

ATAL BHUJAL YOJANA (AtalJal)

State : HARYANA

**Department : IRRIGATION & WATER
RESOURCE DEPARTMENT**

BLOCK : Ateli Nangal

DISTRICT : Mahendragarh

YEAR : 2024-2025

*Towards partial fulfilment of requirements for Disbursement of
Incentive under DLI -1*

HYDROGEOLOGICAL REPORT

(YEAR: 2024-25)

STATE	:	Haryana
DISTRICT	:	Mahendragarh
BLOCK	:	Ateli Nangal
BLOCK HQ	:	Ateli

A	GENERAL INFORMATION			
1.	Geographical Area (Ha)	:	21965	
2.	No. of Gram Panchayat	:	43	
3.	No. of Towns	:	1	
4.	No. of Villages	:	46	
5.	Population (Census 2011)	:	Male	Female
		:	49043	44130
6.	Rainfall (mm) (2023)	:	Monsoon	Non-Monsoon
		:	326	324
7.	River Basin	:	Yamuna river basin	
8.	Major Soil Type	:	Loamy sand, Sandy soil	

B	LAND USE (2023-24)			
1.	Forest Area (Ha)	:	89	
2.	Cultivable Area (Ha)	:	16852	
3.	Net sown Area (Ha)	:	16185	
4.	Gross Cropping Area (Ha)	:	31378	

C	CROPPING PATTERN (As in 2023-24)				
1.	Major Crops grown	:	Kharif	Rabi	Summer
		:	Bajra	Wheat	Pulses
		:	Gawar	Oilseeds	Tomato
		:	Cotton	Mustard	Vegetable

D	IRRIGATION FACILITIES (As in 2023-24)				
1.	Net Irrigation Area (Ha)	:	15853		
2.	Gross Irrigated Area (Ha)	:	18580		
3.	Area under irrigation (Ha) source wise	:	DW	BW/TW	Tanks/Ponds
		:	NA	15430	NA

E	GEOLOGY & HYDROGEOLOGY			
1.	Predominant Rock type	:	Sand with silt and kankar, Quartzite, Phyllite, Schist, Slate	
2.	Major Geological Formation	:	Older Alluvium and Ajabgarh group/ formation	
3.	Important water bearing formation	:	Coarse grain sand & fractured/jointed hard rocks	
4.	Status of coverage under NAQUIM	:	Covered	

F	GROUND WATER CONDITIONS										
1	No. of wells used for Water Level (WL) monitoring.	:	Open wells				BW/TW/ PZ				
		CGWB	SGWB	Atal Jal	Total	CGWB	SGWB	Atal Jal	Total		
		0	0	0	0	0	10	54	64		
2	Monitoring mechanism (Nos.)	:	Manual			DWLR			Telemetry		
		CGWB	SGWB	Atal Jal	CGWB	SGWB	Atal Jal	CGWB	SGWB	Atal Jal	
		0	10	23	0	0	31	0	0	31	
3	Monitoring frequency	:	Agency	No. of times monitored/year							
		CGWB	2 times/year Pre and Post Monsoon								
		SGWB	2 times/year Pre and Post Monsoon								
		Atal Jal	2 times/year Pre and Post Monsoon								
4	Period of water level data availability.	:	Agency	Period of WL data availability (From - To)							
			From (year)			To (year)					
		CGWB	2015			2024					
		SGWB	2015			2024					
		Atal Jal	2023			2024					
5	Water level range (m.bgl)	:	Minimum/Village				Maximum/Village				
	Pre-monsoon (May – June 2024)		19.72/Karia_31481				122.8/Rampura_31497				
	Post-monsoon (Oct/Nov 2024)		20.06/Karia_31481				118.7/Rampura_31497				
6	Seasonal WL fluctuation range (m)	:	Minimum/ Village				Maximum/ Village				
		-2.41/Mahasar_31488				9/Khor_31486					

G	GROUND WATER QUALITY								
1	No. of wells used for Water Quality (WQ) monitoring.	Open Wells				BW/TW/ PZ			
		CGWB	SGWB	Atal Jal	Total	CGWB	SGWB	Atal Jal	Total
		0	0	0	0	0	11	43	54
2	Monitoring frequency	Agency	No. of times monitored/year						
		CGWB	1 time/year						
		SGWB	1 time/year						
		Atal Jal	1 time/year						
3	Period of water quality data availability	Agency	Period of WQ data availability (Years)						
		CGWB	2015 to 2024						
		SGWB	2020 to 2024						
		Atal Jal	2023 to 2024						
4	Parameters analysed	Agency	Parameters Analysed						
		CGWB	pH,EC,TH,Ca,Mg,Na,K,CO ₃ ,HCO ₃ , SO ₄ ,Cl,F,NO ₃						
		SGWB	EC						
		Atal Jal	pH,EC,TDS,TH,Ca,Mg,Na,K,CO ₃ ,HCO ₃ , SO ₄ ,Cl,F,NO ₃						
5	Known ground water quality issues, if any	No Such Issue							

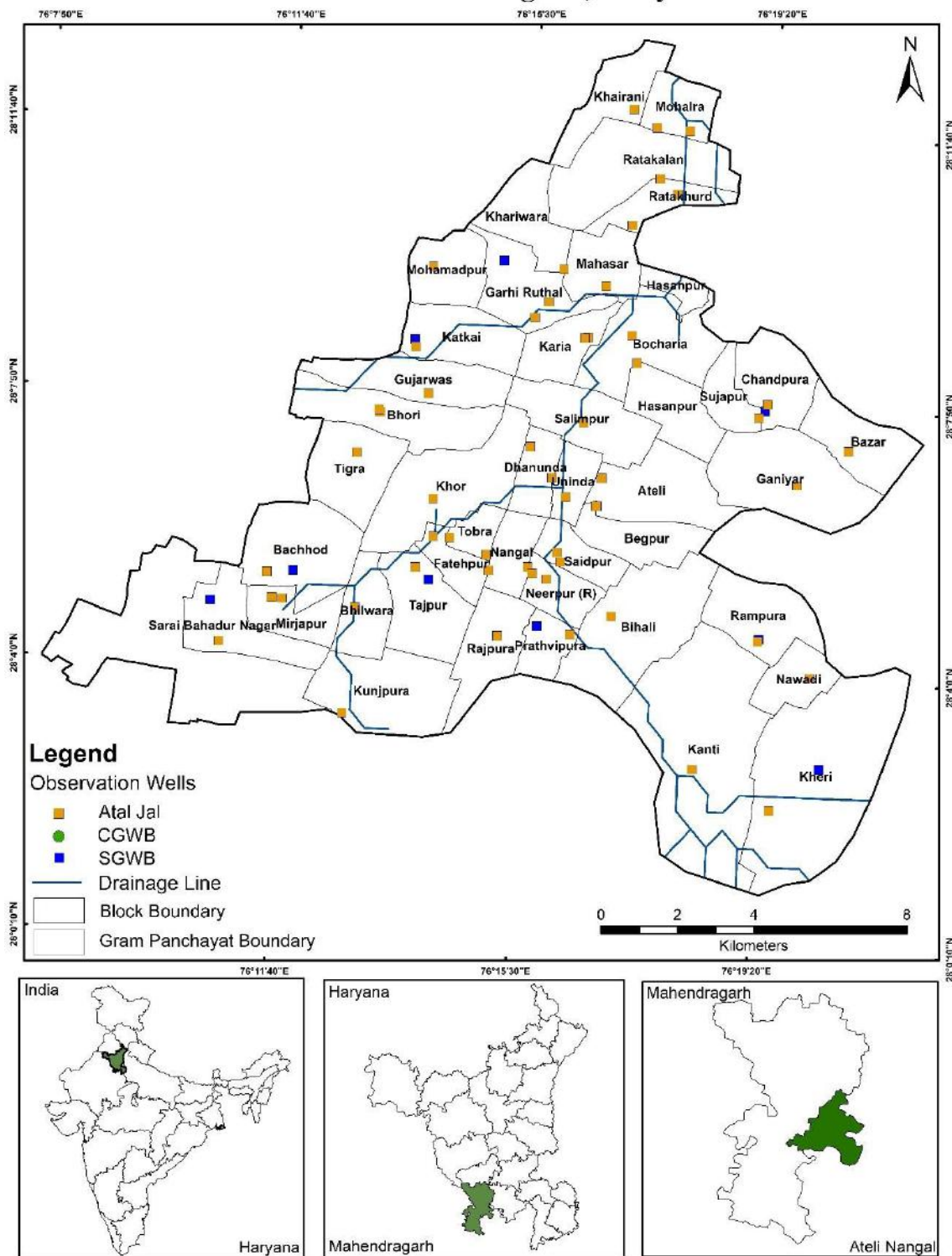
H. GROUND WATER RESOURCES								
1.	Latest assessment year	:	2023					
2.	Assessment Unit	:	Block					
3.	Annual extractable GW resource (ha.m)	:	3511.2					
4.	Current annual GW extraction (ha.m)	:	4308.9					
5.	Net GW availability for future use (ha.m)	:	0.0					
6.	Stage of GW extraction (%)	:	121.07 %					
7.	Category of block/taluk/(2023)	:	Over Exploited					
8.	Category of block/taluk/ in previous assessments		2023	2020	2017	2013	2011	2009
			Over Exploited	Critical	Semi Critical	Over Exploited	Over Exploited	Over Exploited
								2004
								Critical

