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Annexure 1: A sample of borehole log



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**Annexure 2: Summary of borehole log**



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Total_dept	Date	Proj_No	Location	Borehole No	X1/(m)	Y1/(m)	RASTERV ALU	Dem_ Height/(m)
24.200000	5.6.2006	30/22898	Kirulapana-18 storried build-edmonton road	BH001	100932	186871	0.0	19.3
24.000000	14.6.2006	30/22898	Kirulapana-18 storried build-edmonton road	BH002	100934	186877	0.0	18.4
24.000000	17.6.2006	30/22898	Kirulapana-18 storried build-edmonton road	BH003	100933	186882	0.0	17.0
25.400000	27.6.2006	30/22898	Kirulapana-18 storried build-edmonton road	BH004	100934	186893	0.0	16.3
15.400000	16.10.2005	30/22759	Maradana - attorney generals dept	BH005	99516	192951	4.7	4.7
8.450000	7.2.2006	30/22854	SLAVE ISLANG-GALLE FACE-TAJ SAMUDRA	BH006	97809	191490	4.2	4.2
12.300000	7.5.2006	30/22904	ISIPATHANA MAWATHA	BH007	100060	187683	0.0	4.0
15.400000	25.1..2006	30/23007	HARBOUR-DOCK YARD	BH008	98973	195290	7.2	7.2
13.450000	9.3.2006	30/22886	COLOMBO 10 , 18 STORIED BMC HEAD QUARTERS	BH009	99934	191474	7.0	7.0
10.700000	22.4.2006	30/22834	COLOMBO 12 -MINISTRY OF JUSICE BUILD - 6 SORIES	BH010	99464	192885	5.1	5.1
10.450000	26.6.2005	30/22650	Air force HEAD QUARTERS	BH011	98271	192128	2.9	2.9
11.150000	4.8.2005	30/22650	Air force HEAD QUARTERS	BH012	98268	192097	2.9	2.9
5.800000	27.2.2005	30/22627	NARAHENPITA - CARETAKERS QUARTERS -WATER BOARD	BH013	100779	188338	0.0	3.6
11.900000	22.10.2005	30/22818	COLOMBO 06 -42ND LANE	BH015	99304	185359	0.0	8.1
22.300000	10.06.2005	30/22702	MATTAKKULIYA GVT HOUSINH SCHEME	BH016	101577	196887	2.1	2.1
10.450000	10.04.2005	30/22661	COLOMBO 1- STAFF QUARTERS AT PRESIDENT HOUSE	BH017	97377	193040	3.1	3.1
33.740000	26.12.2004	30/22561	COLOMBO 03 - 10TH LANE	BH018	98368	188899	0.0	8.0
5.900000	20.7.2005	30/22748	COLOMBO 01- PRESIDENE HOUSE	BH019	97331	193020	3.9	3.9
20.370000	08.10.2004	30/22443	MAITLAND PLACE-SR ARMY	BH020	100163	189643	0.0	6.0
18.700000	29.07.2004	30/22443-1	ARMI HEAD QUARTERS BALADAKSHA MAWATHA	BH021	97741	191979	4.6	4.6
16.860000	09.04.2004	30/22419	Buddhist research center wijerama mw	BH023	100772	189621	0.0	2.0
10.330000	27.08.2004	30/22460	PERAHERA MW	BH024	98706	190724	4.3	4.3
12.050000	07.10.2003	30/22319	SANASA FEDEARTION BUILDING -KIRULAPANA	BH025	101085	186710	0.0	19.6
16.050000	27.2.2003	30/22200	MINISTRY OF BUDDASASANA DARMAPALAMW CO 07	BH026	99125	190595	5.6	5.6
11.500000	20.08.2004	30/22473	COMMUNITY CENTER CWW KANNANGARA MW CO 07	BH027	99791	190589	7.0	7.0
20.000000	06.08.2004	30/22461	NARAHENPIA RMV OFFICE PREMISSES	BH028	101629	188726	0.0	1.0
15.600000	11.03.2003	30/22182F	BORELLA PALANGASTHUDUWA LAND	BH031	101209	190612	6.7	6.7
19.600000	2.05.2003		COLOMBO 7 AGRO & FOOD TECHNOLOGY DDIVISION FOR ITI	BH032	100778	189665	0.0	2.3
12.160000	27.02.2003	30/22182A	PROJECT, NEAR RAIL WAY TRACK(PRAMUKA BANK)	BH033	98031	190173	6.4	6.4
16.300000	15.01.2002	30/22166	SURPENTINE RD, COLOMBO 09	BH034	101635	190990	2.4	2.4
17.000000	23.05.2002	30/21993	BORELLA GOVERNMENT SERVANTS AT GOTHAMI RD	BH037	102015	190265	3.2	3.2

