



FINAL REPORT ON
GEOTECHNICAL - INVESTIGATION ON
PLOT NO- 330 & 01/330, TMH,
PAREL, MUMBAI
FOR
CLIENT: - M/s. TATA MEMORIAL CENTRE



34

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APRIL - 2010





FINAL REPORT ON

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PLOT NO- 330 & 01/330, TMH, PAREL, MUMBAI

FOR

CLIENT: - TATA MEMORIAL CENTRE

1.0 GENERAL: -

Construction on Plot No- 330 & 01/330, TMH, Parel, Mumbai is proposed by authorities of TATA Memorial Centre. It was desired by the authorities to carry out trial bores on selected locations, at the proposed site. The subsoil investigation work was awarded to M/s. OCE Project Pvt Ltd, Navi Mumbai. The purpose of soil investigation work at proposed site is to evaluate engineering properties of the soil and to determine bearing capacity of the founding strata.



1.1 SCOPE OF WORK:

The scope of the work mainly consists of drilling fifteen boreholes of which have been completed at selected locations shown by the authorities. This borehole are completed to identify the extent of different deposits, collecting and preserving rock cores, carrying out various field and laboratory tests and preparation of report. The field test planned at site is DCPT Test, Electrical Resistivity Test & Standard Penetration test. Rock and soil samples were collected during the boring operation. The standard penetration tests were conducted for the evaluation of engineering characteristics of soil strata.

2.0 BORING IN SOIL AND ROCK:

Core drilling was carried out by using rotary type of boring machine with diamond bits of Nx size. Casing of 100/150mm dia. was advanced upto the firm strata as per I.S.1892 (1979). The UDS of 76 mm dia. of soil sample and the rock cores of 54 mm size were recovered from the boreholes. The description of bore logs for bore holes drilled are as per IS - 5313. The bore logs are given in Table – 1 to 15.





Table No- 1

SITE : SOIL INVESTIGATION ON PLOT NO- 330 & 01/330, TMH, PAREL, MUMBAI						BORE HOLE NO.		1					
CLIENT : M/s. TATA MEMORIAL CENTRE						LOCATION		G.W.L.					
CASING 100/150 mm						BH-1		2.00 m					
BORING METHOD :- ROTARY / DIAMOND						Date Start :-		23.02.2014					
						Date End :-		25.02.2014					
Depth (m)	Casing	Thick-ness (m)	Log	Soil/Rock Description	Sample		SPT			Core Recovery (%)	RQD (%)		
					No.	Depth (m)	15	30	45			N Value	
							Core Recovery						
25	50	75	100										
0.0					DS-1	0.10-0.30							
1.0		2.00		Filled up Soil	UDS-1	2.00-2.45							
2.0		7.00		Brownish Silty Clayey Soil	SPT-1	3.00-3.45	6	10	14	N=24			
3.0					SPT-2	4.50-4.95	4	6	8	N=14			
4.0					SPT-3	6.00-6.45	5	8	12	N=20			
5.0													
6.0		3.00		Light Gray Boulders followed by Reddish Weathered Rock	1-4*Sp	7.00-8.50					23.33	NIL	
7.0					5-7*Sp	8.50-10.00						24.67	NIL
8.0					8-10*Sp	10.00-11.50						72.00	38.67
9.0		4.15		Light Gray Basalt Rock	20-31	11.50-13.00					74.67	44.67	
10.0					32-35	13.00-14.15							
11.0													
12.0													
13.0													
14.0													
15.0													
16.0													
17.0													
18.0													
19.0													
20.0				Borehole is terminated at a depth of 14.15 m below G.L.									
21.0													

DS Disturbed Sample WS Wash Sample N Rock Piece No.
 UDS Undisturbed Sample SPT Standard Penetration Test S Soil Piece No.