I. WATER-RELATED SCHEMES			
1	Schemes with a bearing on ground water, bearing implemented in the block/taluk		
Centrally Sponsored/Central Sector Scheme	i)	PMKSY	
	ii)	MGNREGA	
	iii)	RKVY	
	iv)	NAQUIM	
	v)	JJM	
	vi)	NHP	
State Scheme	i)	State Plan Scheme for providing assistance on adopting water saving technologies (2402)	
	ii)	MPMV	

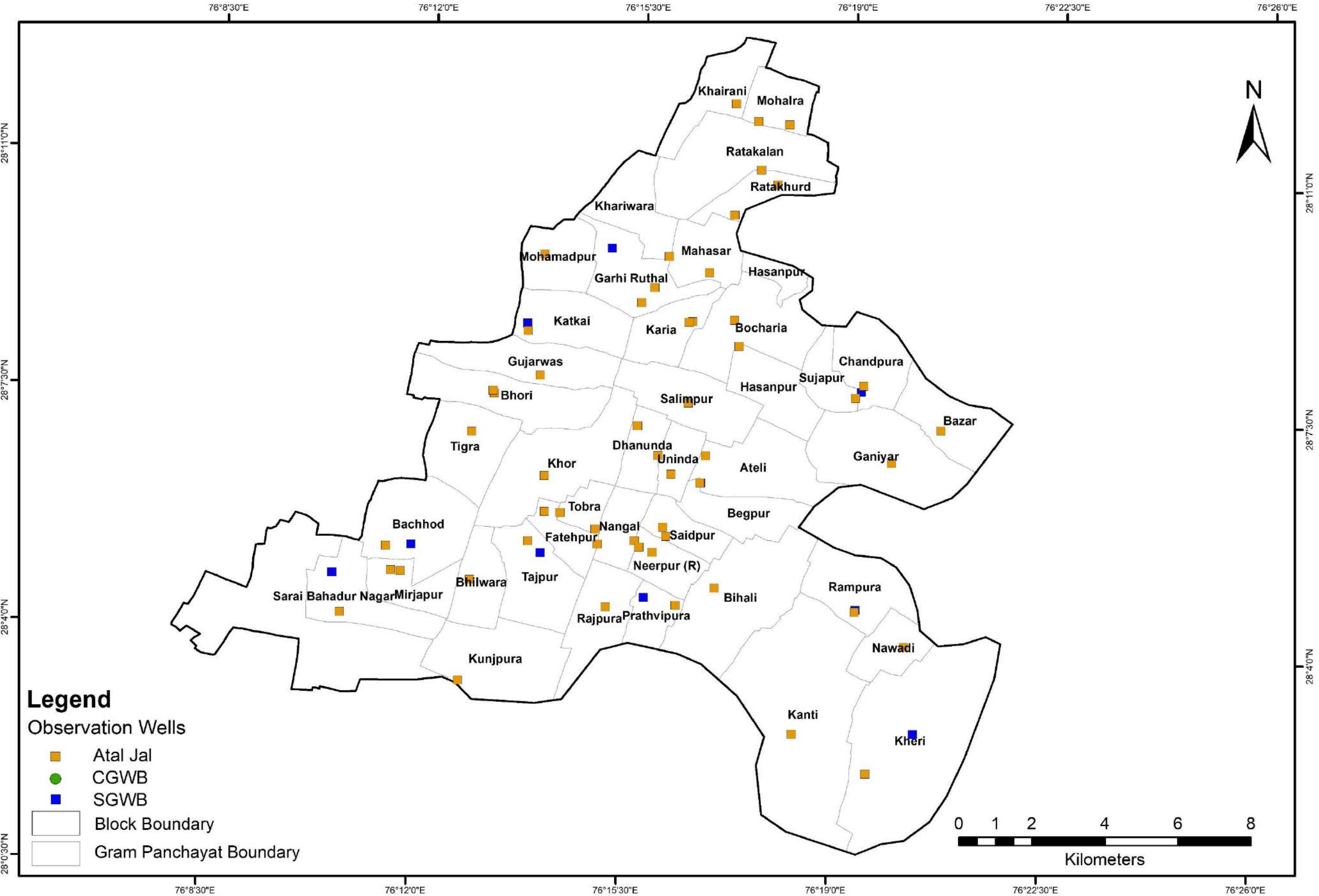
J. GROUND WATER RELATED ISSUES			
1	GROUND WATER RELATED ISSUES OF THE BLOCK		
i)	Issues related to GW Availability	:	Ground water depletion issues due to over extraction of groundwater for agriculture and other uses
ii)	Issues related to GW quality	:	Salinity issue, groundwater contamination in the vicinity of Mahasar village
iii)	Other issues if any	:	-

K. ANNEXURES	
I.	Basic data of observation wells – Attached
II.	Historical water level data – Attached
III.	Historical water quality data – Attached

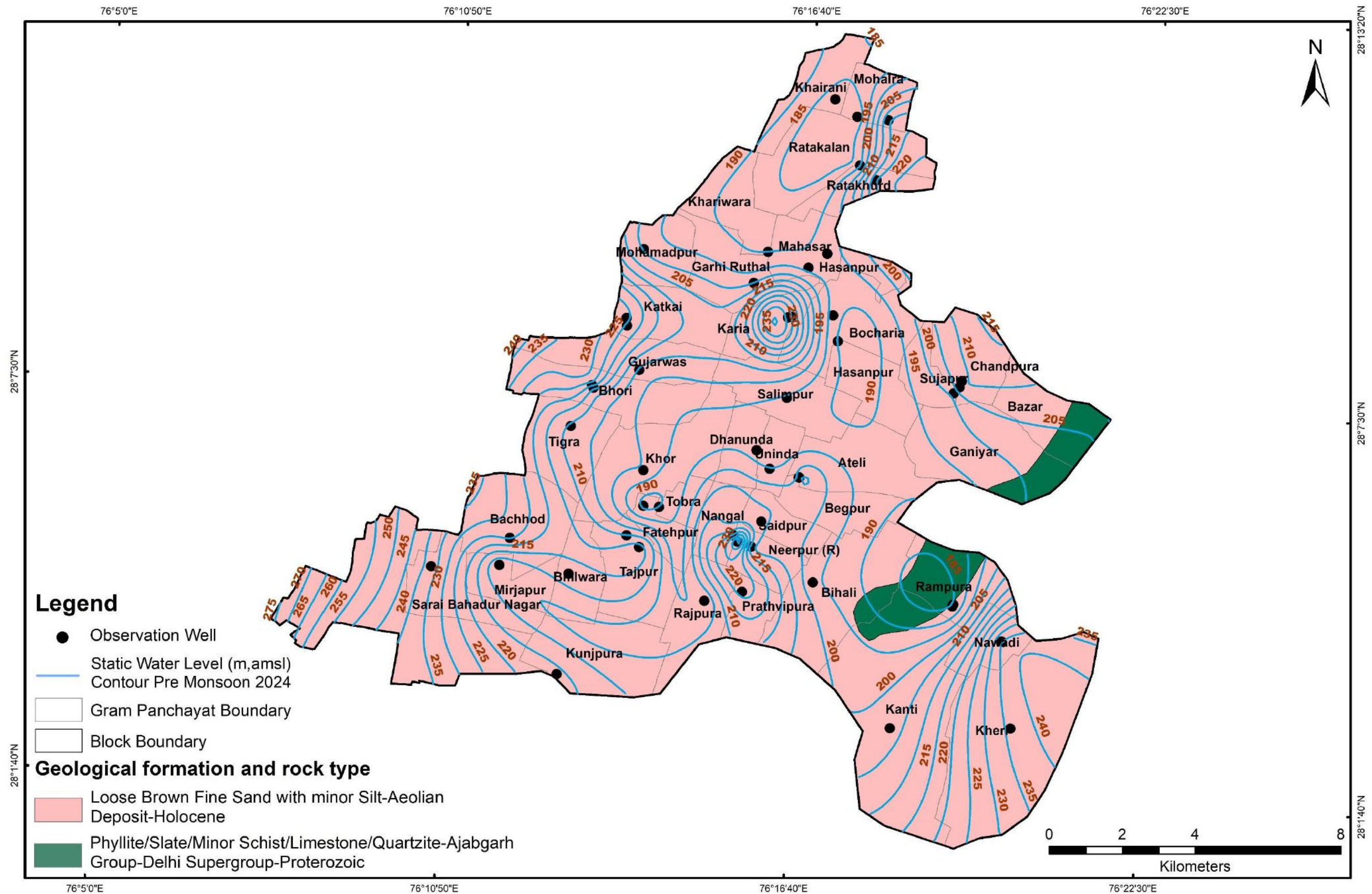
Location Map of Block- Ateli Nangal, District- Mahendragarh, Haryana