29.550000	11.08.2002	30/22098	NARAHENPITA, NATIONAL BLOOD TRANSFUSION CENTER	BH039	101169	188031	0.0	3.4
22.440000	16.05.2002	30/21654	BAMBALAPITIYA, WPCC, POLICE STATION	BH040	98780	188131	0.0	7.2
8.450000	27.06.2002	30/	HAVELOCK RD. PAMANKADA JUNCTION	BH041	100291	186690	0.0	4.1
18.220000	21.02.2002	30/	THUN MULLA GYMNASIUM SLAF	BH043	99548	188335	0.0	7.0
21.220000	17.02.2002	30/22015	FAMILY HEALTH BUEAU, COLOMBO 10	BH044	100201	191344	7.1	7.1
4.010000	03.05.2001	30/21830	HOLY FAMILY CONVENT BUMBALAPITIYA	BH046	98806	187617	0.0	8.0
12.500000	06.12.200	30/21823	KOTAHENA, 256 RAMANATHAN MAWATHA, COLO 13	BH047	98949	194513	4.8	4.8
14.650000	15.06.1992	30/20567	YORK STREET CO 01	BH049	97319	192713	5.7	5.7
13.450000	3.12.1990	30/20403	MINISTRY OF FOREIGN AFFAIRS CO1	BH051	97459	193105	1.6	1.6
12.130000	15.12.1993	30/20786	ASIAN DEVELOPMENT BANK TRAINING CENTER CO1	BH052	97460	193173	0.9	0.9
18.450000	10.10.1989	30/20313	MEDICAL RECEPTION CENTER NEAVY HEAD QUARTERS CO1	BH053	97273	193086	3.6	3.6
11.150000	26.04.1990	30/20353	ADDITIONAL OFFICE FOR PRESIDENTIAL SECRETARY CO1	BH054	97463	192713	4.2	4.2
13.000000	11.09.1990	30/20316	KLM BUILDING CO 1 JANADIPATHI MAWATHA	BH055	97156	192688	6.2	6.2
16.110000	9.05.1991	30/20454	CHATHAM STREET CO1	BH056	97405	192800	4.7	4.7
11.810000	12.03.1991	30/20348	UPPER CHATHAM STREET CO1	BH057	97225	192813	6.7	6.7
17.750000	22.08.1990	30/20347	PORTS AUTHORITY CO1	BH058	97194	193288	0.5	0.5
10.650000	20.08.1990	30/20373	DEFENCE MINISTRY GALLE FACE	BH059	97413	192238	3.4	3.4
19.500000	22.07.1993	30/20674	POLICE HEAD QUARTERS FORT CHURCH STREET	BH060	97338	193075	3.1	3.1
26.100000	6.08.1993	30/20716	LAKE HOUSE CO1	BH061	97625	192588	3.6	3.6
15.100000	4.01.1998	30/20342	COLOMBO FORT	BH062	97740	193120	1.4	1.4
5.250000	05.09.1992	30/20454	125 CHATHAM STREET	BH063	97400	192794	4.8	4.8
18.050000	10.09.1992	30/20454	125 CHATHAM STREET	BH064	97400	192794	4.8	4.8
24.210000	26.12.1993	30/20736	266, VAUXHALL STREET CO 2	BH065	98998	191504	3.7	3.7
24.900000	26.04.1994	30/20803	NAWAM MAWATHA NDB BANK CO 2	BH066	98265	191071	2.7	2.7
14.450000	29.01.1994	30/20618	MORGAN ROAD CUSTOM QUARTERS SLAVE ISLAND	BH067	98325	192056	3.1	3.1
12.450000	16.06.1986	30/20	KUMARAN RATHNAM MAWATHA ARMY WORK SHOP CO2	BH068	97956	192025	3.6	3.6
10.400000	26.08.1983	30/	NEAR RAILWAY STATION SLAVE ISLAND CO 2	BH069	97800	191550	4.3	4.3
15.300000	13.01.1988	30/20090	SLAVE ISLANG-CHURCH STREET	BH070	98020	191530	4.6	4.6
18.020000	07.02.1986		RAMADA RENAISSANCE HOTEL CO 2	BH071	97815	192115	4.2	4.2
20.180000	20.08.1986		SIR JAMES PIERIS MAWATHA SLAVE ISLAND CO 3	BH072	98169	191231	4.0	4.0
10.450000	29.03.1995	30/20870	SIR JAMES PIERIS MAWATHA NAWAM MAWATHA	BH073	98250	191330	5.0	5.0
16.570000	11.04.1995	30/20870	ANANDA KUMARSWAMO/SIR JAMES PERIS MW	BH074	98500	190770	3.2	3.2
10.450000	24.03.1995	30/20870	HYDE PARK CONER/ UNION PLACE	BH075	99510	190840	7.5	7.5

10.450000	18.04.1995	30/20870	DARLY RD TB JAYA MAWATHA	BH076	99090	191430	4.6	4.6
16.300000	16.06.1988	30/20152	BALADAKSHA MAWATHA CO 2	BH077	97500	192025	3.3	3.3
25.100000	04.01.1994	30/20736	VAUXHALL STREET CO 2	BH078	98794	191469	4.3	4.3
30.620000	27.01.1994	30/20796	UNION PLACE CO 2	BH079	98225	191506	5.7	5.7
26.100000	18.09.1991	30/20470	KEW ROAD CO2	BH080	98250	191500	5.9	5.9
28.000000	21.02.1994	30/20803	NAWAM MAWATHA	BH081	98244	191094	3.0	3.0
15.300000	13.01.1988	30/20197	CHURCH STREET SLAVE ISLAND	BH082	97938	191550	4.3	4.3
15.450000	01.02.1986		RAMADA HOTEL CO 2	BH083	97813	192113	4.2	4.2
13.200000	15.10.1988	30/20199	W A D RAMANAYAKA MW CO2	BH084	98681	190606	4.7	4.7
23.050000	15.05.1986		D MEL MAWATHA CO 3	BH085	98607	189441	0.0	6.6



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Annexure 3: Earthquake data in and around Sri Lanka



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**Table A3-1: Earthquake in and around srilanka**

No.	Yr	M	D	Long.	Lat.	Magnitude (Mw)
1	1615	4	14	79.8	6.9	6.4
2	1819	6	20	79.6	12	4.3
3	1822	1	29	79	12	5
4	1823	3	2	76.6	9.5	4.3
5	1823	11	26	80	7	4.3
6	1823	3	9	80	7	5
7	1823	2	9	85	12	5.5
8	1823	2	9	80	7	5.7
9	1829	3	12	77.6	13	4.3
10	1856	8	25	77	8.7	4.3
11	1856	9	1	76	9.5	4.3
12	1858	12	30	78.4	12.4	4.3
13	1858	8	13	76	11.4	4.7
14	1859	1	31	79	12.5	4.3
15	1859	12	17	78.1	11.6	4.3
16	1860	1	17	78.2	11.9	4.3
17	1861	3	4	78.2	11.9	4.2
18	1864	1	5	78.7	10.8	4.3
19	1865	8	2	78.7	12.7	4.3
20	1867	7	3	79.6	12	5.7
21	1882	2	28	76.7	11.5	5.6
22	1882	1	0	81.2	8.6	6
23	1900	2	8	76.7	10.7	6
24	1916	1	7	77	13	5
25	1919	10	14	83	2	5
26	1938	8	7	77.5	4	5.6
27	1938	9	10	79.2	7.7	6
28	1939	8	7	77.5	4	5.8

29	1952	5	9	78	11	4.7
30	1953	1	29	82.5	6.7	5
31	1953	7	26	76.3	9.9	5
32	1955	7	11	76.5	12.4	4.6
33	1956	12	15	78	6.5	5
34	1959	12	17	78.1	11.7	4.2
35	1961	6	13	83.2	8.7	4
36	1962	2	7	76.9	11.4	4.2
37	1966	4	10	80.2	13	4.8
38	1966	1	8	84.93	11.6	5.2
39	1968	8	13	79.1	12.9	4
40	1969	6	4	78.2	12.1	4
41	1969	9	21	77.5	13	4
42	1971	8	4	79.9	11.9	4
43	1971	11	12	78.2	12.5	4
44	1971	1	17	77	12.4	4.1
45	1972	5	16	77	12.4	4.6
46	1972	7	29	77	11	4.7
47	1973	5	1	77.4	12.5	4.1
48	1973	8	30	84.33	7.15	5.9
49	1974	7	31	78.3	12.8	4.1
50	1984	3	20	77.8	12.7	4.5
51	1984	11	27	78.6	12.4	4.5
52	1986	10	12	85	3.97	5
53	1987	10	31	84	6.8	4.3
54	1987	10	30	84.8	2.54	5.3
55	1988	6	7	77.21	9.81	4.4
56	1993	12	6	78.3	6.8	5.4
57	1995	12	10	83.3	4.1	4.1
58	1996	3	19	76.8	9.9	4
59	1998	2	4	76.84	12.67	4