Table . No- 2

SITE : SOIL INVESTIGATION ON PLOT NO- 330 & 01/330, TMH, PAREL, MUMBAI						BORE HOLE NO.		2					
CLIENT : M/s. TATA MEMORIAL CENTRE						LOCATION		BH - 2					
CASING 100/150 mm						Date Start :-		21.02.2014					
BORING METHOD :- ROTARY / DIAMOND						Date End :-		22.02.2014					
Depth (m)	Casing	Thick-ness (m)	Log	Soil/Rock Discription	Sample No.	Depth (m)	SPT			N Value	Core Recovery (%)	RQD (%)	
							15	30	45				
							Core Recovery						
							25	50	75	100			
0.0					DS-1	0.10-0.30							
1.0		3.00	[Dotted Pattern]	Filled up Soil									
2.0													
3.0		6.80			UDS-1	3.00-3.45							
4.0			[Dotted Pattern]	Brownish Silty Clayey Soil									
5.0		3.80			SPT-1	4.50-4.95	4	7	11	N=18			
6.0					SPT-2	6.00-6.45	6	8	12	N=20			
7.0		0.70	[Diagonal Hatching]	Brownish Gray Weathered Rock	1-4+Sp	6.80-7.50					42.85	18.57	
8.0						5-7	7.50-9.00					78.67	78.67
9.0													
10.0		6.50			Light Gray to Brownish Gray Basalt Rock	8-10	9.00-10.50					73.33	73.33
11.0						11-13	10.50-11.50					61.00	53.00
12.0													
13.0					14-18	11.50-13.00					82.67	82.67	
14.0					19-20	13.00-14.00					74.00	74.00	
15.0													
16.0													
17.0													
18.0													
19.0													
20.0				Borehole is terminated at a depth of 14.00 m below G.L.									
21.0													

DS Disturbed Sample
UDS Undisturbed Sample

WS Wash Sample
SPT Standard Penetration Test

X - Y Rock Piece No.
sp Small Pieces

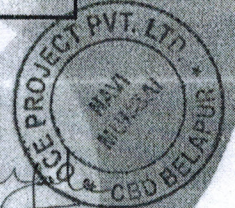




Table . No- 3

SITE : SOIL INVESTIGATION ON PLOT NO- 330 & 01/330, TMH, PAREL, MUMBAI							BORE HOLE NO.		3				
CLIENT : M/s. TATA MEMORIAL CENTRE							LOCATION#		BH - 3		G.W.L.		
CASING 100/150 mm							Date Start :-		18.02.2014		3.00 m		
BORING METHOD :- ROTARY / DIAMOND							Date End :-		19.02.2014				
Depth (m)	Casing	Thick-ness (m)	Log	Soil/ Rock Discription	Sample		SPT			N Value	Core Recovery (%)	RQD (%)	
					No.	Depth (m)	Core Recovery						
							15	30	45				
		25	50	75	100								
0.0					DS-1	0.10-0.30							
1.0		3.00	[Dotted pattern]	Filled up Soil									
2.0													
3.0	6.00												
4.0		3.00	[Dotted pattern]	Brownish Silty Clayey Soil	UDS-1	3.00-3.45							
5.0						SPT-1	4.50-4.95	5	7	9	N=16		
6.0													
7.0		1.50	[Diagonal hatching]	Brownish Gray Weathered Rock	1-7	6.00-7.50					18.00	NIL	
8.0						8-10	7.50-9.00					64.67	64.67
9.0													
10.0		7.00	[Diagonal hatching]	Light Gray Basalt Rock	11-15	9.00-10.50					74.67	72.00	
11.0							16-22	10.50-12.00				66.00	52.00
12.0													
13.0							23-27	12.00-13.50				80.67	71.33
14.0							28-32	13.50-14.50				56.00	44.00
15.0													
16.0													
17.0													
18.0													
19.0													
20.0				Borehole is terminated at a depth of 14.50 m below G.L.									
21.0													

DS Disturbed Sample WS Wash Sample X - Y Rock Piece No.
 UDS Undisturbed Sample SPT Standard Penetration Test sp Small Pieces