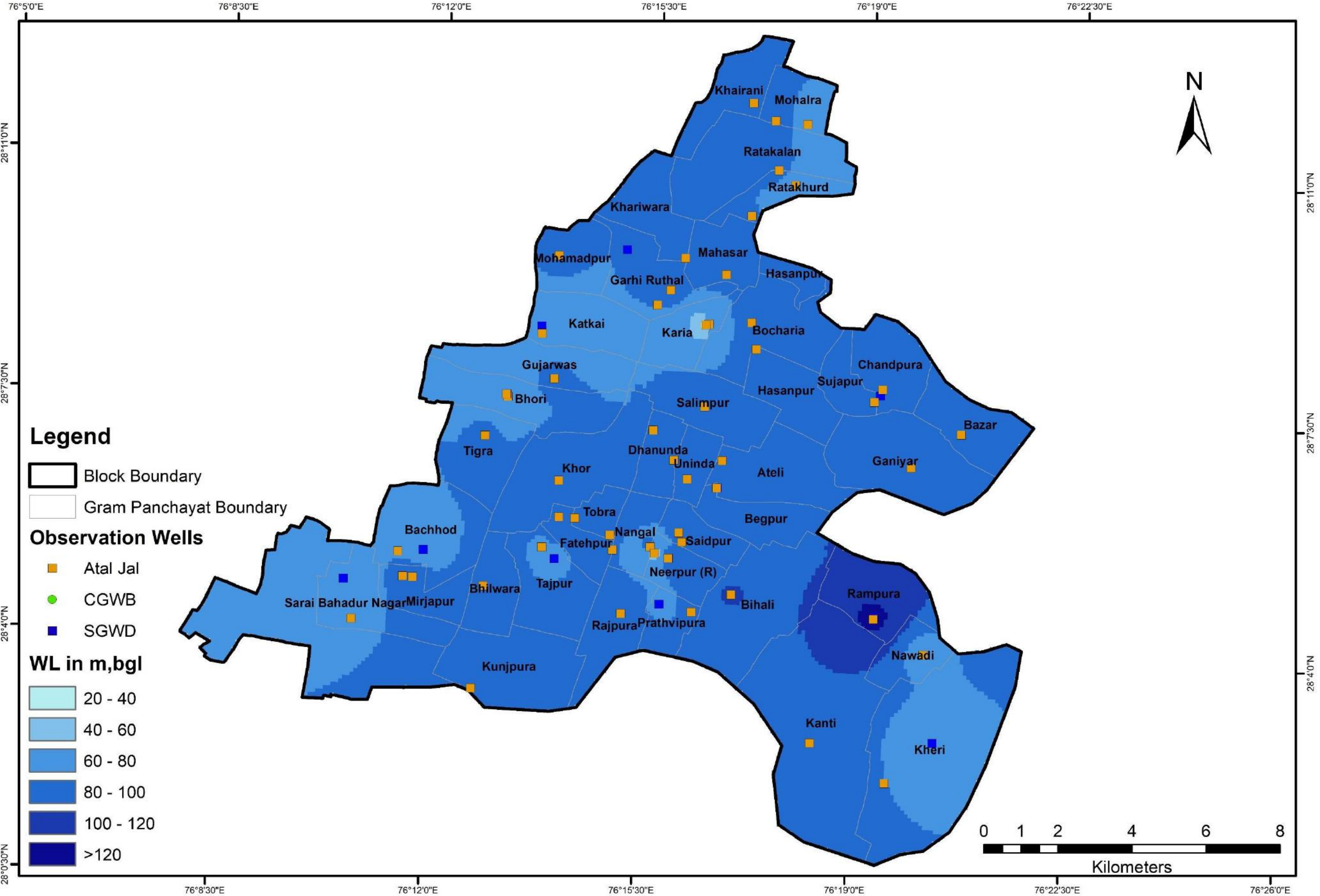
Location of Observation Wells for Monitoring Water Levels and Water Quality, Block-Ateli Nangal, District- Mahendragarh, Haryana



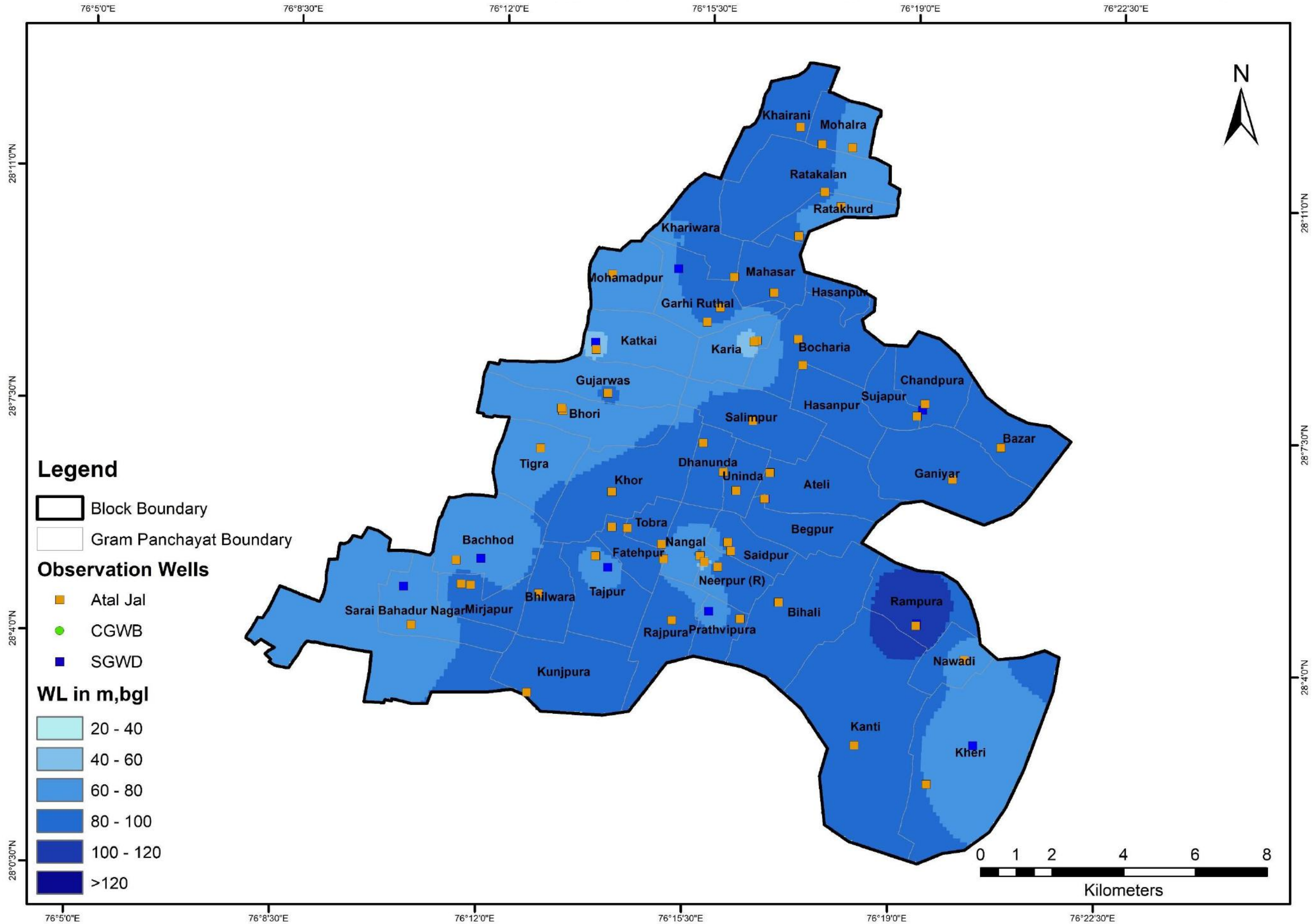
Hydrogeological Map, Block- Ateli Nangal, District- Mahendragarh, Haryana



