केंद्रीय भूमि जल बोर्ड

जल संसाधन, नदी विकास और गंगा संरक्षण मंत्रालय

भारत सरकार

Central Ground Water Board

Ministry of Water Resources, River Development and Ganga Rejuvenation

Government of India

AQUIFER MAPPING REPORT

Parts of Golapara, Kamrup and Barpeta Districts, Assam

उत्तरी पूर्वी क्षेत्र, गुवाहाटी

North Eastern Region, Guwahati

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Govt. of India
Ministry Of Water Resources, River Development & Ganga Rejuvenation
Central Ground Water Board

FLOOD PLAIN AQUIFER MAPPING
IN PARTS OF GOALPARA, KAMRUP AND BAPETA DISTRICTS, ASSAM

November2015

AQUIFER MAPPING IN PARTS OF GOALPARA, KAMRUP AND BARPETA DISTRICTS, ASSAM

CONTENTS

FIGURES

ANNEXURE

1. INTRODUCTION

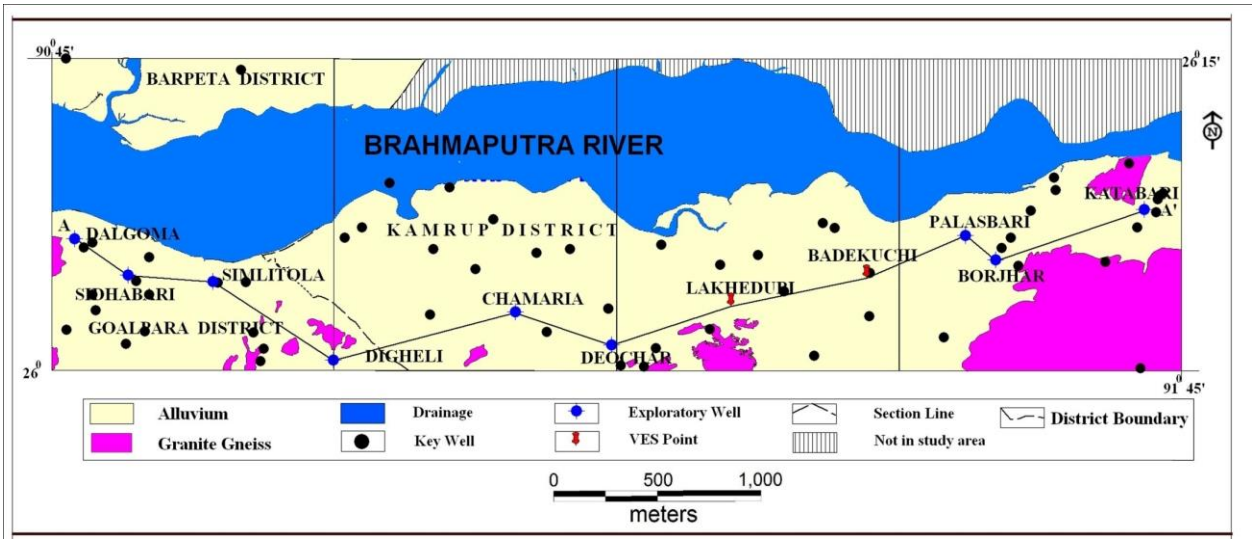
An area of 1450 sq km falling in parts of Goalpara (250 sq. km), Kamrup (1030 sq km) and Barpeta (170 sq km) districts of Assam was covered as per the Annual Action Plan 2012-13 and 2013-14 of Central Ground Water Board, North Eastern Region, Guwahati.

The study area spread over 1450 sq.km falling under Survey of India toposheets no. 78 J/16, 78 N/4, 8 and 12 lies between North latitudes 26º00′00″ & 26º15′00″ and East longitudes 90º45′00″ & 91º45′00″. The study area lies mostly in the southern part of the Brahmaputra River.

The total population of the Kamrup district is as per 2011 Census is 12,60,419, with 6,55,630 Male and 6,04,789 female. The total population of the Goalpara district as per 2011 census is 10,08959, with 514,162 male and 49,4797 female. The total population of the Barpeta district as per 2011 Census is 16,93,190 with male 8,67,891 and female 8,25,299. The population density as per 2011 Census is 553.

The study area is characterized by an almost flat plain except for few low hills that break the monotony of the terrain. The Study area represents association of variety geological formations ranging in age from Archaean to Recent. The assemblages of different formations play important role in controlling occurrence, distribution and movement of ground water.

The study area is underlain by the Archaean Gneissic complex (inselbergs) and Quaternary Alluvial formations. The Archaean gneissic complex includes of metamorphic complex of gneiss, schist, phyllite intruded by acid/basic intrusive.



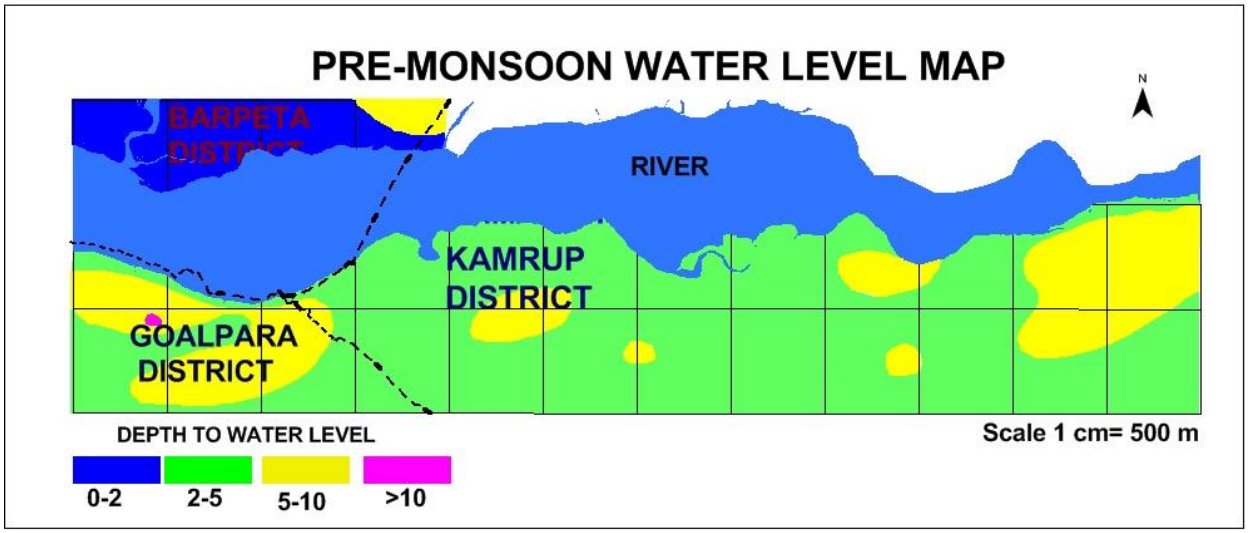
2. MAJOR GROUNDWATER ISSUES IN THE AREA

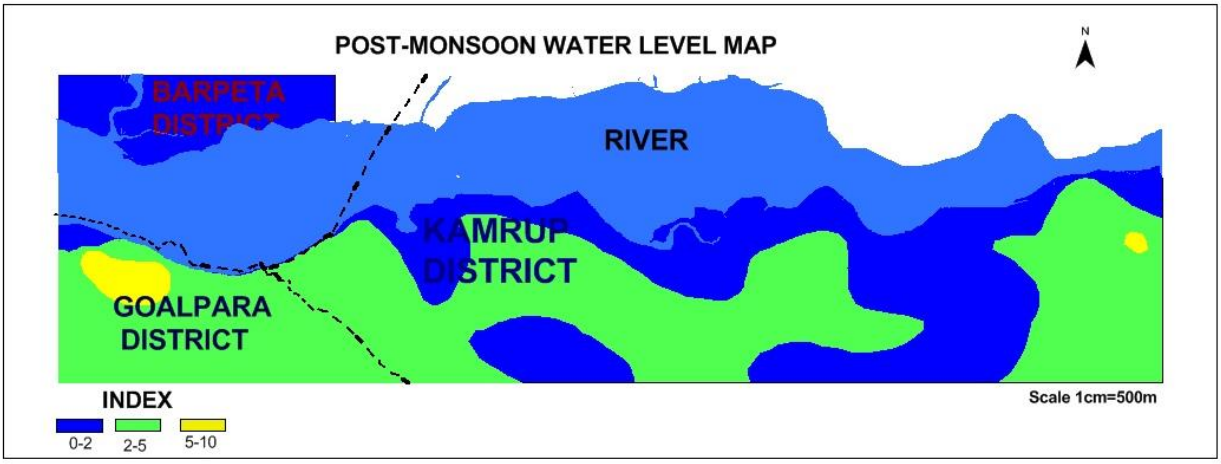
Major groundwater related issues found in the study area are low stage of development, shallow groundwater level, meager irrigational infrastructure and in major parts of the study area higher concentration of iron in groundwater. In 85% of net sown area no irrigation facility is available. An agrarian society where majority of farmers are categorized as marginal and small. Average land holding of marginal farmers is 0.4 ha. Power supply is irregular and in places non-existent.

3. MANIFESTATION AND REASONS OF ISSUES

In the study area depth to water level ranges from 0.50 to 4.64 m bgl during post-monsoon and water level ranges from 1.00 to 7.85 m bgl during pre-monsoon. In major part of the study area seasonal fluctuation varies from 0.22 m at Maligaon to 4.12 m at Azara. The details of key wells have given in table no-10.

The climate in the study area is moderate during the winter and it is hot during summer. Rain makes first appearance in the month of April. Monsoon rain normally started from the Month of June and heavy rain occurs during September. The average annual rainfall in the area varies from 1500 to 1800 mm. The average relative humidity in a year is 78.7 per cent.





Infrastructure for irrigation in the study area is very meager. Out of the total net sown area of 74755 ha only 15% has been brought under irrigation till date.

SI No.	**District (p)**	**Study area (in Ha)**	**Net Area Sown (in Ha)**	**Land under Irrigation (in Ha)**	**Land which can be brought under Irrigation (in Ha)**
1	Kamrup	103000	54918	10837	44081
2	Goalpara	25000	11540	80	11460
3	Barpeta	17000	8297	392	7905
	Total	145000	74755	11309	63446

To know the water quality of the study area, water sampling done from both shallow and deeper aquifers. Ground water quality of both shallow and deeper zones were discussed below. 10 nos. of water samples from deep tube wells and 47 nos. of water samples from dug

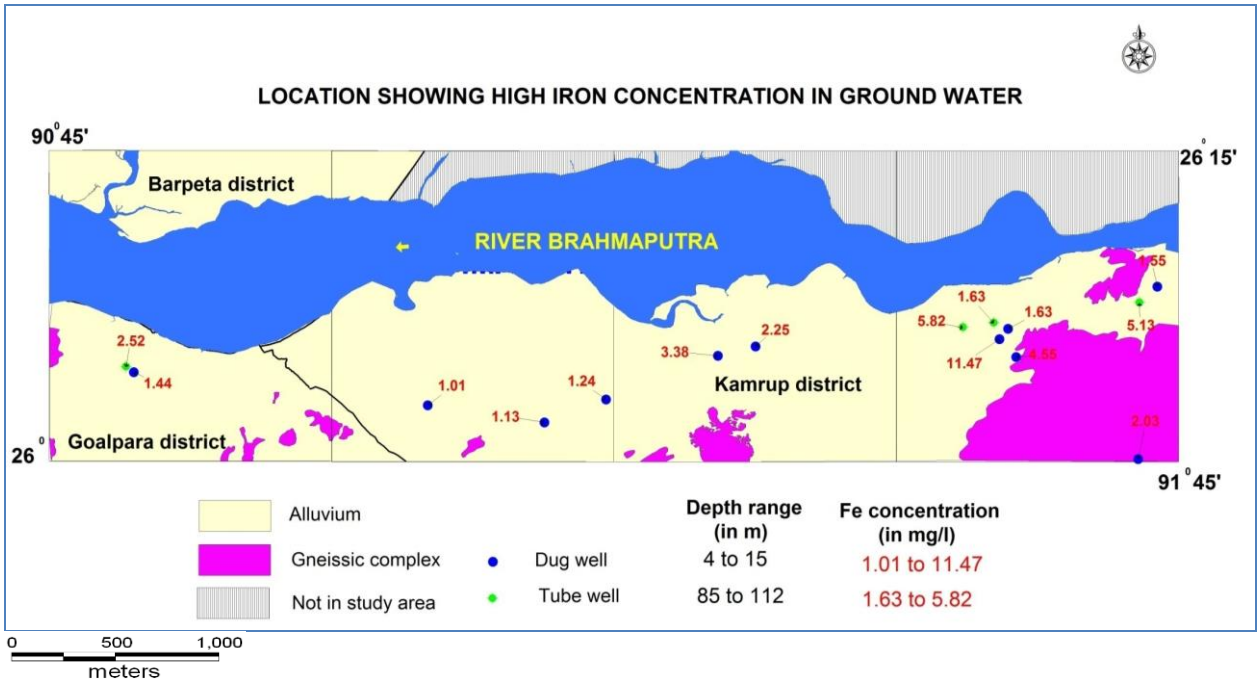
wells were collected during the study for the chemical analysis. Water samples collected during the study were analyzed for the different chemical constituents at the Regional chemical laboratory of CGWB, NER Guwahati and result are as given in table-12 format.

The pH of the Ground water varies from 7 to 9 indicating slightly basic character of the water. The value of EC varies from 1406 to 114 µs/cm at 25^0 C. The fluoride content of water samples are varies from 0.13 to 1.52 mg/l. The iron content of dug well water samples varies from 0.17 to 11.47 mg/l and from 0.37 to 5.82 mg/ lit for deep tube well sample. Location of higher concentration of iron in groundwater is depicted in Map-8. Summary of results of chemical analysis data showing concentration of iron in groundwater is shown in table below.

Table: Summary of chemical analysis data showing concentration of iron in groundwater

Result of Water samples from dug wells				Result of Water samples from deep tube wells	
SI. No	Fe (mg/l)	No. of samples	% of samples	No. of samples	% of samples
01	0-0—0.3	16	36.36		00
02	0.3---1.00	11	25.00	4	40.00
03	>1.00	17	38.64	6	60.00

It can be seen from the above table that 64% water samples collected from dug wells are having iron content more than the desirable limit i.e., 0.30 mg/ lit (set by BIS). And 100% water samples collected from deep tube wells are having iron content more than the desirable limit.



The study area is characterized by an almost flat plain except for few low hills that break the monotony of the terrain. The northern most part of toposheet No.78J/16 which falls mostly in Barpeta district is flood prone area. A significance of SE part of the study area is the large number of sandy river islands in the Brahmaputra river. The alluvial land is flat with gentle slope of less than 1m/ km towards Brahmaputra River. The hills mostly are isolated inselbergs with heights ranging between 60 m to 269 m above msl.

The mightily Brahmaputra flows from East to West in the study area and the main tributaries of the Brahmaputra are Kulsi ,Krishnai, and Hajo satu nadi. Dudhnai and Krishnai river originate from hills of Meghalaya then join each other on the western part of study area and flow as river of Mornoi up to its confluence with the Brahmputra and ultimately join near south Salmara of Dhubri District. All the rivers are perennial in nature. The common drainage patterns are sub-parallel to parallel and dendritic. Apart from the Brahmaputra river, up to third order streams are found in the study area.

4. AQUIFER GEOMETRY AND CHARACTERIZATION

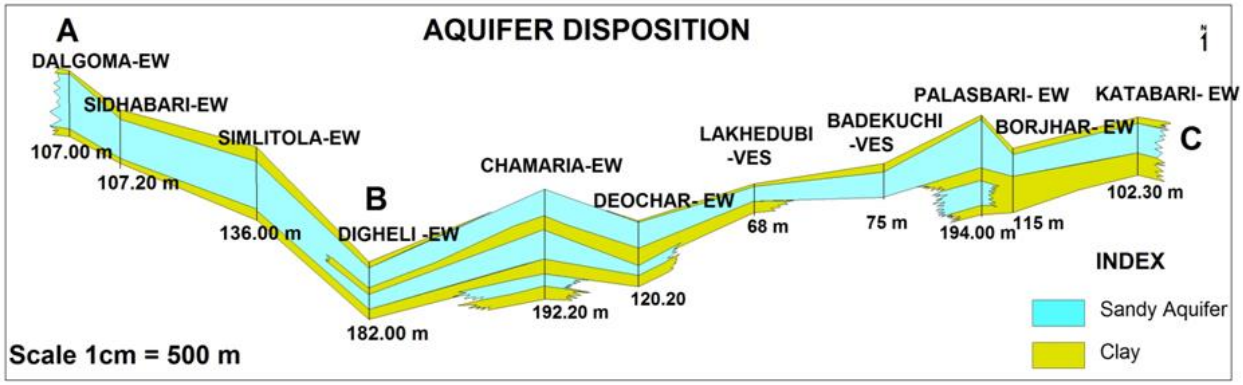
The main objective of the study is to delineate the horizontal and vertical disposition of aquifer as well as to study the aquifer character. In this connection 69 key wells including existing CGWB monitoring stations (Dug well) were monitored in different season. Locations of the monitoring stations were shown in **Map No-14.** To know the aquifer

disposition in the study area, exploratory wells data, VES data available with CGWB and some data of state departments, Govt. of Assam were utilized.