Table. No- 4

SITE : SOIL INVESTIGATION ON PLOT NO- 330 & 01/330, TMH, PAREL, MUMBAI							BORE HOLE NO.		4					
CLIENT : M/s. TATA MEMORIAL CENTRE							LOCATION		G.W.L.					
CASING 100/150 mm							BH - 4		2.80 m					
BORING METHOD :- ROTARY / DIAMOND							Date Start :-		18.02.2014					
							Date End :-		21.02.2014					
Depth (m)	Casing	Thick-ness (m)	Log	Soil/Rock Discription	Sample		SPT			N Value	Core Recovery (%)	RQD (%)		
					No.	Depth (m)	15	30	45					
							Core Recovery							
25	50	75	100											
0.0														
1.0		1.50	[Dotted pattern]	Filled up Soil	DS-1	0.10-0.30								
2.0					UDS-1	1.50-1.95								
3.0	6.00	4.50	[Dotted pattern]	Brownish Silty Clayey Soil	SPT-1	3.00-3.45	3	5	7	N=12				
4.0														
5.0								SPT-2	4.50-4.95	6	8	12	N=20	
6.0														
7.0		1.50	[Diagonal hatching]	Brownish Weathered Rock	1-3+Sp	6.00-7.50					16.67	NIL		
8.0					4-8	7.50-9.00					63.33	63.33		
9.0														
10.0		5.00			Light Gray to Brownish Weathered Basalt Rock	9-14	9.00-10.50					73.33	70.00	
11.0														
12.0														
13.0		2.50	[Diagonal hatching]	Light Gray Basalt Rock	15-25	10.50-12.00					48.00	6.67		
14.0							26-29	12.00-12.50					64.00	6.67
15.0							30-33	12.50-14.00					84.00	80.67
16.0							34-38	14.00-15.00					94.00	94.00
17.0														
18.0														
19.0														
20.0				Borehole is terminated at a depth of 15.00 m below G.L.										
21.0														

DS Disturbed Sample WS Wash Sample X-Y Rock Piece No.
 UDS Undisturbed Sample SPT Standard Penetration Test sp Small Pieces

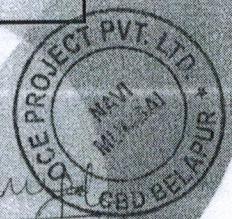




Table . No- 5

SITE : SOIL INVESTIGATION ON PLOT NO- 330 & 01/330, TMH, PAREL, MUMBAI						BORE HOLE NO.				5				
CLIENT : M/s. TATA MEMORIAL CENTRE						LOCATION				BH - 5				
CASING 100/150 mm						Date Start :-				26.02.2014				
BORING METHOD :- ROTARY / DIAMOND						Date End :-				02.03.2014				
Depth (m)	Casing	Thick-ness (m)	Log	Soil/Rock Discription	Sample No.	Depth (m)	SPT			N Value	Core Recovery (%)	RQD (%)		
							15	30	45					
							Core Recovery							
							25	50	75	100				
0.0					DS-1	0.10-0.30								
1.0		2.50	Filled up Soil											
2.0	5.00													
3.0			Brownish to Grayish Clayey Soil		UDS-1	2.50-2.95								
4.0		2.50			SPT-1	3.00-3.45	2	3	5	N=8				
5.0					SPT-2	4.50-4.95	4	6	8	N=14				
6.0		3.00	Light Gray Boulders followed by Brownish Weathered Rock		1-3	5.00-6.50					14.67	8.67		
7.0					4-7+Sp	6.50-8.00					26.67	NIL		
8.0					8-18+Sp	8.00-9.50					56.67	12.00		
9.0					19-26	9.50-11.00					77.33	58.67		
10.0			Brownish Gray Weathered Basalt Rock		27-33+Sp	11.00-12.50					66.67	42.00		
11.0					34-39+Sp	12.50-14.00					74.67	68.67		
12.0		9.00			40-45	14.00-15.50					87.33	58.00		
13.0					46-53	15.50-17.00					88.67	71.33		
14.0					54-56	17.00-18.50					89.33	89.33		
15.0					57-63	18.50-20.00					97.33	97.33		
16.0			Light Gray Basalt Rock											
17.0		3.00												
18.0														
19.0														
20.0			Borehole is terminated at a depth of 20.00 m below G.L.											
21.0														

DS Disturbed Sample WS Wash Sample X - Y Rock Piece No.
 UDS Undisturbed Sample SPT Standard Penetration Test sp Small Pieces