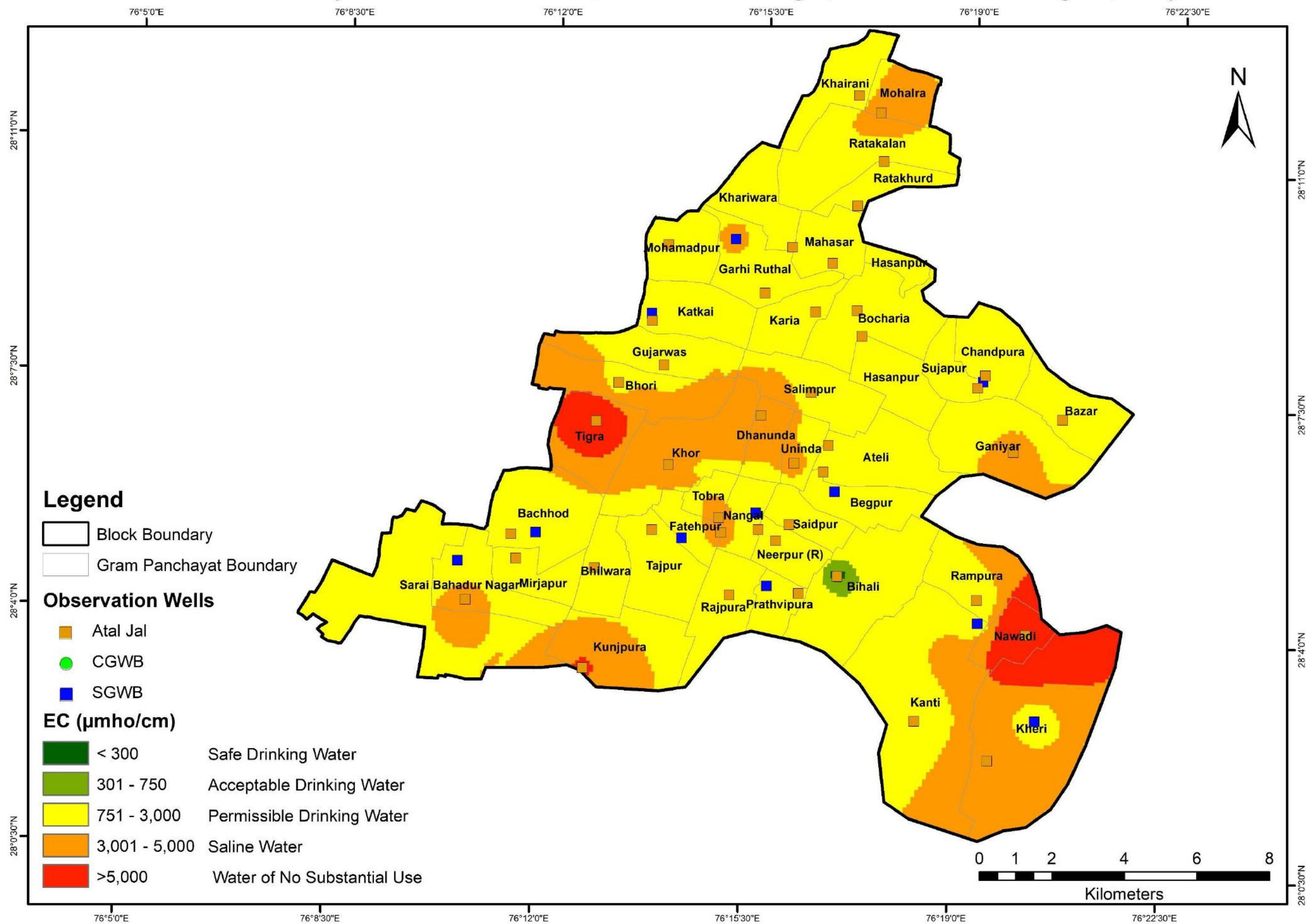
Pre Monsoon 2024 Depth to Water Level (m,bgl) Map, Block- Ateli Nangal, District - Mahendragarh, Haryana



Post Monsoon 2024 Depth to Water Level (m,bgl) Map, Block - Ateli Nangal, District - Mahendragarh, Haryana



Electrical Conductivity of Groundwater-2024, Block - Ateli Nangal, District - Mahendragarh, Haryana



ANNEXURE: I
BASIC DATA OF MONITORING WELLS

State		Haryana					District	Mahendragarh				Block	Ateli Nangal		
S.No	Well ID	Gram Panchayat	Name of the village	Site Name	Latitude	Longitude	Type of Well	Reduced Level	Aquifer Type/Lithology	Height of Measuring (m, agl)	Depth (m,bgl)	Diameter (m)	Purpose of Monitoring (WL/WQ)	Monitoring Mechanism	Agency
1.	HRY_M.GARH_ATELI_ATELI_1	Ateli_31465	Ateli	Garden	28.1131	76.2790	Tube Well	283	Confined	0.85	198	0.15	WQ	Manual	Atal Jal
2.	HRY_M.GARH_ATELI_BACHHOD_1	Bachhod_31466	Bachhod	Out Side Road	28.0881	76.1911	Tube Well	293	Confined	1.80	155	0.10	WQ	Manual	Atal Jal
3.	HR_GW_505	Bazar_31467	Bazar	Govt. Middle School Bazar	28.1216	76.3442	Piezometer	311	Semi-Confined To Confined	0.50	130	0.10	Both	Telemetric	Atal Jal
4.	HR_GW_522	Begpur_31468	Begpur	Govt. Middle School Begpur	28.1065	76.2778	Piezometer	288	Semi-Confined To Confined	0.50	126	0.10	Both	Telemetric	Atal Jal
5.	HR_GW_521	Bhilwara_31469	Bhilwara	Govt. Middle School Bhilwara	28.0805	76.2147	Piezometer	299	Confined	0.50	130	0.10	Both	Telemetric	Atal Jal
6.	HR_GW_523	Bhori_31470	Bhori	Govt.Primary School Bhori	28.1267	76.2196	Piezometer	291	Semi Confined to Confined	0.50	111	0.10	Both	Telemetric	Atal Jal
7.	GWL-06-069-00522-00031470-002	Bhori_31470	Bhori	Behind Primary School	28.1273	76.2192	Bore Well	293	Semi Confined to Confined	0.40	120	0.25	WL	Manual	Atal Jal-Private
8.	HR_GW_506	Bihali_31471	Bihali	Govt. Senior Seacondary School Bihali	28.0807	76.2828	Piezometer	299	Unconfined To Semi-Confined	0.50	124	0.10	Both	Telemetric	Atal Jal
9.	HR_GW_507	Bocharia_31472	Bocharia	Govt. Senior Seacondary School Bochariya	28.1469	76.2856	Piezometer	285	Semi-Confined To Confined	0.50	124	0.10	Both	Telemetric	Atal Jal
10.	HR_GW_561	Chandpura_31473	Chandpura	Govt.Primary School Chandpura	28.1319	76.3222	Piezometer	294	Semi Confined to Confined	0.50	117	0.10	Both	Telemetric	Atal Jal
11.	GWL-06-069-00522-00031474-001	Dhanunda_31474	Dhanunda	Near On Road	28.1128	76.2658	Bore Well	283	Semi Confined to Confined	0.30	105	0.20	WL	Manual	Atal Jal-Private
12.	HRY_M.GARH_ATELI_DHANUNDA_1	Dhanunda_31474	Dhanunda	Near By Mandir	28.1199	76.2598	Tube Well	284	Semi Confined	0.40	265	0.20	WQ	Manual	Atal Jal
13.	GWL-06-069-00522-00031475-001	Fatehpur_31475	Fatehpur	Nera By On Road	28.0980	76.2348	Bore Well	289	Semi Confined to Confined	0.50	150	0.20	WL	Manual	Atal Jal-Private
14.	HRY_M.GARH_ATELI_FATEHPUR_1	Fatehpur_31475	Fatehpur	Gaav Ki Firmi	28.0905	76.2498	Tube Well	291	Semi Confined	0.50	198	0.20	WQ	Manual	Atal Jal
15.	HR_GW_524	Ganiyar_31476	Ganiyar	Old Dharamshala Ganiyar	28.1131	76.3308	Piezometer	313	Confined	0.50	130	0.10	Both	Telemetric	Atal Jal
16.	GWL-06-069-00522-00031477-001	Garhi Ruthal_31477	Garhi Ruthal	Near Bani	28.1541	76.2631	Bore Well	285	Semi Confined to Confined	0.30	215	0.20	WL	Manual	Atal Jal-Private
17.	HRY_M.GARH_ATELI_GARHI RUTHAL_1	Garhi Ruthal_31477	Garhi Ruthal	Near Hanuman Mandir	28.1503	76.2596	Tube Well	281	Semi Confined	0.30	155	0.20	WQ	Manual	Atal Jal
18.	HR_GW_508	Gujarwas_31478	Gujarwas	Govt. High School Gujarwas	28.1315	76.2321	Piezometer	291	Semi-Confined To Confined	0.50	130	0.10	Both	Telemetric	Atal Jal

