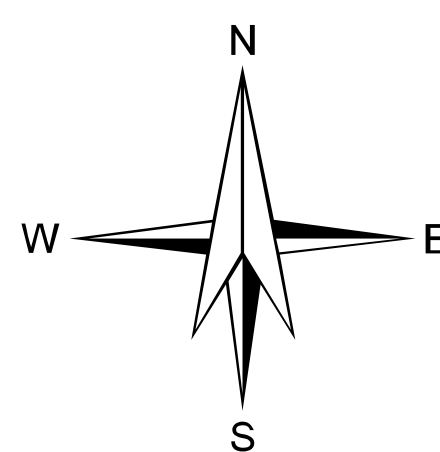
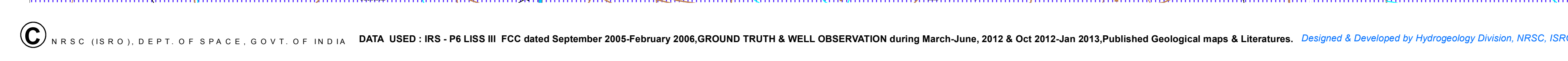


(PREPARED FROM SATELLITE IMAGE INTERPRETATION WITH LIMITED FIELD CHECKS)



KOLKATA & SOUTH 24 PARGANAS DISTRICTS, WEST BENGAL



MAP UNIT (HYDROGEO MORPHIC UNIT) REPRESENTED IN THE MAP WITH ALPHANUMERIC CODE (COLOUR INDICATES YIELD RANGE AND MATCHING INDICATE DEPTH RANGE)		GEOLOGICAL SEQUENCE / ROCK TYPE (REPRESENTED IN THE MAP WITH NUMERIC CODE)	GEOMORPHIC UNIT / LANDFORM (REPRESENTED IN THE MAP WITH ALPHABETIC CODE)	DEPTH TO WATER LEVEL PRE / POST- MONSOON (AVERAGE IN METERS) NO. OF WELLS OBSERVED	RECHARGE CONDITIONS BASED ON AVAILABILITY OF WATER (RAINFALL & OTHER SOURCES)	GROUND WATER PROSPECTS							RECHARGE STRUCTURES SUITABLE & PRIORITY PT = REGULATION TANK CD = CHECK DAM NB = NALANDA PW = WELLBORN WELL DT = DESTIND OF TANK SP = RECHARGE PIT GO = SUBSURFACE DRAIN RS = RECHARGE SHAFT ST = STORAGE TANK SCM = SOL. CONSERVATION MEASURES	RE MARKS (PROBLEMS / LIMITATIONS)
						AQUIFER MATERIAL LS = LOOSE SEDIMENTS FM = FERRUGINEOUS ROCK FR = FRACTURED ROCK WR = WEATHERED ROCK WM = WEATHERED MATERIAL RI = IMPERVIOUS ROCK	TYPE OF WELLS SUITABLE DW = DUG WELL BW = BORE WELL SW = SINK WELL TW = TUBE WELL GWW = GROUND WATER WELL DTW = DUG CURETURE WELL	DEPTH RANGE OF WELLS (SUGGESTED) MIN- MAX (IN METERS)	YIELD RANGE OF WELLS (EXPECTED) (IN LPM or m / day)	HOMOGENEITY IN THE UNIT & SUCCESS RATE OF WELLS (PROBABILITY)	QUALITY OF WATER POTABLE (P) NON- POTABLE (NP) (NULCATE REASONS # NON POTABLE)	GROUND WATER IRRIGATED AREA (APPROX. RANGE IN PERCENTAGE)		
	Panskura / Ramsabhi / Chinsura / Katwa / Basudebpur (Early to Late Holocene)	Alluvium (Sand and Silt) (113)	Alluvial Plain Younger (APY)	11 / 7 31	Good	LS	TW	>150 m	400-500 LPM	High	NP (As&Fe) [At shallow depth]	29.1	Not Required	Areas with high Arsenic and Iron concentration. Potable water available at depth range above 150m.
	Ancient Estuarine Deposits (Early to Late Holocene)	Alluvium (Sand, Silt & Clay) (13)	Deltaic Plain Older (DPO)	8 / 5 48	Good	LS	TW	>250 m	600-800 LPM	High	NP (Salinity) (At shallow depth)	70.8	Not Required	Areas affected by Salinity. Fresh water aquifers found at depth ranges of 250 m and above.

 These are fault / fracture zones, which generally act as conduits for movement of ground water in hard rocks. Along these zones, the yields are significantly higher and wells are likely to be sustainable for longer duration. However, the inferred fractures need to be confirmed by detailed ground surveys.

 These are dykes, quartz reefs and pegmatite veins, which generally act as barriers for ground water movement.

Aquaculture (AQ88) are not used for groundwater exploitation.

N.B.-The depth range and yield range of wells may vary within the unit because of certain inhomogeneities. Fractures/lineaments which are clearly observed / inferred from the satellite image are indicated on the map. There could be some obscured fractures which also influence the ground water prospects. Locations of the recharge structures shown in the map are tentative. This map is useful for narrowing down the target zones, and exact location on the ground for wells and recharge structures should be identified based on follow-up ground hydrogeological/geophysical surveys.

 NSRSC (ISRO), DEPT. OF SPACE, GOVT. OF INDIA DATA USED : IRS - P6 LISS III FCC dated September 2005-February 2006, GROUND TRUTH & WELL OBSERVATION during March-June, 2012 & Oct 2012-Jan 2013, Published Geological maps & Literatures. Designed & Developed by Hydrogeology Division, NSRSC, ISRO