CGWB has drilled 16 EWs within a depth range of 94 to 220 m. A thin layer of discontinuous clay beds occur at surface all over the alluvial deposit ranging in thickness from 5 to 10 m. The tube wells drilled in alluvial deposits show alternate thick beds of sand, gravel and thin beds of clay.

It can be deciphered from the lithologs of different exploratory wells drilled by CGWB that EW show that in regional scale mono aquifer system occur in the area. The aquifer is comprised mainly of medium to coarse sand. This sandy aquifer is having gravel and clay intercalations in places. In some places due to the presence of clay intercalations 2 to 4 granular zones occur in the study area. Separations of two or more granular zones by clay beds often misguide to classify the aquifers into a multiple aquifer system. However, these clay beds are mostly in lensoid shape and they pinches out within a short distance. Thickness of the saturated zone varies from 50 to 100 m within a depth range of 160m. The isopach map of this aquifer shows that isopach value increases towards north of the study area i.e., towards the Brahmaputra flood plain. The deep tube wells constructed by CGWB show yield of 33 to 46 m^3/hr for a drawdown of 2.46 to 7.46 m (maximum drawdown observed near inselbergs).

Aquifer	**Depth of occurrence (m bgl)**	**Yield (m^3/hr)**	**DD (m)**	**Sustainability (hr/days)**	**T (m^2/day)**	**S**
Mono aquifer	Up to 160	35 – 55	2 – 7	10 -12 hr	8878 – 14500	4.2×10^{-6} to 1.7×10^{-3}



Groundwater occurs under unconfined condition in the topmost part of the system. Unconfined condition extends down to the depth of 15 m. In the deeper parts of the system groundwater occurs under semi-confined to confined conditions.

According to the results of interpretation of VES curves, correlation of the data with hydrogeological details of exploratory boreholes and taking into account the apparent resistivity following conclusions have been drawn in respects of parts of Kamrup dist.

1. The top soil with resistivity in the range of 100 and 270 Ohm with thickness within 10m comprises top soil with clays / hard clays etc.
2. The underlying layers below the top soil in the depth below the top soil layer with varying resistivity within 100 Ohm m in general is indicative of sandy formation intercalated with clays / hard clays etc. Comparatively high resistivity above 100 Ohm m is indicative of the hard clay/semi-consolidated or consolidated formation.
3. The inferences for bottom portion are drawn on the basis of interpreted results of surface resistivity surveys, apparent resistivity pertaining to extreme portion of VES curves and hydrogeological data.

The VES locations are shown in **Map No-05**.During the survey H, HK, HA type VES curves were obtained. The inferences drawn on the basis of interpreted results could not be obtained for deeper formation due to the limitations of unavailability of large and straight stretch for current electrode separation. Interpreted results of VES and inferences with respect to possible sub-surface geology are given in Table.

As per the report on dynamic groundwater resources of Assam, 2011 the study area is having a net groundwater availability of 545 mcm, gross annual draft of 130 mcm and stage of development is 24%.

Table: Dynamic Groundwater Resources, 2011 in the StudyArea

District (p)	Stage of Ground Water development (%)	Category	Net GW Availability (ham)	Existing Ground Water Draft for Irrigation	Existing Gross Ground Water Draft for All Uses	Provision for Domestic & Industrial requirement for upto 2025	Balance GW Availability (ham)
Barpeta		Safe	5213	2288	2505	286	2422
Goalpara		Safe	14195	1988	2270	375	11550
Kamrup		Safe	35067	7307	8212	1104	25751
Total	**24**	**Safe**	**54475**	**11584**	**12986**	**1765**	**39724**

5. AQUIFER MANAGEMENT PLAN

MANAGEMENT STRATEGIES

The study area is having meager irrigation facility. A vast land of 63446 ha does not have any irrigation facility which can be brought under irrigation using the huge dynamic groundwater resources available in the area. It is proposed to bring 60% of area under paddy and 40% under non-paddy cultivation. Water requirement for paddy cultivation would be 457 mcm while that for non-paddy cultivation would be 76 mcm. Total water requirement to bring this entire uncovered area under irrigation is **533** mcm.

As per the report on dynamic groundwater resources of Assam, 2011 the study area is having a balance groundwater availability for future uses in the order of 397 mcm. If a plan is made to develop 60% of the balance dynamic groundwater resources available (238 mcm) in the area for the irrigation purposes then **7945** nos. of tube wells (considering a unit draft of 3 ham/yr) can be constructed in the area.

CGWB has established that aquifer in the area is a prolific one and this can be sustainably developed to irrigate this vast land. A tube well yielding 40 m^3/hr, runs for 12hrs/day for 200 days will create a draft of 9.6 ham. To meet the water requirement of 533 mcm, **5552** nos. of such tube well will be required (considering a unit draft of 9.6 ham/yr). Extraction of 295 mcm more water from the aquifer will lower water level by 1 m which will be easily replenished during monsoon (Avg annual rainfall 2m). Tube wells can be designed in the study area within a depth of 50 m, tube wells can be constructed by tapping 20 m of granular zone is expected to yield 40 m^3/hr for a drawdown of 4 m. Wells may be constructed by using $6^{//}$ dia casing pipe down to 20m, $6^{//}$ dia 1 to 1.5 mm slot pipes for 20m and $6^{//}$ dia 10 m blank pipe.

Though huge GW resource is available but farmers in the area are poor and it may not be possible for them to construct tube wells individually. Community based irrigation schemes through groundwater may be taken up by Govt., which will greatly boost the socio-economic conditions in the area. In view of the grim power situation in the area, and – SOLAR PV Pumps would not be able to deliver the requisite water, **diesel pumps** are the best available option inspite of high running cost.

Cost Estimates

One time expenditure to construct 5552 tube wells @ Rs. 2,00,000/= is Rs. 111 crores and cost of 5 HP diesel pumps, yearly running cost and maintenance @ Rs. 91,300/= is Rs. 51 crores.

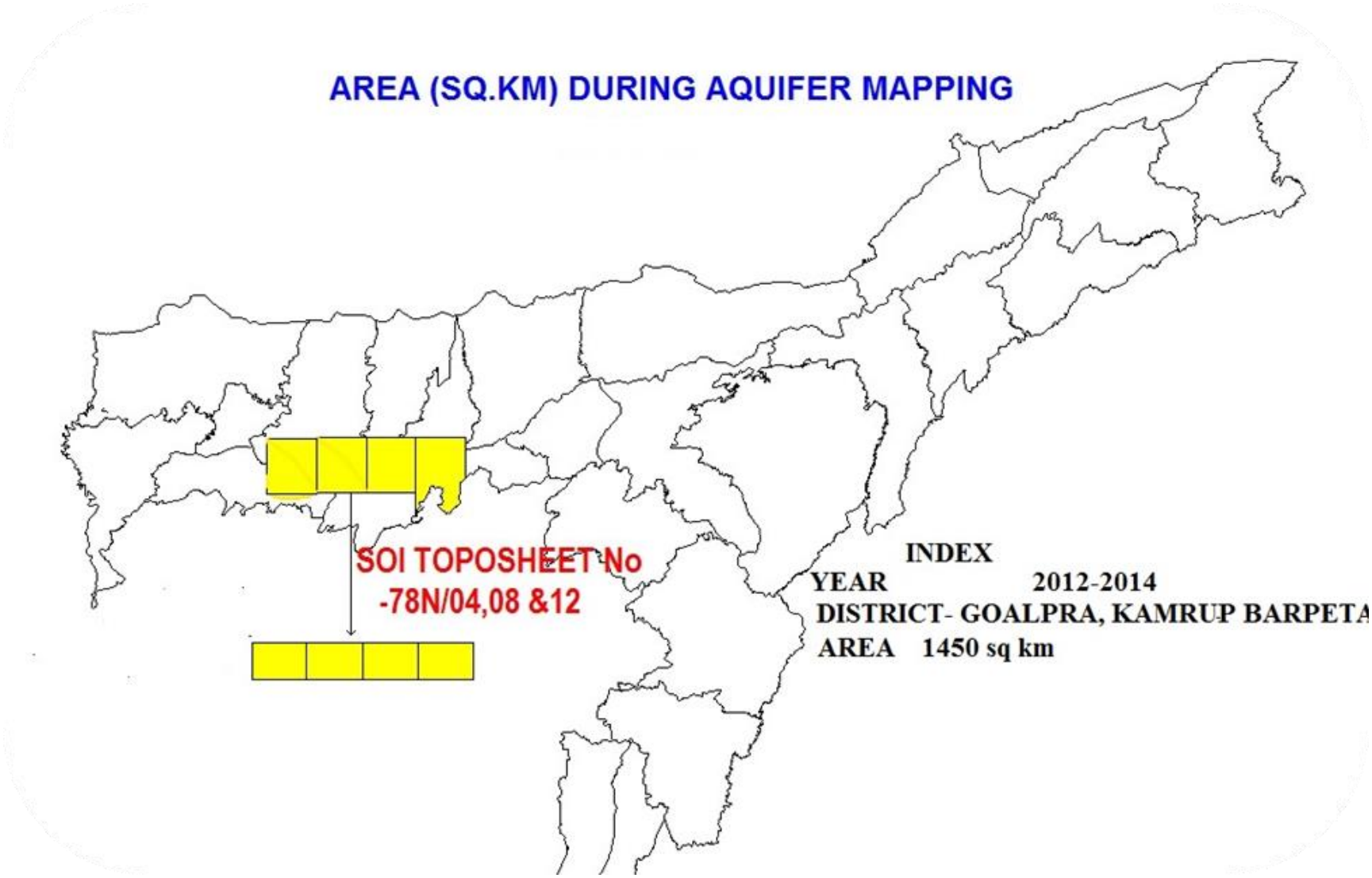
MANAGEMENT PLAN

By providing irrigation facilities to 38000 ha of paddy land 110,000 metric tons of food grains (@ 2900 kg/ha) can be produced. This will boost the economy by providing Rs. 199 crores per annum income (Recent minimum price of common paddy Rs. 1800/Qn). Further by providing irrigation facilities to 25000 ha of non-paddy land 15,000 metric tons of non-paddy can be produced. This will generate an income of Rs. 8 to 46 crores per annum (recent minimum price of vegetables Rs. 520/Qn to Rs. 3000/ Qn of oilseeds). Total one time expenditure Rs. 162 crores. Benefit Rs. 207 to 245 crores per annum.

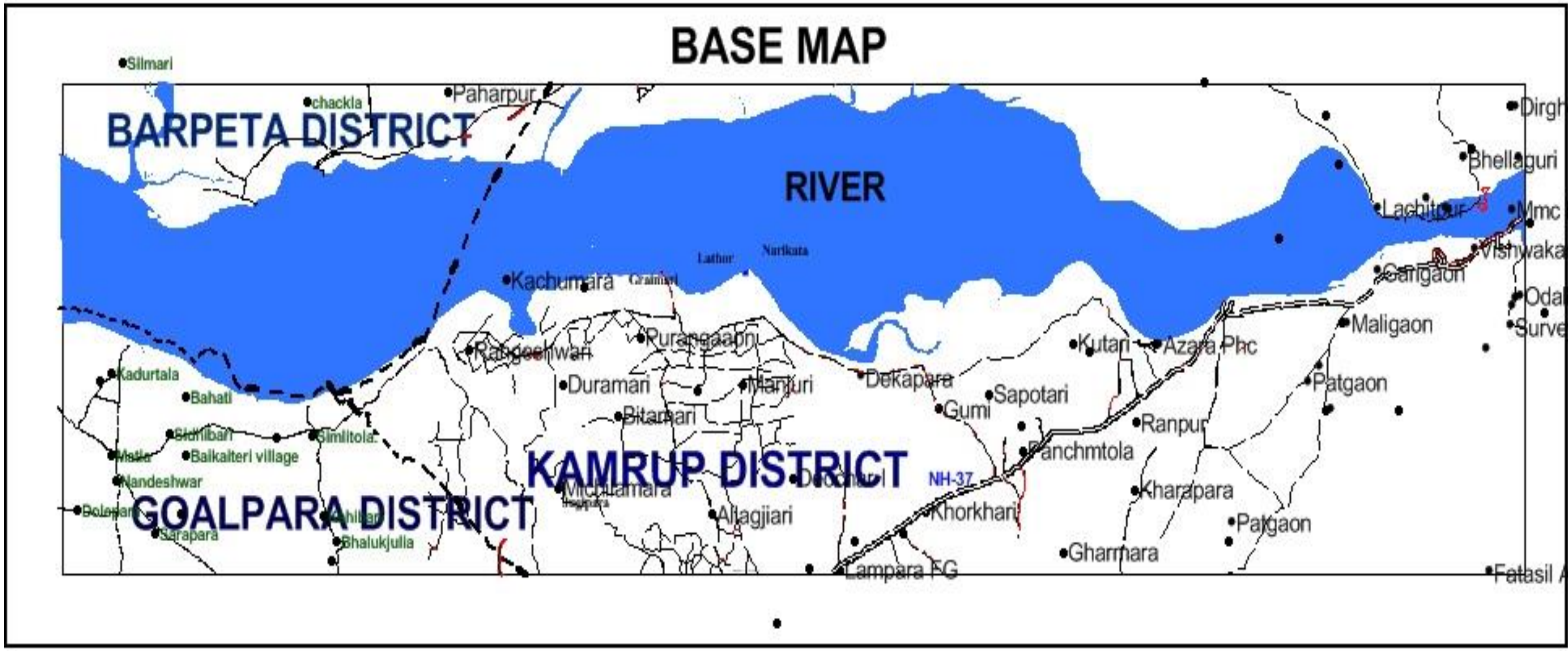
Groundwater in the area is infested with iron, therefore before consumption aeration/ filtering/ installation of Iron Removal Plant is necessary. At present PHED, Assam is supplying treated drinking water in the area. Apart from this, individual houses are using sand filter to remove iron.

Farmer's co-operative societies may be formed which will look after maintenances of the tube wells.

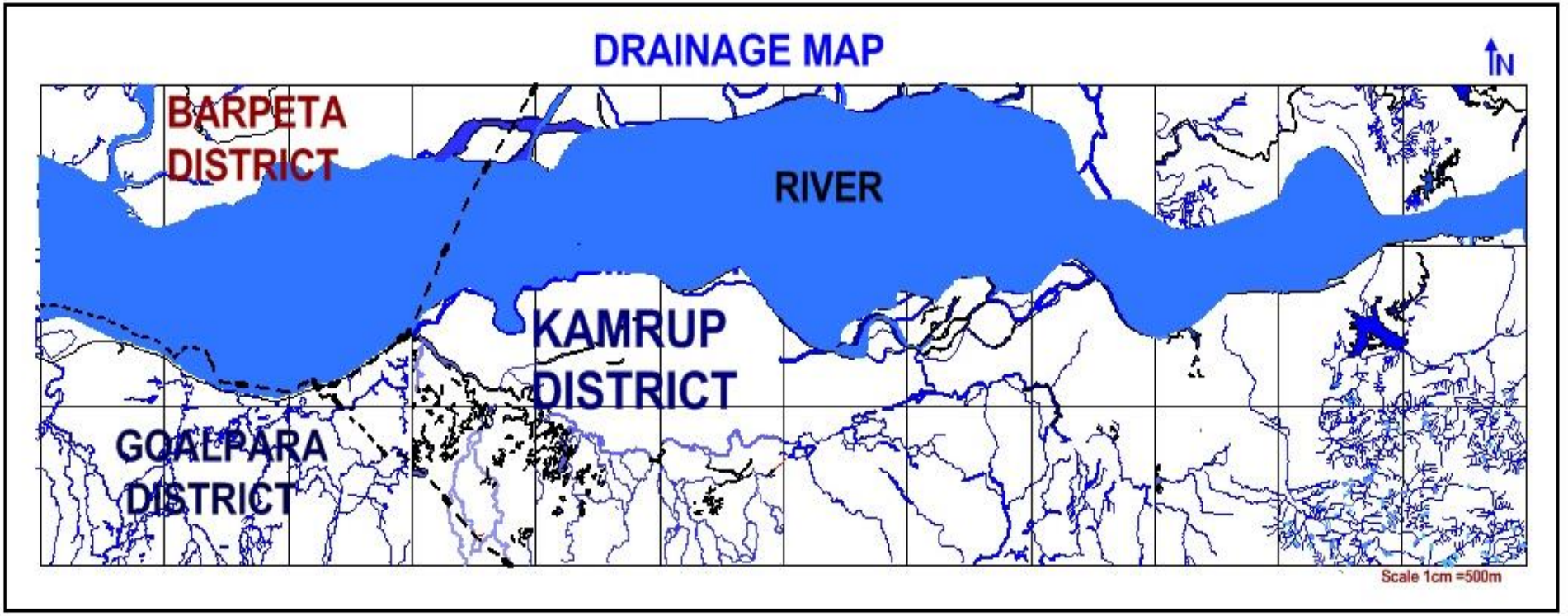
Map No- 1


AREA (SQ.KM) DURING AQUIFER MAPPING
SOI TOPOSHEET No
-78N/04,08 &12
INDEX
YEAR 2012-2014
DISTRICT- GOALPRA, KAMRUP BARPETA
AREA 1450 sq km