S.No	Well ID	Gram Panchayat	Name of the village	Site Name	Latitude	Longitude	Type of Well	Reduced Level	Aquifer Type/Lithology	Height of Measuring (m, agl)	Depth (m,bgl)	Diameter (m)	Purpose of Monitoring (WL/WQ)	Monitoring Mechanism	Agency
19.	HR_GW_509	Hasanpur_31719	Hasanpur	Govt. Primary School Hasnpur	28.1405	76.2872	Piezometer	283	Semi-Confined To Confined	0.50	130	0.10	Both	Telemetric	Atal Jal
20.	HR_GW_510	Kanti_31480	Kanti	Govt.Primary School Kanti	28.0455	76.3058	Piezometer	299	Semi-Confined To Confined	0.50	130	0.10	Both	Telemetric	Atal Jal
21.	HR_GW_562	Karia_31481	Karia	Govt.Primary School Karia	28.1461	76.2740	Piezometer	283	Semi Confined to Confined	0.50	120	0.10	Both	Telemetric	Atal Jal
22.	GWL-06-069-00522-00031481-001	Karia_31481	Karia	Near Panchayat Bavan	28.1459	76.2731	Bore Well	283	Semi Confined to Confined	0.40	40	0.20	WL	Manual	Atal Jal-Private
23.	HR_GW_564	Katkai_31482	Katkai	Govt. Middle School Play Ground Katkai	28.1424	76.2283	Piezometer	286	Semi Confined to Confined	0.50	120	0.10	Both	Telemetric	Atal Jal
24.	HR_GW_525	Khairani_31483	Khairani	Govt. Middle School Khairani	28.2002	76.2839	Piezometer	273	Semi-Confined To Confined	0.50	123	0.10	Both	Telemetric	Atal Jal
25.	HR_GW_511	Khariwara_31484	Khariwara	Govt. Primary School Khariwara	28.1619	76.2668	Piezometer	285	Semi-Confined To Confined	0.50	128	0.10	Both	Telemetric	Atal Jal
26.	HRY_M.GARH_ATELI_KHERI_1	Kheri_31485	Kheri	Near Hotal	28.0363	76.3267	Tube Well	295	Semi Confined	0.80	190	0.15	WQ	Manual	Atal Jal
27.	HR_GW_526	Khor_31486	Khor	Govt. Middle School Khor	28.1068	76.2344	Piezometer	289	Confined	0.50	130	0.10	Both	Telemetric	Atal Jal
28.	HR_GW_504	Kunjpura_31487	Kunjpura	Govt. High School Kunjpura	28.0556	76.2125	Piezometer	309	Confined	0.50	130	0.10	Both	Telemetric	Atal Jal
29.	HR_GW_575	Mahasar_31488	Mahasar	Govt.Primary School Mahasar	28.1584	76.2782	Piezometer	280	Semi Confined to Confined	0.50	92	0.10	Both	Telemetric	Atal Jal
30.	GWL-06-069-00522-00031489-001	Mirjapur_31489	Mirjapur	Near By Pass Road	28.0820	76.1954	Dug-cum-Bore Well	296	Semi Confined to Confined	0.80	150	0.20	WL	Manual	Atal Jal-Private
31.	HRY_M.GARH_ATELI_MIRZAPUR_1	Mirjapur_31489	Mirzapur	Manoj Murgi Farm	28.0822	76.1927	Tube Well	293	Semi Confined	0.80	244	0.20	WQ	Manual	Atal Jal
32.	HR_GW_565	Mohalra_31490	Mohalra	Govt.Primary School Mohlra	28.1961	76.2902	Piezometer	274	Semi Confined to Confined	0.50	119	0.10	Both	Telemetric	Atal Jal
33.	GWL-06-069-00522-00031490-001	Mohalra_31490	Mohalra	Gaav On Raod	28.1956	76.2989	Bore Well	276	Semi Confined to Confined	0.40	140	0.20	WL	Manual	Atal Jal-Private
34.	HR_GW_512	Mohamadpur_31491	Mohammadpur	Govt. Vetnart Hospityal Mohammadpur	28.1614	76.2321	Piezometer	286	Confined	0.50	130	0.10	Both	Telemetric	Atal Jal
35.	HR_GW_513	Nangal_31492	Nangal	Govt. Primary School Nangal	28.0916	76.2602	Piezometer	289	Confined	0.50	130	0.10	Both	Telemetric	Atal Jal
36.	HR_GW_514	Nawadi_31493	Nawdi	Govt. Primary School Nawdi	28.0679	76.3361	Piezometer	303	Confined	0.50	130	0.10	Both	Telemetric	Atal Jal
37.	HR_GW_583	Neerpur (R)_31494	Neerpur	Govt.Primary School Play Ground Neerpur	28.0889	76.2653	Piezometer	291	Semi Confined to Confined	0.50	110	0.10	Both	Telemetric	Atal Jal
38.	GWL-06-069-00522-00031494-001	Neerpur (R)_31494	Neerpur	Chitvan Vatika	28.0901	76.2614	Bore Well	289	Semi Confined to Confined	0.80	110	0.20	WL	Manual	Atal Jal-Private
39.	HRY_M.GARH_ATELI_PRATHVIPURA_1	Prathvipura_31495	Prathvipura	Farm Murga Wala	28.0761	76.2721	Tube Well	295	Semi Confined	0.50	204	0.15	WQ	Manual	Atal Jal

S.No	Well ID	Gram Panchayat	Name of the village	Site Name	Latitude	Longitude	Type of Well	Reduced Level	Aquifer Type/Lithology	Height of Measuring (m, agl)	Depth (m,bgl)	Diameter (m)	Purpose of Monitoring (WL/WQ)	Monitoring Mechanism	Agency
40.	HR_GW_515	Rajpura_31496	Rajpura	Govt. Middle School Rajpura Rajpura	28.0751	76.2528	Piezometer	301	Unconfined To Semi-Confined	0.50	130	0.10	Both	Telemetric	Atal Jal
41.	HR_GW_527	Rampura_31497	Rampura	Dharamshala Near School	28.0761	76.3220	Piezometer	309	Confined	0.50	130	0.10	Both	Telemetric	Atal Jal
42.	HR_GW_528	Ratakalan_31498	Ratakalan	Govt. Senior Seacondary School Ratakalan	28.1841	76.2915	Piezometer	277	Semi-Confined	0.50	116	0.10	Both	Telemetric	Atal Jal
43.	GWL-06-069-00522-00031499-001	Ratakhurd_31499	Rata Khurd	Bala Ji Mandir	28.1806	76.2962	Dug-cum-Bore Well	276	Semi Confined to Confined	0.30	110	0.25	WL	Manual	Atal Jal-Private
44.	HRY_M.GARH_ATELI_RATAKHURD_1	Ratakhurd_31499	Ratakhurd	Bus Stand	28.1728	76.2846	Tube Well	281	Semi Confined	0.30	267	0.25	WQ	Manual	Atal Jal
45.	GWL-06-069-00522-00031500-001	Saidpur_31500	Saidpur	Rhada Krishan Mandir	28.0952	76.2678	Bore Well	288	Semi Confined to Confined	0.30	115	0.15	WL	Manual	Atal Jal-Private
46.	HRY_M.GARH_ATELI_SAIDPUR_1	Saidpur_31500	Saidpur	Near Hanuman Mandir	28.0930	76.2688	Tube Well	288	Semi Confined	0.23	241	0.18	WQ	Manual	Atal Jal
47.	HR_GW_516	Salimpur_31501	Salimpur	Govt. Primary School Salimpur	28.1261	76.2736	Piezometer	286	Confined	0.50	130	0.10	Both	Telemetric	Atal Jal
48.	HRY_M.GARH_ATELI_SARAI BAHADUNAGAR_1	Sarai Bahadur Nagar_31502	Sarai Bahadunagar	Gram Panchayat	28.0714	76.1790	Tube Well	305	Semi Confined	0.80	280	0.15	WQ	Manual	Atal Jal
49.	HR_GW_517	Sujapur_31503	Sujapur	Govt. Iti Collage Sujapur	28.1287	76.3201	Piezometer	295	Semi-Confined To Confined	0.50	115	0.10	Both	Telemetric	Atal Jal
50.	HR_GW_518	Tajpur_31504	Tajpur	Govt. High School Tajpur	28.0905	76.2304	Piezometer	288	Confined	0.50	130	0.10	Both	Telemetric	Atal Jal
51.	HR_GW_519	Tigra_31505	Tigra	Govt. High School Tigra	28.1171	76.2137	Piezometer	291	Confined	0.50	130	0.10	Both	Telemetric	Atal Jal
52.	GWL-06-069-00522-00031506-001	Tobra_31506	Tobra	Purani Haveli	28.0978	76.2392	Bore Well	289	Semi Confined to Confined	0.70	140	0.20	WL	Manual	Atal Jal-Private
53.	HRY_M.GARH_ATELI_TOBRA_1	Tobra_31506	Tobra	Farm Balveer Yadav	28.0941	76.2490	Tube Well	286	Semi Confined	0.70	234	0.20	WQ	Manual	Atal Jal
54.	HR_GW_520	Uninda_31507	Uninda	Govt. Primary School Uninda	28.1083	76.2696	Piezometer	287	Confined	0.50	130	0.10	Both	Telemetric	Atal Jal
55.	At_28.102_76.281	Ateli_31465	Ateli	Bdpo Block Ateli Pt	28.1065	76.2780	Piezometer	288.15	Aeolian Alluvium (Silt/ Sand) & Hard Formation	0.65	100	0.10	WL	Manual	SGWD
56.	Ba_28.089_76.198	Bachhod_31466	Bachhod	Phc Bachood Pt	28.0888	76.1980	Tube Well	293.5	Aeolian Alluvium (Silt/ Sand) & Hard Formation	0.70	150	0.25	WL	Manual	SGWD
57.	Ch_28.13_76.322	Chandpura_31473	Chandpura	Near Bus Stand (Vetanary Hospital -Pt	28.1303	76.3216	Tube Well	280.29	Aeolian Alluvium (Silt/ Sand) & Hard Formation	0.70	200	0.25	WL	Manual	SGWD
58.	Ka_28.144_76.228	Katkai_31482	Katkai	In The Village	28.1442	76.2281	Tube Well	287.15	Aeolian Alluvium (Silt/ Sand) & Hard Formation	0.70	200	0.25	WL	Manual	SGWD