60	1998	8	25	77.98	12.27	4.1
61	1998	9	1	78.24	5.49	4.2
62	1998	11	17	77.78	5.51	4.4
63	2000	12	12	76.79	9.69	4.9
64	2001	1	29	77.36	12.44	4.2
65	2001	10	28	76.32	7.15	4.3
66	2001	1	7	76.8	9.69	4.7
67	2001	9	25	80.31	11.79	5.6
68	2003	3	22	83.96	2.19	4.1
69	2004	8	5	76.86	2.02	5
70	2005	1	3	83.29	7.54	4.7
71	2005	7	7	84.94	4.47	4.9
72	2007	7	18	84.4	6.47	5.1
73	2009	4	15	82.43	6.62	4.1
74	2009	5	9	77.52	7.37	5
75	2010	7	25	76.83	6.53	4
76	2011	11	19	79.05	4.02	4.6
77	2012	7	6	77.1	5.18	4.3

**Annexure 4: Section through of borehole**



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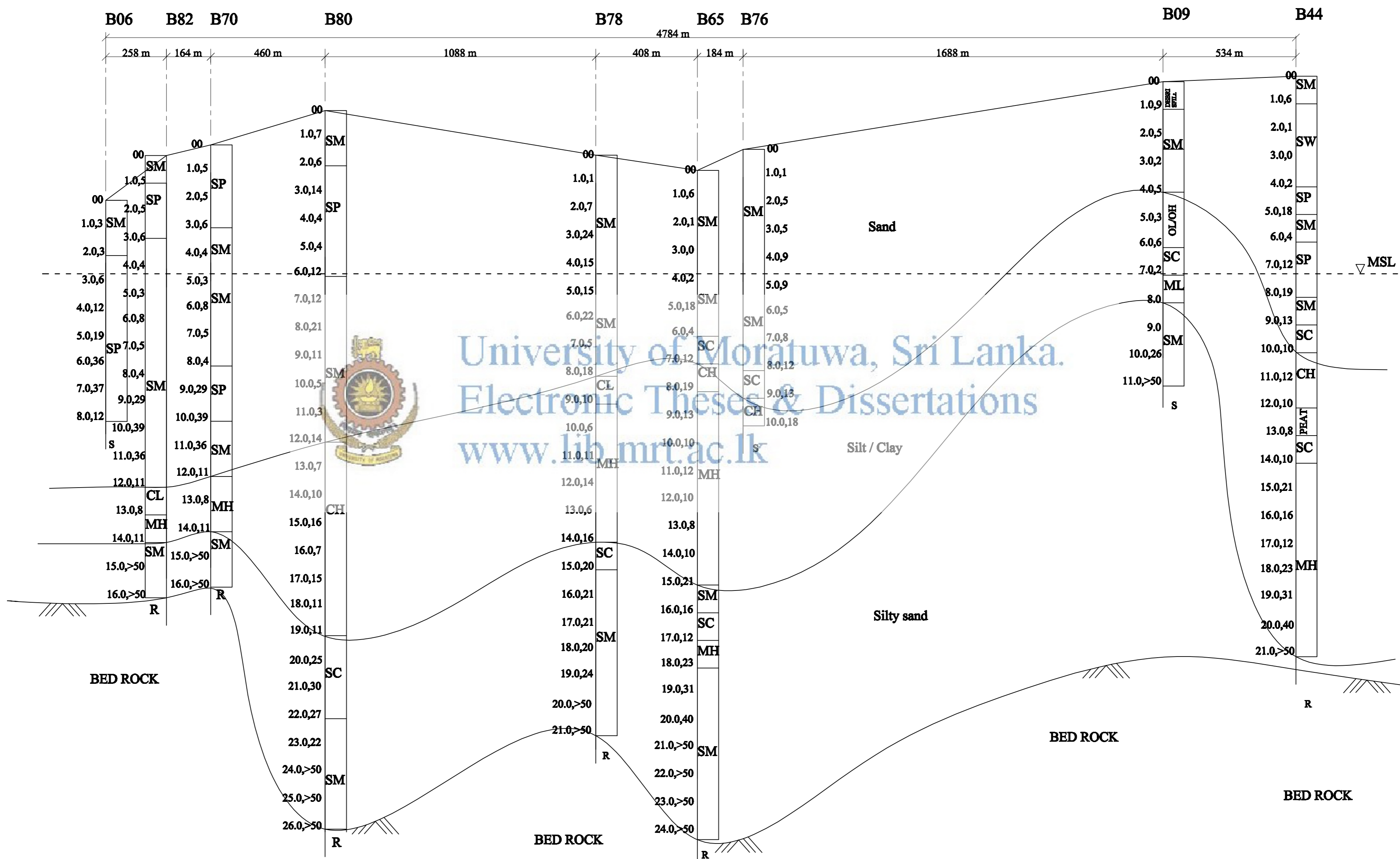
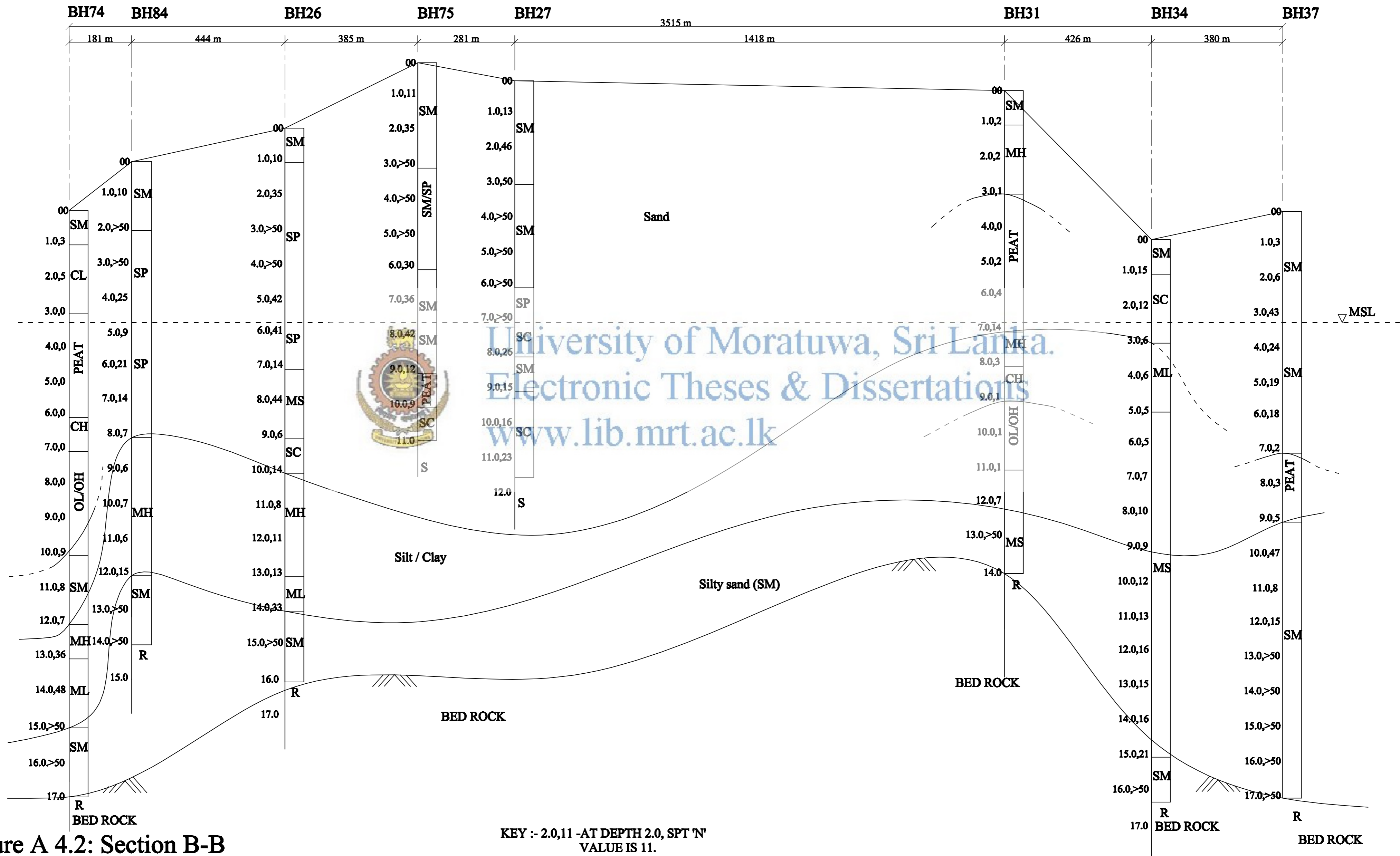


