

全國強震測站場址工程地質資料庫

Geologic Surveyed Data of CWB Strong Motion Stations

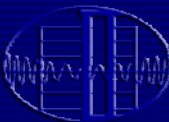
資料範例說明

更新日期：2010.06.30

*This project is sponsored by NCREE and CWB from 2000.

資料庫內容

- P,S-Wave Velocity
- SPT-N Value
- Stratum Description
- Soil Physical Properties Test
- stratum profile
- plan view and photos



1st level in data base

(P,S-Wave Velocity)

深度(m)	S-Wave Velocity(m/sec)	P-Wave Velocity(m/sec)
2.00	400.00	1075.27
2.50	383.14	1098.90
3.00	436.68	1136.36
3.50	432.90	1030.93
4.00	377.36	1030.93
4.50	429.18	1136.36
5.00	448.43	1010.10
5.50	413.22	961.54
6.00	480.77	1282.05
6.50	427.35	1219.51
7.00	446.43	1111.11
7.50	318.47	1639.34
8.00	359.71	1851.85
8.50	303.95	1886.79
9.00	350.88	1754.39
9.50	340.14	1754.39
10.00	314.47	1851.85
10.50	338.98	1960.78
11.00	330.03	1923.08

深度(m)	SPT-N		USCS
1.00	7+7+8	15	ML
2.55	50/4cm	50	
4.00	50/10cm	50	
5.55	21+19/10cm	50	SM
7.00	50/7cm	50	
8.55	7+9+11	20	SM
10.05	8+10+13	23	SM
11.55	10+11+20	31	SM
13.05	9+12+16	28	ML
14.55	10+12+18	30	ML
16.05	12+27+50/5cm	50	GM
17.55	13+17+35	50	ML
19.00	13+25+37	50	ML
20.55	14+20+31	50	ML
22.00	50/11cm	50	
23.55	14+18+23	41	ML
25.00	50/9cm	50	
26.55	50/12cm	50	
28.00	50/14cm	50	

2nd level in data base

(SPT-N Value)

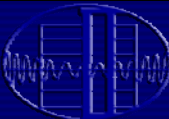


3rd level in data base (Stratum Description)

深度(m)	SPT-N	USCS	土壤描述(Soil descriptions)	取樣編號(Sample No)
0.00		CV	黃棕色；砂岩塊；夾大量砂質黏土及粉土質中細砂；中度密實至極密實；岩塊最大粒徑50cm-崩積層	
1.00	7+7+8	ML		S-1
2.55	50/4cm			S-0
4.00	50/10cm			S-0
5.55	21+19/10cm	SM		S-2
7.00	50/7cm			S-0
8.55	7+9+11	SM		S-3
10.05	8+10+13	SM		S-4
11.55	10+11+20	SM		S-5
13.00		ML	灰色；細砂質粉土；夾大量黏土質粉土及微量破碎砂岩塊；中度密實	
13.05	9+12+16	ML		S-6
14.55	10+12+18	ML		S-7
15.85		CV	黃棕色；砂岩塊；夾大量黃棕色粉土質中細砂；及灰色粉土質黏土；極密實-崩積層	
16.05	12+27+50/5cm	GM		S-8
17.55	13+17+35	ML		S-9
19.00	13+25+37	ML		S-10
20.55	14+20+31	ML		S-11
22.00	50/11cm			S-0
22.35		ML	黃棕色；細砂質粉土；偶夾少量細礫石及破碎岩塊；密實	

Sample No.	Depth(m)	Unified Classification	Grain Size Grav (%)	Grain Size Sand (%)	Grain Size Silt (%)	Grain Size Clay (%)	D ₁₀ (mm)	D ₃₀ (mm)	D ₅₀ (mm)	D ₆₀ (mm)	Cu	Cc	G _s	e	w(%)	γ _t (t/m ³)
S-1	1.00-1.45	ML	12	35	46	7	0.008	0.043	0.069	0.094	11.1	2.3	2.69	0.53	17	2.05
S-2	5.55-5.80	SM	36	36	25	3	0.030	0.083	1.341	3.751	126.8	0.1	2.68	0.55	13	1.95
S-3	8.55-9.00	SM	7	51	37	5	0.010	0.056	0.102	0.153	16.1	2.1	2.68	0.53	14	2.00
S-4	10.05-10.50	SM	11	44	39	6	0.013	0.051	0.086	0.119	9.1	1.7	2.68	0.56	17	2.01
S-5	11.55-12.00	SM	12	41	41	6	0.010	0.046	0.083	0.127	12.5	1.6	2.69	0.53	17	2.06
S-6	13.05-13.50	ML	10	39	45	6	0.010	0.045	0.072	0.100	10.4	2.1	2.69	0.55	16	2.01
S-7	14.55-15.00	ML	0	24	64	12	0.003	0.026	0.046	0.055	16.4	3.5	2.70	0.46	16	2.15
S-8	16.05-16.40	GM	35	30	32	3	0.028	0.066	0.129	2.552	92.3	0.1	2.68	0.50	16	2.06
S-9	17.55-18.00	ML	0	49	42	9	0.006	0.048	0.072	0.092	15.9	4.4	2.68	0.64	16	1.89
S-10	19.00-19.45	ML	0	32	59	9	0.006	0.041	0.059	0.067	11.7	4.5	2.69	0.60	18	1.99
S-11	20.55-21.00	ML	0	29	61	10	0.004	0.026	0.049	0.060	13.6	2.6	2.69	0.52	16	2.06
S-12	23.55-24.00	ML	0	19	73	8	0.006	0.023	0.042	0.051	8.4	1.8	2.70	0.76	21	1.86