S.No	Well ID	Gram Panchayat	Name of the village	Site Name	Latitude	Longitude	Type of Well	Reduced Level	Aquifer Type/Lithology	Height of Measuring (m, agl)	Depth (m,bgl)	Diameter (m)	Purpose of Monitoring (WL/WQ)	Monitoring Mechanism	Agency
59.	Kh_28.047_76.339	Kheri_31485	Kheri	Ggms-Pt	28.0465	76.3395	Piezometer	296.25	Aeolian Alluvium (Silt/ Sand) & Hard Formation	0.65	200	0.10	WL	Manual	SGWD
60.	Ma_28.163_76.251	Mahasar_31488	Mahasar	East Of Vilage -Ph	28.1634	76.2509	Tube Well	285	Aeolian Alluvium (Silt/ Sand) & Hard Formation	0.70	200	0.25	WL	Manual	SGWD
61.	Pr_28.078_76.263	Prathvipura_31495	Prithipura	Near Mool Chand House -Dcb	28.0777	76.2632	Tube Well	295	Aeolian Alluvium (Silt/ Sand) & Hard Formation	0.70	200	0.25	WL	Manual	SGWD
62.	Ra_28.07_76.323	Rampura_31497	Rampura	Near Sukh Dev House -Gb	28.0766	76.3222	Tube Well	296.73	Aeolian Alluvium (Silt/ Sand) & Hard Formation	0.70	200	0.25	WL	Manual	SGWD
63.	Sa_28.081_76.176	Sarai Bahadur Nagar_31502	Sarai Bahadur	Near Durga Nabardaar House - Gb	28.0810	76.1764	Tube Well	292.47	Aeolian Alluvium (Silt/ Sand) & Hard Formation	0.70	200	0.25	WL	Manual	SGWD
64.	Ta_28.089_76.239	Tajpur_31504	Tazpur	Right Hand Side Of Aproach Road Of Viollage -Pt	28.0878	76.2340	Tube Well	304.6	Aeolian Alluvium (Silt/ Sand) & Hard Formation	0.70	200	0.25	WL	Manual	SGWD

		Source	Well Types	Co-ordinate		Water Level (m)																			
S.No.	Observation Point			Latitude	Longitude	2015		2016		2017		2018		2019		2020		2021		2022		2023		2024	
						Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
39	Neerpur (R)_ 31494	Atal Jal	Bore Well	28.0901	76.2614	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	41.9	41.27	41.38	40.6
40	Ratakhurd_ 31499	Atal Jal	Dug-cum-Bore Well	28.1806	76.2962	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	60.1	60.75	60.78	60.25
41	Saidpur_ 31500	Atal Jal	Bore Well	28.0952	76.2678	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80.6	81.6	81.85	81.06
42	Tobra_ 31506	Atal Jal	Bore Well	28.0978	76.2392	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	97.3	98.8	98.86	95.46
43	Ateli_ 31465	SGWD	Piezometer	28.1065	76.2780	66.8	74	69.75	74.6	73.2	75.3	75	76	76.6	77.5	78.5	78.8	81	81.55	81.8	80.1	81	80.5	80.8	80.7
44	Bachhod_ 31466	SGWD	Tube Well	28.0888	76.1980	44.3	45	45.5	50	50.3	50.3	62.4	60	61	60.65	60.65	63.8	65	65.5	64.5	66.25	67.55	66.3	67.7	68.5
45	Chandpura_ 31473	SGWD	Tube Well	28.1303	76.3216	65.9	67	68.4	68.1	68.6	68.6	71.4	70.6	72.1	71.6	71.7	72.3	73.1	73.1	73.1	74.15	73.6	73.6	85.9	85.5
46	Katkai_ 31482	SGWD	Tube Well	28.1442	76.2281	73.9	74.3	75.5	76	76.5	76.5	79	78	79.5	79	80	80.3	81.6	82	81.7	82.4	85	84.6	61.4	58.5
47	Kheri_ 31485	SGWD	Piezometer	28.0465	76.3395	52.55	53.85	55.5	55.6	55.8	55.8	58.4	57.4	58.65	57.8	58.35	58.8	59.1	59.1	60.1	59.6	60.6	60.6	61.6	63.1
48	Mahasar_ 31488	SGWD	Tube Well	28.1634	76.2509	60.8	69.6	70.5	71	71.6	71.6	74	73.5	75	74.5	NA	NA	76.5	77	77	77.5	78	78	86.8	87.9
49	Prathvipura_ 31495	SGWD	Tube Well	28.0777	76.2632	61.4	62	63.5	64	64.3	64.3	71.8	70.5	71.5	71	72	72.5	73.5	74	74	74.5	75	75	75.5	76.85
50	Rampura_ 31497	SGWD	Tube Well	28.0766	76.3222	72.6	73.3	74.5	75	75.3	75.3	78.5	78	79.5	79	80	80.2	81.4	82	82	82.5	83	82.6	121.7	118.7
51	Sarai Bahadur Nagar_ 31502	SGWD	Tube Well	28.0810	76.1764	62.6	63.3	64.5	65	65	65	67.5	66	67.8	67	68	68.4	69.3	69.5	69.2	69.7	70	70	61.63	60.1
52	Tajpur_ 31504	SGWD	Tube Well	28.0878	76.2340	65.6	66	66.5	67	67.3	67.3	69.5	69.5	69.5	69.5	69.5	70.8	71.9	72.5	73	72.5	73	73	74.45	76.75