Figure A 4.1 : Section A-A

KEY :- 2.0,11 -AT DEPTH 2.0, SPT 'N' VALUE IS 11.







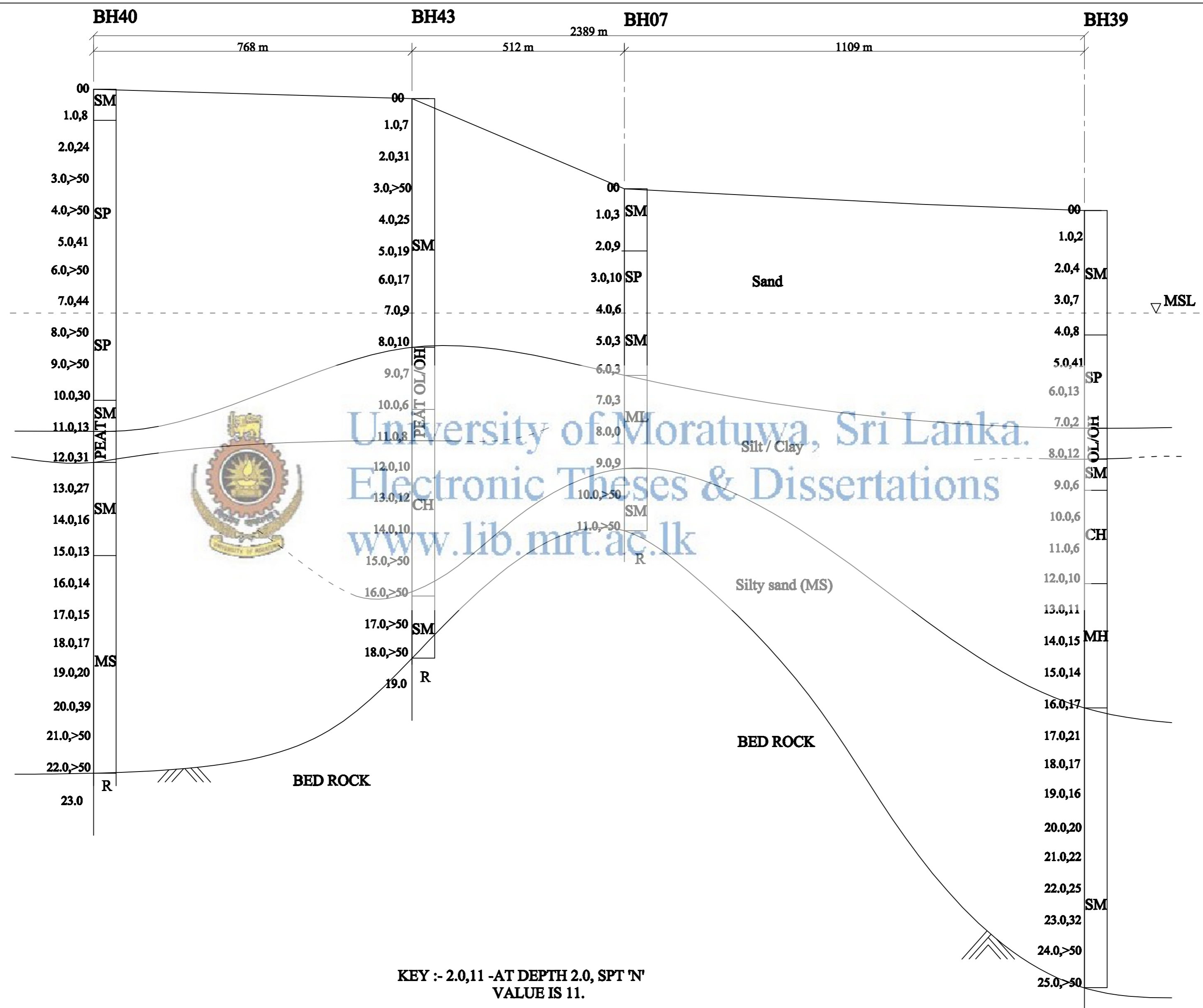


Figure A 4.4: Section D-D