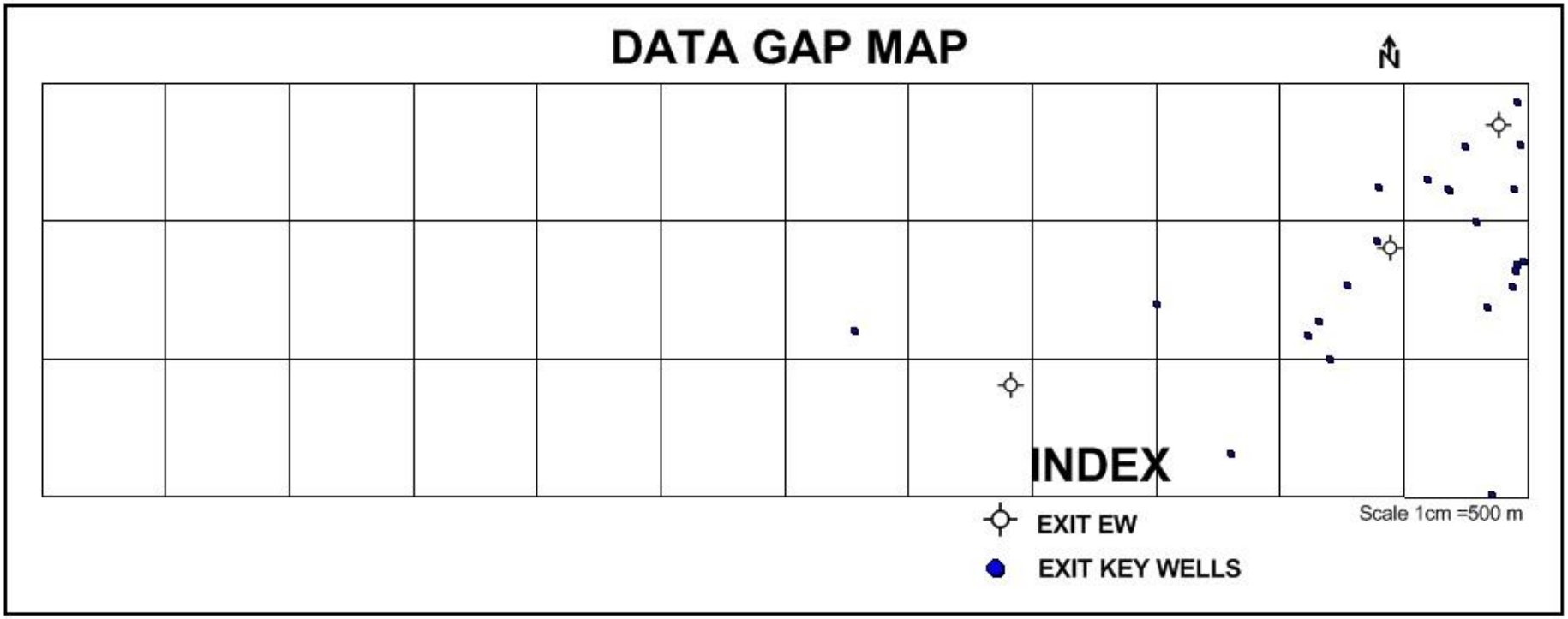
Map No- 2


BASE MAP
BARPETA DISTRICT
RIVER
KAMRUP DISTRICT
GOALPARA DISTRICT
NH-37
Silmari
chackla
Paharpur
Kachumara
Duramari
Dekapara
Gumi
Sapotari
Kutari
Azara Phc
Maligaon
Patgaon
Ranpur
Panchmtola
Kharapara
Khorkhari
Allagjiari
Gharmara
Lampara FG
Bhellaguri
Kadurtala
Bahati
Baikalteri village
Simlitola
Nandeshwar
Sarapara
Bhalukjulia

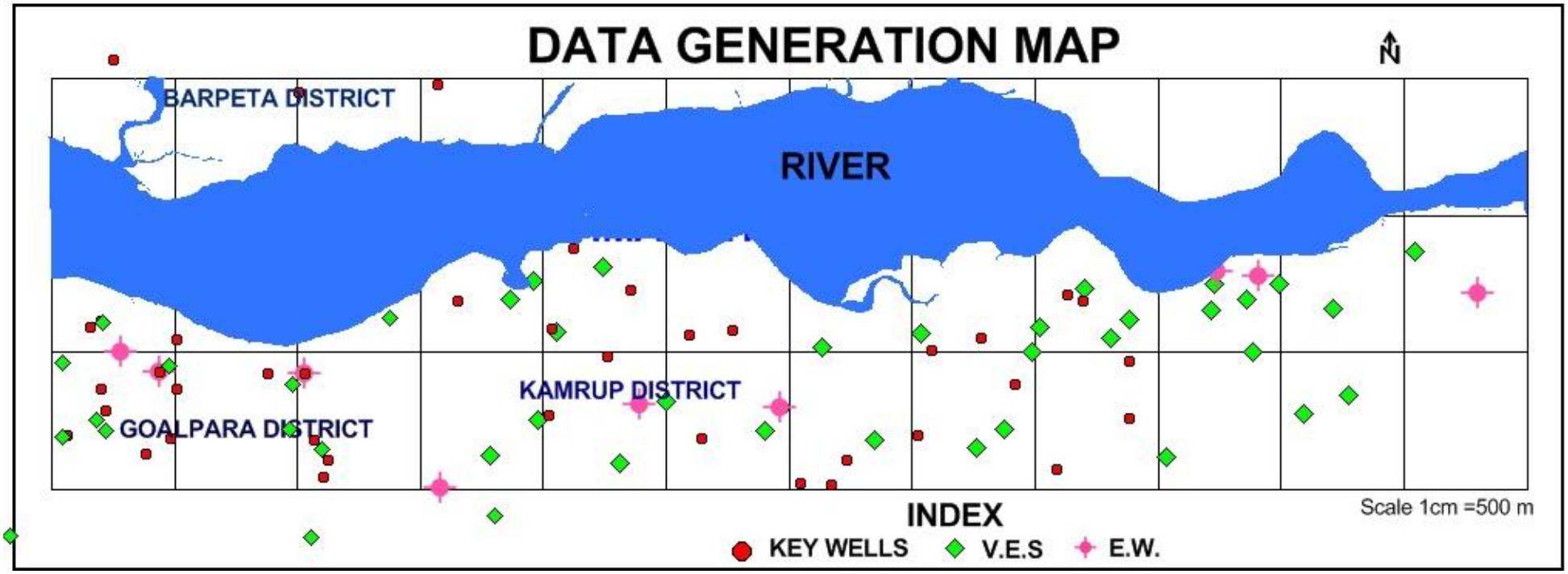
Map No- 3


DRAINAGE MAP
N
BARPETA DISTRICT
RIVER
KAMRUP DISTRICT
GOALPARA DISTRICT
Scale 1cm =500m

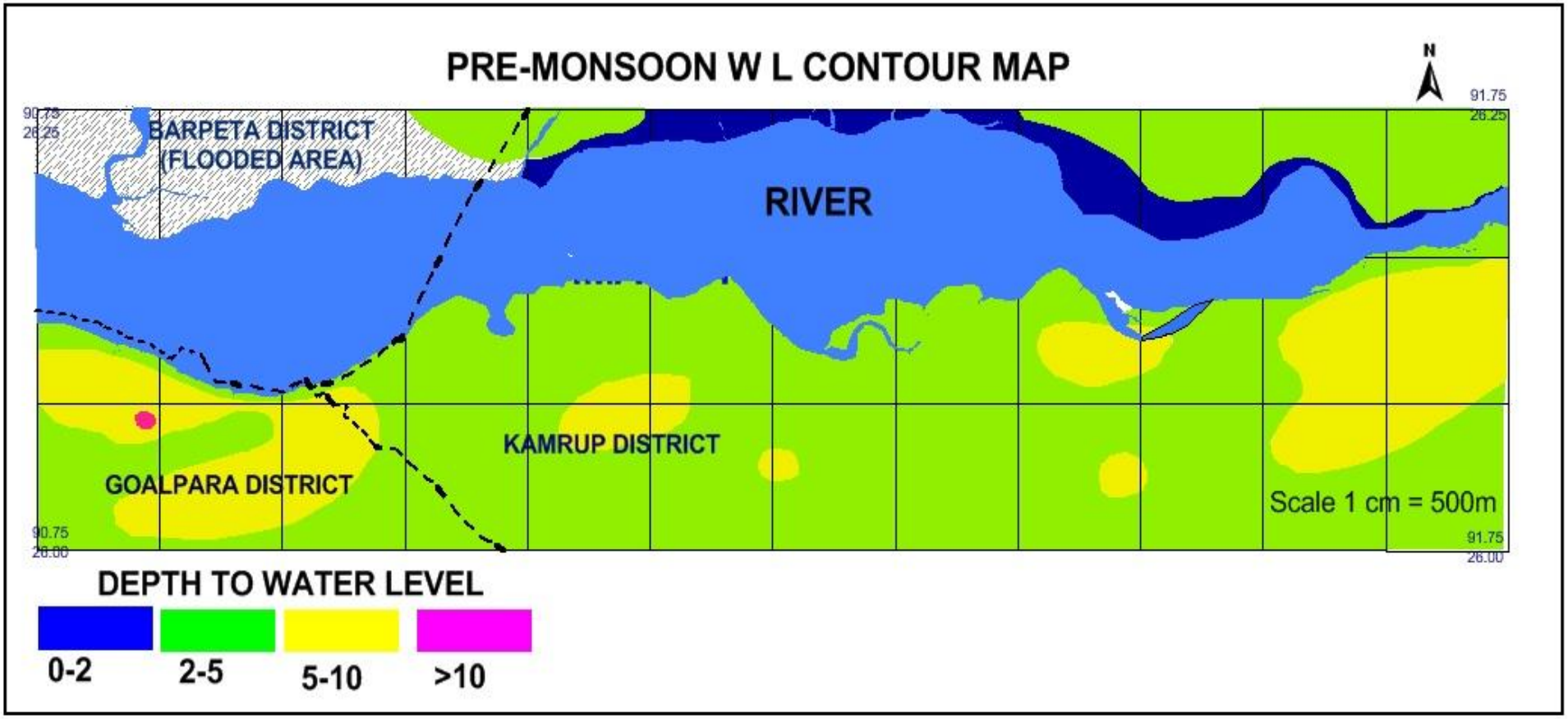
Map No- 4



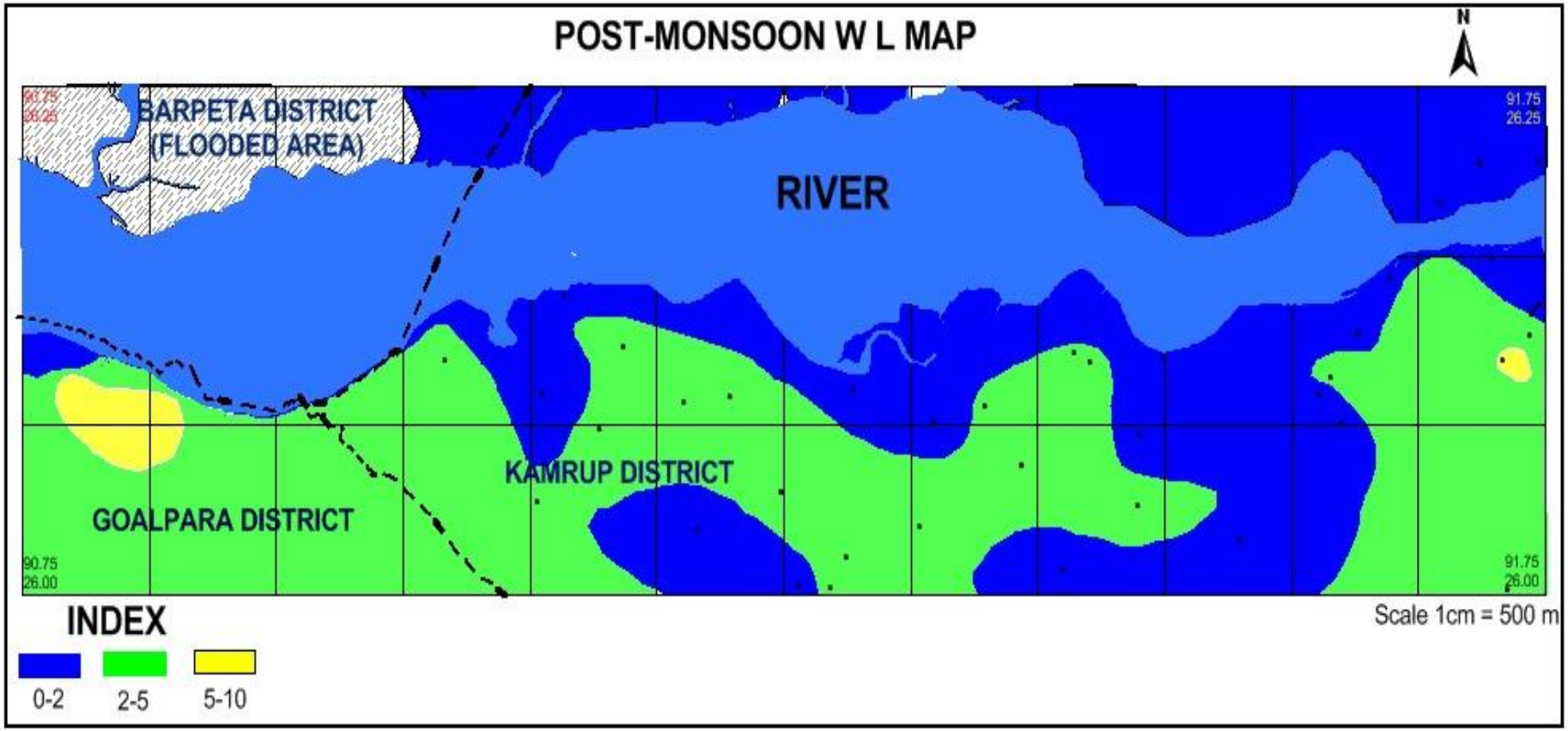
Map No- 5


DATA GENERATION MAP
N
BARPETA DISTRICT
RIVER
KAMRUP DISTRICT
GOALPARA DISTRICT
INDEX
KEY WELLS
V.E.S
E.W.
Scale 1cm =500 m

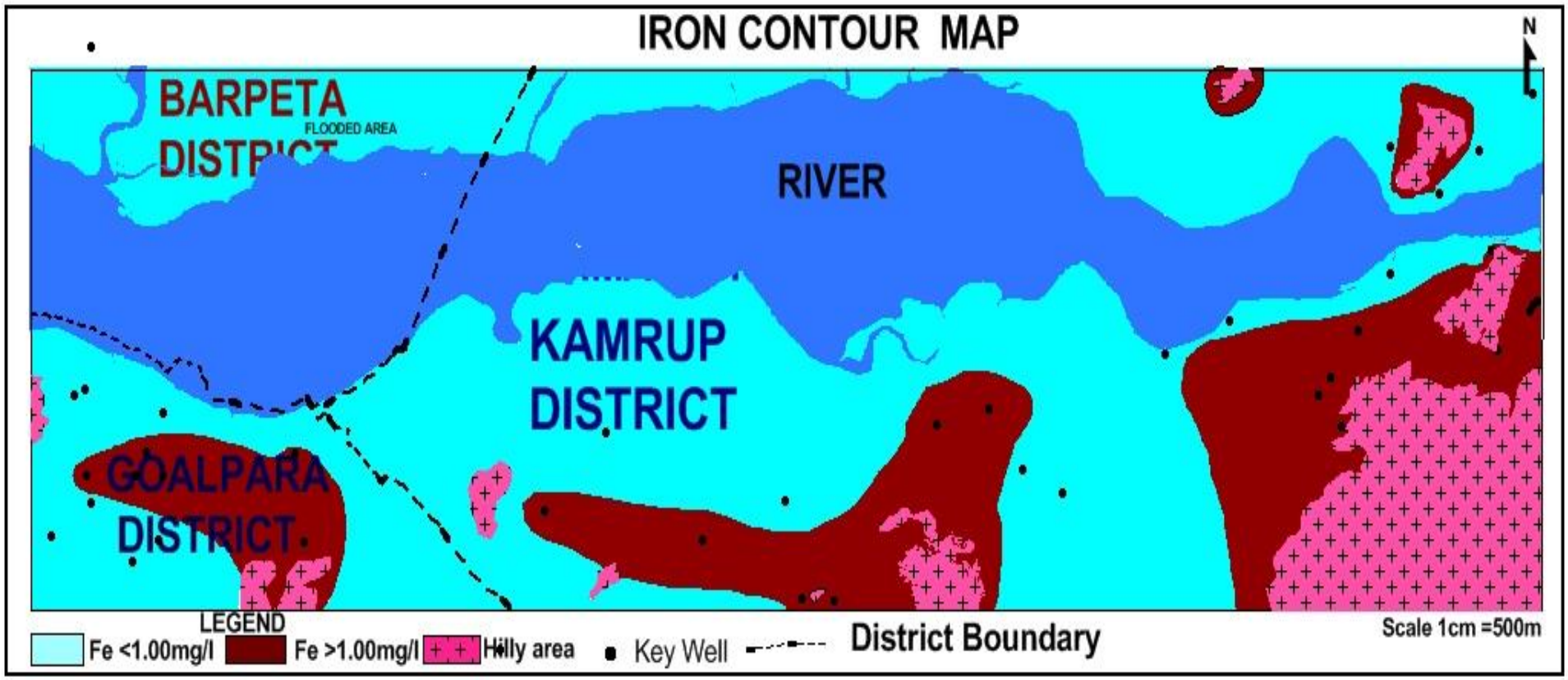
Map No- 6


PRE-MONSOON W L CONTOUR MAP
N
91.75
26.25
BARPETA DISTRICT
(FLOODED AREA)
RIVER
KAMRUP DISTRICT
GOALPARA DISTRICT
Scale 1 cm = 500m
90.75
26.00
91.75
26.00
DEPTH TO WATER LEVEL
0-2
2-5
5-10
>10