ANNEXURE: 3
WATER QUALITY (WQ) DATA OF MONITORING WELLS

State	Haryana				District		Mahendragarh						Block				Ateli			
Month of Collection of samples for WQ monitoring*																May/June				
Gram Panchayat	Source	Type of well	Latitude	Longitude	Year	pH	EC	TDS	TH	Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	F	NO ₃	
Ateli_31465	Atal Jal	Tube Well	28.1131	76.279	2024	7.65	2440	1480	287.3	63.48	31.28	388	20	0.882	209.1	136.7	449.2	1.2	60.25	
Bachhod_31466	Atal Jal	Tube Well	28.0881	76.1911	2024	6.88	1751	992	198.2	43.64	21.66	260	14	0.1	139.9	92.47	306.3	0.8	43	
Bazar_31467	Atal Jal	Piezometer	28.1216	76.3442	2023	7.12	1810	1216	510	170	20.69	190	100	0.0	570.0	56	310	0.48	20	
Bazar_31467	Atal Jal	Piezometer	28.1216	76.3442	2024	6.74	1678	1034	441.4	122	33.18	118	12	0.2	419.8	116.6	218.4	0.5	54.75	
Begpur_31468	Atal Jal	Pizeometer	28.1065	76.2778	2024	7.31	2404	1514	641	176.7	48.49	173	17	1.171	608.8	190.7	317.6	1.1	76.75	
Bhilwara_31469	Atal Jal	Piezometer	28.0805	76.2147	2023	7.81	2510	1430	318	52	45.68	396	1.96	0.0	282.0	242	179	0.61	25	
Bhilwara_31469	Atal Jal	Piezometer	28.0805	76.2147	2024	7.57	2396	1357	578	155.7	45.94	155	15	1.9	538.1	166.6	287.9	0.9	69.5	
Bhori_31470	Atal Jal	Pizeometer	28.1267	76.2196	2024	7.36	2535	1559	662	181	51.04	178	17	1.357	628.6	197.4	327.6	1.2	78.5	
Bihali_31471	Atal Jal	Piezometer	28.0807	76.2828	2023	8.17	205	139	60	20	2.76	20	10	0.0	70.0	8	40	0.43	Nil	
Bihali_31471	Atal Jal	Piezometer	28.0807	76.2828	2024	7.68	186	114	52.54	12.62	5.11	13	1	0.2	49.8	17.63	19.85	0	13	
Bocharia_31472	Atal Jal	Pizeometer	28.1469	76.2856	2024	8.04	2094	1285	546.4	147.3	43.38	147	14	5.36	514.6	155.1	268	0.8	66.25	
Chandpura_31473	Atal Jal	Pizeometer	28.1319	76.3222	2024	7.19	2201	1232	525.4	143.1	40.83	141	14	0.713	489.3	147.4	258.1	0.7	63.75	
Dhanunda_31474	Atal Jal	Tube Well	28.1199	76.2598	2024	8.11	4850	2899	564.8	127	60.15	761	40	5.086	414.9	268.1	888.2	2.22	110.5	
Fatehpur_31475	Atal Jal	Tube Well	28.0905	76.2498	2024	6.26	3803	2245	436	99.19	45.72	589	31	0.055	319.9	207.8	684	1.68	87.25	
Ganiyar_31476	Atal Jal	Pizeometer	28.1131	76.3308	2024	8.14	3578	2185	935.3	252.5	74.01	249	24	11.42	868.7	294.5	466.5	1.9	107.3	
Garhi Ruthal_31477	Atal Jal	Tube Well	28.1503	76.2596	2024	6.57	1905	1096	218	47.61	24.06	288	15	0.056	159.9	102.1	336.9	0.89	46.75	
Gujarwas_31478	Atal Jal	Piezometer	28.1315	76.2321	2023	7.29	2800	1820	937.4	236.6	84.2	203.8	58.2	0.0	833.0	136.5	475	1.72	78.2	
Gujarwas_31478	Atal Jal	Piezometer	28.1315	76.2321	2024	7.18	2752	1673	714.6	193.6	56.14	191	19	1.0	669.0	215.7	357.3	1.3	83.75	
Hasanpur_31719	Atal Jal	Piezometer	28.1405	76.2872	2023	7.52	2240	1389	690.8	193.3	50.6	155.5	44.4	0.0	654.5	104.1	356.3	1.65	59.7	
Hasanpur_31719	Atal Jal	Piezometer	28.1405	76.2872	2024	7.16	2215	1233	525.4	143.1	40.83	141	14	0.7	499.3	147.4	258.1	0.7	63.75	
Kanti_31480	Atal Jal	Pizeometer	28.0455	76.3058	2024	7.72	1769	1032	441.4	117.8	35.73	118	12	2.023	408	116.6	218.4	0.5	54.75	
Karia_31481	Atal Jal	Pizeometer	28.1461	76.274	2024	7.68	2028	1213	514.9	138.9	40.83	138	14	2.205	487.8	144.5	258.1	0.7	63	
Katkai_31482	Atal Jal	Pizeometer	28.1424	76.2283	2024	7.1	723	440	189.2	50.5	15.31	50	5	0.213	179.8	25.3	89.33	0	27.75	
Khairani_31483	Atal Jal	Pizeometer	28.2002	76.2839	2024	8.17	1885	1042	441.4	122	33.18	119	12	5.84	414.2	117.6	218.4	0.5	55	
Khariwara_31484	Atal Jal	Pizeometer	28.1619	76.2668	2024	8.02	1540	897	378.3	105.2	28.08	102	10	3.543	356.4	95.5	188.6	0.3	48.5	
Kheri_31485	Atal Jal	Tube Well	28.0363	76.3267	2024	6.09	4163	2384	465.7	103.2	50.53	625	33	0.039	340	221.1	724.9	1.8	92.25	
Khor_31486	Atal Jal	Piezometer	28.1068	76.2344	2023	7.85	3480	1925	330	53	48	562	1.96	0.0	296.0	436	310	0.78	29	
Khor_31486	Atal Jal	Piezometer	28.1068	76.2344	2024	8.02	3226	1977	840.7	231.5	63.8	226	22	7.8	782.2	262.8	416.9	1.6	97.75	
Kunjpura_31487	Atal Jal	Piezometer	28.0556	76.2125	2023	7.68	5388	3125	478	78.4	68.53	910	2.56	0.0	266.0	650	680	0.74	42	
Kunjpura_31487	Atal Jal	Piezometer	28.0556	76.2125	2024	7.96	5147	3297	1408	383	109.7	376	37	11.3	1308.7	466.6	694.8	3.3	157.8	
Mahasar_31488	Atal Jal	Pizeometer	28.1584	76.2782	2024	7.6	2559	1533	651.5	176.7	51.04	175	17	2.32	617.7	193.6	327.6	1.1	77.5	
Mirjapur_31489	Atal Jal	Tube Well	28.0822	76.1927	2024	7.2	1386	842	168.4	35.71	19.25	221	11	0.179	119.8	78.49	255.2	0.69	37.5	
Mohalra_31490	Atal Jal	Pizeometer	28.1961	76.2902	2024	7.83	5054	2930	1251	340.9	96.98	334	33	7.499	1173	409.9	615.4	2.8	141	
Mohamadpur_31491	Atal Jal	Piezometer	28.1614	76.2321	2023	7.62	2680	1496	204	42	24	488	1.25	0.0	180.0	242	272	0.59	32	
Mohamadpur_31491	Atal Jal	Piezometer	28.1614	76.2321	2024	7.2	2638	1664	704.1	193.6	53.59	190	19	1.0	669.0	213.8	347.4	1.3	83.5	
Nangal_31492	Atal Jal	Piezometer	28.0916	76.2602	2023	7.59	1940	1232	420	140	20.19	230	50	0.0	392.2	84	420	2.52	60	
Nangal_31492	Atal Jal	Piezometer	28.0916	76.2602	2024	7.38	1800	1146	483.4	134.7	35.73	131	13	1.0	459.0	133.9	238.2	0.6	59.75	
Nawadi_31493	Atal Jal	Pizeometer	28.0679	76.3361	2024	7.21	13713	7598	3237	883.7	250.1	867	85	4.65	3045	1131	1608	8.7	353	
Neerpur (R)_31494	Atal Jal	Pizeometer	28.0889	76.2653	2024	7.82	1505	838	357.3	96.79	28.07	96	9	2.112	337.9	86.8	178.7	0.3	45.75	
Prathvipura_31495	Atal Jal	Tube Well	28.0761	76.2721	2024	8.41	1214	687	138.7	31.74	14.44	180	9	2.416	97.52	64.04	214.4	0.56	32	