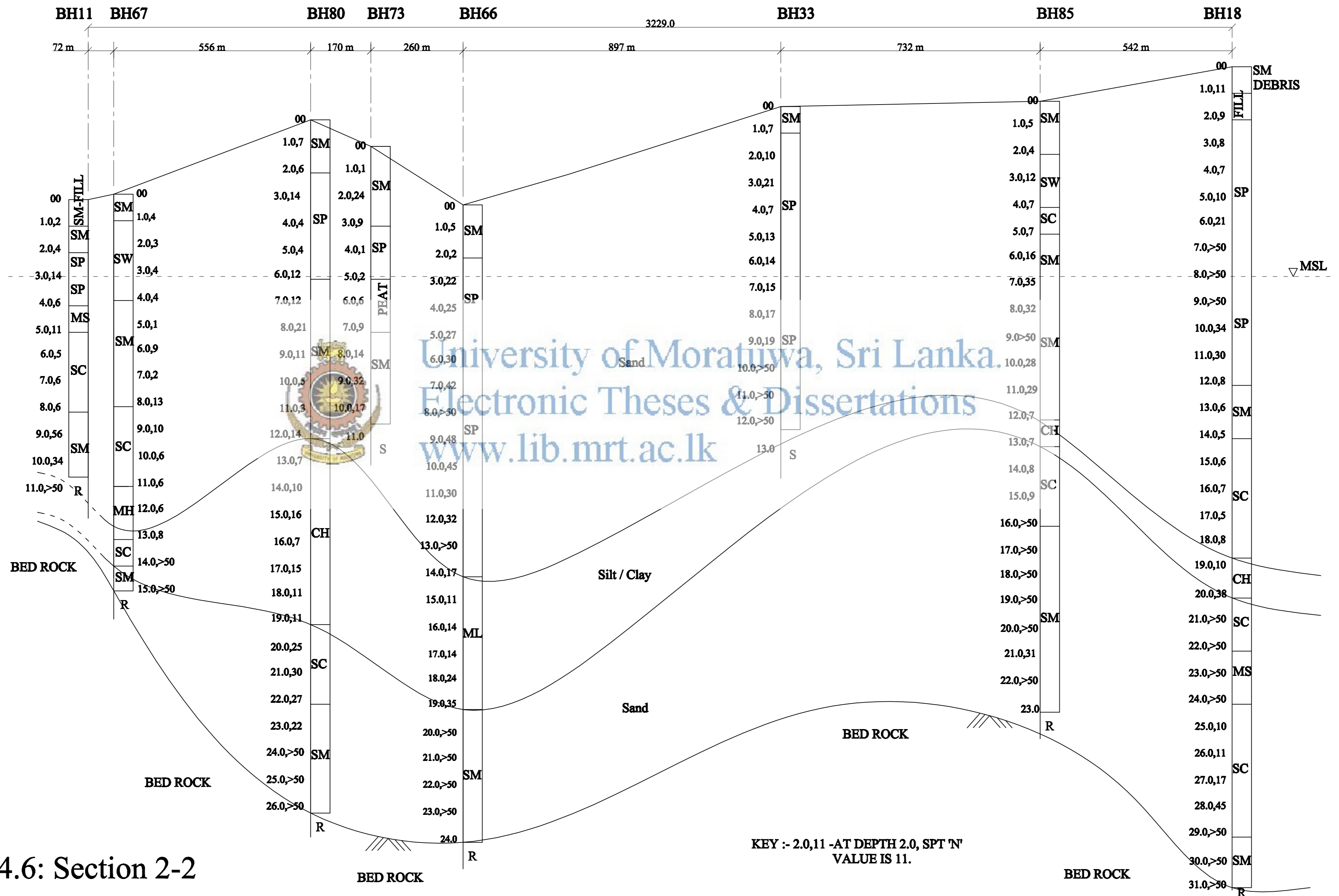


Figure A 4.6: Section 2-2

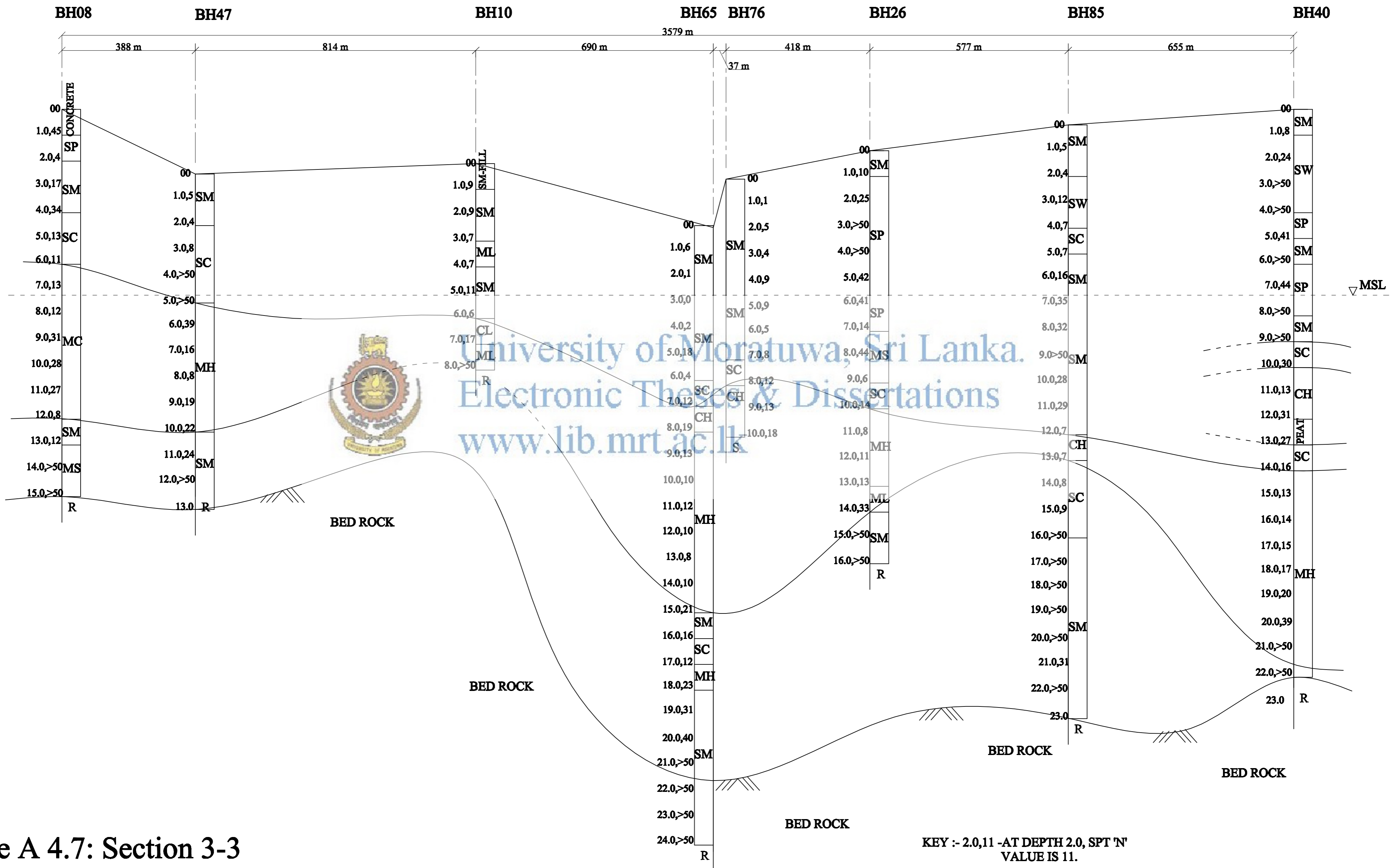


Figure A 4.7: Section 3-3

KEY :- 2.0,11 -AT DEPTH 2.0, SPT 'N' VALUE IS 11.



