

BORE LOG DATA SHEET

Type of boring	Shell and Auger	Bentonite Mud Boring	Drilling	Report No.: GT / ER / 81 / 2020 – 2021		B.H.1
Dia of Hole	150 mm.	--	--	Coordination Sext Angles	E : 396.868 N : 205.646	
Depth	15.05 m	--	--	Ground Bed RL	98.600 m.	
Commenced on: 25.11.2020		Completed on: 25.11.2020		Location:	<i>Shalimar Road, Dist.- Howrah.</i>	
Ground Water Table: 0.65 m below E.G.L.						

Description of strata	I.S. Classification	R.L. in 'M'		Thickness in 'M'	'N' Value	SAMPLES	Depth in 'M'
		From	To			Type	
Top fill of soft grey silty clay mixed with grass roots, fine sand and exhausted plastic packets upto 0.60 m. underlain by soft grey / brown silty clay mixed with brick pieces & clay pots. *STRAY VALUE: Since SPT sampler stroke on clay pots & brick pieces.	:	98.600	96.500	2.10	-- -- *05 -- --	D D P D D	0.00 0.50 0.50 – 0.95 1.50 2.00
Firm brown grey silty clay with kankars & rusty brown silt spots.	CH – MH	96.500	92.300	4.20	-- -- 06 -- -- --	U D P D U D	2.00 – 2.45 3.00 3.50 – 3.95 4.50 5.00 – 5.45 6.00
Very soft / soft grey / dark grey silty clay with varying percentage of decomposed wood and peat. (Traces to medium percentage)	CH – OH	92.300	85.300	7.00	03 -- -- -- 02 -- -- -- 02	P D U D P D U D P	6.50 – 6.95 7.50 8.00 – 8.45 9.00 9.50 – 9.95 10.50 11.00 – 11.45 12.00 12.50 – 12.95
Firm / stiff bluish grey high plastic silty clay with rusty brown silt spots & kankars.	CH – MH	85.300	83.550		-- --	D U	13.50 14.60 – 15.05

Borehole Terminated.

S. S.: Sanjib Karmakar.		
D – Disturbed Sample	U – Undisturbed Sample	P – Standard Penetration Test
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Type of boring	Shell and Auger	Bentonite Mud Boring	Drilling	Report No.: GT / ER / 81 / 2020 – 2021	B.H.2
Dia of Hole	150 mm.	--	--	Coordination Sext Angles	E : 421.029 N : 293.585
Depth	40.05 m	--	--	Ground Bed RL	98.600 m.
Commenced on: 26.11.2020		Completed on: 28.11.2020		Location:	<i>Shalimar Road, Dist.- Howrah.</i>
Ground Water Table: 0.30 m below E.G.L.					

Description of strata	LS. Classification	R.L. in 'M'		Thickness in 'M'	'N' Value	SAMPLES	Depth in 'M'
		From	To			Type	
Top fill of soft grey silty clay mixed with grass roots & brick pieces.	:	98.600	98.100	0.50	-- --	D	0.00
						D	0.50
Soft / firm brown / brownish grey silty clay with traces of kankars & rusty brown silt spots.	CH - MH	98.100	92.300	5.70	--	U	0.50 – 0.95
					--	D	1.50
					--	D	2.00
					04	P	2.00 – 2.45
					--	D	3.00
					--	U	3.50 – 3.95
					--	D	4.50
					05	P	5.00 – 5.45
					--	D	6.00
Very soft / soft grey silty clay with traces of decomposed wood and peat.	CH - OH	92.300	85.100	7.20	--	U	6.50 – 6.95
					--	D	7.50
					03	P	8.00 – 8.45
					--	D	9.00
					--	U	9.50 – 9.95
					--	D	10.50
					02	P	11.00 – 11.45
					--	D	12.00
					--	U	12.50 – 12.95
Firm / stiff high plastic light bluish grey / mottled brown silty clay with kankars, nodules & rusty brown silt spots.	CH - MH	85.100	79.100	6.00	--	D	13.50
					06	P	14.00 – 14.45
					--	D	15.00
					--	U	15.50 – 15.95
					--	D	16.50
					12	P	17.00 – 17.45
					--	D	18.00
					--	U	18.50 – 18.95

Borehole Continued...

S. S.: Sanjib Karmakar.

D – Disturbed Sample	U – Undisturbed Sample	P – Standard Penetration Test
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Type of boring	Shell and Auger	Bentonite Mud Boring	Drilling	Report No.: GT / ER / 81 / 2020 – 2021		B.H 2	
Dia of Hole	150 mm.		--	Coordination Sext Angles	E : 421.029 N : 293.585		
Depth	40.05 m		--	Ground Bed RL	98.600 m.		
Commenced on: 26.11.2020		Completed on: 28.11.2020		Location:	<i>Shalimar Road, Howrah.</i>		
Ground Water Table: 0.30 m.							

Description of strata	I.S. Classification	R.L. in 'M'		Thickness in 'M'	'N' Value	SAMPLES	Depth in 'M'
		From	To			Type	
Very stiff / hard mottled brown / yellowish brown low plastic clayey sandy silt / sandy clayey silt with traces of mica.	MI - ML	79.100	71.600	7.50	32	P	20.00 – 20.45
					--	U	21.50 – 21.95
					29	P	23.00 – 23.45
					--	U	24.50 – 24.95
					20	P	26.00 – 26.45
Very stiff mottled brown silty clay / clayey silt with kankars & rusty brown silt spots. • A thin band of very low plastic yellowish clayey silty sand was observed from 35.00 to 35.45m	CH - MH	71.600	61.600	10.00	--	U	27.50 – 27.95
					26	P	29.00 – 29.45
					--	U	30.50 – 30.95
					28	P	32.00 – 32.45
					--	U	33.50 – 33.95
	MI	35.00	35.45	0.45	32	P	35.00 – 35.45
					--	U	36.50 – 36.95
Dense yellowish brown silty fine non plastic sand with traces of mica.	SM	61.600	58.550		42	P	38.00 – 38.45
					47	P	39.60 – 40.05

Borehole Terminated.		
S. S.: Sanjib Karmakar.		
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Type of boring	Shell and Auger	Bentonite Mud Boring	Drilling	Report No.: GT / ER / 81 / 2020 - 2021		B.H.3
Dia of Hole	150 mm.	--	--	Coordination Sext Angles	E : 337.819 N : 338.472	
Depth	40.45 m	--	--	Ground Bed RL	98.700 m.	
Commenced on: 29.11.2020		Completed on: 02.12.2020		Location:	<i>Shalimar Road, Dist.- Howrah.</i>	
Ground Water Table: 0.80 m below E.G.L.						