Table No- 6

SITE : SOIL INVESTIGATION ON PLOT NO- 330 & 01/330, TMH, PAREL, MUMBAI						BORE HOLE NO.		6							
CLIENT : M/s. TATA MEMORIAL CENTRE						LOCATION		G.W.L.							
CASING 100/150 mm						BH - 6		4.00 m							
BORING METHOD :- ROTARY / DIAMOND						Date Start :-		25.02.2014							
						Date End :-		02.03.2014							
Depth (m)	Casing	Thick-ness (m)	Log	Soil/ Rock Discription	Sample		SPT			Core Recovery (%)	RQD (%)				
					No.	Depth (m)	15	30	45			N Value			
							Core Recovery								
							25	50	75	100					
0.0					DS-1	0.10-0.30									
1.0	5.00	3.00	[Dotted Pattern]	Filled up Soil											
2.0															
3.0															
4.0		2.00	[Dotted Pattern]	Brownish to Grayish Clayey Soil	UDS-1	3.00-3.45									
5.0					SPT-1	4.50-4.95	10	14	16	N=30					
6.0	12.00	2.50	[Diagonal Hatching]	Light Gray to Brownish Weathered Rock	1-6	5.00-6.00					26.00	NIL			
7.0					7-12+Sp	6.00-7.50							24.67	7.33	
8.0					13-16	7.50-9.00							28.67	22.00	
9.0															
10.0					17-22+Sp	9.00-10.50								62.67	42.00
11.0					23-33+Sp	10.50-12.00								56.00	30.00
12.0					34-38	12.00-13.50								93.33	84.67
13.0					40-45+Sp	13.50-15.00								64.00	46.67
14.0					46-51	15.00-16.50								76.67	76.67
15.0					52-59	16.50-18.00								94.00	85.33
16.0															
17.0															
18.0															
19.0					60-67+Sp	18.00-19.50					90.00	79.33			
20.0		1.03	[Diagonal Hatching]	Light Gray Basalt Rock	68-72	19.50-20.53					100.00	100.00			
21.0				Borehole is terminated at a depth of 20.53 m below G.L.											

DS Disturbed Sample WS Wash Sample X - Y Rock Piece No.
 UDS Undisturbed Sample SPT Standard Penetration Test sp Small Pieces

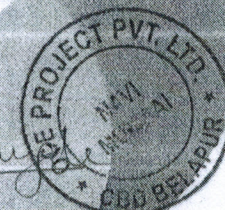




Table . No- 7

SITE : SOIL INVESTIGATION ON PLOT NO- 330 & 01/330, TMH, PAREL, MUMBAI						BORE HOLE NO.		7								
CLIENT : M/s. TATA MEMORIAL CENTRE						LOCATION		G.W.L.								
CASING 100/150 mm						BH - 7		2.50 m								
BORING METHOD :- ROTARY / DIAMOND						Date Start :-		22.02.2014								
						Date End :-		24.02.2014								
Depth (m)	Casing	Thick-ness (m)	Log	Soil/ Rock Discription	Sample		SPT			N Value	Core Recovery (%)	RQD (%)				
					No.	Depth (m)	15	30	45							
						Core Recovery										
									25		50		75		100	
0.0																
1.0		1.50		Filled up Soil	DS-1	0.10-0.30										
2.0					UDS-1	1.50-1.95										
3.0	5.50															
4.0		4.00		Brownish Silty Clayey Soil	SPT-1	3.00-3.45	4	6	8	N=14						
5.0					SPT-2	4.50-4.95	6	8	10	N=18						
6.0					1-6+Sp	5.50-6.50					22.00	NIL				
7.0					7-13	6.50-8.00					28.00	NIL				
8.0																
9.0		7.00		Brownish Gray Weathered Rock	14-18	8.00-9.50					29.33	NIL				
10.0					19-27+Sp	9.50-11.00					36.00	NIL				
11.0																
12.0					28-37+Sp	11.00-12.50					58.00	15.33				
13.0																
14.0		4.40		Brownish Gray to Light Gray Basalt Rock	38-43	12.50-14.00					71.33	68.67				
15.0					44-47	14.00-15.50					72.00	72.00				
16.0					48-53	15.50-16.90					77.14	62.85				
17.0																
18.0																
19.0																
20.0				Borehole is terminated at a depth of 16.90 m below G.L.												
21.0																

DS Disturbed Sample WS Wash Sample X - Y Rock Piece No.
 UDS Undisturbed Sample SPT Standard Penetration Test sp Small Pieces