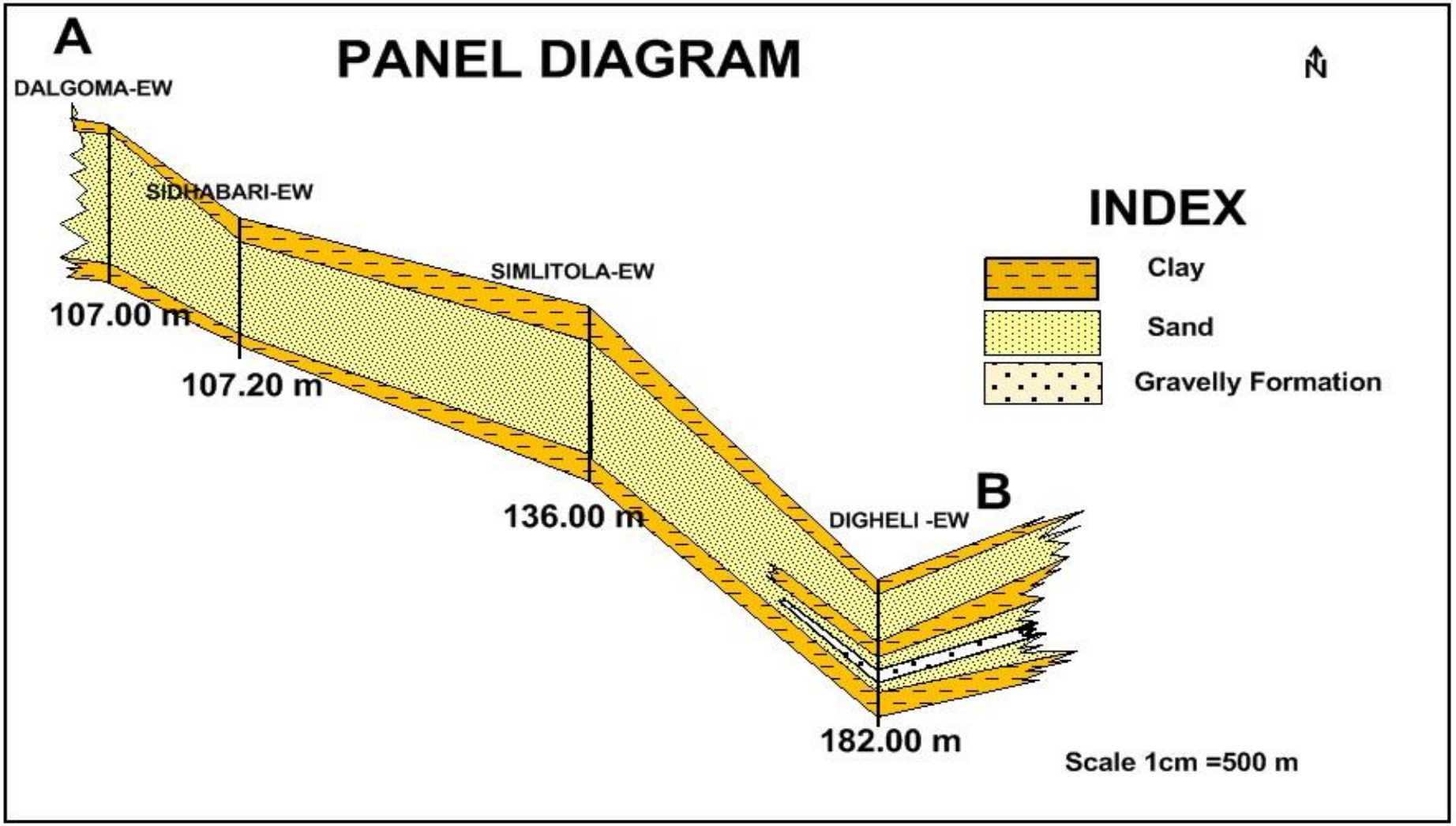
Map No- 7


POST-MONSOON W L MAP
N
BARPETA DISTRICT
(FLOODED AREA)
RIVER
KAMRUP DISTRICT
GOALPARA DISTRICT
91.75
26.25
90.75
26.00
91.75
26.00
INDEX
0-2
2-5
5-10
Scale 1cm = 500 m

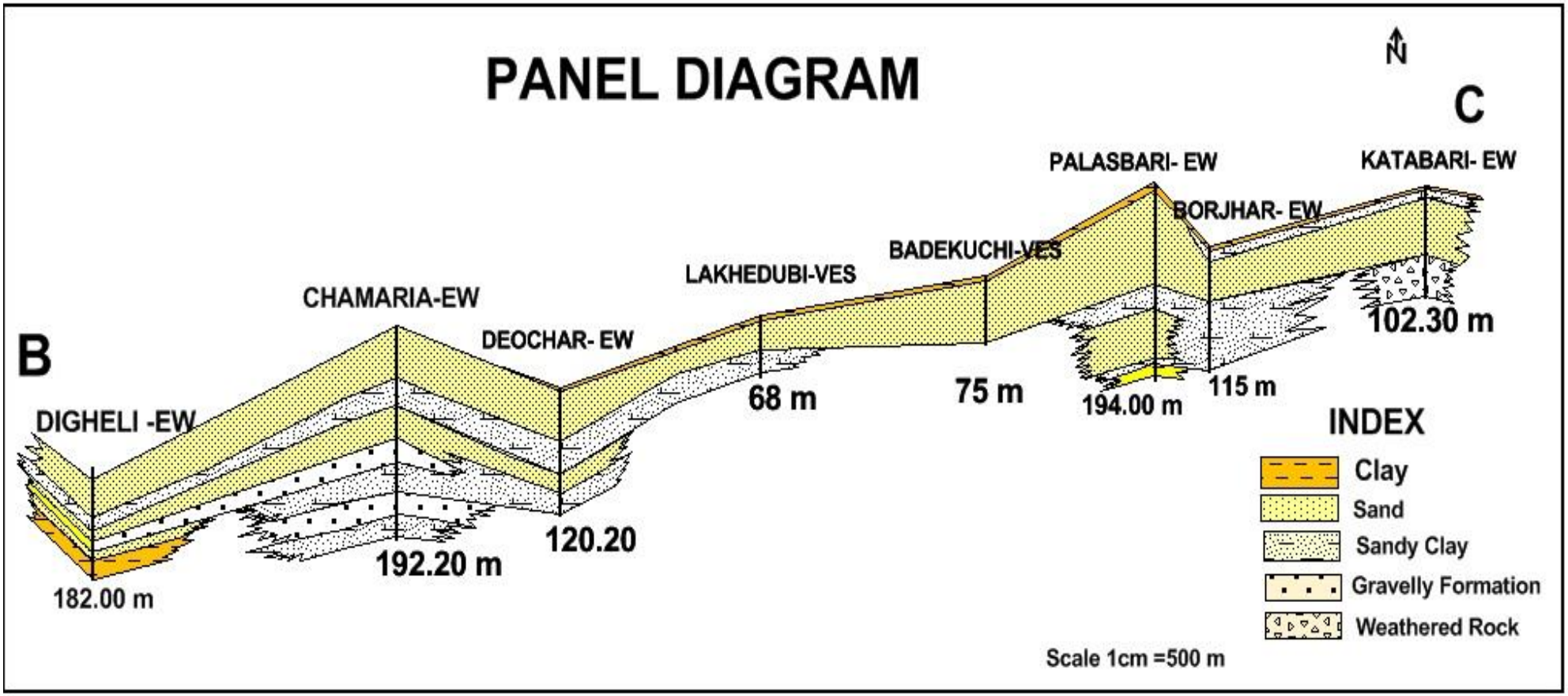
Map No- 8


IRON CONTOUR MAP
N
BARPETA
DISTRICT
FLOODED AREA
RIVER
KAMRUP
DISTRICT
GOALPARA
DISTRICT
LEGEND
Fe <1.00mg/l
Fe >1.00mg/l
Hilly area
Key Well
District Boundary
Scale 1cm =500m

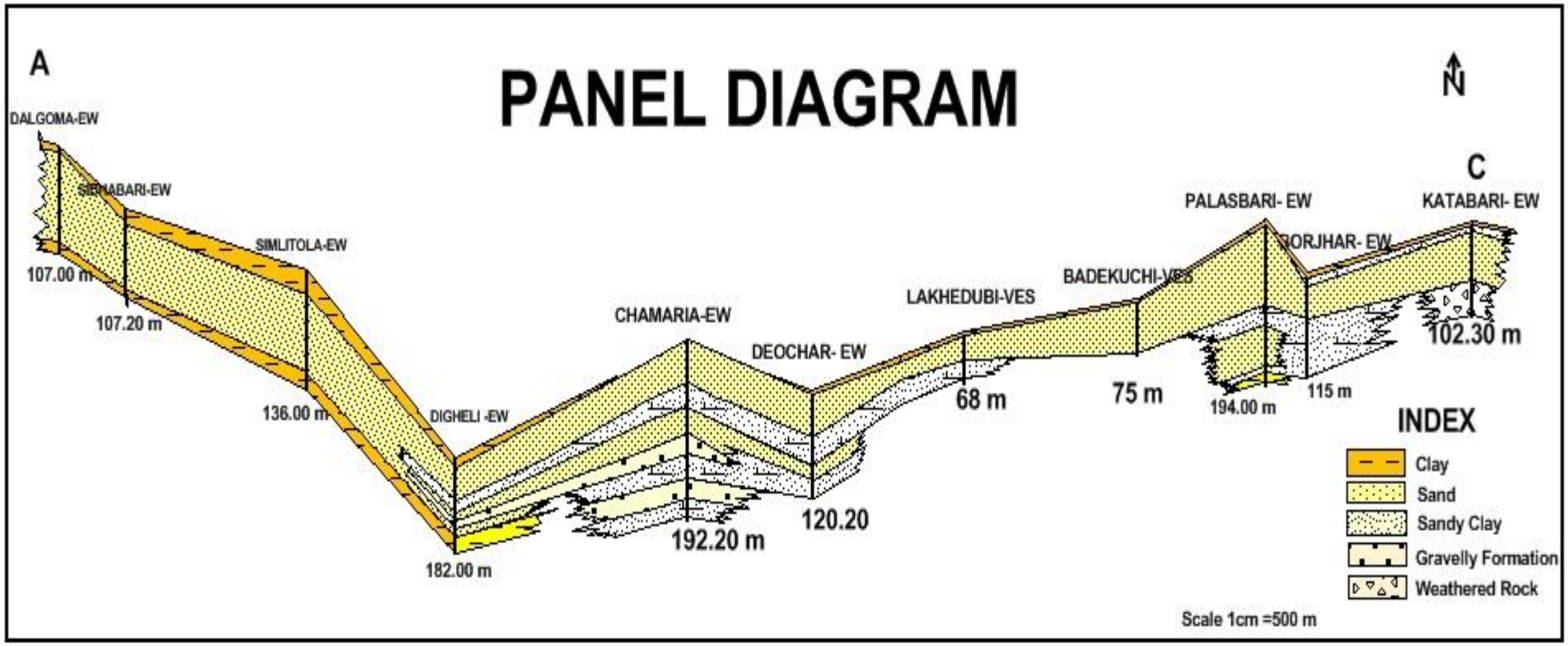
Map No- 9


A
PANEL DIAGRAM
N
DALGOMA-EW
SIDHABARI-EW
SIMLITOLA-EW
INDEX
Clay
Sand
Gravelly Formation
107.00 m
107.20 m
136.00 m
B
DIGHELI -EW
182.00 m
Scale 1cm =500 m

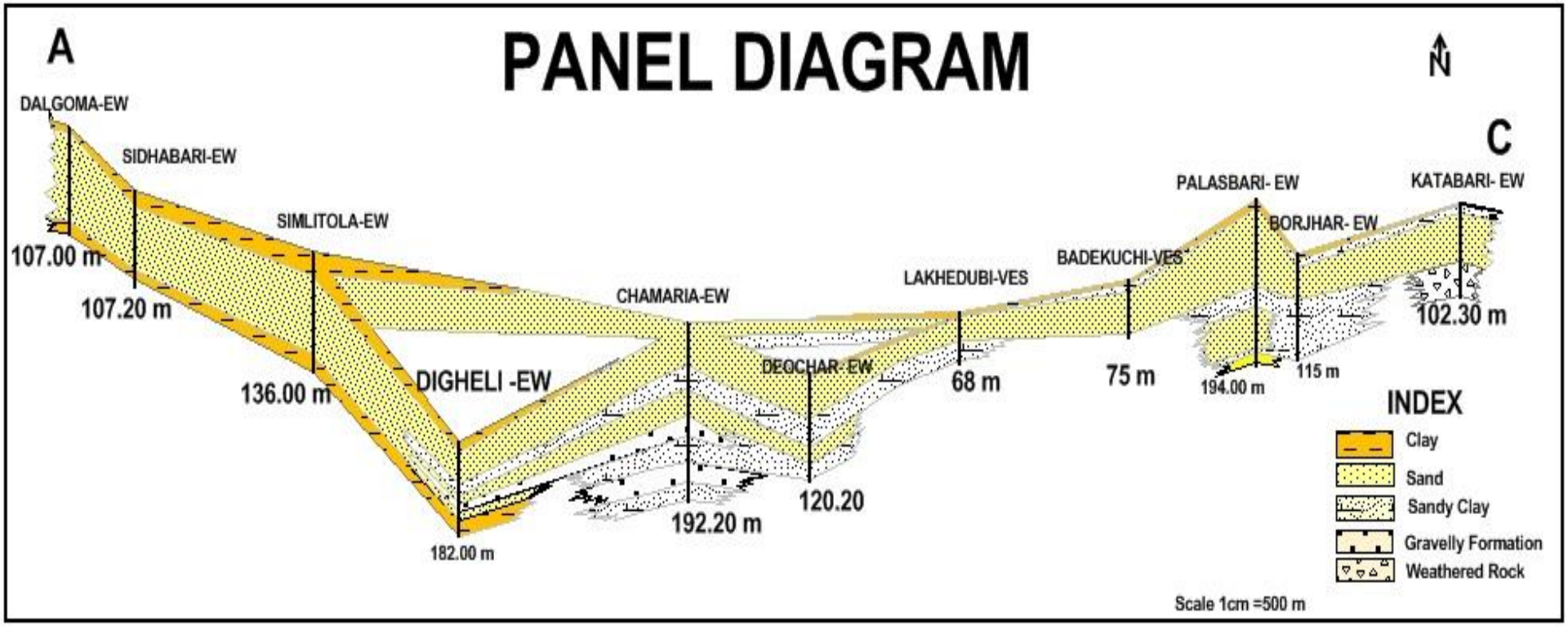
Map No- 10


PANEL DIAGRAM
N
B
C
DIGHELI -EW
CHAMARIA-EW
DEOCHAR- EW
LAKHEDUBI-VES
BADEKUCHI-VES
PALASBARI- EW
BORJHAR- EW
KATABARI- EW
182.00 m
192.20 m
120.20
68 m
75 m
194.00 m
115 m
102.30 m
INDEX
Clay
Sand
Sandy Clay
Gravelly Formation
Weathered Rock
Scale 1cm =500 m