Description of strata	I.S. Classification	R.L. in 'M'		Thickness in 'M'	'N' Value	SAMPLES	Depth in 'M'
		From	To			Type	
		Top fill of very soft grey silty clay with grass roots upto 0.10 m, underlain by soft grey silty clay with traces of brick pieces 0.90 m. finally underlain by very soft / soft brown silty clay.	:			98.700	
Soft brown / grey clayey silt / silty clay with traces of kankars & rusty brown silt spots.	CH - MH	97.700	93.400	4.30	02 -- -- -- 05 --	P D U D P D	1.00 – 1.45 2.00 2.50 – 2.95 3.50 4.00 – 4.45 5.00
Very soft / soft grey/ dark grey silty clay with varying percentage of decompose wood. (Traces to medium percentage)	CH - OH	93.400	87.400	6.00	-- -- 02 -- -- -- 03 --	U D P D U D P D	5.50 – 5.95 6.50 7.00 – 7.45 8.00 8.50 – 8.95 9.50 10.00 – 10.45 11.00

Borehole Continued...

S. S.: Sanjib Karmakar.		
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Type of boring	Shell and Auger	Bentonite Mud Boring	Drilling	Report No.: GT / ER / 81 / 2020 - 2021		B.H.3
Dia of Hole	150 mm.	--	--	Coordination Sext Angles	E: 337.819 N: 338.472	
Depth	40.45 m	--	--	Ground Bed RL	98.700 m.	
Commenced on: 29.11.2020		Completed on: 02.12.2020		Location:	<i>Shalimar Road, Dist.- Howrah.</i>	
Ground Water Table: 0.80 m below E.G.L.						

Description of strata	I.S. Classification	R.L. in 'M'		Thickness in 'M'	'N' Value	SAMPLES	Depth in 'M'
		From	To			Type	
Firm/ stiff to very stiff light bluish grey /mottled brown high plastic silty clay with calcareous nodules & rusty brown silt spots.	CH – MH	87.400		12.40	--	U	11.50 – 11.95
					--	D	12.50
					08	P	13.00 – 13.45
					--	D	14.00
					--	U	14.50 – 14.95
					--	D	15.50
					10	P	16.00 – 16.45
					--	D	17.00
					--	U	17.50 – 17.95
					12	P	19.00 – 19.45
					--	U	20.50 – 20.95
					15	P	22.00 – 22.45
					--	U	23.50 – 23.95
Very stiff yellowish very low plastic sandy silt with traces of clay. (c-φ deposit)	MI – ML	75.000			17	P	25.00 – 25.45
			2.60				
Very stiff mottled brown silty clay with traces of kankars & rusty brown silt spots.	CH - MH	72.400		10.20	--	U	26.50 – 26.95
					22	P	28.00 – 28.45
					--	U	29.50 – 29.95
					23	P	31.00 – 31.45
					--	U	32.50 – 32.95
					25	P	34.00 – 34.45
					--	U	35.50 – 35.95
Medium / dense grey silty fine sand with traces of mica.	SM	62.200			28	P	37.00 – 37.45
					37	P	38.50 – 38.95
					43	P	40.00 – 40.45
		58.250					

Borehole Terminated.		
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BORE LOG DATA SHEET						
Type of boring	Shell and Auger	Bentonite Mud Boring	Drilling	Report No.: GT / ER / 81 / 2020 - 2021		B.H 4
Dia of Hole	150 mm.	--	--	Coordination Sext Angles	E: 332.472 N: 246.900	
Depth	15.05m	--	--	Ground Bed RL	99.000 m.	
Commenced on: 02.12.2020		Completed on: 02.12.2020		Location:	<i>Shalimar Road, Dist.- Howrah.</i>	
Ground Water Table: 0.90 m below E.G.L.						

Description of strata	I.S. Classification	R.L. in 'M'		Thickness in 'M'	'N' Value	SAMPLES	Depth in 'M'
		From	To			Type	
Top fill of soft grey silty clay mixed with grass roots upto 0.20 m, underlain by very soft / soft brown / grey clayey silt mixed with brick pieces & brick bats. *STRAY VALUE: Since SPT sampler stroke on brick bats & brick pieces.	:	99.000	95.300	3.70	--	D	0.00
					--	D	0.50
					--	D	1.00
					--	U	1.00 – 1.45
					--	D	2.00
					*10	P	2.50 – 2.95
					--	D	3.50
Very soft / soft grey silty clay with varying percentage of decomposed wood. (Traces to medium to high percentage)	CH - OH	95.300	85.200	10.10	--	U	4.00 – 4.45
					--	D	5.00
					03	P	5.50 – 5.95
					--	D	6.50
					--	U	7.00 – 7.45
					--	D	8.00
					02	P	8.50 – 8.95
					--	D	9.50
					--	U	10.00 – 10.45
					--	D	11.00
					03	P	11.50 – 11.95
					--	D	12.50
					--	U	13.00 – 13.45
Firm light bluish grey high plastic silty clay with kankars & rusty brown silt spots.	CH - MH	85.200	83.950		--	D	14.00
					05	P	14.60 – 15.05

Borehole Terminated.

