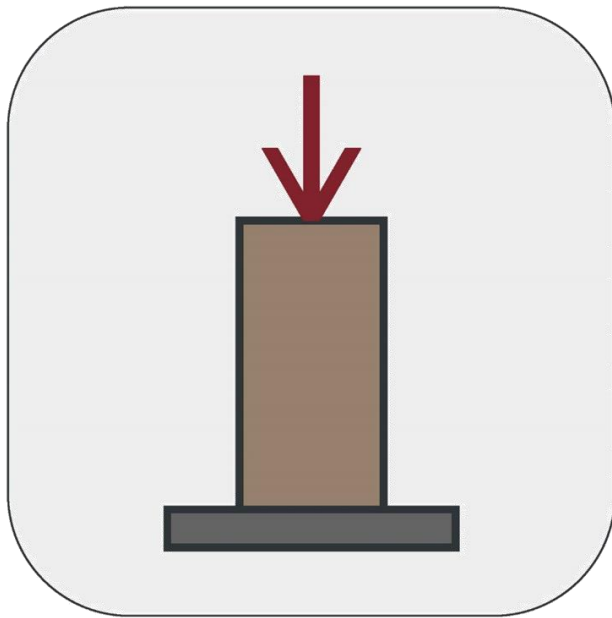


hoil Office



SO-Unconfined

Current samples are in "Metric" units.

SO-Unconfined also supports “SI”,  
“English [ksf]” and “English [psi]” units.

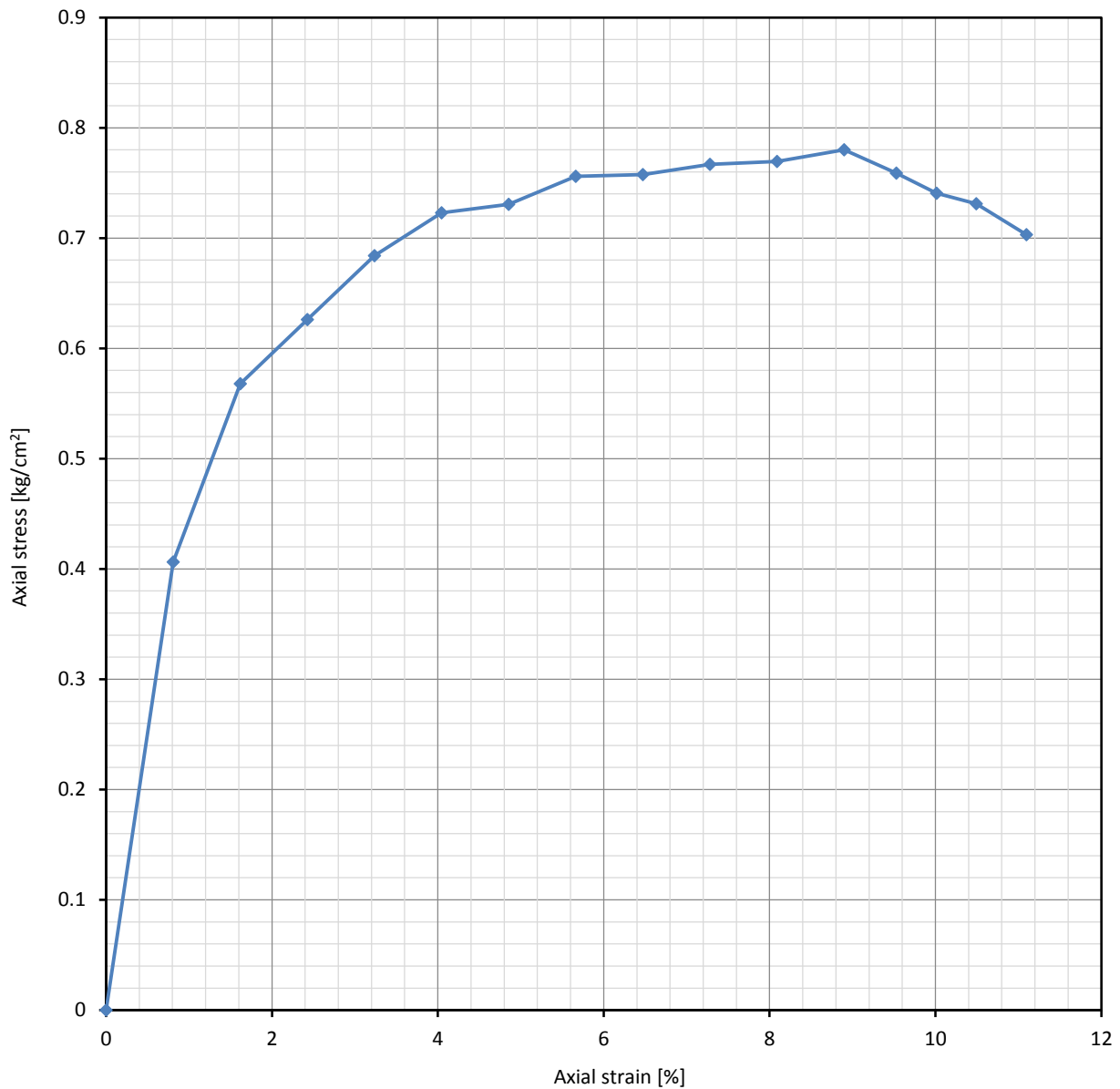
Output

# Unconfined Compression Test

Project: Sample	BH/TP: BH-01
Client: Client	Depth: 1
Location: Location	USCS: CL
Code: Project code	Sample: Disturbed