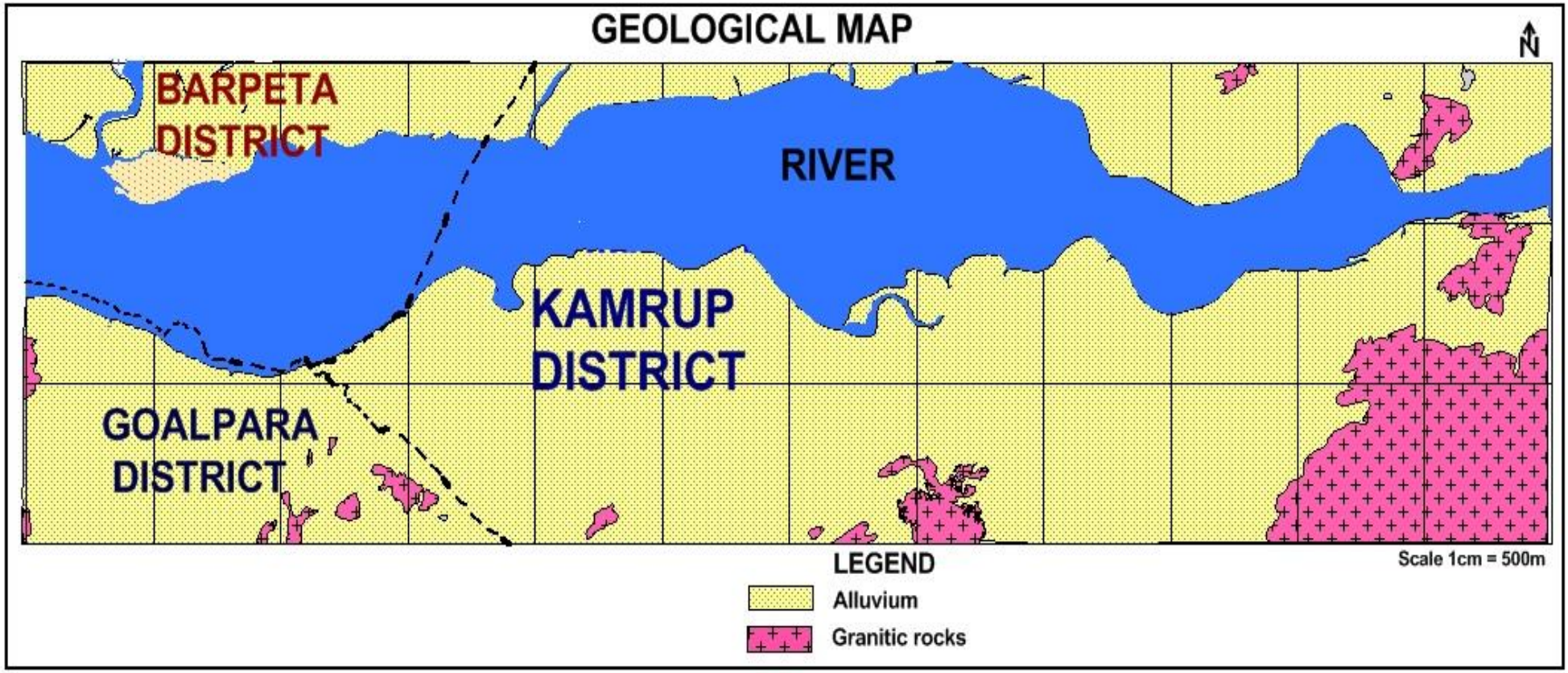
Map No-11


A
PANEL DIAGRAM
N
C
DALGOMA-EW
SIEMABARI-EW
SIMLITOLA-EW
107.00 m
107.20 m
136.00 m
DIGHELI -EW
182.00 m
CHAMARIA-EW
DEOCHAR- EW
192.20 m
120.20
LAKHEDUBI-VES
68 m
BADEKUCHI-VES
75 m
PALASBARI- EW
194.00 m
BORJHAR- EW
115 m
KATABARI- EW
102.30 m
INDEX
Clay
Sand
Sandy Clay
Gravelly Formation
Weathered Rock
Scale 1cm =500 m

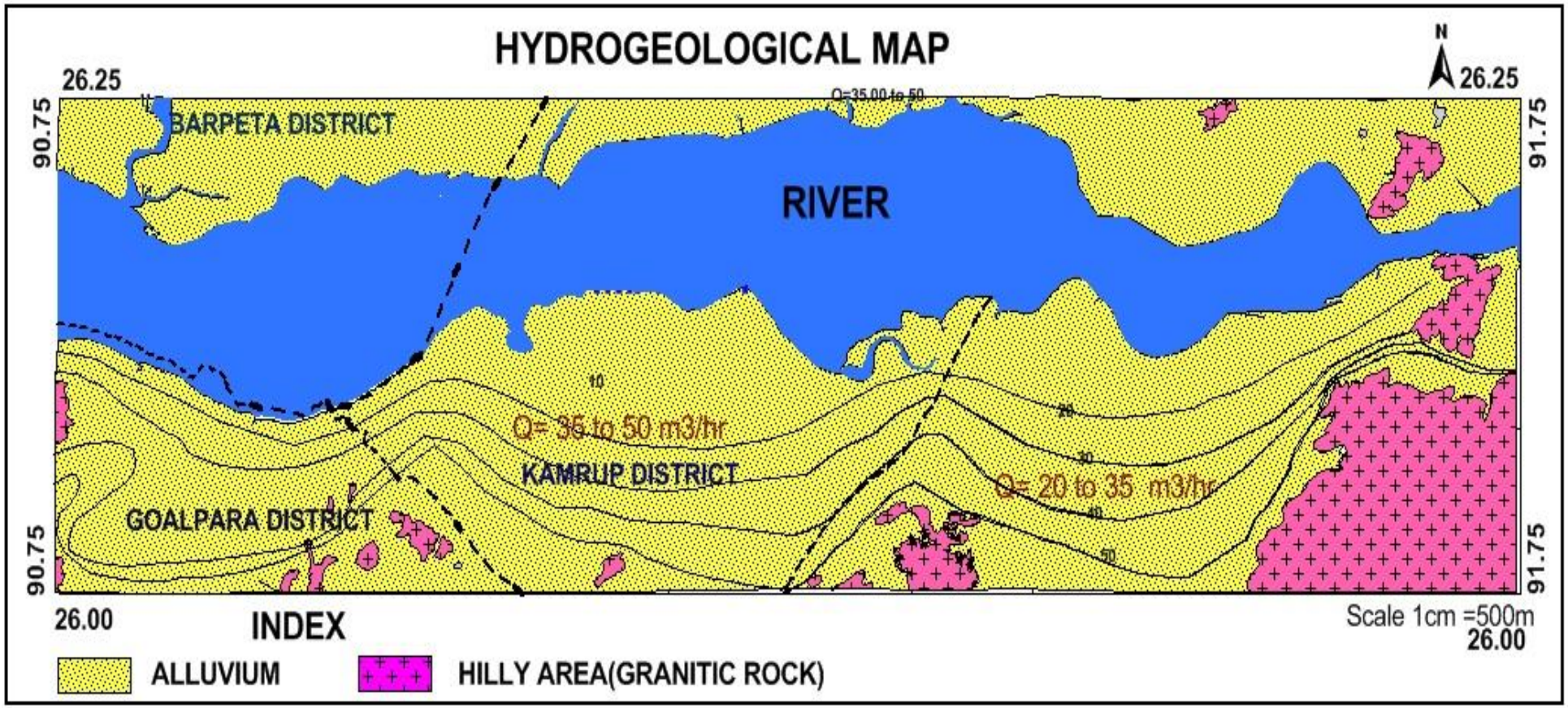
Map No-12


A
PANEL DIAGRAM
N
C
DALGOMA-EW
SIDHABARI-EW
SIMLITOLA-EW
CHAMARIA-EW
LAKHEDUBI-VES
BADEKUCHI-VES
PALASBARI- EW
BORJHAR- EW
KATABARI- EW
DIGHELI -EW
DEOCHAR- EW
107.00 m
107.20 m
136.00 m
182.00 m
192.20 m
120.20
68 m
75 m
194.00 m
115 m
102.30 m
INDEX
Clay
Sand
Sandy Clay
Gravelly Formation
Weathered Rock
Scale 1cm =500 m

Map-13


GEOLOGICAL MAP
N
BARPETA DISTRICT
RIVER
KAMRUP DISTRICT
GOALPARA DISTRICT
LEGEND
Alluvium
Granitic rocks
Scale 1cm = 500m

Map-14


HYDROGEOLOGICAL MAP
N
26.25
26.25
90.75
91.75
BARPETA DISTRICT
RIVER
Q=35.00 to 50
Q= 35 to 50 m3/hr
KAMRUP DISTRICT
Q= 20 to 35 m3/hr
GOALPARA DISTRICT
90.75
91.75
26.00
INDEX
Scale 1cm =500m
26.00
ALLUVIUM
HILLY AREA(GRANITIC ROCK)

Aquifer Parameter –APP- 20012-13 & 2013-14

TABLE-02

Unique ID	Village	Taluka /Block	District	Toposheet No-	Lat	Long	Type of Well	Depth (m)	Dia (inch)	Date Of Pumping test	SWL (m bgl)	Discharge (lps)	DD (m)	T (m2/day)	Sr/Sy	Specific capcity (lpm/m)	Souirce /Agency
	Dalgaoma	**Matia**	**Goalpara**	**78J/16**	$26^0 06' 03''$	$90^0 47' 09''$	EW+OW	103.30	6″	14-07-14	4.30	12	1.99	1197	$2.65*10^{-4}$	334	**CGWB**
	Sidhabari	**Matia**		**78J/16**	$26^0 04' 38''$	$90^0 49' 07''$	EW+OW	107.60	8″	23-03-14	12.50	15	4.91	1110	$1.72*10^{-3}$	108	
	Simlitola	**Matia**		**78J/16**	$26^0 7028$	90.92389	EW	136.10	8″								
	Digheli	-		**78J/16**	$25^0 58' 48''$	$91^0 03' 38''$	EW+OW	183.00	8″	04-09-13	4.75	9.2	7.21	112.8	$3.11*10^{-3}$	69	
	Deochar	Boko	**Kamrup**	**78N/8**	**26^0 03′ 58″**	**91^0 25′ 56″**	EW+OW	120.30	8″	24-11-13	3.50	9.21	3.36	138.74	2.36×10^{-4}	172	
	Agchia	Palasbari		**78N/12**	26^0 12′ 48″	91^0 38′ 58″	EW+OW	194.45	8″	29-10-14	2.76	12.68	2.46	227.86	2.21×10^{-4}	259	
	Chamaria	Boko		78N/04	26^0 04′ 10′′	90^0 05′ 30′′	EW+OW	200.00	8″	28-02-15	4.85	12.93	3.54	808.75	4.20×10^{-6}		

Chemical Data sheet of the Study area -2012-14																
Unique-ID	**Location**	**pH**	**EC(µS /cm)**	**TDS**	**TA**	**TH**	**Ca**	**Mg**	**Na**	**K**	**CO_3**	**HCO_3**	**Cl**	**SO_4**	**NO**	**F**
GK78-1	Krishani	7.5	103.7	51.8	17.6	91.97	17.6	11.7	15.7	2.19	0	72	30	3.97	4.3	0.63
GK78-2	Matia	8.7	130.5	65.2	78.4	127.66	30.4	12.6	18.9	2.2	48	80	14	2.56	BDL	1.08
GK78-11	Silmari	6.7	119.1	59.2	16	107.65	16	16.5	9.75	2.19	0	24	28	2.4	16	0.73
GK78-3	Kaduratal	8.8	260.6	130.3	80	243.27	24	44.7	38.1	13.8	56	148	48	3.18	3.5	1.45
GK78-5	Nanadeshwar	7.1	55.9	27.9	6.4	47.98	6.4	7.8	20.2	4.8	0	32	34	2.71	3	0.77
GK78-6	Sarapara	8.7	120.3	60.2	54.4	103.88	30.4	6.8	19.4	4.8	24	76	32	2.87	1.8	0.8
GK78-7	Sidhabari	8	133.1	66.6	75.2	107.77	27.2	9.7	29.5	3.4	48	84	20	3.34	2.9	1.28
GK78-8	Kahibari	8.6	107	53.4	52.8	99.65	12.8	16.5	19.7	2.3	40	68	22	1.77	0.4	1.22
GK78-9	Bhalukjulia	7.9	101.7	50.8	58.2	73.29	26.2	1.9	12.2	3.8	32	32	28	2.24	2.3	0.64
GK78-10	Simlitola	8.5	102.1	51.06	40	64.1	24	1	23.4	1.9	16	100	22	1.77	1.5	1.16
GK78-12	Karipara	7.7	92	45.9	16	99.86	16	14.6	12.9	2.5	0	68	22	1.46	7	0.86
GK78-13	Bahati	7.2	141.8	70.9	25.6	111.97	25.6	11.7	12.4	9.15	0	24	48	2.56	11.8	0.34
GK78-14	Dolepara Vill	7.5	59.2	29.6	9.6	47.78	9.6	5.8	9.78	3.9	0	44	14	2.71	6.4	0.72
GK78-	Dalgoma	7.4	405	236	30	110.83	30	8.74	6.9	1.38	0	88	77.41	1	1.5	0.11
GK78-18	Kadamtala	6.6	68.2	39.4	8	39.89	8	4.85	33.5	18	0	32	3.97	7.7	1	0.12
GK78-19	**Deochar-I**	9	310	150	179.2	144	19.2	23.3	16.2	4.8	160	140	34	2.71	2.3	0.29
GK78-20	Lampara FG	8.6	357	173	235.2	148	35.2	14.6	5.9	1.95	200	100	52	4.75	2.6	0.85
GK78-21	Panchmtola	8.6	127	62.3	74.4	48	14.4	2.9	11	4.4	60	170	30	1.46	2.7	1.01

GK78-22	Panchmtola - FG	8.5	114	56	9.6	44	9.6	4.9	4.19	0.88	0	150	28	2.71	2.2	1.56
GK78-23	Sapotari	8.9	266	130	184	100	24	9.7	18.5	3.6	160	140	18	1.3	2.3	1.32
GK78-24	Gumi	8.9	284	139	124	140	24	19.4	8.4	2.2	100	200	26	3.03	2.3	0.43
GK78-25	Deochar-II	9	366	179	172	124	32	10.7	8.6	2.4	140	210	34	3.03	3.7	0.45
GK78-26	Diliapara	8.6	188	92	52.8	72	12.8	9.7	8.9	3.3	40	180	30	3.18	3.7	0.56
GK78-27	Allagjiari	8.9	214	105	60.8	80	20.8	6.8	8.9	12.2	40	120	30	2.4	3.1	0.53
GK78-28	Bitamari	8.8	310	150	179.2	144	19.2	13.3	16.2	4.8	160	140	34	2.71	2.3	0.29
GK78-29	Michilamara	8.6	151	74	6.4	40	6.4	5.8	6.4	3.6	0	140	38	2.71	3.5	0.82
GK78-47	Vishwakama Temple	8.4	922	430	73.6	212	41.6	16.21	44.6	6.3	32	120	125	22	14	0.55
GK78-48	Patgaon	8.4	244	112	46.4	80	30.4	0.97	5.55	0.92	16	84	7.9	2.4	1.3	0.37
GK78-49	Bhellaguri	8.3	192	89.6	40	76	24	3.88	3.4	0.31	16	48	23.8	3.3	1	0.13
GK78-55	Dirgheswari	8.5	163	82.6	35.2	196	27.2	31.1	24.06	4.4	8	60	32	31.54		0.66
GK78-56	Azara Phc	7.8	206	96	36.8	68	20.8	3.88	9.26	2.28	16	36	18	18.7	0.1	0.3
GK78-57	Maligaon	8.3	806	374	102.4	220	54.4	20.39	49	10.4	48	172	95	39	1.6	0.32
GK78-58	Boragaon	8.4	710	330	51.2	184	27.2	28.16	24	18.5	24	120	70	40.6	1.4	0.33
GK78-59	Lalganesh Chariali	8.8	660.9	342	124.8	280	84.8	16.5	160.2	14.6	40	164	263	41.89	2.5	0.54
GK78-60	Fatasil Ambari	7	1028	744	72	188	40	21.4	132	7.8	32	62	150	90	1	0.37
GK78-62	Odalbakra	7.8	1199	697.3	83.2	352	83.2	35	56	7.5		52	94	175	1.2	0.8
GK78-63	Adagudam	7.1	1406	817	36.8	240	36.8	25.9	88.5	30		82	138	150	0.8	0.82
GK78-66	Garigaon	8.5	1223	570	88	232	56	22.33	47.7	8.7	32	156	174.7	25.9	10.4	0.33
GK78-67	Panbazar Circuit House	8.4	522	241	57.6	276	25.6	51.46	1.97	0.27	32	240	11.9	14.2	1.6	0.56
GK78-68	Auu,kahikuchi	8.3	136	61.4	28.8	52	12.8	4.85	1.88	0.35	16	24	6	2.7	1.9	0.23

Unique ID	**GK78-114**
Village	Dalgaom
Taluka/Block	Matia
District	Goalpara
Toposheet No	78N/16
Lat	**$26^0$06′03″N**
Long	**$90^0$47′09″E**
RL	
Drilling depth	103.30
Casing	98.00
SWL m bgl	4.30
Discharge (lps)	12.93
Date/Year	2012-13

Lithology	**Depth Range (m)**	**Thickness (m)**
Clay, sticky, Reddish colour	0.0 – 6.80	6.80
Sand, fine grain, Reddish	6.80 – 13.10	6.30
Sand, fine grain, brown	13.10 – 25.70	12.60
Sand, , fine to medium grain, brown	25.70 – 47.90	22.20
Sand, medium to coarse grain, brown	47.90 – 104.30	56.40
Clayey sand , non sticky, brown with cuttings of hard rocks feldspar and quartzite	104.30 – 107.60	3.30

Unique ID	**GK78-115**
Village	Sidhabari
Taluka/Block	Matia
District	Goalpara
Toposheet No	78N/16
Lat	$26^0$04′38″N
Long	$90^0$49′07″E
RL	
Drilling depth	107.60
Casing	
SWL m bgl	
Discharge (lps)	
Date/Year	2012-13

Lithology	**Depth Range (m)**	**Thickness (m)**
Surface clay, non-sticky, Reddish colour	0.0 – 3.00	3.00
Clay, stick, Red	3.00 – 6.80	3.80
Sand, fine grain, brown	6.80 – 25.70	18.90
Sand, fine to medium grain, brown	25.70 – 32.00	6.30
Sand, medium to coarse grain, brown	32.00 – 38.30	6.30
Sand, fine to medium grain, brown	38.30 – 50.90	12.60
Sand, medium to coarse grain, brown	50.90 – 60.20	9.30
Sand, fine to medium grain, brown	60.20 -76.10	15.90
Sand, medium to coarse grain, brown	76.10 - 95.00	18.90
Clay, non sticky, redish with weathered particles of feldspar and quartzite	95.00 – 101.30	6.30
Cuttings of hard rocks	101.30 - 103.30	2.00