S. S.: Sanjib Karmakar.

D – Disturbed Sample	U – Undisturbed Sample	P – Standard Penetration Test
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Type of boring	Shell and Auger	Bentonite Mud Boring	Drilling	Report No.: GT / ER / 81 / 2020 - 2021		B.H 5
Dia of Hole	150 mm.	--	--	Coordination Sext Angles	E: 294.312 N: 263.546	
Depth	40.05 m	--	--	Ground Bed RL	98.800 m.	
Commenced on: 03.12.2020		Completed on: 05.12.2020		Location:	<i>Shalimar Road, Dist.- Howrah.</i>	
Ground Water Table: 1.20 m below E.G.L.						

Description of strata	I.S. Classification	R.L. in 'M'		Thickness in 'M'	'N' Value	SAMPLES	Depth in 'M'
		From	To			Type	
Top fill of soft grey /brownish grey silty clay mixed with grass roots & brick pieces.	:	98.800	97.600	1.20	--	D	0.00
					--	D	0.50
					--	U	0.50 – 0.95
Firm brown / grey silty clay / clayey silt with traces of kankars.	CH - MH	97.600	94.300	3.30	--	D	1.50
					--	D	2.00
					04	P	2.00 – 2.45
					--	D	3.00
					--	U	3.50 – 3.95
Very soft / soft grey / dark grey silty clay with decomposed wood in varying percentage. Snail shells were also obtained from 4.80 m to 5.80 m. (traces to medium to high percentage)	CH - OH	94.300	85.800	8.50	--	D	4.50
					03	P	5.00 – 5.45
					--	D	6.00
					--	U	6.50 – 6.95
					--	D	7.50
					02	P	8.00 – 8.45
					--	D	9.00
					--	U	9.50 – 9.95
					--	D	10.50
					03	P	11.00 – 11.45
					--	D	12.00
					--	U	12.50 – 12.95

Borehole Continued...

. S.: Sanjib Karmakar.		
D – Disturbed Sample	U – Undisturbed Sample	P – Standard Penetration Test
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BORE LOG DATA SHEET

Type of boring	Shell and Auger	Bentonite Mud Boring	Drilling	Report No.: GT / ER / 81 / 2020 - 2021		B.H 5
Dia of Hole	150 mm.	--	--	Coordination Sext Angles	E : 294.312 N : 263.546	
Depth	40.05	--	--	Ground Bed RL	98.800 m.	
Commenced on: 03.12.2020		Completed on: 05.12.2020		Location:	<i>Shalimar Road, Dist.- Howrah.</i>	
Ground Water Table: 1.20 m below E.G.L.						

Description of strata	L.S. Classification	R.L. in 'M'		Thickness in 'M'	'N' Value	SAMPLES	Depth in 'M'
		From	To			Type	
Stiff / very stiff grey / mottled blue / mottled brown silty clay with kankars & rusty brown silt spots.	CH - MH	85.800	79.300	6.50	--	D	13.50
					12	P	14.00 – 14.45
					--	D	15.00
					--	U	15.50 – 15.95
					--	D	16.50
					19	P	17.00 – 17.45
					--	D	18.00
					--	U	18.50 – 18.95
Medium compact brown silty fine mainly non plastic sand with traces of mica & clay & silt as binder. • Some plasticity was observed at 23 m.	SM	79.300	73.800	5.50	25	P	20.00 – 20.45
					--	U	21.50 – 21.95
					29	P	23.00 – 23.45
					--	U	24.50 – 24.95
Very stiff / hard mottled brown silty clay / clayey silt with rusty brown silt spots. • Predominance of sand was observed at 36.50 m & hence plasticity drastically decreases.	CH - MH	73.800	61.300	12.50	37	P	26.00 – 26.45
					--	U	27.50 – 27.95
					18	P	29.00 – 29.45
					--	U	30.50 – 30.95
					26	P	32.00 – 32.45
					--	Uslip	33.50 – 33.95
					20	P	34.00 – 34.45
					25	P	35.00 – 35.45
Dense brown silty fine non plastic sand with traces of mica & clay & silt as binder.	SM	61.300	58.750		38	P	38.00 – 38.45
					47	P	39.60 – 40.05

Borehole Terminated.

. S.: Sanjib Karmakar.

D – Disturbed Sample

U – Undisturbed Sample

P – Standard Penetration Test

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BORE LOG DATA SHEET

Type of boring	Shell and Auger	Bentonite Mud Boring	Drilling	Report No.: GT / ER / 81 / 2020 - 2021		B.H 6
Dia of Hole	150 mm.	--	--	Coordination Sext Angles	E : 264.956 N : 210.607	
Depth	15.45m	--	--	Ground Bed RL	98.900 m.	
Commenced on: 04.12.2020		Completed on: 04.12.2020		Location:	<i>Shalimar Road, Dist.- Howrah.</i>	
Ground Water Table: 1.60 m below E.G.L.						

Description of strata	I.S. Classification	R.L. in 'M'		Thickness in 'M'	'N' Value	SAMPLES	Depth in 'M'
		From	To			Type	
Top fill of soft brownish / grey silty clay with grass roots, snail shells, brick bats & brick pieces upto 1.20 m, underlain by soft brown silty clay /clayey silt with traces of brick pieces.	-	98.900	96.200	2.70	--	D	0.00
					--	D	0.50
					--	D	1.00
					--	D	1.50
					--	U	1.50 – 1.95
					--	D	2.50
Soft / firm grey clayey silt / silty clay.	CH – MH	96.200	94.600	1.60	--	D	3.00
					04	P	3.00 – 3.45
					--	D	4.00
Very soft/soft grey /dark grey silty clay with varying percentage of decomposed wood. (Traces to high percentage)	CH – OH	94.600	86.100	8.50	--	U	4.50 – 4.95
					--	D	5.50
					02	P	6.00 – 6.45
					--	D	7.00
					--	U	7.50 – 7.95
					--	D	8.50
					02	P	9.00 – 9.45
					--	D	10.00
					--	U	10.50 – 10.95
					--	D	11.50
					02	P	12.00 – 12.45
Firm / stiff light bluish grey silty clay with traces of kankars & rusty brown silt spots.	CH – MH	86.100	83.450		--	D	13.00
					--	U	13.50 – 13.95
					--	D	14.50
					08	P	15.00 – 15.45

Borehole Terminated.