4th level in data base (Soil Physical Properties Test)



Soil Physical Properties Test

- 阿太保液塑限試驗、統一土壤分類、土壤描述、礫石、砂土、粉土、黏土含量、單位重、含水量、比重以及粒徑分佈曲線

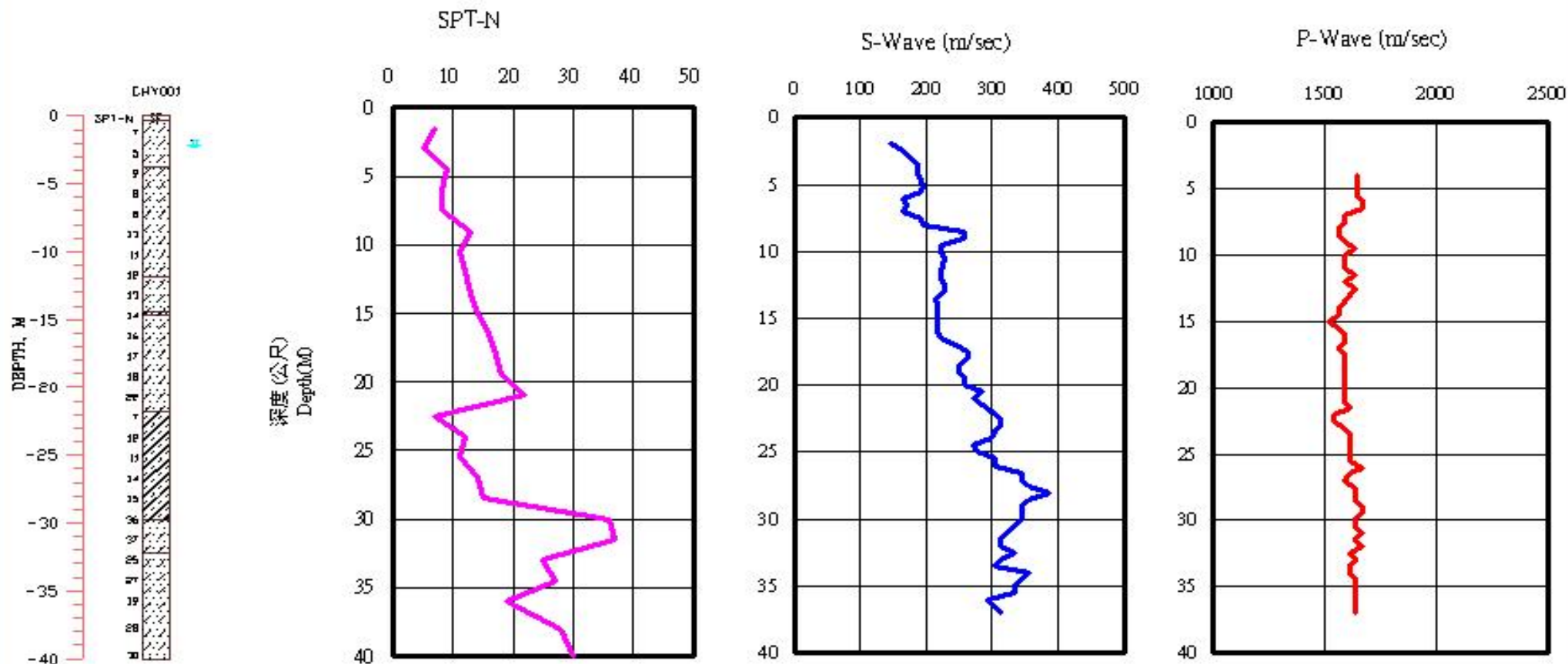
項 目	中文定義	英文定義
Grain Size Grav.(%)	粒徑分析中礫石含量(%)	The gravels weight of the total weight (%)
Grain Size Sand(%)	粒徑分析中砂含量(%)	The sand weight of the total weight (%)
Grain Size Silt(%)	粒徑分析中沉泥含量(%)	The silt weight of the total weight (%)
Grain Size Clay(%)	粒徑分析中黏土含量(%)	The clay weight of the total weight (%)
D10(mm)	粒徑分佈曲線上相對應通過百分比為10%的粒徑大小	D10 is the diameter through which 10% of the total soil mass is passing.
D30(mm)	粒徑分佈曲線上相對應通過百分比為30%的粒徑大小	D30 is the diameter through which 30% of the total soil mass is passing.
D50(mm)	粒徑分佈曲線上相對應通過百分比為50%的粒徑大小	D50 is the diameter through which 50% of the total soil mass is passing.
D60(mm)	粒徑分佈曲線上相對應通過百分比為60%的粒徑大小	D60 is the diameter through which 60% of the total soil mass is passing.
Cu	均勻係數(uniformity coefficient)	Cu is defined as $Cu = D_{60}/D_{10}$
Cc	級配係數(coefficient of gradation)	Cc is defined as $Cc = \frac{D_{30}^2}{(D_{60} \cdot D_{10})}$.
Gs	固體顆粒之比重	Gs is the specific gravity of soil solids.
e	孔隙比(void ratio):孔隙體積與總體積之比	e is defined as the ratio of the volume of voids to the volume of solids.
w(%)	含水量(moisture content or water content):土壤內水重與固體重之比	w is defined as the ratio of the weight of water to the weight of soil solids.
γ_t (kN/m ³)	單位重(unit weight):每單位體積內土壤之重量	Unit weight γ is the total weight to the total volume of the soil aggregate.
γ_t (t/m ³)	單位重(unit weight):每單位體積內土壤之重量	Unit weight γ is the total weight to the total volume of the soil aggregate.
LL(%)	液性限度(liquid limit):由塑性體至液體狀態之含水量	The liquid limit is defined as the moisture content, in percent, at which the soil changes from a liquid state to a plastic state .
Plasticity Index(%)	塑性指數:液性限度與塑性限度之差值	Plasticity Index is between the liquid limit and the plastic limit of a soil.

