

ANNUAL AVERAGE READING OF WATER QUALITY DATA UNDER NWMP, MIZORAM FOR THE YEAR 2016

Sl. No	Parameter	Method Used	Unit	River Tlawng, Upstream, Aizawl	River Tlawng, Downstream, Aizawl	River Tuirial, Upstream, Aizawl	River Tuirial, Downstream, Aizawl	Ramhlun North Tuikhur, Aizawl	Mission Vengthlang Tuikhur, Aizawl
				2050	2051	2052	2053	2054	2055
1	D.O	Iodometric Method	mg/l	7.02	7.25	6.88	10.366	6.375	3.916
2	pH	Float Method	-	7.36	7.56	7.332	7.354	6.898	7.219
3	Conductivity	Conductometric Method	us/cm	250.75	298.58	335.16	315.41	369.41	330.83
4	BOD	Dilution Method	mg/l	1.5	1.55	1.516	1.425	1.425	1.216
5	Nitrogen- Nitrite (N-NO ₂)	Calorimetric Method	mg/l	0.1	0.082	0.053	0.048	0.091	0.112
6	Faecal Coliform	Multiple Tube Dilution Method	MPN	5.8	21.22	19.8	19.17	0	7
7	Total Coliform	Multiple Tube Dilution Method	MPN	790	578	1142.14	1580.7	44	210
8	Turbidity	Turbimetric Method	NTU	6.16	4.61	2.554	2.145	0.373	6.381
9	Alkalinity	Visual Titration	mg/l	42.83	45.49	66.54	65.89	32.76	102.54
10	Chloride	Argentometric titration	mg/l	9.15	8.4	8.65	9.15	36.56	87.96
11	Nitrogen Ammonia (N-NH ₃)	Calorimetric Method	mg/l	0.49	0.46	0.334	0.325	0.511	0.649
12	Total hardness	Complexometric Titration	mg/l	53.16	50.5	67.5	66.66	62.83	118.5
13	Calcium	Complexometric Titration	mg/l	13	12.4	16.5	15.93	15.33	33.73
14	Magnesium	Calculation Method	mg/l	4.9	4.65	6.291	6.383	5.83	8.175
15	Sodium	Flame Photometric method	mg/l	22.41	26.95	21.208	22.58	34	50.95
16	TDS	Gravimetric Method	mg/l	116.66	131.66	118.33	125	83.33	93.33
17	TSS	-----do-----	mg/l	54.16	59.16	54.166	54.16	35.83	37.5
18	Phosphate	Calorimetric Method	mg/l	0.23	0.24	0.183	0.155	0.181	0.258

ANNUAL AVERAGE READING OF WATER QUALITY DATA UNDER NWMP, MIZORAM FOR THE YEAR 2016

Sl. No	Parameter	Method Used	Unit	Tlawng River, Sairang	Serlui Stream, Reiek Kai, near P.H.E Water Treatment Plant	Vaipuanpho Stream, Reiek Kai	Tuikual Stream, Reiek Kai	Sakhisih Stream, Mission Vengthlang	Tuirial River, Upstream Near Sumsuih Village
				3709	3710	3711	3712	3713	3714
1	D.O	Iodometric Method	mg/l	7.25	7.26	7.33	6.78	5.66	7.16
2	pH	Float Method	-	7.29	7.52	7.63	7.48	6.88	7.02
3	Conductivity	Conductometric Method	us/cm	375.58	294.08	233.25	286.8	387.33	274.08
4	BOD	Dilution Method	mg/l	1.958	1.508	1.57	1.56	1.33	1.45
5	Nitrogen- Nitrite (N-NO ₂)	Calorimetric Method	mg/l	0.161	0.08	0.076	0.07	0.078	0.064
6	Faecal Coliform	Multiple Tube Dilution Method	MPN	27.22	1.8		9.1	3.6	
7	Total Coliform	Multiple Tube Dilution Method	MPN	1194.28	305		2400	23	
8	Turbidity	Turbimetric Method	NTU	9.06	2.009	0.645	1.572	0.57	0.208
9	Alkalinity	Visual Titration	mg/l	35	51.99	39.43	65.08	142.95	46.72
10	Chloride	Argentometric titration	mg/l	8.816	18.9	7.816	14.02	70.66	10.49
11	Nitrogen Ammonia (N-NH ₃)	Calorimetric Method	mg/l	1.281	0.306	0.297	0.378	0.433	0.31
12	Total hardness	Complexometric Titration	mg/l	54.51	52.41	28.83	55.66	132.16	54.66
13	Calcium	Complexometric Titration	mg/l	14.26	13.26	7	14.46	39.3	13.94
14	Magnesium	Calculation Method	mg/l	5.23	4.68	2.75	4.55	8.19	5.35
15	Sodium	Flame Photometric method	mg/l	30.75	32	23.95	27.25	38.04	18.95
16	TDS	Gravimetric Method	mg/l	125	101.66	100	105	109.16	120
17	TSS	-----do-----	mg/l	54.16	39.16	40	43.33	49.16	51.66
18	Phosphate	Calorimetric Method	mg/l	0.492	0.174	0.128	0.138	0.221	0.203