Signature



Table . No- 8

SITE : SOIL INVESTIGATION ON PLOT NO- 330 & 01/330, TMH, PAREL, MUMBAI							BORE HOLE NO.		8				
CLIENT : M/s. TATA MEMORIAL CENTRE							LOCATION		G.W.L.				
CASING 100/150 mm							BH - 8		3.50 m				
BORING METHOD :- ROTARY / DIAMOND							Date Start :-		24.02.2014				
							Date End :-		27.02.2014				
Depth (m)	Casing	Thick-ness (m)	Log	Soil/ Rock Discription	Sample		SPT			N Value	Core Recovery (%)	RQD (%)	
					No.	Depth (m)	15	30	45				
							Core Recovery						
25	50	75	100										
0.0													
1.0		1.50		Filled up Soil	DS-1	0.10-0.30							
2.0					UDS-1	1.50-1.95							
3.0	6.00												
4.0		4.50		Brownish Silty Clayey Soil Boulders	SPT-1	3.00-3.45	4	6	9	N=15			
4.0					1-2	3.50-4.50					13.00	NIL	
5.0					SPT-2	4.50-4.95	6	8	10	N=18			
6.0													
7.0		3.00		Brownish Weathered Rock	3-6	6.00-7.50					18.00	6.67	
8.0					7-11+Sp	7.50-9.00					22.67	9.33	
9.0													
10.0					12-16	9.00-10.50					73.33	12.67	
11.0		4.50		Brownish Gray to Light Gray Weathered Basalt Rock	17-20	10.50-12.00					79.33	79.33	
12.0													
13.0					21-26+Sp	12.00-13.50					46.00	24.00	
14.0		2.78		Light Gray Basalt Rock	27-29	13.50-15.00					88.00	88.00	
15.0													
16.0					30-35	15.00-16.28					86.71	76.56	
17.0													
18.0													
19.0													
20.0				Borehole is terminated at a depth of 16.28 m below G.L.									
21.0													

DS Disturbed Sample WS Wash Sample X - Y Rock Piece No.
 UDS Undisturbed Sample SPT Standard Penetration Test sp Small Pieces

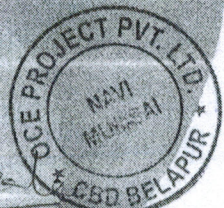




Table . No- 9

SITE : SOIL INVESTIGATION ON PLOT NO- 330 & 01/330, TMH, PAREL, MUMBAI						BORE HOLE NO.		9				
CLIENT : M/s. TATA MEMORIAL CENTRE						LOCATION		G.W.L.				
CASING 100/150 mm						BH - 9		2.50 m				
BORING METHOD :- ROTARY / DIAMOND						Date Start :-		26.02.2014				
						Date End :-		01.03.2014				
Depth (m)	Casing	Thick-ness (m)	Log	Soil/Rock Discription	Sample		SPT			Core Recovery (%)	RQD (%)	
					No.	Depth (m)	15	30	45			N Value
0.0							Core Recovery					
							25	50	75	100		
1.0	1.50	1.50		Filled up Soil	DS-1	0.10-0.30						
2.0				Brownish to Grayish Boulders	1-3	1.50-3.00					7.33	NIL
3.0		3.00										
4.0					4-7	3.00-4.50					9.33	NIL
5.0				Medium Gray Weathered Basalt Rock	8-11+Sp	4.50-6.00					30.67	18.67
6.0		3.00										
7.0					12-20+Sp	6.00-7.50					84.67	44.67
8.0				Medium Gray Basalt Rock	21-29+Sp	7.50-9.00					82.00	62.00
9.0		3.68										
10.0					30-35	9.00-10.50					90.00	90.00
11.0					36-38	10.50-11.18					98.52	98.52
12.0												
13.0												
14.0												
15.0												
16.0												
17.0												
18.0												
19.0												
20.0				Borehole is terminated at a depth of 11.18 m below G.L.								
21.0												

DS Disturbed Sample WS Wash Sample X - Y Rock Piece No.
 UDS Undisturbed Sample SPT Standard Penetration Test sp Small Pieces

