

## LEGEND

					L E	G	E N	I D					
MAP UNIT	GEOLOGICAL SEQUE ROCK TYPE	NCE / GEOMORPHIC UNIT / LANDFORM	DEPTH TO WATER LEVEL	RECHARGE CONDITIONS		GROUND WATER PROSPECTS					RECHARGE STRUCTURES		
( HYDROGEOMORPHIC UNIT )  REPRESENTED IN THE MAP WITH ALPHANUMERIC CODE  ( COLOUR INDICATES YIELD RANGE AND HATCHING INDICATE DEPTH RANGE)	( REPRESENTED IN THE MAP WITH NUMERIC CODE )	( REPRESENTED IN THE MAP WITH ALPHABETIC CODE )	PRE / POST- MONSOON (AVERAGE IN METERS)  NO. OF WELLS OBSERVED	BASED ON AVAILABILITY OF WATER  ( RAINFALL & OTHER SOURCES )	AQUIFER MATERIAL  LS = LOOSE SEDIMENTS PR = PERMEABLE ROCK FIR = FISSURED ROCK FR = FRACTURED ROCK WR /= WEATHERED ROCK / WM WEATHERED MATERIAL IR = IMPERIVIOUS ROCK	TYPE OF WELLS SUITABLE  DW = DUG WELL RW = RING WELL BW = BORE WELL TW = TUBE WELL DBW /= DUG CUM-BORE WELL / DTW DUG CUM-TUBE WELL	DEPTH RANGE OF WELLS (SUGGESTED) MIN - MAX (IN METERS)	YIELD RANGE OF WELLS (EXPECTED) (in LPM or m <sup>3</sup> /day)	HOMOGENEITY IN THE UNIT & SUCCESS RATE OF WELLS (PROBABILITY)  VERY HIGH HIGH MODERATE LOW	QUALITY OF WATER  POTABLE (P) NON - POTABLE (NP)  (INDICATE REASONS IF NON POTABLE)	GROUND WATER IRRIGATED AREA (APPROX. RANGE IN PERCENTAGE)	SUITABLE & PRIORITY  PT = PERCOLATION TANK CD = CHECK DAM NB = NALA BUND RW = RECHARGE WELL DT = DESILTING OF TANK RP = RECHARGE PIT SD = SUBSURFACE DYKE RS = RECHARGE SHAFT ST = STORAGE TANK SCM = SOIL CONSERVATION MEASURES	REMARKS (PROBLEMS / LIMITATIONS)
APY113	Panskura/Arambagh Formation (Early to Late Holocene)	) Alluvial Plain Younger (APY)	No well observed	Good	LS	TW	>150 m	500-600 LPM	High	NP (Salinity) [At shallow depth]	22	Not Required	Areas affected by Salinity.Potable wate available at depth range above 150 m.
BR113	Alluvium	Beach Ridge (BR)	<u>10 / 6</u> 8	Very Good	LS	TW	150-250 m	>800 LPM	Very High	NP (Salinity) [At shallow depth]	4	Not Required	Areas affected by Salinity. Fresh water available at depth ranges of 150-250m
	(Sand and Silt) (113)	Paleo Beach Ridge (PBR)	11 / 7	Good	LS	TW	150-250 m	>800 LPM	High	NP (Salinity) [At shallow depth]	15	Not Required	Areas affected by Salinity. Fresh water available at depth ranges of 150-250 m
SW13	Ancient Estuari (Early to Late	Swale (SW)	9/6 10	Moderate to Good	LS	TW	150-250 m	300-400 LPM	Moderate to High	P	56	Not Required	Areas affected by Salinity. Fresh water available at depth ranges of 150-250m
CPO13	(Sand,Silt & C (13)	Coastal Plain Older (CPO)	<u>11 / 7</u> 3	Good	LS	TW	150-250 m	600-800 LPM	High	NP (Salinity) [At shallow depth]	23	Not Required	Areas affected by Salinity. Fresh water available at depth ranges of 150-250 m.
FF/ ———/ —-	Thes	e are fault / fracture zones, which ge	enerally act as conduits for n	novement of ground water in	n hard rocks. Along these zone	s, the yields are significantl	y higher and wells are	likely to be sustaina	ble for longer duratio	n. However, the inferre	d fractures need to be c	onfirmed by detailed ground surveys	
D Q Q Q	/ <u>P</u> P The	ese are dykes, quartz reefs and	d pegmatite veins, which	generally act as barriers	for ground water moveme	ent.	Aquaculture (AC	188), Salt Pan (	SP77) & Beach	(BH112) are not	used for extracti	on of groundwater.	
	N.BThe depth range an	d yield range of wells may vary	within the unit because o	f certain inhomogeneitie re. This map is useful for	s. Fractures/Lineaments wh narrowing down the target	ich are clearly observed zones,and exact location	/ inferred from the	satellite image are wells and rechards	indicated on the ma	ap. There could be s	ome obscured fractu	res which also influence the grou hydrogeological/geophysical sur	and water prospects. veys.