ANNUAL AVERAGE READING OF WATER QUALITY DATA UNDER NWMP, MIZORAM FOR THE YEAR 2016

Sl. No	Parameter	Method Used	Unit	Tuirial River, Airfield, before Dumping Ground	Damdiai Stream, Airfield, near Dumping Ground	Tuirial River, Airfield, after Dumping Ground	Chite Stream, Armed Veng, near Mini Sports Complex	Tuirini River, Seling	Tuivawl River, Near Tuivawl Bridge, Keifang
				3715	3716	3717	3718	3719	3720
1	D.O	Iodometric Method	mg/l	6.95	6.591	6.66	6.08	6.94	6.88
2	pH	Float Method	-	7.4	7.387	7.4	7.44	7.57	7.53
3	Conductivity	Conductometric Method	us/cm	313.1	345.6	392.08	342	379.91	389.75
4	BOD	Dilution Method	mg/l	1.454	1.375	1.45	1.363	1.49	1.99
5	Nitrogen- Nitrite (N-NO ₂)	Calorimetric Method	mg/l	0.081	0.06	0.065	0.335	0.077	0.055
6	Faecal Coliform	Multiple Tube Dilution Method	MPN	-	9.1	9.3	0	-	-
7	Total Coliform	Multiple Tube Dilution Method	MPN	-	2400	587.5	2400	-	-
8	Turbidity	Turbimetric Method	NTU	2.209	1.754	2.463	1.027	1.303	0.869
9	Alkalinity	Visual Titration	mg/l	64.97	70.41	65.22	241.72	59.5	50.86
10	Chloride	Argentometric titration	mg/l	9.23	12.85	9.48	116.66	8.65	9.64
11	Nitrogen Ammonia (N-NH ₃)	Calorimetric Method	mg/l	0.297	0.38	0.419	0.71	0.379	0.311
12	Total hardness	Complexometric Titration	mg/l	65.83	81.5	69	183.85	58	54.16
13	Calcium	Complexometric Titration	mg/l	15.98	20.66	16.8	55.87	14.56	13.53
14	Magnesium	Calculation Method	mg/l	6.13	7.11	6.44	10.5	5.6	5.316
15	Sodium	Flame Photometric method	mg/l	21.13	21.2	24.66	43.36	17.33	17.37
16	TDS	Gravimetric Method	mg/l	130.83	101.66	145	115.45	114.16	114.16
17	TSS	-----do-----	mg/l	60.83	43.33	67.5	51.81	49.16	50.83
18	Phosphate	Calorimetric Method	mg/l	0.14	0.168	0.156	0.155	0.186	0.116