. S.: Sanjib Karmakar.

D – Disturbed Sample	U – Undisturbed Sample	P – Standard Penetration Test
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BORE LOG DATA SHEET

Type of boring	Shell and Auger	Bentonite Mud Boring	Drilling	Report No.: GT / ER / 81 / 2020 - 2021	B.H.7
Dia of Hole	150 mm.	150mm	--	Coordination Sext Angles	N : 191.170 E : 160.019
Depth	20.00m.	40.20m	--	Ground Bed RL	97.600 m.
Commenced on: 10.12.2020		Completed on: 13.12.2020		Location:	<i>Shalimar Road, Dist.- Howrah.</i>
Ground Water Table: 0.60 m below E.G.L.					

Description of strata	I.S. Classification	R.L. in 'M'		Thickness in 'M'	'N' Value	SAMPLES	Depth in 'M'
		From	To			Type	
		Top fill of soft grey silty clay mixed with grass roots & brick pieces & exhausted plastic packets.	:			97.600	
Soft/firm brownish grey silty clay / clayey silt with traces of rusty brown silt spots. <ul style="list-style-type: none"> Traces of snail shells were observed at upper reaches. 	CH - MH	97.100	91.800	5.20	-- -- -- 04 -- -- 05	U D D P D U D P	0.50 – 0.95 1.50 2.00 2.00 – 2.45 3.00 3.50 – 3.95 4.50 5.00 – 5.45
Very soft / soft grey / dark grey silty clay with varying percentage of decomposed wood. (Traces to medium to high percentage)	CH - OH	91.800	84.100	7.70	-- -- -- 03 -- -- -- 03 -- --	D U D P D U D P D U	6.00 6.50 – 6.95 7.50 8.00 – 8.45 9.00 9.50 – 9.95 10.50 11.00 – 11.45 12.00 12.50 – 12.95

Borehole Continued...

S. S.: Sanjib Karmakar.		
D – Disturbed Sample	U – Undisturbed Sample	P – Standard Penetration Test

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BORE LOG DATA SHEET

Type of boring	Shell and Auger	Bentonite Mud Boring	Drilling	Report No.: GT / ER / 81 / 2020 - 2021		B.H.7
Dia of Hole	150 mm.	150 mm	--	Coordination Sext Angles	E : 191.170 N : 160.019	
Depth	20.00 m.	40.20m	--	Ground Bed RL	97.600 m.	
Commenced on: 10.12.2020		Completed on: 13.12.2020		Location:	<i>Shalimar Road, Dist.- Howrah.</i>	
Ground Water Table: 0.60 m below E.G.L.						

Description of strata	I.S. Classification	R.L. in 'M'		Thickness in 'M'	'N' Value	SAMPLES	Depth in 'M'
		From	To			Type	
Firm / stiff light bluish grey / mottled brown high plastic silty clay with kankars & rusty brown silt spots.	CH - MH	84.100	76.100	8.00	--	D	13.50
					08	P	14.00 – 14.45
					--	D	15.00
					--	U	15.50 – 15.95
					--	D	16.50
					13	P	17.00 – 17.45
					--	D	18.00
					--	U	18.50 – 18.95
					--	D	19.50
					18	P	20.00 – 20.45
Hard yellowish brown very low plastic sandy clayey silty sand / clayey sandy silt with traces of mica.	MI - ML	76.100	72.100	4.00	--	U	21.50 – 21.95
					42	P	23.00 – 23.45
					--	U	24.50 – 24.95
Stiff / very stiff mottled brown silty clay with kankars & rusty brown silt spots.	CH - MH	72.100	64.500	7.50	10	P	26.00 – 26.45
					--	U	27.50 – 27.95
					19	P	29.00 – 29.45
					--	U	30.50 – 30.95
					34	p	32.00 – 32.45

Borehole Continued...

S. S.: Sanjib karmakar.

D – Disturbed Sample	U – Undisturbed Sample	P – Standard Penetration Test
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Type of boring	Shell and Auger	Bentonite Mud Boring	Drilling	Report No.: GT / ER / 81 / 2020 - 2021		B.H.7
Dia of Hole	150 mm.	150 mm	--	Coordination Sext Angles	E: 191.170 N: 160.019	
Depth	20.00 m.	40.20m	--	Ground Bed RL	97.600 m.	
Commenced on: 10.12.2020		Completed on: 13.12.2020		Location:	<i>Shalimar Road, Dist.- Howrah.</i>	
Ground Water Table: 0.60 m below E.G.L.						

Description of strata	LS. Classification	R.L. in ‘M’		Thickness in ‘M’	‘N’ Value	SAMPLES	Depth in ‘M’	
		From	To			Type		
Dense / very dense yellowish brown / grey silty fine non plastic sand with mica & clay as binders. <ul style="list-style-type: none">A sandwich band of hard brown low plastic clayey silt with intermediate presence of sand was observed from 39.50 m to 42.95 m.	SM	64.500			Slip	U	33.50 – 33.95	
					50	P	34.00 – 34.45	
					>100	P	35.00 – 35.45	
					>100	P	36.50 – 36.80	
					83	P	38.00 – 38.45	
	CH - MH	58.100		3.45	52	P	39.50 – 39.95	
					51	P	41.00 – 41.45	
					39	P	42.50 – 42.95	
			54.650					
						>100	P	44.00 – 44.17
						>100	P	45.50 – 45.95
						>100	P	47.00 – 47.45
						82	P	48.50 – 48.95
						>100	P	50.00 – 50.30
						82	P	51.50 – 51.95
						>100	P	53.00 – 53.30
						92	P	54.50 – 54.95
						74	P	56.00 – 56.45
						84	P	57.50 – 57.95
					91	P	59.00 – 59.45	
		37.400			>100	P	60.00 – 60.20	

Borehole Terminated.

