



Ground Water Quality Analysis Report- Pre Monsoon (May-June 2023)

Annexure-I

Parameters	Date of Monitoring	Colour	Odour	Weather	Temp. (°C)	pH	Total Dissolved Solids (mg/L)	Electrical Conductivity(µs/cm)	Chemical Oxygen Demand(mg/L)	Total Hardness(mg/L)	Calcium Hardness(mg/L)	Magnesium Hardness (mg/L)	Total Alkalinity(mg/L)	Chloride (mg/L)	Fluoride(mg/L)	Nitrate - N(mg/L)	Nitrite - N(mg/L)	Sulphate (mg/L)	Phosphate(mg/L)	Sodium(mg/L)	Potassium(mg/L)	Sodium Adsorption Ratio	Total Coliform (MPN/100ml)	Fecal Coliform (MPN/100ml)	
																									Acceptable limit as per BIS IS 10500:2012
						6.5-8.5	500	N/A	N/A	200	N/A	N/A	200	250	1	45	N/A	200	N/A	N/A	N/A	N/A	NR	NR	
						NR	2000	N/A	N/A	600	N/A	N/A	N/A	1000	1.5	NR	N/A	400	N/A	N/A	N/A	N/A	NR	NR	
						2	10 mg/l	05 µs/cm	05 mg/l	10 mg/l	5 mg/l	4 mg/l	5 mg/l	5 mg/l	0.2 mg/l	0.3 mg/l	0.02 mg/l	5 mg/l	0.2 mg/l	5 mg/l	1 mg/l	N/A	1.8	1.8	
S.No	Monitoring Location																								
District - Chamoli																									
1	Handpump, near patrol pump,Joshimath	09-05-2023	Clear	Odourfree	Clear	13	7.40	113	172	BDL	70	58	12	82	15	0.30	BDL	BDL	36.52	BDL	14.20	1.60	0.74	BDL	BDL
2	Handpump, near Gopinath mandir, Gopeshwar	09-05-2023	Clear	Odourfree	Clear	14	7.40	234	351	BDL	110	85	25	90	38	BDL	BDL	0.10	48.96	BDL	35.80	12.90	1.48	BDL	BDL
District - Rudraprayag																									
3	Handpump, near Mandhakini ghat,Augestmuni	15-05-2023	Clear	Odourfree	Clear	13	7.90	73	110	BDL	92	80	12	90	17	0.33	BDL	BDL	33.1	BDL	8.5	2.3	0.38	BDL	BDL
4	Handpump, near Bus Stand, Rudraprayag town	15-05-2023	Clear	Odourfree	Clear	14	7.80	97	146	BDL	98	85	13	90	9	0.36	BDL	BDL	20.24	BDL	9	2.6	0.39	BDL	BDL
District - Uttarkashi																									
5	Handpump near market,Chinyalisaur	03-05-2023	Clear	Odourfree	Clear	19	6.80	148	224	BDL	92	70	22	108	11	BDL	BDL	BDL	40.85	BDL	17	2.10	0.77	BDL	BDL
6	Handpump near market, Uttarkashi	03-05-2023	Turbid	Odourfree	Clear	20	6.70	177	270	BDL	130	105	25	115	24	BDL	BDL	BDL	61.52	BDL	14.10	7.40	0.54	BDL	BDL
District- Tehri																									
7	Handpump, Bhagirathipuram, Tehri	03-05-2023	clear	Odourfree	Clear	20	7.10	242	365	BDL	190	160	30	216	14	BDL	BDL	BDL	5.62	BDL	27.20	1.90	0.86	BDL	BDL
8	Handpump, near Chamund, New tehri	03-05-2023	Clear	Odourfree	Clear	20	7.10	50	77	BDL	47	30	17	40	7	BDL	BDL	BDL	6.84	BDL	8.30	BDL	0.52	BDL	BDL
District - Pauri Garhwal																									
9	Handpump near Devi Mandir, Kotdwar	03-05-2023	clear	Odourfree	Clear	21	7.20	279	419	BDL	225	210	15	264	17	0.40	BDL	0.07	28.79	BDL	11.10	1.50	0.32	BDL	BDL
10	Handpump near Hanuman Mandhir, Siggadi Industrial Area, Kotdwar	03-05-2023	clear	Odourfree	Clear	20	7.50	246	371	BDL	244	223	21	260	27	0.30	BDL	0.09	25.74	BDL	15.80	1.60	0.44	BDL	BDL