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Sl. No	Parameter	Method Used	Unit	Lawibual Stream, Lawibual village	Lawibuai Fishpond	Tamdil Lake, Saitual	Challui, Lengpui	Lungli Tuikhur, Republic Veng	Ramhlun 'S' Tuikhur, Near Community Hall
				3721	3722	3723	3724	3725	3726
1	D.O	Iodometric Method	mg/l	5.641	6.1	6.56	6.11	6.76	6.29
2	pH	Float Method	-	7.314	7.11	7.76	7.31	7.2	6.94
3	Conductivity	Conductometric Method	us/cm	309.41	301.5	375.5	341.5	277.83	348.41
4	BOD	Dilution Method	mg/l	1.325	1.283	1.5	1.3	1.49	1.38
5	Nitrogen- Nitrite (N-NO ₂)	Calorimetric Method	mg/l	0.08	0.091	0.059	0.16	0.066	0.07
6	Faecal Coliform	Multiple Tube Dilution Method	MPN	-	-	-	-	-	1.8
7	Total Coliform	Multiple Tube Dilution Method	MPN	-	-	-	-	-	277.5
8	Turbidity	Turbimetric Method	NTU	1.054	2.281	1.73	7.73	0.11	0.33
9	Alkalinity	Visual Titration	mg/l	135.07	42.87	43.58	41.8	38.73	30.13
10	Chloride	Argentometric titration	mg/l	88.69	45.35	9.15	9.06	40.09	37.41
11	Nitrogen Ammonia (N-NH ₃)	Calorimetric Method	mg/l	0.357	0.409	0.37	1.47	0.32	0.35
12	Total hardness	Complexometric Titration	mg/l	147.83	65.16	44.66	53.16	75.5	68.5
13	Calcium	Complexometric Titration	mg/l	43.81	15.53	10.58	25.6	18.77	16.4
14	Magnesium	Calculation Method	mg/l	9.2	6.283	4.31	4.9	6.83	6.57
15	Sodium	Flame Photometric method	mg/l	53.08	30.83	13.08	30.66	26.5	37.88
16	TDS	Gravimetric Method	mg/l	100.83	106.66	105.83	95	85	85
17	TSS	-----do-----	mg/l	43.33	46.66	45	42.5	34.16	35.83
18	Phosphate	Calorimetric Method	mg/l	0.186	0.217	0.18	0.41	0.13	0.16

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Sl. No	Parameter	Method Used	Unit	Tuithiang Veng	Khurpui	Bawngkawn	Selesih	Tuikual	Chaltlang hand
				Tuikhur	Tuikhur, S.Hlimen	Hand Pump near HB Petrol Pump	Hand Pump	Hand Pump	pump near Remi Tyre Works
				3727	3728	3729	3730	3731	3732
1	D.O	Iodometric Method	mg/l	4.16	7.11	2.62	2.63	1.7	1.56
2	pH	Float Method	-	10.42	7.31	7.02	7.03	6.83	6.58
3	Conductivity	Conductometric Method	us/cm	270.59	390.25	242.91	238.25	294.5	243.58
4	BOD	Dilution Method	mg/l	1.14	1.58	0.93	0.88	0.51	0.66
5	Nitrogen- Nitrite (N-NO ₂)	Calorimetric Method	mg/l	0.056	0.068	0.087	0.081	0.097	0.07
6	Faecal Coliform	Multiple Tube Dilution Method	MPN	-	3.6	0	3.6	0	0
7	Total Coliform	Multiple Tube Dilution Method	MPN	-	15	7.2	21	9.1	15
8	Turbidity	Turbimetric Method	NTU	0.17	0.264	3.78	1.41	7.6	0.88
9	Alkalinity	Visual Titration	mg/l	26.41	34.66	120.93	73.75	159.12	112.8
10	Chloride	Argentometric titration	mg/l	53.53	12.45	46.27	69.35	92.36	64.64
11	Nitrogen Ammonia (N-NH ₃)	Calorimetric Method	mg/l	0.33	0.31	0.29	0.35	0.44	0.36
12	Total hardness	Complexometric Titration	mg/l	94.16	61.16	115.33	118	202.33	140.5
13	Calcium	Complexometric Titration	mg/l	27.23	15.33	32.53	35.05	62.96	41.53
14	Magnesium	Calculation Method	mg/l	7.7	5.96	8.19	7.95	10.85	8.75
15	Sodium	Flame Photometric method	mg/l	36.59	24.08	31.55	34.25	37.87	29.95
16	TDS	Gravimetric Method	mg/l	84.16	90	95.83	92.5	95	93.33
17	TSS	-----do-----	mg/l	33.33	37.5	40.83	40.83	39.16	38.33
18	Phosphate	Calorimetric Method	mg/l	0.12	0.2	0.22	0.18	0.22	0.18