S. S.: Sanjib Karmakar.

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BORE LOG DATA SHEET

Type of boring	Shell and Auger	Bentonite Mud Boring	Drilling	Report No.: GT / ER / 81 / 2020 - 2021		B.H.8
Dia of Hole	150 mm.	--	--	Coordination Sext Angles	N: 146.247 E: 214.149	
Depth	15.05 m.	--	--	Ground Bed RL	97.600 m.	
Commenced on: 03.12.2020		Completed on: 03.12.2020		Location:	<i>Shalimar Road, Dist.- Howrah.</i>	
Ground Water Table: 0.90 m below E.G.L.						

Description of strata	I.S. Classification	R.L. in 'M'		Thickness in 'M'	'N' Value	SAMPLES	Depth in 'M'
		From	To			Type	
Top soil of grey clayey silt mixed with grass roots.	:	97.600	97.200	0.40	--	D	0.00
Soft greyish brown / grey silty clay / clayey silt with traces of kankars & rusty brown silt spots and mica.	CH - MH	97.200	91.600	5.60	-- 02 -- -- -- -- 04 -- --	D P D D Uslip U D P D U	0.50 0.50 - 0.95 1.50 2.00 2.00 - 2.45 2.50 - 2.95 3.50 3.50 - 3.95 4.50 5.00 - 5.45
Very soft / soft grey / dark grey silty clay with varying percentage of decomposed wood. (Traces to medium to high percentage)	CH - OH	91.600	83.000	8.60	-- 03 -- -- -- 04 -- -- -- 02 -- --	D P D U D P D U D P D U	6.00 6.50 - 6.95 7.50 8.00 - 8.45 9.00 9.50 - 9.95 10.50 11.00 - 11.45 12.00 12.50 - 12.95 13.50 14.00 - 14.45
Firm light bluish grey silty clay with kankars & rusty brown silt spots.	CH - MH	83.000	82.550		05	P	14.60 - 15.05

Borehole Terminated.

S. S.: Sanjib Karmakar.

D - Disturbed Sample	U - Undisturbed Sample	P - Standard Penetration Test
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BORE LOG DATA SHEET

Type of boring	Shell and Auger	Bentonite Mud Boring	Drilling	Report No.: GT / ER / 81 / 2020 - 2021		B.H. 9
Dia of Hole	150 mm.	--	--	Coordination Sext Angles	E: 203.033 N: 232.778	
Depth	40.25 m	--	--	Ground Bed RL	97.700 m.	
Commenced on: 05.12.2020		Completed on: 08.12.2020		Location:	<i>Shalimar Road, Dist.- Howrah.</i>	
Ground Water Table: 1.65 m below E.G.L.						

Description of strata	I.S. Classification	R.L. in 'M'		Thickness in 'M'	'N' Value	SAMPLES	Depth in 'M'
		From	To			Type	
Top fill of soft grey silty clay / clayey silt with grass roots & brick pieces.	:	97.700	97.100	0.60	-- --	D D	0.00 0.50
Soft / firm brown / grey clayey silt / silty clay with traces of kankars & rusty brown silt spots also traces of mica.	CH – MH	97.100	92.900	4.20	-- -- -- -- 06 -- --	D U D D P D U	1.00 1.00 – 1.45 2.00 2.50 2.50 – 2.95 3.50 4.00 – 4.45
Very soft / soft grey / dark grey silty clay with varying percentage of decomposed wood. (Traces to medium percentage)	CH – OH	92.900	84.900	8.00	-- 03 -- -- -- 02 -- -- 02 --	D P D U D P D U D P D	5.00 5.50 – 5.95 6.50 7.00 – 7.45 8.00 8.50 – 8.95 9.50 10.00 – 10.45 11.00 11.50 – 11.95 12.50

Borehole Continued...

S. S.: Sanjib Karmakar.		
D – Disturbed Sample	U – Undisturbed Sample	P – Standard Penetration Test
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BORE LOG DATA SHEET

Type of boring	Shell and Auger	Bentonite Mud Boring	Drilling	Report No.: GT / ER / 81 / 2020 - 2021		B.H.9
Dia of Hole	150 mm.	--	--	Coordination Sext Angles	E: 203.033 N: 232.778	
Depth	40.25 m.	--	--	Ground Bed RL	97.700 m.	
Commenced on: 05.12.2020		Completed on: 08.12.2020		Location:	<i>Shalimar Road, Dist.- Howrah.</i>	
Ground Water Table: 1.65 m below E.G.L.						

Description of strata	I.S. Classification	R.L. in ‘M’		Thickness in ‘M’	‘N’ Value	SAMPLES	Depth in ‘M’
		From	To			Type	
Very stiff light bluish / grey / mottled blue high plastic silty clay with calcareous nodules & rusty brown silt spots.	CH – MH	84.900		5.70	-- -- 07 -- -- 17	U D P D U P	13.00 – 13.45 14.00 14.50 – 14.95 15.50 16.00 – 16.45 17.50 – 17.95
Medium compact brown mainly non plastic silty sand with traces of clay.	SM	79.200		9.00	-- 23 -- 28 -- 25	U P U P U P	19.00 – 19.45 20.50 – 20.95 22.00 – 22.45 23.50 – 23.95 25.00 – 25.45 26.50 – 26.95
Very stiff / hard mottled brown / yellow brown silty clay / clayey silt with traces of rusty brown silt spots.	CH – MH	70.200		6.00	-- 19 -- 28	U P U P	28.00 – 28.45 29.50 – 29.95 31.00 – 31.45 32.50 – 32.95
Hard mottled brown very low plastic clayey sandy silt. (c-φ deposit)	ML	64.200		6.00	-- 35 -- >100	U P U P	34.00 – 34.45 35.50 – 35.95 37.00 – 37.45 38.50 – 38.80
Very dense brown silty fine non plastic sand with traces of mica.	SM	58.200			>100	P	40.00 – 40.25

Borehole Terminated.