5th level in data base (stratum profile)

雲林縣安南國小(CHY001)


座標 172588 2622721






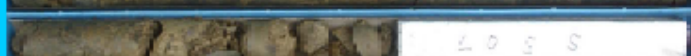

量測時間：西元2001年11月21日

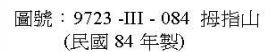


鑽探資料柱狀圖

岩心

LOCATION: 湖山國小					METHOD: 沖鑽式+旋鑽式		TOTAL DEPTH: 35M	
HOLE NO.: ILA015					FLUSHING: 穩定液		GROUND ELEV.:	
STARTED: 08/28/2008					INCLINATION: 垂直		WATER LEVEL:	
COMPLETED: 09/05/2008					BEARING:		SHEET NO.: 1 OF 2	
DEPTH (M)	SAMPLE NO.	N VALUE	RECOVERY %	R.Q.D. %	GRAPHIC LOG	GEOLOGICAL DESCRIPTION		REMARK
1	C		100		SF	(SF) 灰色; 破碎岩塊; 夾黏土質粉土及雜物—回旗層		
2	S-1	9	100			(GM) 黃棕色; 岩塊夾黏土質粉土; 極鬆散		1.30M
3	C		100	0				
4	S-2	4	100	0				3.50M
5	C		100	0		(SLATE) 黃棕色至灰色; 板岩; 高度至極度風化; 膠結差至尚可; 岩質弱; 高度劈裂; 呈碎裂狀; 夾黃棕色泥		
6	S-3	16	100	0				
7	C		100	0				
8	S-4	20	100	0				
9	C		100	0				
10	S-5	12	100	0				
11	C		100	0				
12	S-6	13+85+35/2cm	100	0				
13	C		100	0				
14	C		100	0				
15	C		100	0				
16	C		100	0				
17	C		100	0				
18	C		31	0				
19	C		90	0				
20	C		100	0				
 國立中央大學地質工程研究中心 Geo Geotechnical Eng. Ctr.					97年強震測站地質鑽探調查工程		JOB NO.: JG-080710	
							LOGGED BY: 林晏吉	
					BORE HOLE LOG		DATE: 09/05/2008	

ILA015 湖山國小		岩心箱照片 (1)	
站址	宜蘭縣員山鄉枕山村坡城路54號		工程師 林晏吉
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TAP088	
中國公壩	
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台北市信義區福德街221巷15號	
工程師	
林晏吉	