Gram Panchayat	Source	Type of well	Latitude	Longitude	Year	pH	EC	TDS	TH	Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	F	NO ₃
Rajpura_31496	Atal Jal	Piezometer	28.0751	76.2528	2023	7.17	2410	1390	320	56	43.74	356	0.85	0.0	240.0	182	218	0.56	21
Rajpura_31496	Atal Jal	Piezometer	28.0751	76.2528	2024	6.95	2273	1311	557	151.5	43.39	150	15	0.4	529.6	159.9	277.9	0.9	67.25
Rampura_31497	Atal Jal	Piezometer	28.0761	76.322	2023	7.51	1559	919.8	310.8	102.5	13.3	231	25.26	0.0	196.4	72.85	308.8	1.91	37.86
Rampura_31497	Atal Jal	Piezometer	28.0761	76.322	2024	7.31	1485	962	409.8	113.6	30.63	110	11	0.7	389.2	106.1	208.5	0.4	51.5
Ratakalan_31498	Atal Jal	Pizeometer	28.1841	76.2915	2024	8.09	1636	988	420.3	113.6	33.18	113	11	4.626	395.4	109.9	208.5	0.4	52.75
Ratakhurd_31499	Atal Jal	Tube Well	28.1728	76.2846	2024	6.73	1347	831	158.5	35.71	16.84	218	11	0.061	119.9	77.41	255.2	0.67	37.25
Saidpur_31500	Atal Jal	Tube Well	28.093	76.2688	2024	6.31	2126	1206	237.8	51.58	26.47	316	16	0.033	170	112.5	367.6	0.98	50.5
Salimpur_31501	Atal Jal	Pizeometer	28.1261	76.2736	2024	7.03	2868	1849	788.1	214.6	61.25	211	21	0.745	739.3	242.6	387.1	1.5	92
Sarai Bahadur Nagar_31502	Atal Jal	Tube Well	28.0714	76.179	2024	5.77	3958	2486	485.5	107.1	52.94	652	34	0.02	360	229.5	755.5	1.88	96
Sujapur_31503	Atal Jal	Pizeometer	28.1287	76.3201	2024	8.01	2524	1637	693.6	189.4	53.59	187	18	6.349	653.7	209.9	347.4	1.2	82.25
Tajpur_31504	Atal Jal	Piezometer	28.0905	76.2304	2023	7.56	2140	1263	641.4	175.5	49.3	141.4	40.4	0.0	595.0	94.6	332.5	1.76	54.3
Tajpur_31504	Atal Jal	Piezometer	28.0905	76.2304	2024	7.85	2058	1144	483.4	134.7	35.73	131	13	3.1	456.9	133.9	238.2	0.6	59.75
Tigra_31505	Atal Jal	Piezometer	28.1171	76.2137	2023	7.4	9120	5210	924	180	115	1610	3.6	0.0	220.0	1025	1356	1.59	69
Tigra_31505	Atal Jal	Piezometer	28.1171	76.2137	2024	7.39	8736	4915	2091	572.3	160.8	561	55	4.5	1965.5	716.6	1042	5.3	231
Tobra_31506	Atal Jal	Tube Well	28.0941	76.249	2024	9.18	3524	2190	426	95.23	45.71	575	30	44.11	270.7	203	673.8	1.64	85.5
Uninda_31507	Atal Jal	Piezometer	28.1083	76.2696	2023	7.48	3420	1980	442	77.6	60.26	548	2.12	0.0	156.0	329	480	0.65	42
Uninda_31507	Atal Jal	Piezometer	28.1083	76.2696	2024	7.45	3380	1962	840.7	227.2	66.36	224	22	2.1	787.9	259.9	416.9	1.6	97

Name of District	Name of Block	Source	Name of village/ OW data	Latitude	Longitude	EC June 2020	EC June-2021	EC June-2022	EC June-2023	EC June-2024
Mahendragarh_69	Ateli Nangal_522	SGWB	Ateli (Naodi)	28.1017	76.2812	2700	2900	2500	2300	2300
Mahendragarh_69	Ateli Nangal_522	SGWB	Ateli PT	28.0957	76.2594	1900	2200	2100	2000	2100
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Ateli_31465	28.1131	76.279	ND	ND	ND	ND	2440
Mahendragarh_69	Ateli Nangal_522	SGWB	Bachhod	28.0888	76.198	1900	1700	1600	1200	1300
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Bachhod_31466	28.0881	76.1911	ND	ND	ND	ND	1751
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Bazar_31467	28.1216	76.3442	ND	ND	ND	1810	1678
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Begpur_31468	28.1065	76.2778	ND	ND	ND	ND	2404
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Bhilwara_31469	28.0805	76.2147	ND	ND	ND	2510	2396
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Bhori_31470	28.1267	76.2196	ND	ND	ND	ND	2535
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Bihali_31471	28.0807	76.2828	ND	ND	ND	205	186
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Bocharia_31472	28.1469	76.2856	ND	ND	ND	ND	2094
Mahendragarh_69	Ateli Nangal_522	SGWB	Chandpura	28.1303	76.3216	2000	2000	2000	1700	1700
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Chandpura_31473	28.1319	76.3222	ND	ND	ND	ND	2201
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Dhanunda_31474	28.1199	76.2598	ND	ND	ND	ND	4850
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Fatehpur_31475	28.0905	76.2498	ND	ND	ND	ND	3803
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Ganiyar_31476	28.1131	76.3308	ND	ND	ND	ND	3578
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Garhi Ruthal_31477	28.1503	76.2596	ND	ND	ND	ND	1905
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Gujarwas_31478	28.1315	76.2321	ND	ND	ND	2800	2752
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Hasanpur_31719	28.1405	76.2872	ND	ND	ND	2240	2215
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Kanti_31480	28.0455	76.3058	ND	ND	ND	ND	1769
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Karia_31481	28.1461	76.274	ND	ND	ND	ND	2028
Mahendragarh_69	Ateli Nangal_522	SGWB	katkai	28.1442	76.2281	2400	2600	2400	2200	2200
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Katkai_31482	28.1424	76.2283	ND	ND	ND	ND	723
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Khairani_31483	28.2002	76.2839	ND	ND	ND	ND	1885
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Khariwara_31484	28.1619	76.2668	ND	ND	ND	ND	1540
Mahendragarh_69	Ateli Nangal_522	SGWB	Kheri PT	28.0465	76.3395	2200	2700	2500	2200	2300

Name of District	Name of Block	Source	Name of village/ OW data	Latitude	Longitude	EC June 2020	EC June-2021	EC June-2022	EC June-2023	EC June-2024
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Kheri_31485	28.0363	76.3267	ND	ND	ND	ND	4163
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Khor_31486	28.1068	76.2344	ND	ND	ND	3480	3226
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Kunjpora_31487	28.0556	76.2125	ND	ND	ND	5388	5147
Mahendragarh_69	Ateli Nangal_522	SGWB	Mahasar	28.1634	76.2509	3100	3600	3400	3200	3300
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Mahasar_31488	28.1584	76.2782	ND	ND	ND	ND	2559
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Mirjapur_31489	28.0822	76.1927	ND	ND	ND	ND	1386
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Mohalra_31490	28.1961	76.2902	ND	ND	ND	ND	5054
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Mohamadpur_31491	28.1614	76.2321	ND	ND	ND	2680	2638
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Nangal_31492	28.0916	76.2602	ND	ND	ND	1940	1800
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Nawadi_31493	28.0679	76.3361	ND	ND	ND	ND	13713
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Neerpur (R)_31494	28.0889	76.2653	ND	ND	ND	ND	1505
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Prathvipura_31495	28.0761	76.2721	ND	ND	ND	ND	1214
Mahendragarh_69	Ateli Nangal_522	SGWB	Prithipura	28.0777	76.2632	1800	1800	1900	1600	1700
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Rajpura_31496	28.0751	76.2528	ND	ND	ND	2410	2273
Mahendragarh_69	Ateli Nangal_522	SGWB	Rampura	28.0703	76.3226	2500	2800	2800	2400	2400
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Rampura_31497	28.0761	76.322	ND	ND	ND	1559	1485
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Ratakalan_31498	28.1841	76.2915	ND	ND	ND	ND	1636
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Ratakhurd_31499	28.1728	76.2846	ND	ND	ND	ND	1347
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Saidpur_31500	28.093	76.2688	ND	ND	ND	ND	2126
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Salimpur_31501	28.1261	76.2736	ND	ND	ND	ND	2868
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Sarai Bahadur Nagar_31502	28.0714	76.179	ND	ND	ND	ND	3958
Mahendragarh_69	Ateli Nangal_522	SGWB	saraibhadur	28.081	76.1764	1700	1700	1500	1200	1200
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Sujapur_31503	28.1287	76.3201	ND	ND	ND	ND	2524
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Tajpur_31504	28.0905	76.2304	ND	ND	ND	2140	2058
Mahendragarh_69	Ateli Nangal_522	SGWB	Tazpur	28.0887	76.2389	1900	2000	1800	1600	1700
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Tigra_31505	28.1171	76.2137	ND	ND	ND	9120	8736
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Tobra_31506	28.0941	76.249	ND	ND	ND	ND	3524
Mahendragarh_69	Ateli Nangal_522	Atal Jal	Uninda_31507	28.1083	76.2696	ND	ND	ND	3420	3380