S. S.: Sanjib Karmakar.

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BORE LOG DATA SHEET

Type of boring	Shell and Auger	Bentonite Mud Boring	Drilling	Report No.: GT / ER / 81 / 2020 - 2021		B.H.10
Dia of Hole	150 mm.	--	--	Coordination Sext Angles	E: 127.142 N: 243.340	
Depth	40.45 m	--	--	Ground Bed RL	97.800 m.	
Commenced on: 9.12.2020		Completed on: 12.12.2020		Location:	<i>Shalimar Road, Dist.- Howrah.</i>	
Ground Water Table: 1.40 m below E.G.L.						

Description of strata	I.S. Classification	R.L. in 'M'		Thickness in 'M'	'N' Value	SAMPLE S	Depth in 'M'
		From	To			Type	
Top fill of soft brownish grey / brown silty clay / clayey silt with traces of grass roots & brick pieces.	:	97.800	97.500	0.30	--	D	0.00
Soft / firm brownish grey silty clay / clayey silt with traces of ferruginous spots & kankars.	CH - MH	97.500	92.500	5.00	--	D	0.50
					--	D	1.00
					04	P	1.00 - 1.45
					--	D	2.00
					--	D	2.50
					--	U	2.50 - 2.95
					--	D	3.50
					05	P	4.00 - 4.45
					--	D	5.00
					--		
Very soft / soft grey / dark grey silty clay with varying percentage of decomposed wood. (Traces to medium percentage)	CH - OH	92.500	85.500	7.00	--	U	5.50 - 5.95
					--	D	6.50
					04	P	7.00 - 7.45
					--	D	8.00
					--	U	8.50 - 8.95
					--	D	9.50
					02	P	10.00 - 10.45
					--	D	11.00
					--	U	11.50 - 11.95
					--		
Firm / stiff light bluish grey / mottled brown high plastic silty clay with calcareous nodules & rusty brown silt spots.	CH - MH	85.500	79.300	6.20	--	D	12.50
					6	P	13.00 - 13.45
					--	D	14.00
					--	U	14.50 - 14.95
					--	D	15.50
					11	P	16.00 - 16.45
					--	U	17.50 - 17.95

Borehole Continued...

S. S.: Sanjib Karmakar.

D - Disturbed Sample

U - Undisturbed Sample

P - Standard Penetration Test

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BORE LOG DATA SHEET

Type of boring	Shell and Auger	Bentonite Mud Boring	Drilling	Report No.: GT / ER / 81 / 2020 - 2021		B.H.10
Dia of Hole	150 mm.	--	--	Coordination Sext Angles	E: 127.142 N: 243.340	
Depth	40.45 m	--	--	Ground Bed RL	97.800 m.	
Commenced on: 09.12.2020		Completed on: 12.12.2020		Location:	<i>Shalimar Road, Dist.- Howrah.</i>	
Ground Water Table: 1.40 m below E.G.L.						

Description of strata	I.S. Classification	R.L. in 'M'		Thickness in 'M'	'N' Value	SAMPLES	Depth in 'M'
		From	To			Type	
Hard yellowish brown very low plastic clayey sandy silt with traces of mica. (c - ϕ deposit)	MI - ML	79.300	73.300	6.00	34 -- 49 57	P U P P	19.00 - 19.45 20.50 - 20.95 22.00 - 22.45 23.50 - 23.95
Very stiff mottled brown sandy clayey silt / sandy silty clay with rusty brown silt spots.	CH - MH	73.300	64.300	9.00	22 -- 26 29 -- 25 --	P U P P U P U	25.00 - 25.45 26.50 - 26.95 27.00 - 27.45 28.00 - 28.45 29.50 - 29.95 31.00 - 31.45 32.50 - 32.95
Hard yellowish brown / mottled brown sandy silt / sandy clayey silt / silty clay / clayey silt with rusty brown silt spots. <ul style="list-style-type: none"> A sandwiched band of brown silty fine sand with traces of mica was observed from 35.50 m to 35.95 m. 		64.300			47	P	34.00 - 34.45
	SM	62.300	61.850	0.45	48	P	35.50 - 35.95
	ML				52 -- 32	P U P	37.00 - 37.45 38.50 - 38.95 40.00 - 40.45
			57.350				

Borehole Terminated.

S. S.: Sanjib Karmakar.

D - Disturbed Sample

U - Undisturbed Sample

P - Standard Penetration Test

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BORE LOG DATA SHEET

Type of boring	Shell and Auger	Bentonite Mud Boring	Drilling	Report No.: GT / ER / 81 / 2020 - 2021		B.H.11
Dia of Hole	150 mm.	--	--	Coordination Sext Angles	E: 208.286 N: 249.990	
Depth	15.45m	--	--	Ground Bed RL	98.500 m.	
Commenced on: 3.12.2020		Completed on: 4.12.2020		Location:	<i>Shalimar Road, Dist.- Howrah.</i>	
Ground Water Table: 1.75 m below E.G.L.						

Description of strata	I.S. Classification	R.L. in 'M'		Thickness in 'M'	'N' Value	SAMPLES	Depth in 'M'
		From	To			Type	
Top fill of soft greyish brown silty clay mixed with grass roots & brick pieces.	:	98.500	97.600	0.90	--	D	0.00
					--	D	0.50
Soft greyish brown silty clay / clayey silt with kankars & rusty brown silt spots also mica.	CH - MH	97.600	94.000	3.60	--	D	1.00
					--	D	1.50
					03	P	1.50 - 1.95
					--	D	2.50
					--	D	3.00
					--	Uslip	3.00 - 3.45
					04	P	3.50 - 3.95
					02	p	4.50 - 4.95
Very soft / soft grey /dark grey silty clay with varying percentage of decomposed wood. (Traces to medium percentage)	CH - OH	94.000	83.050	10.15	--	D	5.50
					--	U	6.00 - 6.45
					--	D	7.00
					02	P	7.50 - 7.95
					--	D	8.50
					--	U	9.00 - 9.45
					--	D	10.00
					03	P	10.50 - 10.95
					--	D	11.50
					--	U	12.00 - 12.45
					--	D	13.00
					02	P	13.50 - 13.95
					--	D	14.50
					--	U	15.00 - 15.45

Borehole Terminated.