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Sl. No	Parameter	Method Used	Unit	S.Hlimen Hand Pump	Tlawng River, Upstream, Zobawk, Lunglei	Mat River	Tlawng River, Pialthleng, Zotlang, Lunglei	Vaitui Tuikhur, Theiriat, Lunglei	Sap Tuikhur, Serkawn
				3733	3734	3735	3736	3737	3738
1	D.O	Iodometric Method	mg/l	3.01	7.75	7.87	8.05	8.22	7.12
2	pH	Float Method	-	6.98	7.22	7.13	7.35	6.91	7.1
3	Conductivity	Conductometric Method	us/cm	369.66	310.41	292.58	323.66	290.75	282.5
4	BOD	Dilution Method	mg/l	0.96	1.64	1.74	1.72	15.5	1.57
5	Nitrogen- Nitrite (N-NO ₂)	Calorimetric Method	mg/l	0.077	0.073	0.083	0.086	0.19	0.076
6	Faecal Coliform	Multiple Tube Dilution Method	MPN	-	-	-	-	-	-
7	Total Coliform	Multiple Tube Dilution Method	MPN	3.6	-	-	-	-	-
8	Turbidity	Turbimetric Method	NTU	0.69	1.87	1.83	0.52	0.45	0.17
9	Alkalinity	Visual Titration	mg/l	139.38	44.56	42.6	36.29	73.48	27.53
10	Chloride	Argentometric titration	mg/l	25.72	8.04	8.6	9.55	51.72	10.77
11	Nitrogen Ammonia (N-NH ₃)	Calorimetric Method	mg/l	0.38	0.34	0.33	0.4	0.37	0.29
12	Total hardness	Complexometric Titration	mg/l	125.83	51.66	48.5	44.16	90.66	34.16
13	Calcium	Complexometric Titration	mg/l	37.08	12.53	11.33	11.31	25.4	8.66
14	Magnesium	Calculation Method	mg/l	7.94	4.83	4.8	4.23	7.26	2.96
15	Sodium	Flame Photometric method	mg/l	25.54	22.83	25	27.41	15.87	25.54
16	TDS	Gravimetric Method	mg/l	98.33	120	120	116.66	90	83.33
17	TSS	-----do-----	mg/l	39.16	53.33	54.16	51.66	36.66	33.33
18	Phosphate	Calorimetric Method	mg/l	0.2	0.19	0.19	0.2	0.19	0.17