Table No-02

Unique ID	**GK78-116**
Village	DIGHELI
Taluka/Block	
District	GOALPARA
Toposheet No	78N/16
Lat	$25^{0}58'48''N$
Long	$91^{0}03'38''E$
RL	
Drilling depth	183.00
Casing	153.00
SWL m bgl	4.75
Discharge (lps)	9.22
Date/Year	2012-13

Lithology	Depth Range (m)	Thickness (m)
Surface clay, sticky, Reddish colour	0.0 – 3.00	3.00
Clayey Sand, clay sticky, sand fine to medium grain, Reddish colour	3.00 – 6.60	3.60
Clay, stick, grey	6.60 – 9.60	3.00
Sand, fine to medium grain, grey	9.60 – 19.20	9.60
Sand, medium to coarse grain, grey	19.20– 25.50	6.30
Sand, fine to medium grain, grey	25.50 – 31.80	6.30
Sand, medium to coarse grain, grey	31.80 – 38.10	6.30
Sand, medium to coarse grain, brown	38.10 – 44.40	6.30
Clayey Sand, Clay sticky, grey, Sand fine to medium	44.40 – 47.40	3.00
Clay, stick, grey	47.40 – 57.00	9.60
Clayey Sand, Clay sticky, grey, Sand medium to coarse	57.00 – 60.00	3.00
Sand, medium to coarse grain, brown	60.00 – 75.90	15.90
Clay, non sticky, grey	75.90 – 78.90	3.00
Gravel mixed with Clay	78.90 – 88.50	9.60
Sandy Clay, Clay sticky, grey, Sand coarse grain	88.50 – 94.80	6.30
Clay, sticky, grey	94.80 – 97.80	3.00
Sand, medium to coarse grain, brown	97.80 – 101.10	3.30
Clayey Sand, Clay non sticky , grey, Sand medium to coarse	101.10 -107.40	6.30
Clay, sticky, grey	107.40 – 113.70	6.30
Clay mixed with gravel & coarse Sand, Clay sticky, grey, Sand medium to coarse	113.70 –123.0	9.30
Sand mixed with gravel, medium grain, grey	123.00 – 126.30	3.30
Sand, medium to coarse grain, brown	126.30 – 135.60	9.30
Sand, medium to coarse grain, grey	135.60 – 145.20	9.60
Sand, medium to coarse grain, brown	145.20 – 151.50	6.30
Clayey Sand, Clay sticky , Reddish, Sand medium to coarse	151.50 – 167.10	15.60
Clayey Sand, Clay sticky , grey, Sand fine to medium to coarse	167.10 – 170.40	3.30
Clayey Sand mixed with little gravel, Clay sticky , grey, Sand fine to medium to coarse, gravel 2-3mm size	170.40 – 183.00	12.60

Table No-03

Unique ID	**GK78-117**
Village	SIMLITOLA
Taluka/Block	MATIA
District	GOALPARA
Toposheet No	78N/16
Lat	
Long	
RL	
Drilling depth	136.10
Casing	108.00
SWL m bgl	
Discharge (lps)	
Date/Year	2012-13

Lithology	Depth Range (m)	Thickness (m)
Clay, sticky, brown colour	0.0 – 6.80	6.80
Clay, sticky, grey colour	6.80 – 13.10	6.30
Sand, fine to medium grain, grey	13.10 – 16.40	3.30
Clayey sand, Sand, fine to medium grain, grey, Clay non sticky	16.40 – 19.40	3.00
Sand, fine to medium grain, brown	19.40 – 38.30	18.90
Sand, medium to coarse grain, brown	38.30 – 44.60	6.30
Sand, , fine to medium grain, brown	44.60 – 57.20	12.60
Sand, medium to coarse grain, brown	57.20 – 66.50	9.30
Sand, , fine to medium grain, brown	66.50 - 69.80	3.30
Sand, , fine to medium grain, grey	69.80 -76.10	6.30
Sand, medium to coarse grain, grey	76.10 – 82.40	6.30
Sand, , fine to medium grain, grey	82.40 – 107.60	25.20
Clayey sand, Sand, fine to medium grain, grey, Clay non sticky	107.60 – 113.90	6.30
Sand, , fine to medium grain, grey	113.90 – 120.20	6.30
Sand, medium to coarse grain, white	120.20 – 126.50	6.30
Clay, non sticky, grey colour	126.50 – 132.80	6.30
Clay, sticky, grey colour	132.80 – 136.10	3.30

Unique ID	GK78-118	Lithology	Depth Range (m)		Thickness (m)
Village	**Deochar**		From	To	
Taluka/Block	Boko	Top soil: Reddish to brown colour sticky Clay.	0	6.8	6.8
District	Kamrup	Fine grain Sand: fine sand pink in colour.	6.8	16.4	9.6
Toposheet No	78N/08	Fine to medium sand :- pink colour, fine to medium sand	16.4	32	15.6
Lat	**26^0 03′ 58″**	Fine to medium sand :- Grey colour, fine to medium sand	32	48.9	16.9
Long	**91^0 25′ 56″**	Sandy clay- Grey colour, fine to medium sand with clay approx. 60% Sand and 40%Clay.	48.9	82.4	33.5
RL		Clayey Sand: Grey colour, fine to medium sand with clay approx. 30% Sand and 70%Clay.	82.4	101	18.9
Drilling depth	120.30 m bgl	Sandy clay- Grey colour, fine to medium sand with clay approx. 60% Sand and 40%Clay.	101.3	114	12.6
Casing	51.00 m bgl	Clayey Sand: Grey colour, medium to coarse sand with clay approx. 30% Sand and 70%Clay and some angular particle also present.	113.9	120	6.4
SWL m bgl	3.5				
Discharge (lps)	9.21				
Date/Year	2013-14				

Unique ID	GK78-119	Lithology	Depth Range (m)		Thickness (m)
			From	To	
Village	Chamaria	Sand- Pink colour fine sand.	0	13.1	13.1
Taluka/Block	Chamaria	Sand- light Grey colour medium to Coarse sand	13.1	32	18.9
District	Kamrup	Sandy clay - Grey colour coarse grain sand with clay and partially crushed gravel (feldspar and Quartz) also mixed.	32	50.9	18.9
Toposheet No	78N/04	Sandy clay- light pink color sand with clay.	50.9	57.9	7
Lat	26^0 04′ 10′′	Sandy Clay with Gravel - Medium to Coarse grain Grey colour sand with partially gravel (feldspar and Quartz).	57.9	82.4	24.5
Long	90^0 05′ 30′′	Sand with Gravel – Grey colour coarse sand with gravel and very less amount of clay also present.	82.4	104	21.9
RL		Sand - Grey colour Coarse grained sand with gravel (Feldspar, quartz).	104.3	120	15.9
Drilling depth	200.00 m bgl	Sand- Grey colour medium to fine sand with clay.	120.2	139	18.9
Casing	122.00 m bgl	Clayey sand – Sticky Grey colour clay with medium to coarse sand.	139.1	155	15.6
SWL m bgl	4.85	Clayey Gravel- sticky Grey colour clay with gravels (Feldspar, quartz).	154.7	193	37.8
Discharge (lps)	12.92	Sandy Clay – Grey colour sand with sticky clay.	192.5	200	7.5
Date/Year	2013-14				

Unique ID	**GK78-120**	**Lithology**	**Depth Range (m)**		**Thickness (m)**
			From	**To**	
Village	**Agchia**	Surface soil, Clayey, brown	0	6.8	6.8
Taluka/Block	Palasbari	Sand , Fine to Medium ,brown	6.8	96.1	89.25
District	Kamrup	Sand, Fine grained brownish, mixed with clay, grey	96.05	105	9.15
Toposheet No	78N/12	Clay	105.2	108	3.15
Lat	91^0 38′ 58″	Sand fine grained , grey , silty	108.4	111	3
Long	26^0 12′ 48″	Sand fine to medium grained grayish	111.4	118	6.15
RL		Sand fine to medium grained grayish mixed with clay , grey	117.5	121	3.1
Drilling depth	194.45m	Sand, fine to medium grained grayish	120.6	142	21.5
Casing	90.00 m bgl	Sand, fine to medium grained grayish mixed with clay	142.1	145	3.15
SWL m bgl	2.76	Sand, fine to medium grained grayish	145.3	164	18.45
Discharge (lps)	12.68	Clay, Grey mixed with fine grained sand grey	163.7	185	21.45
Date/Year	2013-14	Clay ,grey mixed with silty sand	185.2	194	9.3

Unique ID	Location	Lat	Long	Establishment	RL	Total Depth	Type of Well	Aquifer Group	MP	Source /Agency	Any other information
GK78-1	Krishnai Village	26.71714	90.757	08-08-2012	40	5.68	DW	Phreatic	0.85	Private	
GK78-2	Matia	26.06028	90.7864	11-08-2012	40	4.56	DW	Phreatic	0.56	Private	
GK78-3	Kadurtala	26.10222	90.7864	10-08-2012	41	6.36	DW	Phreatic	0.58	Private	
GK78-4	Baikaiteri village	26.06028	90.8166	11-08-2012	40	6.58	DW	Phreatic	0.78	Private	
GK78-5	Nandeshwar	26.04778	90.8256	10-08-2012	40	7.87	DW	Phreatic	1.02	Private	
GK78-6	Sarapara	26.02081	90.8166	08-08-2012	40	8.56	DW	Phreatic	0.66	Private	
GK78-7	Sidhibari	26.07111	90.8256	10-08-2012	40	15.25	DW	Phreatic	0.58	Private	
GK78-8	Kahibari	26.02992	90.9308	11-08-2012	40	12.25	DW	Phreatic	0.99	Private	
GK78-9	Bhalukjulia	26.01694	90.94	10-08-2012	58	10.36	DW	Phreatic	0.54	Private	
GK78-10	Simlitola.	26.07028	90.9239	08-08-2012	40	11.58	DW	Phreatic	0.44	Private	
GK78-11	Silmari	26.07028	90.7942	08-08-2012	41	9.5	DW	Phreatic	0.58	Private	
GK78-11	Karipara	26.26083	90.8338	08-08-2012	40	12.25	DW	Phreatic	0.58	Private	
GK78-12	Bahati	26.03075	90.8375	08-08-2012	40	6.36	DW	Phreatic	0.69	Private	
GK78-13	Dolepara	26.09028	90.7633	08-08-2012	55	8.89	DW	Phreatic	0.69	Private	
GK78-14	simlitola II	26.03222	90.9372	10-08-2012	40	10.23	DW	Phreatic	0.89	Private	
GK78-15	Silmari	26.26083	90.9372	10-08-2012	40	11.25	DW	Phreatic	0.99	Private	
GK78-16	chackla	26.00694	90.9197	11-08-2012	41	9.68	DW	Phreatic	1.02	Private	
GK78-17	Damnapara	26.24083	90.8989	11-08-2012	40	6.59	DW	Phreatic	1.02	Private	
GK78-18	Kadamtala	26.09806	90.7789	10-08-2012	40	6.68	DW	Phreatic	**0.56**	Private	
GK78-19	Deochar-I	91.2489	26.0492	2013	44	5.65	DW	Phreatic aquifer	0.89	Private	
GK78-20	Lampara FG	91.2811	26.0025	2013	56	8.69	DW	Phreatic aquifer	0.56	Private	
GK78-21	Panchmtola	91.4061	26.0631	2013	38	15.2	STW	Phreatic aquifer		Private	
GK78-22	Panchmtola -FG	91.4061	26.0631	2013	39	5.65	DW	Phreatic aquifer	0.65	Private	
GK78-23	Sapotari	91.3831	26.0919	2013	41	9.89	STW	Phreatic aquifer		Private	
GK78-24	Gumi	91.3492	26.0844	2013	45	5.6	DW	Phreatic aquifer	0.69	Private	
GK78-25	Deochar-II	91.2603	26.0033	2013	41	7.56	DW	Phreatic aquifer	0.45	Private	
GK78-26	Diliapara	91.2489	26.0492	2013	42	8.65	DW	Phreatic aquifer	0.56	Private	
GK78-27	Allagjiari	91.1936	26.0306	2013	44	5.36	DW	Phreatic aquifer	0.45	Private	
GK78-28	Bitamari	91.1297	26.0808	2013	45	8.85	STW	Phreatic aquifer		Private	

GK78-29	Michilamara	91.0892	26.0444	2013	41	4.65	DW	Phreatic aquifer	0.78	Private	
GK78-30	Milanpara	91.2917	26.0175	2013	51	6.36	DW	Phreatic aquifer	0.47	Private	
GK78-31	Khorkhari	91.34	26.0325	2013	56	4.65	DW	Phreatic aquifer	0.58	Private	
GK78-32	Kutari	91.4414	26.1178	2013	39	6.56	DW	Phreatic aquifer	0.85	Private	
GK78-33	Simena	91.4517	26.1139	2013	40	5.69	DW	Phreatic aquifer	0.68	Private	
GK78-34	Kachumara	91.0531	26.15	2013	45	8.69	DW	Phreatic aquifer	0.65	Private	
GK78-35	Samtoli	91.1066	26.1464	2013	46	7.68	STW	Phreatic aquifer	0.47	Private	
GK78-36	Purangaaon	91.1456	26.1206	2013	40	8.8	DW	Phreatic aquifer	0.57	Private	
GK78-37	Manjuri	91.2147	26.0968	2013	42	4.65	DW	Phreatic aquifer	0.58	Private	
GK78-38	Madhupur	91.1845	26.0936	2013	46	6.65	STW	Phreatic aquifer	0.85	Private	
GK78-39	Duramari	91.0921	26.097	2013	41	5.69	DW	Phreatic aquifer	0.74	Private	
GK78-40	Rangeshwari	91.0283	26.1142	2013	43	7.98	DW	Phreatic aquifer	0.78	Private	
GK78-41	Paharpur	91.014	26.2455	2013	39	14.25	STW	Phreatic aquifer		Private	
GK78-42	harapara	91.483	26.0431	2013	45	4.65	DW	Phreatic aquifer	0.56	Private	
GK78-43	Gharmara	91.4337	26.0114	2013	57	12.32	STW	Phreatic aquifer		Private	
GK78-44	Ranpur	91.4835	26.0776	2013	46	6.65	DW	Phreatic aquifer	0.85	Private	
GK78-45	Patgaon	91.5498	26.0261	2013	45	6.69	DW	Phreatic aquifer	0.98	Private	
GK78-46	Dekapara	91.2962	26.1005	2013	42	5.69	DW	Phreatic aquifer	0.52	Private	
GK78-47	Vishwakama Temple	91.7156	26.1656	2013	55	9.98	DW	Phreatic aquifer	0.65	Private	
GK78-48	Patgaon	91.6017	26.0978	2013	43	5.69	DW	Phreatic aquifer	0.54	Private	
GK78-49	Bhellaguri	91.7078	26.2117	2013	43	7.65	DW	Phreatic aquifer	0.89	Private	
GK78-50	Lachitpur	91.6489	26.1864	2013	45	4.65	DW	Phreatic aquifer	1.02	Private	
GK78-51	Mairapatti	91.6975	26.1853	2013	41	5.65	DW	Phreatic aquifer	0.85	Private	
GK78-52	Ashwaklanta Temple	91.745	26.2125	2013	38	7.58	DW	Phreatic aquifer	0.85	Private	
GK78-53	Avayapui	91.7078	26.2117	2013	41	4.65	DW	Phreatic aquifer	0.98	Private	
GK78-54	Survey Odalbakra	91.74	26.1264	2013	44	5.69	DW	Phreatic aquifer	0.89	Private	
GK78-55	Dirgheswari	91.7428	26.2383	2013	47	5.69	DW	Phreatic aquifer	0.68	Private	
GK78-56	Azara Phc	91.5	26.1167	2013	43	4.65	DW	Phreatic aquifer	0.78	Private	
GK78-57	Maligaon	91.6278	26.1278	2013	42	5.65	DW	Phreatic aquifer	0.98	Private	
GK78-58	Boragaon	91.6167	26.0833	2013	41	4.56	DW	Phreatic aquifer	0.58	Private	
GK78-59	Lalganesh	91.7431	26.14	2013	39	6.65	DW	Phreatic aquifer	0.65	Private	

	Chariali										
GK78-60	Fatasil Ambari	91.7258	26.0011	2013	40	6.59	DW	Phreatic aquifer	0.69	Private	
GK78-61	Mmc Hospital Panbazar	91.7408	26.1856	2013	38	111.25	DTW	Deep aquifer	1.25	Govt	
GK78-62	Odalbakra	91.7464	26.1417	2013	42	89.65	DTW	Deep aquifer	1.15	Private	
GK78-63	Adagudam	91.7414	26.1367	2013	41	125.32	DTW	Deep aquifer	1	Private	
GK78-64	Betkuchi	91.7228	26.1144	2013	54	123.25	DTW	Deep aquifer	1.25	Private	
GK78-65	Iit, North Guwahati	91.6956	26.1858	2013	46	98.65	DTW	Deep aquifer	1.2	Govt	
GK78-66	Garigaon	91.6486	26.1544	2013	47	88.58	DTW	Deep aquifer	1.32	Private	
GK78-67	Panbazar Circuit House	91.6819	26.1914	2013	43	5.65	DW	Phreatic aquifer	0.65	Private	
GK78-68	Auu,kahikuchi	91.6094	26.1061	2013	44	6.56	DW	Phreatic aquifer	0.89	Private	