S.No	Monitoring Location	Date of Monitoring	Colour	Odour	Weather	Temp. (°C)	pH	Total Dissolved Solids (mg/L)	Electrical Conductivity(µs/cm)	Chemical Oxygen Demand(mg/L)	Total Hardness(mg/L)	Calcium Hardness(mg/L)	Magnesium Hardness (mg/L)	Total Alkalinity(mg/L)	Chloride (mg/L)	Fluoride(mg/L)	Nitrate - N(mg/L)	Nitrite - N(mg/L)	Sulphate (mg/L)	Phosphate(mg/L)	Sodium(mg/L)	Potassium(mg/L)	Sodium Adsorption Ratio	Total Coliform (MPN/100ml)	Fecal Coliform (MPN/100ml)
District - Dehradun																									
11	Handpump near Rusan Pharma, Pharma city, Selaqui, Dehradun	11-05-2023	clear	Odourfree	Clear	19	6.65	74	113	5.60	68	56	12	59	10	0.30	BDL	0.11	195.5	BDL	9.40	BDL	0.49	BDL	BDL
12	Handpump near Old Police Station, Selaqui, Industrial Area-1	11-05-2023	Clear	Odourfree	Clear	19	6.71	118	179	BDL	68	62	6	54	19	0.40	BDL	0.10	200.11	BDL	BDL	1.30	0.79	BDL	BDL
13	Handpump near Honeywell Pvt. Ltd., Selaqui, Industrial Area-2	11-05-2023	clear	Odourfree	Clear	20	6.59	93	145	5.20	72	65	7	58	21	BDL	BDL	0.08	58.77	BDL	9.20	1.30	0.47	BDL	BDL
14	MSW Landfill site, Sisambada, Dehradun-1, North side	11-05-2023	Clear	Odourfree	Clear	18	6.80	105	155	5.20	69	57	12	101	24	BDL	BDL	0.10	260.52	BDL	12.50	BDL	0.65	BDL	BDL
15	MSW Landfill site, Sisambada, Dehradun-1, South side	11-05-2023	Clear	Odourfree	Clear	18	6.56	89	138	5.60	71	64	7	95	24	0.30	BDL	0.08	77.42	BDL	11.9	BDL	0.61	BDL	BDL
District - Haridwar																									
16	Handpump at CHC, Bhagwanpur Industrial Area - 1	31-05-2023	Clear	Odourfree	Clear	27.6	7.30	302	472	8	44	18	26	218	10	BDL	BDL	1.23	8	BDL	49.25	11.86	3.21	BDL	BDL
17	Handpump at Sikandarpur, Lakeshwari, Bhagwanpur Industrial Area - 2	31-05-2023	clear	Odourfree	Clear	25.7	7.90	227	356	BDL	60	10	50	225	15	BDL	BDL	1.20	6	BDL	45.96	5.49	2.57	BDL	BDL
18	Handpump at Ramnagar Roorkee Industrial Area -1	31-05-2023	Clear	Odourfree	Clear	27	6.90	321	502	6	80	20	60	300	15	0.32	BDL	1.08	6.80	BDL	27.09	11.90	1.31	BDL	BDL