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Sl. No	Parameter	Method Used	Unit	Zobawk Veng Hand Pump, Lunglei	Saikah Stream, Lawngtlai	Khurpui Tuikhur, Lawngtlai	Chanmari Hand Pump, Lawngtlai	P.H.E Reservoir, Helipad, New Saiha	Chhimtuipui River, Kawlchaw
				3739	3740	3741	3742	3743	3744
1	D.O	Iodometric Method	mg/l	3.09	6.3	7.59	3	7.01	7.4
2	pH	Float Method	-	7.16	7.24	7.12	6.66	7.43	7.28
3	Conductivity	Conductometric Method	us/cm	290.5	233.41	293.5	449.41	273.66	278
4	BOD	Dilution Method	mg/l	1.05	1.39	1.59	1.18	1.27	1.4
5	Nitrogen- Nitrite (N-NO ₂)	Calorimetric Method	mg/l	0.11	0.09	0.088	0.1	0.058	0.059
6	Faecal Coliform	Multiple Tube Dilution Method	MPN	-	-	-	-	-	-
7	Total Coliform	Multiple Tube Dilution Method	MPN	-	-	-	-	-	-
8	Turbidity	Turbimetric Method	NTU	12.4	0.35	0.4	3.86	0.58	0.85
9	Alkalinity	Visual Titration	mg/l	192.53	24.08	26.19	96.17	20.26	87.54
10	Chloride	Argentometric titration	mg/l	20.73	9.96	31.35	14.51	6.05	9.62
11	Nitrogen Ammonia (N-NH ₃)	Calorimetric Method	mg/l	0.45	0.38	0.33	0.41	0.29	0.27
12	Total hardness	Complexometric Titration	mg/l	180.83	23.33	67.5	87.25	22.83	80.16
13	Calcium	Complexometric Titration	mg/l	55.2	10.13	16.46	26.9	5.53	20.68
14	Magnesium	Calculation Method	mg/l	10.52	2	6.28	7.03	1.9	12.25
15	Sodium	Flame Photometric method	mg/l	45	19.5	25.41	25.25	32.45	27.7
16	TDS	Gravimetric Method	mg/l	100.83	100	86.66	98.33	81.66	131.66
17	TSS	-----do-----	mg/l	42.5	42.5	35	43.33	34.16	61.66
18	Phosphate	Calorimetric Method	mg/l	0.34	0.18	0.16	0.17	0.13	0.14

ANNUAL AVERAGE READING OF WATER QUALITY DATA UNDER NWMP, MIZORAM FOR THE YEAR 2016

Sl. No	Parameter	Method Used	Unit	Chhochhopa Tuikhur, Saiha	Tuikum River, Serchhip	Sesah Stream, Serchhip	Project veng Hand Pump, Serchhip	Lahmun River, Phaizau, Mamit	Teirei River, Near Bawngva Village, Mamit
				3745	3746	3747	3748	3749	3750
1	D.O	Iodometric Method	m	6.58	6.94	7.36	8.12	6.77	6.97
2	pH	Float Method	m/s	7.54	7.07	7.18	7.16	7.26	7.24
3	Conductivity	Conductometric Method	^o C	282.41	310.25	314.66	325.33	301.08	305.33
4	BOD	Dilution Method	mg/l	1.54	1.35	1.48	1.56	1.12	1.17
5	Nitrogen- Nitrite (N-NO ₂)	Calorimetric Method	-	0.057	0.073	0.082	0.083	0.068	0.076
6	Faecal Coliform	Multiple Tube Dilution Method	μs/cm	-	-	-	-	-	-
7	Total Coliform	Multiple Tube Dilution Method	mg/l	-	-	-	-	-	-
8	Turbidity	Turbimetric Method	mg/l	0.2	3.45	0.25	0.27	0.47	2.46
9	Alkalinity	Visual Titration	mg/l	41.62	35.18	27.07	48.38	58.39	49.5
10	Chloride	Argentometric titration	NTU	20.87	9.3	8.22	10.39	8.75	8.65
11	Nitrogen Ammonia (N-NH ₃)	Calorimetric Method	mg/l	0.53	0.27	0.28	0.28	0.27	0.33
12	Total hardness	Complexometric Titration	mg/l	43.5	47.5	35.16	55.66	59.08	44.58
13	Calcium	Complexometric Titration	mg/l	10.46	11.45	8.8	12.86	13.97	11.28
14	Magnesium	Calculation Method	mg/l	4.13	4.43	3.12	5.58	5.93	5.1
15	Sodium	Flame Photometric method	mg/l	24.54	19.5	19.2	19.2	20.8	33.33
16	TDS	Gravimetric Method	mg/l	93.33	111.66	103.33	90	105.83	109.16
17	TSS	-----do-----	mg/l	40	49.16	44.16	37.5	50	50
18	Phosphate	Calorimetric Method	mg/l	0.13	0.23	3.13	0.15	0.12	0.16