Unique ID	Monitoring Stations/Key Wells	Date of Measurements	Depth to Water Level (m bgl)	Remarks
GK78-1	Krishnai Village	14-03-13	6.4	
GK78-2	Matia	14-03-13	3.3	Pre-monsoon WL
GK78-3	Kadurtala	14-03-13	6.78	Pre-monsoon WL
GK78-4	Baikaiteri village	14-03-13	4.03	Pre-monsoon WL
GK78-5	Nandeshwar	14-03-13	3.95	Pre-monsoon WL
GK78-6	Sarapara	14-03-13	6.36	Pre-monsoon WL
GK78-7	Sidhibari	14-03-13	12.34	Pre-monsoon WL
GK78-8	Kahibari	14-03-13	6	Pre-monsoon WL
GK78-9	Bhalukjulia	14-03-13	3.34	Pre-monsoon WL
GK78-10	Simlitola.	14-03-13	8.8	Pre-monsoon WL
GK78-11	Silmari	14-03-13	5.23	Pre-monsoon WL
GK78-11	Karipara	14-03-13	7.5	Pre-monsoon WL
GK78-12	Bahati	14-03-13	3.6	Pre-monsoon WL
GK78-13	Dolepara	14-03-13	4.04	Pre-monsoon WL
GK78-14	simlitola II	14-03-13	4.5	Pre-monsoon WL
GK78-15	Chackla	14-03-13	3.89	Pre-monsoon WL
GK78-16	Damnapara	14-03-13	7.2	Pre-monsoon WL
GK78-17	Kadamtala	14-03-13	6.4	Pre-monsoon WL
GK78-18	Deochar-I	04-03-2014	5.21	Pre-monsoon WL
GK78-19	Lampara FG	06-03-2014	5.32	Pre-monsoon WL
GK78-20	Panchmtola	05-03-2014	4.70	Pre-monsoon WL
GK78-21	Panchmtola	04-03-2014	2.92	Pre-monsoon WL
GK78-22	Sapotari	04-03-2014	4.60	Pre-monsoon WL

GK78-23	Gumi	04-03-2014	4.58	Pre-monsoon WL
GK78-24	Deochar-II	04-03-2014	3.40	Pre-monsoon WL
GK78-25	Diliapara	06-03-2014	3.80	Pre-monsoon WL
GK78-26	Allagjiari	04-03-2014	3.30	Pre-monsoon WL
GK78-27	Bitamari	04-03-2014	5.50	Pre-monsoon WL
GK78-28	Michilamara	05-03-2014	4.10	Pre-monsoon WL
GK78-29	Milanpara	05-03-2014	4.23	Pre-monsoon WL
GK78-30	Khorkhari	05-03-2014	3.98	Pre-monsoon WL
GK78-31	Kutari	05-03-2014	5.65	Pre-monsoon WL
GK78-32	Simena	06-03-2014	4.56	Pre-monsoon WL
GK78-33	Kachumara	04-03-2014	3.65	Pre-monsoon WL
GK78-34	Samtoli	06-03-2014	4.56	Pre-monsoon WL
GK78-35	Purangaaon	06-03-2014	4.06	Pre-monsoon WL
GK78-36	Manjuri	04-03-2014	3.96	Pre-monsoon WL
GK78-37	Madhupur	06-03-2014	5.69	Pre-monsoon WL
GK78-38	Duramari	05-03-2014	3.69	Pre-monsoon WL
GK78-39	Rangeshwari	05-03-2014	5.65	Pre-monsoon WL
GK78-40	Paharpur	05-03-2014	4.56	Pre-monsoon WL
GK78-41	harapara	05-03-2014	5.35	Pre-monsoon WL
GK78-42	Gharmara	06-03-2014	3.35	Pre-monsoon WL
GK78-43	Ranpur	04-03-2014	3.23	Pre-monsoon WL
GK78-44	Patgaon	06-03-2014	3.25	Pre-monsoon WL
GK78-45	Dekapara	06-03-2014	3.24	Pre-monsoon WL
GK78-46	Vishwakama Temple	04-03-2014	4.15	Pre-monsoon WL
GK78-47	Patgaon	06-03-2014	1.30	Pre-monsoon WL
GK78-48	Bhellaguri	06-03-2014	3.45	Pre-monsoon WL

GK78-49	Lachitpur	05-03-2014	4.85	Pre-monsoon WL
GK78-50	Mairapatti	04-03-2014	5.09	Pre-monsoon WL
GK78-51	Ashwaklanta Temple	05-03-2014	2.39	Pre-monsoon WL
GK78-52	Avayapui	04-03-2014	1.53	Pre-monsoon WL
GK78-53	Survey Odalbakra	05-03-2014	7.85	Pre-monsoon WL
GK78-54	Dirgheswari	04-03-2014	3.68	Pre-monsoon WL
GK78-55	Azara Phc	06-03-2014	5.82	Pre-monsoon WL
GK78-56	Maligaon	05-03-2014	1.00	Pre-monsoon WL
GK78-57	Boragaon	05-03-2014	6.06	Pre-monsoon WL
GK78-58	Lalganesh Chariali	05-03-2014	5.57	Pre-monsoon WL
GK78-59	Fatasil Ambari	06-03-2014	2.40	Pre-monsoon WL
GK78-60	Mmc Hospital Panbazar	04-03-2014	17.20	Pre-monsoon WL
GK78-61	Odalbakra	04-03-2014		closed
GK78-62	Adagudam	05-03-2014	22.00	Pre-monsoon WL
GK78-63	Betkuchi	05-03-2014	8.20	Pre-monsoon WL
GK78-64	Iit, North Guwahati	04-03-2014	4.14	Pre-monsoon WL
aGK78-65	Garigaon	05-03-2014	7.35	Pre-monsoon WL
GK78-66	Panbazar Circuit House	04-03-2014	13.80	Pre-monsoon WL
GK78-67	Auu,kahikuchi	04-03-2014	5.85	Pre-monsoon WL

FORMAT FOR MINOR IRRIGATION (Data not available with state department as per the study area**)**

DATA

Note: The georeferenced map showing locations of MI structures should also be collected

Uique ID	Name	Toposheet	Lat	Long	Taluka/Block	Watershed No.	District	Storage Capacity (MCM)		Command area (Ha)		Quantity of water utilized for irrigation (MCM)
								Gross	Live	Gross	Irrigated	

5.FORMAT FOR MAJOR, MEDIUM AND BIGGER MINOR IRRIGATION DATA

Note: The georeferenced map showing locations of Major, Medium & Bigger minor structures and their command areas with canal network should also be collected

Unique Id	Name	Topo-sheet No.	Lat	Long	Taluka /Block	District	Storage Capacity (MCM)		Canal			Command area (Ha)		Quantity of water utilized for (MCM)		
							Gross	Live	Length (Km.)	Width (m)	Discharge (Cumec)	Gross	By Latest Date	Irrigation	Domestic	Industrial

(Data not available with state department as per the study area**)**

6 **FORMAT FOR WATER CONSERVATION STRUCTURES (KT WEIRS, GULLY PLUGS/CHECK DAMS/NALA BUNDS/PERCOLATION TANKS ETC.)**

Note: The georeferenced map showing locations of WC structures should also be collected

Unique ID	Name	Toposheet	Lat	Long	Taluka/Block	Watershed No.	District	Storage Capacity (TCM)	
								Gross	Live

(Data not available with state department as per the study area**)**

7.FORMAT FOR SOIL CONSERVATION STRUCTURES

Note: The georeferenced map showing locations of soil conservation structures should also be collected

Unique ID	District	Taluka/Block	Live Graded bunding	Graded Brush Wooden Bunding	Paddy Bunding	Compartment Bunding	Continuous contour trench	Earthen structure	loose Boulder Structure	Earthen Bandhara	Cement Plugs	Gabian Structure	Underground Bandhara	Diversion Bandhara	Form ponds	Trench Deepening
			(Nos)	(Nos)	(Nos)	(Nos)	(Kms)	(Nos)	(Nos)	(Nos)	(Nos)	(Nos)	(Nos)	(Nos)	(Nos)	(Nos)

(Data not available with state department as per the study area**)**

8. FORMAT FOR CROPPING PATTERN DATA

Note: The georeferenced cropping pattern map should also be collected Area in Ha/Sq.Km.

S. No.	Year	District	Taluka/ Block	Geographical area	Paddy	Wheat	Jowar	Bajra	Total Cereals	Total Pulses	Total Food Grians	Sugar-cane	Spices	Fruit+ Vegetables	Total Food Crops	Cotton	Oil-seeds

(Data not available with state department as per the study area**)**

9.FORMAT FOR HYDROLOGICAL DATA

Monthly Discharge Data of Stream Gauging Stations in MCM/Month

Unique ID	Name	Topos heet	Lat	Long	Taluka /Block	Water-shed No.	Year	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sept	Oct	Nov.	Dec.

(Data not available with state department as per the study area**)**

Unique ID	**GK78-69**
Village	Dalgoma
Taluka/Block	Matia
District	Goalpara
Toposheet No.	78J/16
Lat	26 ˚06’ 04"
Long	90˚47’ 15"
RL (m amsl)	
Date/Year	2013-
Nearby DW/DCBW/BW depth	TB-98.00 m bgl
Yield / discharge	12.95 lps
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	107.65 m bgl
Dischareg (lps)	12.95 lps
Transmissivity (m2/day)	1197.15
Storativity	$6.5*10^{-4}$

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
G.L.-3.4		160	Top soil with clay etc.
3.4-27		320	Hard clays with sands etc.
27-87		180	Sands with clays etc.
Below 87m		108	Intercalations of clays with sands etc.

Depth range		Thickness	SP	Long	Short	Natural	Lithology
From	To						

Logging Data	
Village	
Taluka/Block	
District	
Toposheet No.	
Lat	
Long	
RL (m amsl)	
Date/Year	
Depth of log	
Mud Resistivity	

Unique ID	**GK78-70**
Village	Sidhabari
Taluka/Block	Matia
District	Goalpara
Toposheet No.	78J/16
Lat	26 ˚04’ 30"
Long	90˚49’56
RL (m amsl)	
Date/Year	2013-
Nearby DW/DCBW/BW depth	TW-95.00 m bgl
Yield / discharge	10.53 lps
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	103.30 m bgl
Dischareg (lps)	10.53 lps
Transmissivity (m2/day)	1110.93
Storativity	$1.24*10^{-2}$

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
G.L.-1.3	1.30	260	Top soil with clay etc.
1.3-7.4	6.30	52	sands etc.
7.4-30.1	22.70	217	Hard clays with Sands etc.
30.1-187	156.90	187	Sands with hard clays etc.
Below 187m		5700	Semiconsolidated/ consolidated formation.

Unique ID	GK78-71
Village	Simlitola
Taluka/Block	
District	Goalpara
Toposheet No.	78J/16
Lat	26 ˚03’43"
Long	90˚54’59
RL (m amsl)	
Date/Year	2013-
Nearby DW/DCBW/BW depth	
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
G.L.-4.2	4.2	105	Top soil with clay etc.
4.2-15.5	11.30	158	Hard clays with sands etc.
15.5-108	92.50	87	Sands with clays etc.
Below 108m		115	Hard clays with sands etc.

Unique ID	GK78-72
Village	Digheli
Taluka/Block	
District	Goalpara
Toposheet No.	78J/16
Lat	25 ˚59’01"
Long	91˚03’11”
RL (m amsl)	
Date/Year	2013-
Nearby DW/DCBW/BW depth	TW-153.00m b gl
Yield / discharge	9.20 lps
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	183.00m bgl
Dischareg (lps)	9.2 lps
Transmissivity (m2/day)	112.84
Storativity	$3.11*10^{-3}$

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
G.L.-8.2	8.20	43	Top soil with clay etc.
8.2-24.6	16.40	54	Hard clays with sands etc.
24.6-117.1	92.50	40	Sands with clays etc.
117.1-272	154.90	32	Intercalations of clays with sands etc.
Below 272m		93	Hard clays with sands etc.

Unique ID	GK78-73
Village	Darrangiri
Taluka/Block	
District	Goalpara
Toposheet No.	78J/16
Lat	25 ˚58’16"
Long	90˚43’27”
RL (m amsl)	
Date/Year	2013-
Nearby DW/DCBW/BW depth	
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
G.L.-2.5	2.50	132	Top soil with clay etc.
2.5-22.3	19.80	53	Sands with clays etc.
22.3-53.4	31.10	72	Hard clays with sands etc.
53.4-110	56.60	48	Intercalations of sands with clays etc.
Below 110m		175	Hard clays with sands etc.

Unique ID	GK78-74
Village	Bahrapara
Taluka/Block	
District	Goalpara
Toposheet No.	78J/16
Lat	26 ˚01’ 26"
Long	90˚56’08”
RL (m amsl)	
Date/Year	2013-
Nearby DW/DCBW/BW depth	
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
G.L.-7	7.00	80	Top soil with clay etc.
7-14.7	7.70	160	Hard clays with sands etc.
14.7-59	44.30	69	Sands with clays etc.
Below 59m		315	hard clays with sands etc.

Unique ID	GK78-75
Village	Kalubari
Taluka/Block	
District	Goalpara
Toposheet No.	78J/16
Lat	26 ˚06’15"
Long	90˚58’56”
RL (m amsl)	
Date/Year	2013-
Nearby DW/DCBW/BW depth	
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
GL-2.4	2.40	120	Top soil with clay etc.
2.4-22.8	20.40	30	Sands with clays etc.
22.8-82	59.20	126	Hard clays with sands etc.
Below 82m		32	Sands with clays etc.

Unique ID	GK78-76
Village	Rabhapara
Taluka/Block	
District	Goalpara
Toposheet No.	78J/16
Lat	25 ˚58’13"
Long	90˚55’42”
RL (m amsl)	
Date/Year	2013-
Nearby DW/DCBW/BW depth	
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
G.L.-2.1	2.10	122	Top soil with clay etc.
2.1-14.1	12.00	37	Sands etc.
14.1-68.7	54.60	32	Sands with clays etc.
68.7-132	63.30	48	Sands with clays, gravels etc.
Below132m		400	Hard clays with Sands and clays etc.

Unique ID	GK78-77
Village	Uparthala
Taluka/Block	
District	Goalpara
Toposheet No.	78J/16
Lat	26 ˚02’06"
Long	90˚47’20”
RL (m amsl)	
Date/Year	2013-
Nearby DW/DCBW/BW depth	
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
G.L.-1.7	1.70	165	Top soil with clay etc.
1.7-9	7.30	32	clays with sands etc.
09--27	18.00	47	Sands with clays etc.
27-35	08.00	100	Hard clays with sands etc.
Below 35m		343	Hard clays occasinally with sands etc.

Unique ID	GK78-78
Village	Sonapur
Taluka/Block	
District	Goalpara
Toposheet No.	78J/16
Lat	26 ˚02’09"
Long	90˚42’09”
RL (m amsl)	
Date/Year	2013-
Nearby DW/DCBW/BW depth	
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	Thickness(m)	Resistivity (ohm-m)	Inferred Lithology
GH-2.5	2.50	2600	Top soil with hard clay etc.
2.5-28	25.50	390	Sands with clays etc.
Below 28m		210	clays with sands etc.

Unique ID	GK78-79
Village	Domani
Taluka/Block	
District	Goalpara
Toposheet No.	78J/16
Lat	26 ˚02’15"
Long	90˚45’37”
RL (m amsl)	
Date/Year	2013-
Nearby DW/DCBW/BW depth	
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	Thickness(m)	Resistivity (ohm-m)	Inferred Lithology
G.L.-8	8.00	66	Top soil with clay etc.
08--24	16.00	330	Hard clays with sands etc.
Below 24m		133.5	Sands with clays etc.

Unique ID	GK78-80
Village	Matia
Taluka/Block	Matia
District	Goalpara
Toposheet No.	78J/16
Lat	26 ˚02’29"
Long	90˚47’01”
RL (m amsl)	
Date/Year	2013-
Nearby DW/DCBW/BW depth	
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
G.L.-1.2	1.20	80	Top soil with clay etc.
1.2-12	10.80	40	Sands with clays etc
12--89	77.00	161	Hard clays with sands etc.
Below 89m		325	Hard clays / compact formation etc.

Unique ID	GK78-81
Village	Signaijani
Taluka/Block	
District	Goalpara
Toposheet No.	78J/16
Lat	26 ˚02’09"
Long	90˚54’51”
RL (m amsl)	
Date/Year	2013-
Nearby DW/DCBW/BW depth	
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
G.L.-1.50	1.50	270	Top soil with clay etc.
1.50-27.9	26.40	54	Sands with clays etc
27.9-61.7	33.80	150	Hard clays with sands etc.
Below 61.7m		92	Clays with sands etc.