19	Handpump at Village Sunhera, Roorkee Industrial Area - 2	31-05-2023	Clear	Odourfree	Clear	27	7.80	310	485	BDL	62	18	44	240	16	0.22	BDL	0.25	10	BDL	40.93	6.59	2.25	BDL	BDL
20	Handpump at Roshnabad, Collectorate, SIDCUL, Industrial Area - 1	31-05-2023	Clear	Odourfree	Clear	27.5	7.80	400	625	8	85	58	27	295	22	0.42	BDL	1.80	6.80	BDL	18.50	4.04	0.87	BDL	BDL
21	Handpump at Saleempur Mahdood Chowk, SIDCUL Industrial Area - 2	31-05-2023	Clear	Odourfree	Clear	28	7.50	779	1218	9.20	140	94	46	310	50	BDL	0.86	2.34	5.80	BDL	41.50	3.99	1.52	BDL	BDL
22	Handpump near Municipal Solid Waste Landfill Site, Near Model Primary School, Sarai, Jawalapur Haridwar	01-06-2023	Clear	Odourfree	Clear	27	7.70	437	684	7.80	86	56	30	258	26	BDL	BDL	1.06	28	BDL	27.60	5.39	1.29	BDL	BDL
23	Handpump near Municipal Solid Waste Landfill Site, Near Jhanda Chowk, Sarai, Jawalapur Haridwar	01-06-2023	Clear	Odourfree	Clear	27.4	7.60	560	874	10	102	66	36	296	31	0.45	0.32	1.04	45	BDL	21.70	2.91	0.93	BDL	BDL
District - Udham Singh Nagar																									
24	Handpump at Santipuri Kiccha - 1, U.S. Nagar	30-05-2023	Clear	Odourless	Clear	28	7.30	234	337	8	182	141	41	92	16	BDL	BDL	BDL	27.62	BDL	11.40	1.60	0.36	BDL	BDL
25	Handpump at Santipuri Kiccha - 2, U.S. Nagar	30-05-2023	Clear	Odourless	Clear	26	7.40	222	328	BDL	163	119	44	88	23	0.38	0.32	BDL	36.91	BDL	7.90	1.40	0.27	BDL	BDL
26	Handpump at Pantnagar Industrial Area - 1, U.S. Nagar	30-05-2023	Clear	Odourless	Clear	26	7.40	246	382	BDL	196	135	61	80	25	0.65	BDL	0.06	34.67	BDL	9.80	2.30	0.30	BDL	BDL
27	Handpump at Pantnagar Industrial Area - 2, U.S. Nagar	30-05-2023	Clear	Odourless	Clear	26	7.20	254	404	BDL	215	167	48	85	18	0.74	BDL	0.04	27.99	BDL	12.50	2.30	0.37	BDL	BDL
28	Handpump near Sitarganj Industrial Area - 1, U.S. Nagar	30-05-2023	Clear	Odourless	Clear	26	7.10	218	335	12	188	152	36	80	11	0.21	BDL	0.06	5.72	BDL	6.60	1.20	0.21	BDL	BDL