ANNUAL AVERAGE READING OF WATER QUALITY DATA UNDER NWMP, MIZORAM FOR THE YEAR 2016

Sl. No	Parameter	Method Used	Unit	Tut River, Near Dapchhuah Village	Tuichhuahen Stream, Kolasib	Hmar veng Tuikhur, Kolasib	Tlawng River, Downstream, Bairabi	Pond, Near Thermal Power Plant, Bairabi	Tiau River, Champhai
				3751	3752	3753	3754	3755	3756
1	D.O	Iodometric Method	mg/l	6.93	7.15	8.26	8.13	7.68	7.72
2	pH	Float Method	-	7.31	7.07	6.88	7.73	7.8	7.86
3	Conductivity	Conductometric Method	us/cm	302.08	260.5	249.08	250.5	294.83	292.08
4	BOD	Dilution Method	mg/l	1.21	1.4	1.7	1.6	1.77	2.1
5	Nitrogen- Nitrite (N-NO ₂)	Calorimetric Method	mg/l	0.063	0.072	0.071	0.079	0.076	0.07
6	Faecal Coliform	Multiple Tube Dilution Method	MPN	-	-	-	-	-	-
7	Total Coliform	Multiple Tube Dilution Method	MPN	-	-	-	-	-	-
8	Turbidity	Turbimetric Method	NTU	0.98	1.67	0.55	2.42	2.55	0.85
9	Alkalinity	Visual Titration	mg/l	50.82	55.16	26.43	43.9	61.83	92.03
10	Chloride	Argentometric titration	mg/l	9.8	9.47	11.3	9.05	12.64	11.16
11	Nitrogen Ammonia (N-NH ₃)	Calorimetric Method	mg/l	0.29	0.4	0.4	0.31	0.44	0.36
12	Total hardness	Complexometric Titration	mg/l	55.75	49	27.5	47.5	73.68	79.33
13	Calcium	Complexometric Titration	mg/l	13.24	11.46	7.5	10.86	19.58	21.46
14	Magnesium	Calculation Method	mg/l	5.43	4.84	2.49	4.85	7.31	7.1
15	Sodium	Flame Photometric method	mg/l	30.58	25.75	22.5	44.75	36.75	27.87
16	TDS	Gravimetric Method	mg/l	117.5	103.33	88.33	125	108.33	128.33
17	TSS	-----do-----	mg/l	53.33	44.16	36.66	59.16	46.66	59.16
18	Phosphate	Calorimetric Method	mg/l	0.14	0.19	0.27	0.21	0.21	0.2

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Sl. No	Parameter	Method Used	Unit	Tuipui River, Champhai	Bethel Veng Hand-pump, Champhai
				3757	3758
1	D.O	Iodometric Method	mg/l	7.62	4.11
2	pH	Float Method	-	7.44	7.11
3	Conductivity	Conductometric Method	us/cm	339.41	307
4	BOD	Dilution Method	mg/l	1.73	1.32
5	Nitrogen- Nitrite (N-NO ₂)	Calorimetric Method	mg/l	0.067	0.082
6	Faecal Coliform	Multiple Tube Dilution Method	MPN	-	0
7	Total Coliform	Multiple Tube Dilution Method	MPN	-	24
8	Turbidity	Turbimetric Method	NTU	0.56	21.86
9	Alkalinity	Visual Titration	mg/l	50.51	133.55
10	Chloride	Argentometric titration	mg/l	8.7	21.35
11	Nitrogen Ammonia (N-NH ₃)	Calorimetric Method	mg/l	0.38	0.46
12	Total hardness	Complexometric Titration	mg/l	48.33	113.66
13	Calcium	Complexometric Titration	mg/l	11.33	32.88
14	Magnesium	Calculation Method	mg/l	4.87	7.55
15	Sodium	Flame Photometric method	mg/l	32.79	40.25
16	TDS	Gravimetric Method	mg/l	125.83	94.14
17	TSS	-----do-----	mg/l	55	39.16
18	Phosphate	Calorimetric Method	mg/l	0.19	0.22

(Source: Mizoram Pollution Control Board)