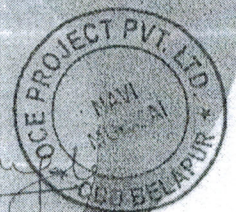




Table . No- 10

SITE : SOIL INVESTIGATION ON PLOT NO- 330 & 01/330, TMH, PAREL, MUMBAI						BORE HOLE NO.		10				
CLIENT : M/s. TATA MEMORIAL CENTRE						LOCATION		G.W.L.				
CASING 100/150 mm						BH - 10		2.50 m				
BORING METHOD :- ROTARY / DIAMOND						Date Start :-		28.02.2014				
						Date End :-		06.03.2014				
Depth (m)	Casing	Thick-ness (m)	Log	Soil/Rock Discription	Sample		SPT			N Value	Core Recovery (%)	RQD (%)
					No.	Depth (m)	Core Recovery					
							15	30	45			
		25	50	75	100							
0.0					DS-1	0.10-0.30						
1.0	1.50	1.50		Filled up Soil								
2.0		1.50		Brownish Boulders	1-2+Sp	1.50-3.00					11.33	NIL
3.0												
4.0					3-7+Sp	3.00-4.50					24.67	14.67
5.0		4.50		Medium Gray Weathered Basalt Rock	8-11+Sp	4.50-6.00					22.67	9.33
6.0												
7.0					12-17+Sp	6.00-7.50					27.33	7.33
8.0												
9.0												
10.0												
11.0												
12.0												
13.0												
14.0												
15.0												
16.0												
17.0												
18.0												
19.0												
20.0				Borehole is terminated at a depth of 7.50 m below G.L.								
21.0												

DS Disturbed Sample WS Wash Sample X-Y Rock Piece No.
 UDS Undisturbed Sample SPT Standard Penetration Test sp Small Pieces





Table . No- 11

SITE : SOIL INVESTIGATION ON PLOT NO- 330 & 01/330, TMH PAREL, MUMBAI							BORE HOLE NO.		11			
CLIENT : M/s. TATA MEMORIAL CENTRE							LOCATION		C.W.L.			
CASING 100/150 mm							BH - 11		1.50 m			
BORING METHOD : - ROTARY / DIAMOND							Date Start :-		08.03.2014			
							Date End :-		12.03.2014			
Depth (m)	Casing	Thick-ness (m)	Log	Soil/Rock Discription	Sample		SPT			N Value	Core Recovery (%)	RQD (%)
					No.	Depth (m)	15	30	45			
0.0							Core Recovery					
							25	50	75	100		
1.0	1.50	1.50		Filled up Soil	DS-1	0.10-0.30						
2.0		1.50		Brownish Gray Boulders	1--3	1.50-3.00					15.33	8.00
3.0												
4.0		1.50		Grayish Weathered Basalt Rock	4--8	3.00-4.50					40.00	27.33
5.0												
6.0											74.67	54.67
7.0											78.00	54.67
8.0											80.00	80.00
9.0		10.96		Medium Gray Basalt Rock	27--32	7.50-9.00					80.00	80.00
10.0											78.67	46.67
11.0												
12.0											76.67	53.33
13.0											82.67	73.33
14.0											84.00	44.00
15.0											86.95	73.91
16.0												
17.0												
18.0												
19.0												
20.0				Borehole is terminated at a depth of 15.46 m below G.L.								
21.0												

DS Disturbed Sample WS Wash Sample X - Y Rock Piece No.
 UDS Undisturbed Sample SPT Standard Penetration Test sp Small Pieces

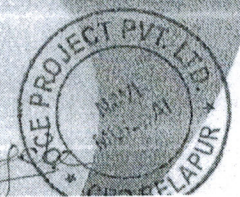




Table . No- 12

SITE : SOIL INVESTIGATION ON PLOT NO- 330 & 01/330, TMH, PAREL, MUMBAI						BORE HOLE NO.		12				
CLIENT : M/s. TATA MEMORIAL CENTRE						LOCATION		G.W.L.				
CASING 100/150 mm						BH - 12		3.00 m				
BORING METHOD :- ROTARY / DIAMOND						Date Start :-		05.03.2014				
						Date End :-		07.03.2014				
Depth (m)	Casing	Thick-ness (m)	Log	Soil/Rock Discription	Sample		SPT			N Value	Core Recovery (%)	RQD (%)
					No.	Depth (m)	15	30	45			
0.0							Core Recovery					
							25	50	75	100		
0.0	1.00	1.00	•••••	Filled up Soil	DS-1	0.10-0.30						
1.0					1--2	1.00-2.00					49.00	45.00
2.0					3--5+Sp	2.00-3.50					22.67	NIL
3.0		4.00		Light Gray Boulders	6--9+Sp	3.50-5.00					28.67	NIL
4.0					10--16+Sp	5.00-6.50					54.00	13.33
5.0					17--21	6.50-8.00					74.00	40.00
6.0		3.00		Grayish Weathered Basalt Rock	22--27	8.00-9.50					84.67	84.67
7.0					28--38	9.50-11.00					87.33	66.67
8.0					39--46	11.00-12.50					85.33	74.00
9.0					47--52	12.50-14.00					89.33	89.33
10.0					53--58	14.00-15.00					100.00	100.00
11.0		7.00		Medium Gray Basalt Rock								
12.0												
13.0												
14.0												
15.0												
16.0												
17.0												
18.0												
19.0												
20.0												
21.0												