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29	Handpump at Sitarganj Industrial Area - 2, U.S. Nagar	30-05-2023	Clear	Odourless	Clear	27	6.80	490	761	8	235	190	45	120	69	0.72	BDL	0.03	39.14	BDL	15.10	1.50	0.43	BDL	BDL
30	Handpump near Gurudwara, Muradabad Road, Kashipur, U.S. Nagar	29-05-2023	Clear	Odourless	Clear	28	7.10	535	788	BDL	194	130	64	104	75	0.41	BDL	BDL	71.23	BDL	86.50	1.70	2.69	BDL	BDL
31	Handpump near Kendriya Vidyalaya, Bazpur Road, Kashipur, U.S. Nagar	29-05-2023	Clear	Odourless	Clear	26	7.30	244	370	BDL	198	152	46	88	24	0.32	BDL	BDL	82.20	BDL	10.20	1.30	0.31	BDL	BDL
32	Handpump near I.G.L Lagoon, Chamalida, Kashipur, U.S. Nagar	29-05-2023	Clear	Odourless	Clear	27	7.30	198	312	BDL	237	163	74	90	15	0.55	BDL	0.03	18.26	BDL	11.80	1.60	0.33	BDL	BDL
33	Handpump at Chaiti Chauraha, Bajpur Road, Kashipur, U.S. Nagar	29-05-2023	Clear	Odourless	Clear	27	7.10	340	495	8	194	138	56	110	17	0.68	BDL	0.05	10.66	BDL	24.90	12.80	0.78	BDL	BDL
34	Handpump near Govt Primary School, Kashipur, U.S. Nagar	29-05-2023	Clear	Odourless	Clear	26	7.20	324	492	BDL	174	132	42	104	13	0.46	BDL	BDL	11.24	BDL	64.30	1.70	2.11	BDL	BDL
35	Handpump at Industrial Area, Mahuakherganj, Kashipur, U.S. Nagar	29-05-2023	Clear	Odourless	Clear	26	7.20	294	435	8	165	130	35	106	19	0.48	BDL	0.04	5.40	BDL	28.50	2	0.96	BDL	BDL
36	Handpump near old Industrial Area, Kashipur near IGL, U.S. Nagar.	29-05-2023	Clear	Odourless	Clear	28	6.80	1085	1650	8	206	144	62	56	25	0.56	BDL	0.07	25.80	BDL	13.50	1.50	0.41	BDL	BDL
District - Pithoragarh																									
37	Handpump at Pithoragarh Town near Chandrabhaga, Pithoragarh	09-05-2023	Clear	Odourfree	Clear	17	7.61	151	230	BDL	188	106	82	164	17	0.32	BDL	BDL	27.25	BDL	5.40	1.30	0.17	BDL	BDL
38	Handpump at Pithoragarh Town near Pithoragarh fort, Pithoragarh	09-05-2023	Clear	Odourfree	Clear	16	7.26	166	250	BDL	200	114	86	178	19	0.41	BDL	0.03	28.76	BDL	37	8.20	1.13	BDL	BDL
District - Almora																									
39	Handpump near jai shri college, Khatyari, Almora	09-05-2023	Clear	Odourfree	Clear	16	7.89	140	210	BDL	182	108	74	146	18	0.25	BDL	BDL	27.32	BDL	BDL	1.10	0.10	BDL	BDL
40	Handpump near Pataldevi, Almora	09-05-2023	Clear	Odourfree	Clear	16	7.14	119	180	BDL	178	98	80	128	21	0.27	BDL	0.03	31.25	BDL	5.30	6.80	0.17	BDL	BDL
District - Nainital																									
41	Handpump at Ramnagar Town near Govt PG College, Ramnagar	09-05-2023	Clear	Odourfree	Clear	19	7.21	171	260	BDL	210	118	92	186	24	BDL	BDL	0.04	55.21	BDL	6.20	4.10	0.19	BDL	BDL
42	Handpump at Nainital Town near Sariyatal	09-05-2023	Clear	Odourfree	Clear	16	7.44	127	190	BDL	174	102	72	160	19	0.26	BDL	BDL	45.33	BDL	13.20	6.10	0.43	BDL	BDL
District - Bageshwar																									
43	Handpump near Kafilgair, Bageshwar	08-05-2023	Clear	Odourfree	Clear	17	6.93	153	230	BDL	190	112	78	172	21	0.41	BDL	BDL	30.05	BDL	15.60	8.20	0.49	BDL	BDL
44	Handpump at Bageshwar Town - 2 near Roadways station, District-Bageshwar	08-05-2023	Clear	Odourfree	Clear	18	7.75	174	260	BDL	208	122	86	184	17	0.34	BDL	0.03	62.22	BDL	17.10	3.80	0.51	BDL	BDL

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District - Champawat																									
45	Handpump near Shivmandir, Champawat	08-05-2023	Clear	Odourfree	Clear	16	7.37	139	210	BDL	190	108	82	168	23	0.32	BDL	BDL	25.65	BDL	10.80	8.70	0.34	BDL	BDL
46	Handpump near Gas Station Lohaghat, Champawat	08-05-2023	Clear	Odourfree	Clear	17	7.81	116	180	BDL	166	98	68	142	18	0.30	BDL	BDL	32.8	BDL	6	3.80	0.20	BDL	BDL

Note-

Abbreviations-

N/A= Not Applicable

ND= Not Detected

BDL= Below Detection Limit

NR= No Relaxation