S. S.: Sanjib Karmakar.

D - Disturbed Sample

U - Undisturbed Sample

P - Standard Penetration Test

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BORE LOG DATA SHEET

Type of boring	Shell and Auger	Bentonite Mud Boring	Drilling	Report No.: GT / ER / 81 / 2020 - 2021		B.H 12
Dia of Hole	150 mm.	--	--	Coordination Sext Angles	E: 180.566 N: 299.269	
Depth	40.45 m	--	--	Ground Bed RL	98.100 m.	
Commenced on: 6.12.2020		Completed on: 7.12.2020		Location:	<i>Shalimar Road, Dist.- Howrah.</i>	
Ground Water Table: 1.15 m below E.G.L.						

Description of strata	I.S. Classification	R.L. in 'M'		Thickness in 'M'	'N' Value	SAMPLES	Depth in 'M'
		From	To			Type	
Top fill of soft grey silty clay mixed with grass roots & brick pieces.	:	98.100	97.800	0.30	--	D	0.00
Soft / firm greyish brown grey silty clay with traces of kankars & rusty brown silt spots.	CH - MH	97.800	93.300	4.50	--	D	0.50
					--	D	1.00
					03	P	1.00 - 1.45
					--	D	2.00
					--	D	2.50
					--	U	2.50 - 2.95
					--	D	3.50
					--	D	4.00
Very soft / soft grey / dark grey silty clay with varying percentage of decomposed wood. (Traces to medium percentage)	CH - MH	93.300	84.300	9.00	05	P	4.00 - 4.45
					--	D	5.00
					--	U	5.50 - 5.95
					--	D	6.50
					02	P	7.00 - 7.45
					--	D	8.00
					--	D	8.50 - 8.95
					--	D	9.50
					03	P	10.00 - 10.45
					--	D	11.00
					--	U	11.50 - 11.95
					--	D	12.50
					02	P	13.00 - 13.45

Borehole Continued...

S. S.: Sanjib Karmakar.

D - Disturbed Sample

U - Undisturbed Sample

P - Standard Penetration Test

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BORE LOG DATA SHEET

Type of boring	Shell and Auger	Bentonite Mud Boring	Drilling	Report No.: GT / ER / 81 / 2020 - 2021		B.H.12
Dia of Hole	150 mm.	--	--	Coordination Sext Angles	E : 180.566 N : 299.269	
Depth	40.45 m	--	--	Ground Bed RL	98.100 m.	
Commenced on: 6.12.2020		Completed on: 7.12.2020		Location:	<i>Shalimar Road, Dist.- Howrah.</i>	
Ground Water Table: 1.15 m below E.G.L.						

Description of strata	I.S. Classification	R.L. in 'M'		Thickness in 'M'	'N' Value	SAMPLES	Depth in 'M'
		From	To			Type	
Firm / stiff light bluish grey / mottled brown / blue silty clay / clayey silt with calcareous nodules & rusty brown silt spot.	CH - MH	84.300	76.100	8.20	--	D	14.00
					--	U	14.50 - 14.95
					--	D	15.50
					12	P	16.00 - 16.45
					--	D	17.00
					--	U	17.50 - 17.95
					--	D	18.50
					14	P	19.00 - 19.45
Medium / dense grey silty fine sand with mica & clay as binder.	SM	76.100	71.800	4.30	18	P	22.00 - 22.45
					--	U	23.50 - 23.95
					30	P	25.00 - 25.45
Very stiff / hard mottled brown / grey silty clay with kankars & rusty brown silt spots.	CH - MH	71.800	63.000	8.70	--	U	26.50 - 26.95
					22	P	28.00 - 28.45
					--	U	29.50 - 29.95
					25	P	31.00 - 31.45
					--	U	32.50 - 32.95
Medium / dense yellowish brown silty fine sand with mica & clay as binder.	SM	63.000	57.650		35	P	34.00 - 34.45
					--	U	35.50 - 35.95
					28	P	37.00 - 37.45
					35	P	38.50 - 38.95
					49	P	40.00 - 40.45

Borehole Terminated.

S. S.: Sanjib Karmakar.

D - Disturbed Sample

U - Undisturbed Sample

P - Standard Penetration Test

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BORE LOG DATA SHEET

Type of boring	Shell and Auger	Bentonite Mud Boring	Drilling	Report No.: GT / ER / 81 / 2020 - 2021		B.H.13
Dia of Hole	150 mm.	--	--	Coordination Sext Angles	E: 198.923 N: 391.976	
Depth	40.45 m	--	--	Ground Bed RL	97.700 m.	
Commenced on: 8.12.2020		Completed on: 10.12.2020		Location:	<i>Shalimar Road, Dist.- Howrah.</i>	
Ground Water Table: 0.65 m below E.G.L.						

Description of strata	I.S. Classification	R.L. in 'M'		Thickness in 'M'	'N' Value	SAMPLES	Depth in 'M'
		From	To			Type	
Top fill of soft grey silty clay mixed with grass roots & brick pieces.	:	97.700	97.400	0.30	--	D	0.00
Soft / firm brownish grey silty clay with kankars & ferruginous spots.	CH - MH	97.400	91.900	5.50	--	D	0.50
					04	P	0.50 – 0.95
					--	D	1.50
					--	D	2.00
					--	U	2.00 – 2.45
					--	D	3.00
					05	P	3.50 – 3.95
					--	D	4.50
					--	U	5.00 – 5.45
Very soft / soft grey / dark grey silty clay with varying percentage of decomposed wood. (Traces to medium percentage)	CH - OH	91.900	86.900	5.00	--	D	6.00
					02	P	6.50 – 6.95
					--	D	7.50
					--	U	8.00 – 8.45
					--	D	9.00
					03	P	9.50 – 9.95
					--	D	10.50

Borehole Continued...