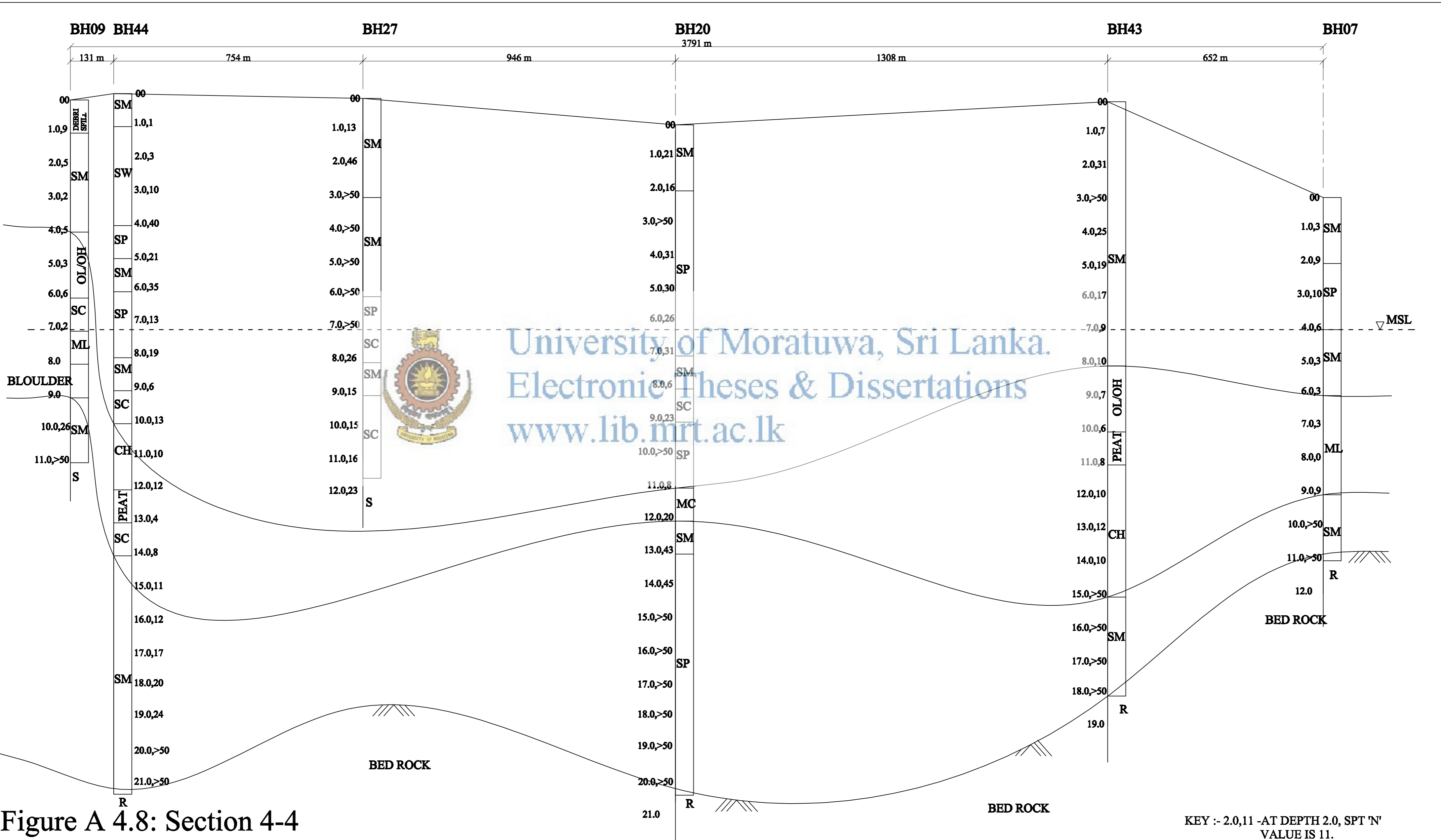


Figure A 4.8: Section 4-4

KEY :- 2.0,11 -AT DEPTH 2.0, SPT 'N' VALUE IS 11.

## Annexure 5: Input earthquake motion



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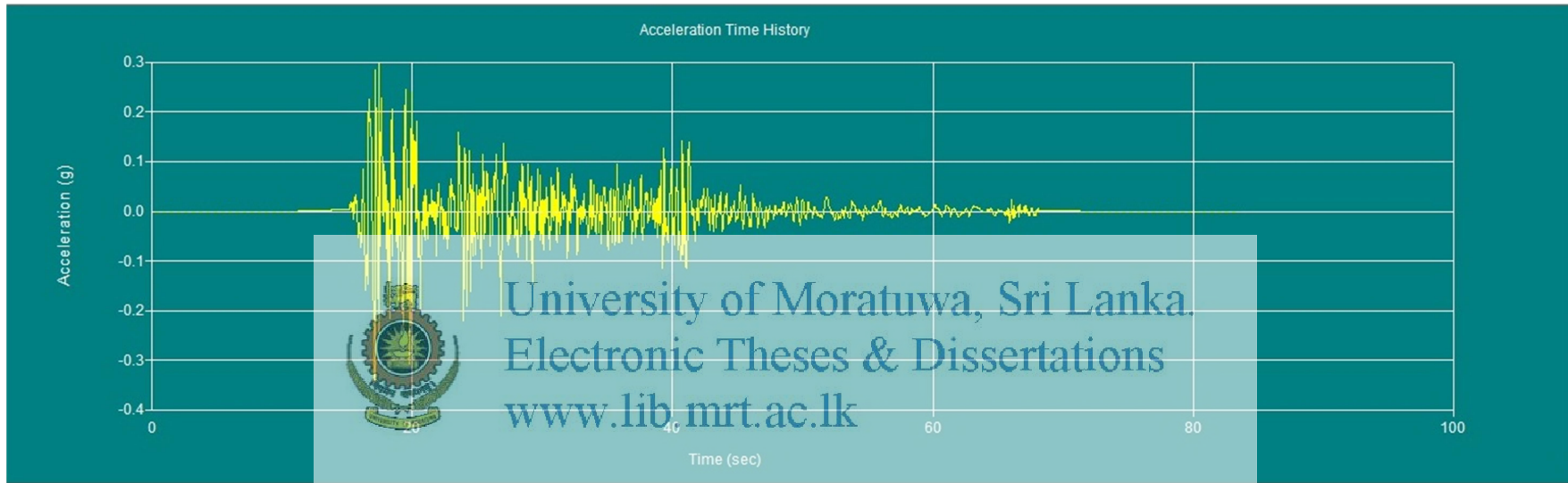