Unique ID	GK78-82
Village	Duhela paryanpura
Taluka/Block	
District	Goalpara
Toposheet No.	78J/16
Lat	26 ˚01’54"
Long	90˚45’38”
RL (m amsl)	
Date/Year	2013-
Nearby DW/DCBW/BW depth	
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	Thickness(m)	Resistivity (ohm-m)	Inferred Lithology
G.L.-4.2	4.20	110	Top soil with clay etc.
4.2-19	14.80	165	Hard Clays with sands etc.
Below 19m		109	Sands with clays etc

Unique ID	GK78-83
Village	Banshar
Taluka/Block	Chhaygaon
District	Kamrup
Toposheet No.	78N/8
Lat	26º06´27"
Long	91º 25´19"
RL (m amsl)	
Date/Year	20-08-2013
Nearby DW/DCBW/BW depth	
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Note –No bore hole logging conducted

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
G.L.-1.3	1.3	10	Top soil with clay etc.
1.3-7.5	6.2	35	sands with clays etc.
7.5-87	79.5	84	Sands with gravel, pebbles and clays etc.
Below 87m		50	**Intercalations of clays with sands etc.**

Depth range		**Thickness**	**SP**	**Long**	**Short**	**Natural**	**Lithology**
From	To						

Logging Data	
Village	
Taluka/Block	
District	
Toposheet No.	
Lat	
Long	
RL (m amsl)	
Date/Year	

Unique ID	GK78-79
Village	2 no. Jaikur Village
Taluka/Block	Chhaygaon
District	Kamrup
Toposheet No.	78N/8
Lat	26º05´55"
Long	91º 25´19"
RL (m amsl)	
Date/Year	20-08-2013
Nearby DW/DCBW/BW depth	
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
G.L.-1	1	190	Top soil with clay etc.
1-7.6	6.6	38	sands etc.
7.6-62	64.4	105	Hard clays with Sands etc.
Below 62m		38	**Intercalations of sands with clays etc.**

Unique ID	GK78-85
Village	Rani
Taluka/Block	Rani
District	Kamrup
Toposheet No.	78N/12
Lat	26º03´23"
Long	91º37´54"
RL (m amsl)	
Date/Year	20-08-2013
Nearby DW/DCBW/BW depth	
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
G.L.-10	10	80	Top soil with clay etc.
10--70	60	160	Hard clays with sands etc.
Below 70m		350	***Consolidated formation***

Unique ID	GK78-86
Village	1no. Jaikur village
Taluka/Block	Chhaygaon
District	Kamrup
Toposheet No.	78N/8
Lat	26º05´00"
Long	91º 25´00"
RL (m amsl)	
Date/Year	21-08-2013
Nearby DW/DCBW/BW depth	
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
G.L.-12	12	42	Top soil with clay etc.
12-120	108	105	Hard clays with sands etc.
Below 120m		46	Intercalations of Sands with clays etc.

Unique ID	GK78-87
Village	Gumi I
Taluka/Block	Chhaygaon
District	Kamrup
Toposheet No.	78N/8
Lat	26º05´42"
Long	91º 20´33"
RL (m amsl)	
Date/Year	21-08-2013
Nearby DW/DCBW/BW depth	DW
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	Thickness(m)	Resistivity (ohm-m)	Inferred Lithology
G.L.-3	3	32	Top soil with clay etc.
03--6	3	26	Sands etc.
6-7.8	1.8	90	Hard clays etc.
7.8-38	31.2	66	Intercalations of sands with clays etc.
Below 38m		245	Hard clays with sands etc.

Unique ID	GK78-89
Village	Bholagaon
Taluka/Block	Rani
District	Kamrup
Toposheet No.	78N/12
Lat	26º01´08"
Long	91º 30´15"
RL (m amsl)	
Date/Year	21-08-2013
Nearby DW/DCBW/BW depth	
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
G.L.-1.8	1.8	110	Top soil with clay etc.
1.8-7.9	6.1	34	Sands with clays etc.
7.9-63	56.10	21	clays with sands etc.
Below 63m		36	***Intercalations of sands with clays etc.***

Unique ID	GK78-90
Village	Badekuchi
Taluka/Block	Chhaygaon
District	Kamrup
Toposheet No.	78N/8
Lat	26º01´28"
Long	91º 22´46"
RL (m amsl)	
Date/Year	25-08-2013
Nearby DW/DCBW/BW depth	
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
G.L.-6	6	78	Top soil with clay etc.
6-14.4		195	Hard clays with sands etc.
14.4-25.6		120	clays etc
25.6-161		36	***sands with clays etc.***
Below161m		450	***Consolidated formation***

Unique ID	GK78-91
Village	Hathigarh
Taluka/Block	Chhaygaon
District	Kamrup
Toposheet No.	78N/8
Lat	26º59´12"
Long	91º 22´31"
RL (m amsl)	
Date/Year	25-08-2013
Nearby DW/DCBW/BW depth	
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
G.L.-1.6	1.6	88	Top soil with clay etc.
6---25.6	18.40	220	Hard clays with sands etc.
25.6-114	88.40	48	Intercalations of sands and clays etc
Below114m		290	***Consolidated formation***

Unique ID	GK78-92
Village	1 no. Balasidhi village
Taluka/Block	Chhaygaon
District	Kamrup
Toposheet No.	78N/8
Lat	26º02´09"
Long	91º 23´53"
RL (m amsl)	
Date/Year	26-08-2013
Nearby DW/DCBW/BW depth	
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
G.L.-2	2	30	Top soil with clay etc.
02-16	14	60	sands with Clays etc.
16-67	51	220	***Sands with hard clays etc***
Below 67m		110	***Clays with sands etc.***

Unique ID	GK78-93
Village	Simina
Taluka/Block	Boko
District	Kamrup
Toposheet No.	78N/4
Lat	26º02´08"
Long	91º 14´10"
RL (m amsl)	
Date/Year	27-08-2013
Nearby DW/DCBW/BW depth	
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	Thickness(m)	Resistivity (ohm-m)	Inferred Lithology
G.L.-1.4	1.4	540	Top soil with clay etc.
1.4-7.4	6.00	162	sands with hard Clays etc.
7.4-44	36.60	70	*Sands etc*
Below 44m		23	*Intercalations of clays with sands*

Unique ID	GK78-94
Village	Chamaria
Taluka/Block	Boko
District	Kamrup
Toposheet No.	78N/4
Lat	26º03´12"
Long	91º 10´08"
RL (m amsl)	
Date/Year	27-08-2013
Nearby DW/DCBW/BW depth	122 m
Yield / discharge	785.86 lpm
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	200 m
Dischareg (lps)	13.1
Transmissivity (m2/day)	808.66
Storativity	$4.2*10^{-6}$

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
G.L.-1.0	1.0	100	Top soil with clay etc.
1.0-11	10.00	60	sands with Clays etc.
Nov-36	25.00	140	***hard clays with sands etc***
36-58.6	22.60	88	***sands with clay etc.***
58.6-92	33.40	127	***hard clays with sands etc***
Below 92m		72	***Intercalations of sands with Clays etc.***

Unique ID	GK78-95
Village	Hafshapara
Taluka/Block	Boko
District	Kamrup
Toposheet No.	78N/4
Lat	26º08´06"
Long	91º07´35"
RL (m amsl)	
Date/Year	28-08-2013
Nearby DW/DCBW/BW depth	
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
G.L.-3.2	3.20	135	Top soil with clay etc.
3.2-17.6	14.40	83	sands with Clays etc.
17.6-34	16.40	165	***hard clays with sands etc***
Below 34m		85	***sands with clay etc.***

Unique ID	GK78-96
Village	1 no. Rangapani
Taluka/Block	Boko
District	Kamrup
Toposheet No.	78N/4
Lat	26º07´34"
Long	91º 04´45"
RL (m amsl)	
Date/Year	28-08-2013
Nearby DW/DCBW/BW depth	
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
G.L.-3.7	3.70	33	Top soil with clay etc.
3.7-10	6.70	66	sands with Clays etc.
10--60	50.00	157	***hard clays with sands etc***
Below60m		55	***Intercalations of sands with Clays etc.***

Unique ID	GK78-97
Village	Rongeshwari
Taluka/Block	Boko
District	Kamrup
Toposheet No.	78N/4
Lat	26º06´53"
Long	91º 03´48"
RL (m amsl)	
Date/Year	28-08-2013
Nearby DW/DCBW/BW depth	DW
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
G.L.-5	5.00	40	Top soil with clay etc.
5---40	35.00	60	sands with Clays etc.
40-60	20.00	84	***hard clays with sands etc***
Below 60m		32	***Intercalations of sands with Clays etc.***

Unique ID	GK78-97
Village	Rajapukhari
Taluka/Block	Boko
District	Kamrup
Toposheet No.	78N/4
Lat	26º06´11"
Long	91º 29´00"
RL (m amsl)	
Date/Year	29-08-2013
Nearby DW/DCBW/BW depth	
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
G.L.-3.5	3.5	130	Top soil with clay etc.
3.5-18.5	15.00	65	sands with Clays etc.
18.5-49	30.50	108	***hard clays with sands etc***
Below 49m		38	***Intercalations of sands with Clays etc.***

Unique ID	GK78-98
Village	Chapathuri
Taluka/Block	Chhaygaon
District	Kamrup
Toposheet No.	78N/8
Lat	26º07´17"
Long	91º 27´09"
RL (m amsl)	
Date/Year	29-08-2013
Nearby DW/DCBW/BW depth	
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
G.L.-11	11.00	35	Top soil with clay etc.
11-63	52.00	122	sands with hard Clays etc.
Below 63m		266	***Semiconsolidated / consolidated formation***

Unique ID	GK78-99
Village	Rampur
Taluka/Block	Chhaygaon
District	Kamrup
Toposheet No.	78N/8
Lat	26º05´29"
Long	91º 28´14"
RL (m amsl)	
Date/Year	29-08-2013
Nearby DW/DCBW/BW depth	DW
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
G.L.-1.3	1.30	100	Top soil with clay etc.
1.3-13.5	12.40	200	hard Clays with sands etc.
13.5-96	82.50	49	***sands with clays etc***
Below 96m		145	***Intercalations of sands with Clays/ hard clays etc.***

Unique ID	GK78-100
Village	Mirza city
Taluka/Block	Chhaygaon
District	Kamrup
Toposheet No.	78N/8
Lat	26º06´30"
Long	91º 32´17"
RL (m amsl)	
Date/Year	30-08-2013
Nearby DW/DCBW/BW depth	
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
G.L.-6.2	6.20	130	Top soil with clay etc.
1.3-52.9	50.60	162	Hard clays with sands etc.
19.5-104.7	85.20	212	***Hard clays with gravel , sands etc***
104.7-225	120.30	114	***Intercalations of sands with clays / hard Clays etc.***
Below 225m		70	***Intercalations of clays with sands rtc.***

Unique ID	GK78-101
Village	Palasbari
Taluka/Block	Rani
District	Kamrup
Toposheet No.	78N/12
Lat	26º07´27"
Long	91º 32´27"
RL (m amsl)	
Date/Year	30-08-2013
Nearby DW/DCBW/BW depth	90
Yield / discharge	12.7
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	194
Dischareg (lps)	12.7
Transmissivity (m2/day)	572.9
Storativity	$2.21*10^{-4}$

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
G.L.-5	5.00	26	Top soil with clay etc.
05---33	28.00	52	sands with Clays etc.
33-57	24.00	168	***hard clays with sands etc***
Below 57m		52	***Intercalations of sands with Clays etc.***

Unique ID	GK78-102
Village	Lakhadubi
Taluka/Block	Chhaygaon
District	Kamrup
Toposheet No.	78N/8
Lat	26º01´45"
Long	91º 18´36"
RL (m amsl)	
Date/Year	31-08-2013
Nearby DW/DCBW/BW depth	
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
G.L.-6.6	6.60	250	Top soil with clay etc.
6.6-27.7	21.10	375	***hard clays with sands etc***
27.7-65	37.30	136	***Sands with hard clays, gravel etc.***
Below 65m		36	***Intercalations of sands with Clays etc.***

Unique ID	GK78-103
Village	Hatipara
Taluka/Block	Chhaygaon
District	Kamrup
Toposheet No.	78N/8
Lat	26º05´11"
Long	91º 16´28"
RL (m amsl)	
Date/Year	31-08-2013
Nearby DW/DCBW/BW depth	
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
G.L.-5	5.00	32	Top soil with clay etc.
05---20	15.00	64	sands with Clays etc.
Below 57m		92	***Intercalations of sands with Clays/ hard clays etc.***

Unique ID	GK78-104
Village	Gumi II
Taluka/Block	Chhaygaon
District	Kamrup
Toposheet No.	78N/8
Lat	26º05´39"
Long	91º 20´30"
RL (m amsl)	
Date/Year	30-08-2013
Nearby DW/DCBW/BW depth	DW
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
G.L.-0.5	0.50	94	Top soil with clay etc.
5-16.5	11.50	38	sands with Clays etc.
Below 16.5m		95	***Intercalations of Clays / hard clays with sands etc.***

Unique ID	GK78-105
Village	Tarabari
Taluka/Block	Boko
District	Kamrup
Toposheet No.	78N/4
Lat	26º00´55"
Long	91º 08´16"
RL (m amsl)	
Date/Year	01-09-2013
Nearby DW/DCBW/BW depth	
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
G.L.-1	1	170	Top soil with clay etc.
1-21	20	85	hard Clays with sands etc.
21-85	64	41	***sands with clays etc***
Below 85m		90	***Intercalations of sands with Clays / hard clays with sands etc.***

Unique ID	GK78-106
Village	Jugipara
Taluka/Block	Boko
District	Kamrup
Toposheet No.	78N/4
Lat	26º02´32"
Long	91º 04´56"
RL (m amsl)	
Date/Year	01-09-2013
Nearby DW/DCBW/BW depth	
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
G.L.-2.3	2.30	370	Top soil with clay etc.
2.3-13.8	11.50	56	hard Clays with sands etc. ***sands with clays etc***
13.8-76	62.20	231	hard Clays with sands etc
Below 76m		55	***Intercalations of sands with Clays with sands etc.***

Unique ID	GK78-107
Village	Chaplai
Taluka/Block	Boko
District	Kamrup
Toposheet No.	78N/4
Lat	26º01´13"
Long	91º 03´00"
RL (m amsl)	
Date/Year	01-09-2013
Nearby DW/DCBW/BW depth	
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
G.L.-4.2	4.20	270	Top soil with clay etc.
4.2-38	33.80	36	sands etc.
Below 38m		68	***Intercalations of sands with Clays / hard clays , gravel with sands etc.***

Unique ID	GK78-108
Village	Azara
Taluka/Block	
District	Kamrup
Toposheet No.	
Lat	26^{0}06′35″
Long	91^{0}37′15″
RL (m amsl)	
Date/Year	13-09-2013
Nearby DW/DCBW/BW depth	DW
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
GL -0.76	0.76	222	Top soil with hard clays
0.76-9.12	8.36	111	Sands with hard clays etc.
9.12-33.12	24	434	hard clays etc. with sands
33.12-149.97	116.85	150	Sands with hard clays etc
below 149.97		4	clays with sands etc.

Unique ID	GK78-109
Village	Azara
Taluka/Block	
District	Kamrup
Toposheet No.	
Lat	$91^{0}34'00''$
Long	$26^{0}05'00''$
RL (m amsl)	
Date/Year	13-09-2013
Nearby DW/DCBW/BW depth	DW
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
0-0.79	0.79	160	Top soil with hard clays
0.79-10.27	9.48	32	clays etc.
10.27-86.71	76.44	170	hard clays etc. with sands
below 86.71		65	Intercalations of Sands with clays etc

Unique ID	GK78-110
Village	Pubmajir Gaon
Taluka/Block	
District	Kamrup
Toposheet No.	
Lat	91^{0}35′05″
Long	26^{0}07′30″
RL (m amsl)	
Date/Year	13-09-2013
Nearby DW/DCBW/BW depth	
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
0-1.1	1.1	56	Top soil with clays
1.1-3.85	2.75	28	clays etc.
3.85-24.65	20.8	165	sands with hard clays etc.
below 24.65		60	Intercalations of Sands with clays etc

Unique ID	GK78-111
Village	pall
Taluka/Block	
District	Kamrup
Toposheet No.	
Lat	$91^{0}33'46''$
Long	$26^{0}06'55''$
RL (m amsl)	
Date/Year	13-09-2013
Nearby DW/DCBW/BW depth	
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
0-1.1	1.1	38	Top soil with clays
1.1-6.05	4.95	25	clays etc.
6.05-50.85	44.8	182	Sands with hard clays etc
below 50.85		52	Intercalations of Sands with clays etc

Unique ID	GK78-112
Village	Andherjuli
Taluka/Block	
District	Kamrup
Toposheet No.	
Lat	91^{0}36′03″
Long	26^{0}02′44″
RL (m amsl)	
Date/Year	13-09-2013
Nearby DW/DCBW/BW depth	
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
0-3.4	3.4	260	Top soil with hard clays
3.4-31.56	28.56	26	clays etc
below 31.96		45	Intercalations of Sands with clays etc

Unique ID	GK78-113
Village	Gotanagar
Taluka/Block	
District	Kamrup
Toposheet No.	
Lat	$26^0 08' 38.1''$
Long	$91^0 40' 36.2''$
RL (m amsl)	
Date/Year	12-09-2013
Nearby DW/DCBW/BW depth	
Yield / discharge	
Whether borehole was drilled at this point? If Yes,	
Depth Drilled	
Dischareg (lps)	
Transmissivity (m2/day)	
Storativity	

Depth range (m bgl)	**Thickness(m)**	**Resistivity (ohm-m)**	**Inferred Lithology**
0-3.8	3.8	155	Top soil with hard clays
3.8-41.8	38	23	Clays etc. with sands
41.8-161.8	65	12	Clays with sands etc
below 161.8		65	Intercalations of Sands with clays etc.