S. S.: Sanjib Karmakar.		
D – Disturbed Sample	U – Undisturbed Sample	P – Standard Penetration Test
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BORE LOG DATA SHEET

Type of boring	Shell and Auger	Bentonite Mud Boring	Drilling	Report No.: GT / ER / 81 / 2020 - 2021		B.H.13
Dia of Hole	150 mm.	--	--	Coordination Sext Angles	E: 198.923 N: 391.976	
Depth	40.05 m	--	--	Ground Bed RL	97.700 m.	
Commenced on: 8.12.2020		Completed on: 10.12.2020		Location:	<i>Shalimar Road, Dist.- Howrah.</i>	
Ground Water Table: 0.65 m below E.G.L.						

Description of strata	I.S. Classification	R.L. in 'M'		Thickness in 'M'	'N' Value	SAMPLES	Depth in 'M'
		From	To			Type	
Stiff / very stiff light bluish grey / mottled brown silty clay with calcareous nodules & rusty brown silt spots.	CH - MH	86.900	73.700	13.20	--	U	11.00 - 11.45
					--	D	12.00
					05	P	12.50 - 12.95
					--	D	13.50
					--	U	14.00 - 14.45
					--	D	15.00
					18	P	15.50 - 15.95
					--	D	16.50
					--	U	17.00 - 17.45
					--	D	18.00
					23	P	18.50 - 18.95
					--	U	20.00 - 20.45
					26	P	21.50 - 21.95
					--	U	23.00 - 23.45
Medium / dense brown silty fine non plastic sand with traces of mica & sufficient clay & silt as binder.	SM	73.700	70.700	3.00	30	P	24.50 - 24.95
					37	P	26.00 - 26.45
Very stiff mottled brown silty clay with kankars & rusty brown silt spots.	CH - MH	70.700	65.700	5.00	17	P	27.50 - 27.95
					--	U	29.00 - 29.45
					22	P	30.50 - 30.95
Dense / very dense brown silty fine sand with mica & clay as binder.	SM	65.700	57.650		--	U	32.00 - 32.45
					40	P	33.50 - 33.95
					37	P	35.00 - 35.45
					45	P	36.50 - 36.95
					51	P	38.00 - 38.45
					63	P	39.60 - 40.05

Borehole Terminated.

S. S.: Sanjib Karmakar.

D - Disturbed Sample	U - Undisturbed Sample	P - Standard Penetration Test
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BORE LOG DATA SHEET

Type of boring	Shell and Auger	Bentonite Mud Boring	Drilling	Report No.: GT / ER / 81 / 2020 - 2021		B.H.14
Dia of Hole	150 mm.	--	--	Coordination Sext Angles	E: 210.051 N: 457.458	
Depth	40.05 m	--	--	Ground Bed RL	97.400 m.	
Commenced on: 12.12.2020		Completed on: 14.12.2020		Location:	<i>Shalimar Road, Dist.- Howrah.</i>	
Ground Water Table: 0.70 m below E.G.L.						

Description of strata	I.S. Classification	R.L. in 'M'		Thickness in 'M'	'N' Value	SAMPLES	Depth in 'M'
		From	To			Type	
Top fill of soft / firm brownish grey silty clay mixed with grass roots and brick pieces.	:	97.400	95.300	2.10	--	D	0.00
					--	D	0.50
					--	U	0.50 – 0.95
					--	D	1.50
					--	D	2.00
Soft / firm grey silty clay / clayey silt.	CH – MH	95.300	92.600	2.70	03	P	2.00 – 2.45
					--	D	3.00
					--	U	3.50 – 3.95
					--	D	4.50
Very soft / soft grey silty clay with varying percentage of decomposed wood. (Traces to medium percentage)	CH - OH	92.600	84.100	8.50	03	P	5.00 – 5.45
					--	D	6.00
					--	U	6.50 – 6.95
					--	D	7.50
					02	P	8.00 – 8.45
					--	D	9.00
					--	U	9.50 – 9.95
					--	D	10.50
					02	P	11.00 – 11.45
					--	D	12.00
					--	U	12.50 – 12.95

Borehole Continued...

S. S.: Sanjib Karmakar.

D – Disturbed Sample

U – Undisturbed Sample

P – Standard Penetration Test

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BORE LOG DATA SHEET

Type of boring	Shell and Auger	Bentonite Mud Boring	Drilling	Report No.: GT / ER / 81 / 2020 - 2021		B.H.14
Dia of Hole	150 mm.	--	--	Coordination Sext Angles	E: 210.051 N: 457.458	
Depth	40.05 m	--	--	Ground Bed RL	97.400 m.	
Commenced on: 12.12.2020		Completed on: 14.12.2020		Location:	<i>Shalimar Road, Dist.- Howrah.</i>	
Ground Water Table: 0.70 m below E.G.L.						

Description of strata	I.S. Classification	R.L. in 'M'		Thickness in 'M'	'N' Value	SAMPLES	Depth in 'M'
		From	To			Type	
Stiff / very stiff bluish grey / mottled brown silty clay / clayey silt with rusty brown silt spots.	CH - MH	84.100	66.400	17.70	--	D	13.50
					15	P	14.00 – 14.45
					--	D	15.00
					--	U	15.50 – 15.95
					--	D	16.50
					12	P	17.00 – 17.45
					--	U	18.50 – 18.95
					16	P	20.00 – 20.45
					--	U	21.50 – 21.95
					23	P	23.00 – 23.45
					--	U	24.50 – 24.95
					21	P	26.00 – 26.45
					--	U	27.50 – 27.95
					24	P	29.00 – 29.45
					--	U	30.50 – 30.95
Dense / very dense brown silty fine non plastic sand with traces of mica & clay & silt as binder.	SM	66.400	57.350		32	P	32.00 – 32.45
					35	P	33.50 – 33.95
					45	P	35.00 – 35.45
					53	P	36.50 – 36.95
					50	P	38.00 – 38.45
					62	P	39.60 – 40.05

Borehole Terminated.

S. S.: Sanjib Karmakar.

D – Disturbed Sample	U – Undisturbed Sample	P – Standard Penetration Test
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