Figure. A4.1 Time history of El Centro Earthquake (1940/05/18) station = El Centro - Imp Vall Irr Dist component= 180

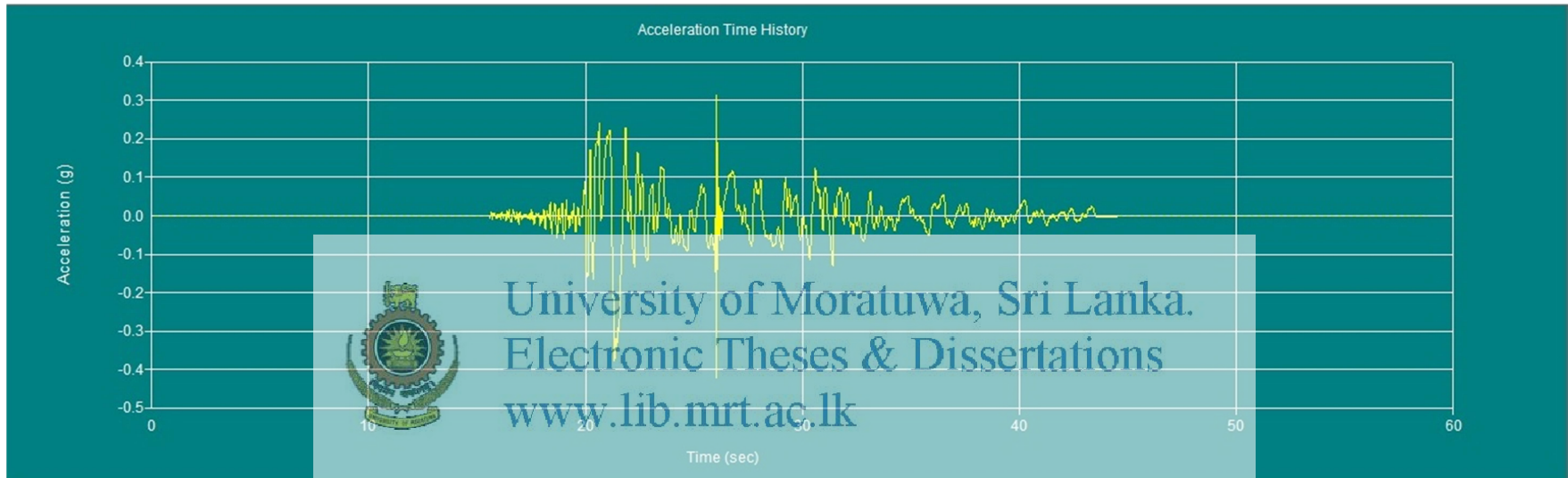


Figure . A4.2 Time history of Petrolia/Cape Mendocino Earthquake (1992/04/25) Station = 1023 Component= 270

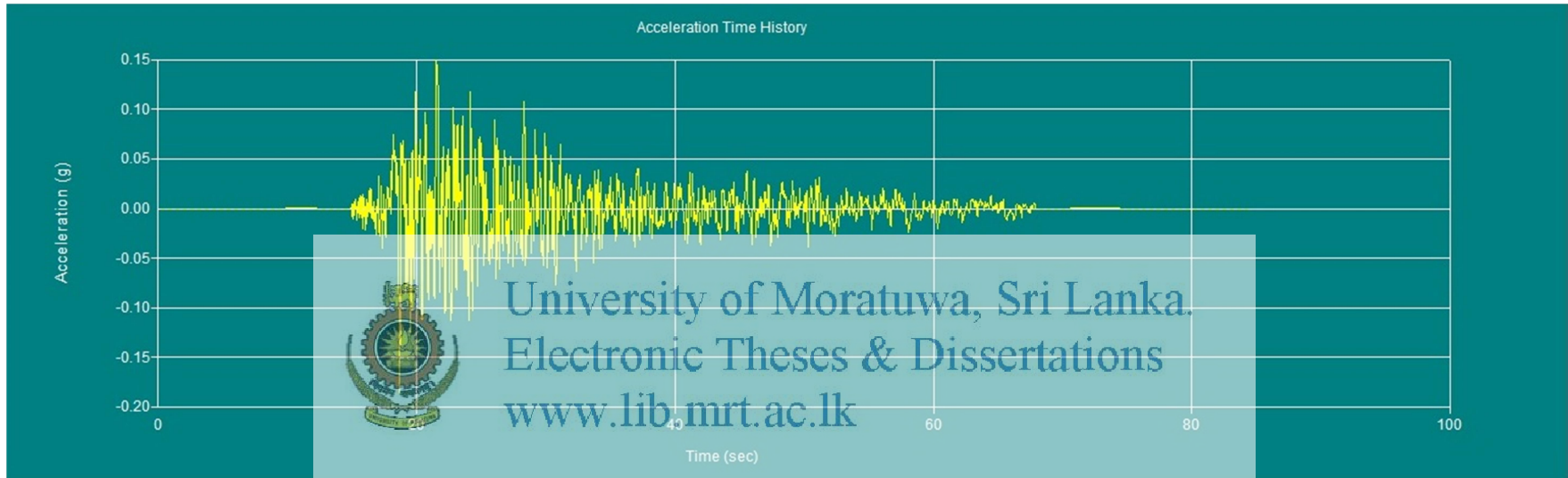


Figure .A4.3 Time history of TAFT Kern County Earthquake (1952/07/21) station = Taft component = 111