Borehole is terminated at a depth of 15.00 m below G.L.

DS Disturbed Sample WS Wash Sample X-- Y Rock Piece No.
 UDS Undisturbed Sample SPT Standard Penetration Test sp Small Pieces





Table . No- 13

SITE : SOIL INVESTIGATION ON PLOT NO- 330 & 01/330, TMH, PAREL, MUMBAI							BORE HOLE NO.		13			
CLIENT : M/s. TATA MEMORIAL CENTRE							LOCATION		G.W.L.			
CASING 100/150 mm							BH - 13		3.50 m			
BORING METHOD :- ROTARY / DIAMOND							Date Start :-		05.03.2014			
							Date End :-		07.03.2014			
Depth (m)	Casing	Thick-ness (m)	Log	Soil/Rock Discription	Sample No.	Sample Depth (m)	SPT			N Value	Core Recovery (%)	RQD (%)
							15	30	45			
							Core Recovery					
0.0							25	50	75	100		
1.0	3.00	3.00		Filled up Soil	DS-1	0.10-0.30						
2.0												
3.0												
4.0		1.50		Light Gray Boulders	1-4	3.00-4.50					20.67	15.33
5.0												
6.0		4.50		Light Gray Basalt Rock	5-13	4.50-6.00					61.33	17.33
7.0												
8.0												
9.0											68.00	48.67
10.0												
11.0												
12.0												
13.0												
14.0												
15.0												
16.0												
17.0												
18.0												
19.0												
20.0												
21.0												

DS Disturbed Sample WS Wash Sample X - Y Rock Piece No.
 UDS Undisturbed Sample SPT Standard Penetration Test sp Small Pieces

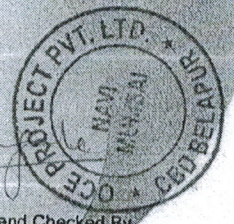




Table . No- 15

SITE : SOIL INVESTIGATION ON PLOT NO- 330 & 01/330, TMH, PAREL, MUMBAI						BORE HOLE NO.		15				
CLIENT : M/s. TATA MEMORIAL CENTRE						LOCATION		G.W.L.				
CASING 100/150 mm						BH - 15		0.80 m				
BORING METHOD :- ROTARY / DIAMOND						Date Start :-		08.03.2014				
						Date End :-		12.03.2014				
Depth (m)	Casing	Thick-ness (m)	Log	Soil/ Rock Discription	Sample		SPT			Core Recovery (%)	RQD (%)	
					No.	Depth (m)	15	30	45			N Value
							Core Recovery					
			25	50	75	100						
0.0					DS-1	0.10-0.30						
1.0	1.50	1.50		Filled up Soil								
2.0					1+Sp	1.50-3.00					9.33	NIL
3.0		3.00		Light Gray Boulders	2-4	3.00-4.50					12.67	6.67
4.0					5-10	4.50-6.00					30.67	8.00
5.0				Grayish Weathered Basalt Rock	11-18	6.00-7.50					59.33	37.33
6.0		3.00			19-25	7.50-9.00					76.00	67.33
7.0					26-32	9.00-10.50					84.67	78.00
8.0				Medium Gray Basalt Rock	33-45	10.50-12.00					86.67	66.00
9.0		6.50			46-54	12.00-13.50					88.00	71.33
10.0					55-57	13.50-14.00					82.00	68.00
11.0												
12.0												
13.0												
14.0												
15.0												
16.0												
17.0												
18.0												
19.0												
20.0												
21.0												

DS Disturbed Sample WS Wash Sample X - Y Rock Piece No.
 UDS Undisturbed Sample SPT Standard Penetration Test sp Small Pieces

Borehole is terminated at a depth of 14.00 m below G.L.