GROUND WATER PROSPECTS INFORMATION	HYDROLOGICAL INFORMATION	STRUCTURAL INFORMATION	BASE MAP INFORMATION	LOCATION INFORMATION		
YIELD COLOUR DEPTH RANGE OF WELLS	DESCRIPTION SYMBOL	DIPS BEDDING SCHISTOSITY/ FOLIATION	SYMBOL DESCRIPTION	STATE INDEX DISTRICT INDEX		
RANGE CODE SHALLOW MODERATE DEEP	CANAL / TANK IRRIGATED AREA	GENTLE (<15)	NH - 2NATIONAL HIGHWAY	A-BIRBHUM B-BARDDHAMAN		
OF WELLS <30 METERS 30 - 80 METERS >80 METERS	GROUND WATER IRRIGATED AREA	MODERATE (15 - 45)	NATIONAL INGINAL	C-PURULIYA D-BANKURA N		
> 800 LPM VIOLET	RIVER / STREAM (with sand)	STEEP (45 - 80)	SH - 9 STATE HIGHWAY	E-PASCHIM MEDINIPUR F-PURBA MEDINIPUR G-S24 PARGANAS H-HOWRAH		
	WATER BODY / SPRING	SUB - VERTICAL	METALLED ROAD	H-HOWRAH I- KOLKATA J-N24 PARGANAS A		
400 - 800 LPM INDIGO	CANAL  RAIN GUAGE STATION (With average annual rainfall in mm)	ANTICLINE / ANTIFORM ←←	OTHER ROAD	INDIA		
200 - 400 LPM BLUE	PERCOLATION TANK CHECK DAM	SYNCLINE / SYNFORM ←	RAILWAY	WEST E H		
00 - 200 LPM GREEN	NALA BUND RECHARGE WELL   DESILTING OF TANK ○ RECHARGE PIT ★  SUBSURFACE DYKE	TREND LINE	CITY / VILLAGE	BENGAL K-HUGLI L-NADIA M-MURSHIDABAD N-MALDAH		
50 - 100 LPM YELLOW	SOIL CONSERVATION STORAGE TANK  WELLS OBSERVED DURING FIELD VISIT  YIELD RANGE BORE / YIELD RANGE DUG WELL / IN LPM TUBE WELL IN m³/day RING WELL	ESCARPMENT  LITHOLOGY / GEOMORPHIC UNIT BOUNDARY	HABITATIONS : NON - COVERED (NC) PARTIALLY COVERED (PC)			
30 - 50 LPM ORANGE	> 800 LPM	### FAULT   ### F   ### F	BOUNDARY : INTERNATIONAL	BLOCK INDEX MAPSHEET INDE		
	200 - 400 LPM - 15/70 100 - 200 m <sup>3</sup> / day 8/15	THRUST TT	—·— ·— STATE	73005 73009 73		
20 - 30 LPM BROWN	100 - 200 LPM   -• 15/70	FRACTURE / LINEAMENT	DISTRICT	F20		
	30 - 50 LPM - 15/70 15 - 25 m³ / day 8/15	FRACTURE / LINEAMENT (Inferred )	BLOCK	73006 73010 73		
10 - 20 LPM PINK	20 - 30 LPM - 15/70 10 - 15 m <sup>3</sup> / day 8/15	SHEAR ZONE (Confirmed / Inferred) S S/S - S	OTHER INFORMATION			
Prospects	10 - 20 LPM - \( \frac{15/70}{5} \) 5 - 10 m <sup>3</sup> / day \( \frac{8/15}{15/70} \) < 5 m <sup>3</sup> / day \( \frac{8/15}{15/70} \)	DYKE (Confirmed / Inferred)				
imited to valley sortions only Hills, Plateaus stc.)	Colour inside well symbol indicates yield range. The figures on the top right	QUARTZ REEF (Confirmed / Inferred)	Rainfall : 1703 mm	FA.FGRA I		
tun-off zone/	hand side of well indicate the depth to water level and depth of well in meters  DUG - CUM- BORE WELL  HAND PUMP WELL	PEGMATITIE VEIN (Confirmed / Inferred)	(Source IMD)	F6-EGRA I F7-EGRA II F3-CONTAI I F20-RAMNAGAR I		
arrier for (Inselberg / Ridge / Dyke etc.)	ARTESIAN WELL  OBSERVATION WELL OF G.W DEPT. / C.G.W.B.	Lithologic contacts are inferred at places & Geomorphic boundaries are gradational	, , ,	F21-RAMNAGAR II		
PREPARED BY	TECHNICAL GUIDANCE & QUALITY CHECK	PARTICIPATING ORGANIZATIONS	METHODOLOGY & PROJECT EXECUTION	SPONSORED BY  RAJIV GANDHI NATIONAL DRINKING WATER MIS  (PHASE IV)		
GEOINFORMATICS & REMOTE SENSING CELL	इसरो ंडाव	OUDVEY OF MINA	इसंरो डिन्ड			
B. STATE COUNCIL OF SCIENCE AND TECHNOLOGY DEPARTMENT OF SCIENCE AND TECHNOLOGY	NATIONAL REMOTE SENSING CENTRE	SURVEY OF INDIA GEOLOGICAL SURVEY OF INDIA	NATIONAL REMOTE SENSING CENTRE			
GOVERNMENT OF WEST BENGAL	INDIAN SPACE RESEARCH ORGANISATION (ISRO)	PHED, GOVT. OF WEST BENGAL	INDIAN SPACE RESEARCH ORGANISATION (ISRO)	DEPARTMENT OF DRINKING WATER SUPPLY (D MINISTRY OF DRINKING WATER & SANITATIO GOVERNMENT OF INDIA NEW DELHI		
4TH FLOOR, BIKASH BHAVAN	DEPT. OF SPACE, GOVT. OF INDIA	STATE WATER INVESTIGATION DIRECTORATE, GOWB	DEPT. OF SPACE, GOVT. OF INDIA			
SALT LAKE, KOLKATA 700 091	BALANAGAR, HYDERABAD - 500 625	P.S.MAPS (LAND RECORD), GOVT OF WEST BENGAL	BALANAGAR, HYDERABAD - 500 625			