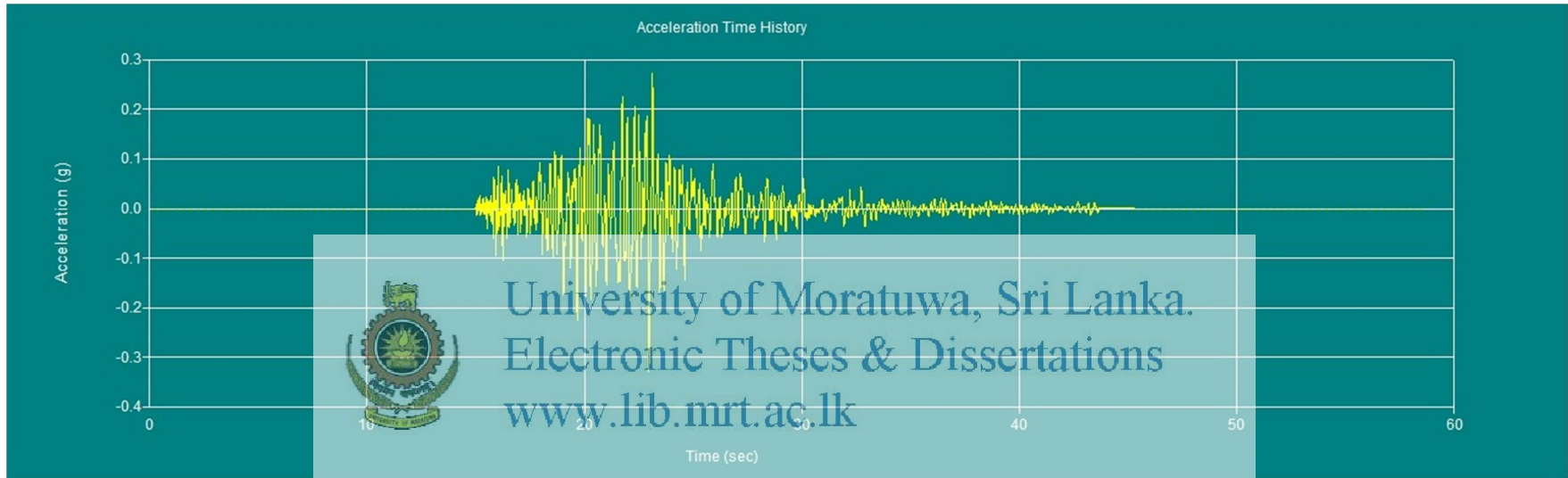


Figure . A4.4 Time history of Northridge Earthquake (1994/01/17) station = Topanga

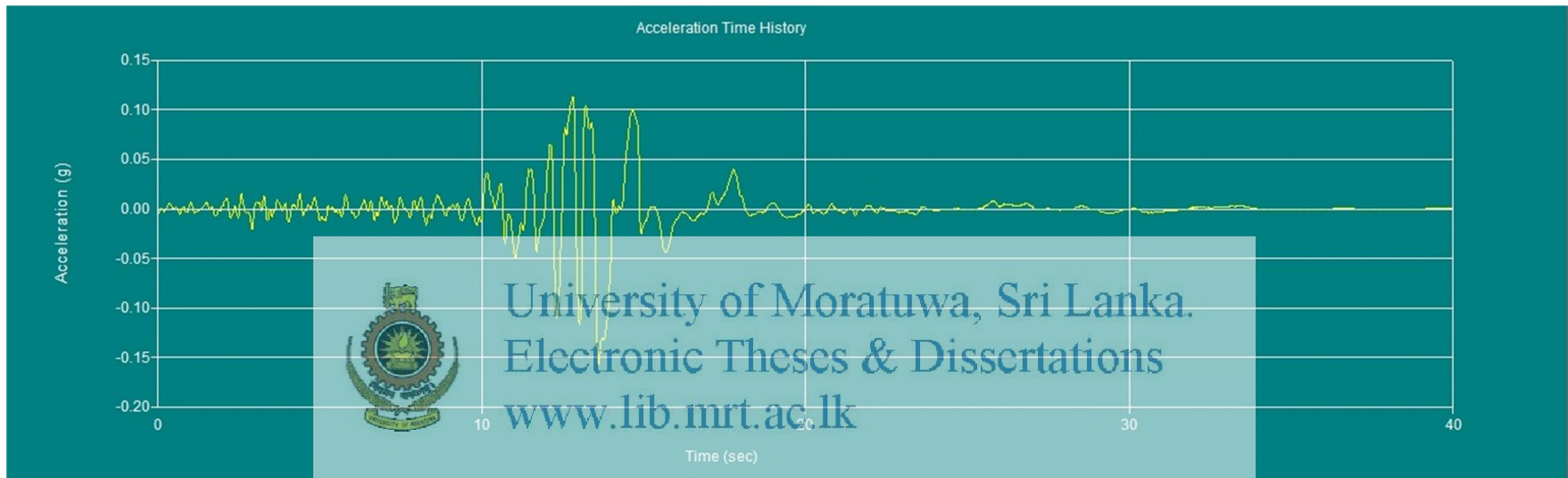


Figure .A.5 Time history of Treasure Island - Santa Cruz Mtns (Loma Prieta) Earthquake

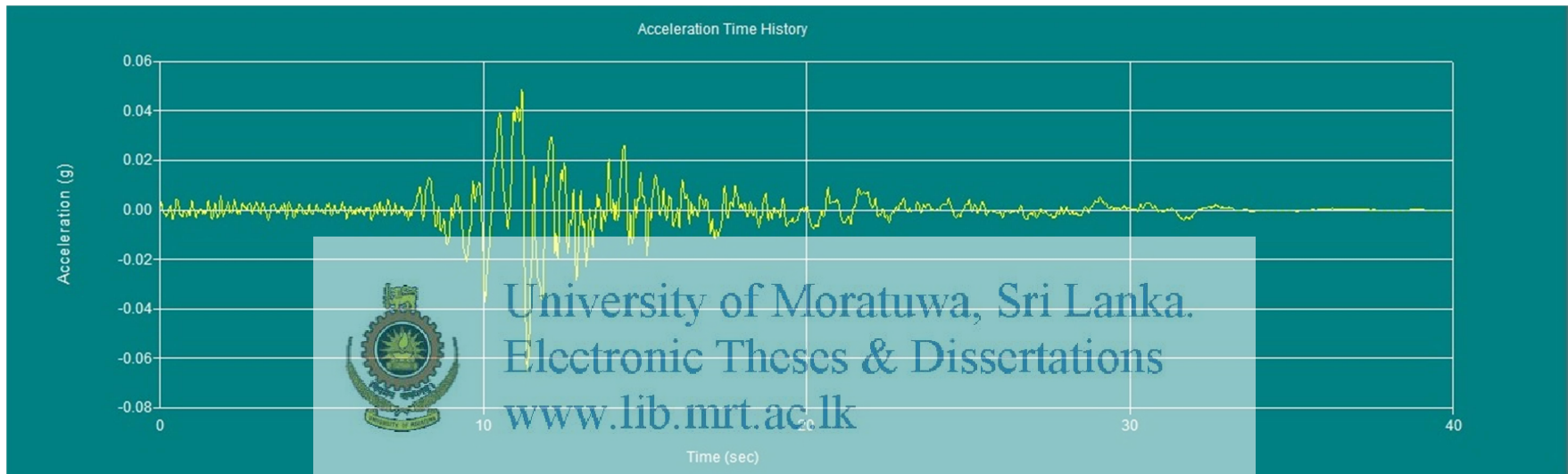


Figure A.4.6 Time history of Yerba Buena Island - Santa Cruz Mtns (Loma Prieta) Earthquake