81	26.9	240.91
C9849SPR	Colinlea Sandstone	14/08/2021	12:10	237.69	7.17	230.52
C14024SP	Composite Bore (Clematis SSt / Dunda Beds)	14/08/2021	14:27	333.31	70.76	262.55
Mellaluka Spring	Composite	12/08/2021	12:55	224.30	0.98	223.32
C022P1	Dunda Beds	16/08/2021	15:54	274.15	27.72	246.43
C027P2	Dunda Beds	17/08/2021	14:28	228.38	1.74	226.64
C14023SP	Dunda Beds	15/08/2021	7:57	278.675	31.73	246.95
C180117SP	Dunda Beds	14/08/2021	15:41	280.67	30.04	250.63
C19007SP	Dunda Beds	16/08/2021	13:46	310.94	67.26	243.68
C012P1	Joe Joe Group	17/08/2021	9:15	247.943	26.91	221.03
C012P2	Joe Joe Group	17/08/2021	8:34	247.872	26.77	221.10

C14002SP	Joe Joe Group	15/08/2021	14:46	226.925	8.33	218.60
C14003SP	Joe Joe Group	18/08/2021	14:34	218.977	9.8	209.18
C14004SP	Joe Joe Group	18/08/2021	17:39	218.919	9.64	209.28
C914001SPR	Joe Joe Group	15/08/2021	14:08	227.246	9.07	218.18
C14020SP	Moolayember	17/08/2021	8:53	297.37	44.93	252.44
C18003SP	Moolayember	16/08/2021	12:24	249.08	12.8	236.28
C008P1	Rewan Formation	15/08/2021	8:04	238.64	27.19	211.45
C035P1	Rewan Formation	14/08/2021	15:29	236.79	6	230.79
C19008SP	Rewan Formation	16/08/2021	12:59	311.07	65.84	245.23
C19009SP	Rewan Formation	16/08/2021	14:20	310.47	297.54	12.93
C19012SP	Rewan Formation	15/08/2021	10:00	239.42	0	239.42
C19017SP	Rewan Formation	11/08/2021	14:39	239.935	186.04	53.90
C19028SP	Rewan Formation	14/08/2021	7:44	261.62	22.72	238.90
C555P1	Rewan Formation	15/08/2021	11:09	241.86	12.3	229.56
C556P1	Rewan Formation	14/08/2021	16:19	261.424	27.6	233.82
C919013SPR	Rewan Formation	15/08/2021	9:33	238.289	214.64	23.65
C9553P1R	Rewan Formation	17/08/2021	10:01	294.634	42.39	252.24
C9838SPR	Rewan Formation	15/08/2021	16:25	229.60	2.47	227.13
C18010SP	Spring Discharge Clematis SSt	16/08/2021	16:20	238.213	0.33	237.88
C18011SP	Spring Discharge Clematis SSt	16/08/2021	15:59	240.618	0.48	240.14
C18012SP	Spring Discharge Clematis SSt	16/08/2021	8:38	239.541	0.43	239.11
C18013SP	Spring Discharge Clematis SSt	16/08/2021	8:25	239.167	0.58	238.59
C18014SP	Spring Discharge Clematis SSt	16/08/2021	14:19	235.974	0.6	235.37
Joshua Spring	Spring Discharge Clematis SSt	16/08/2021	10:12	243.26	0.78	242.48
C025P2	Tertiary	17/08/2021	17:15	228.24	11.03	217.21
C029P2	Tertiary	14/08/2021	16:05	226.00	6.14	219.86
C558P1	Tertiary	17/08/2021	7:51	250.72	34.53	216.19
C9845SPR	Tertiary	14/08/2021	13:00	256.235	21.61	234.63
C18004SP	Weathered Tertiary	17/08/2021	15:57	229.471	22.25	207.22
C18005SP	Weathered Tertiary	15/08/2021	17:08	221.658	10.65	211.01
C18006SP	Weathered Tertiary	15/08/2021	17:35	222.266	12.8	209.47
C18007SP*	Weathered Tertiary	13/08/2021	9:00	232.22	27	205.22
C18008SP*	Weathered Tertiary	13/08/2021	9:20	236.473	29	207.47
C18009SP	Weathered Tertiary	18/08/2021	10:56	226.745	17.7	209.05
C19020SP*	Weathered Tertiary	13/08/2021	7:34	256.54	50	206.54
C19022SP	Weathered Tertiary	18/08/2021	12:09	225.920	18.73	207.19

Note-* - Dry