$D_0$ [cm]	$L_0$ [cm]	$L_0/D_0$
3.81	7.92	2.08

$\gamma_d$ [g/cm <sup>3</sup> ]	w [%]	$G_s$ [-]	S [%]
1.58	10.5	2.72	39.8



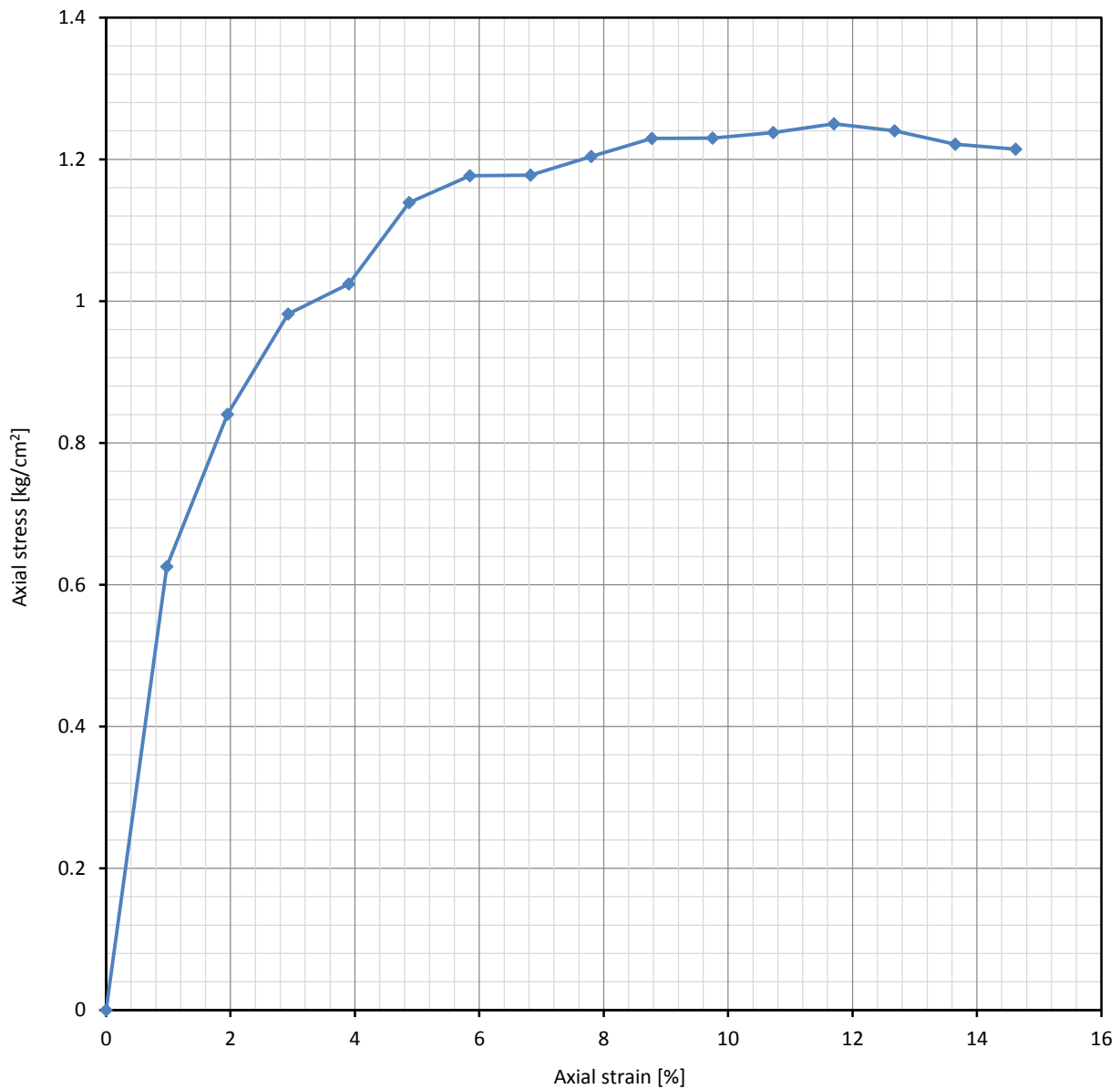
Strain rate [%/min]	Failure strain [%]	$q_u$ [kg/cm <sup>2</sup> ]	$c_u$ [kg/cm <sup>2</sup> ]
0.61	8.90	0.78	0.390

# Unconfined Compression Test

Project: Sample	BH/TP: BH-01
Client: Client	Depth: 2
Location: Location	USCS: CH
Code: Project code	Sample: Remolded

$D_0$ [cm]	$L_0$ [cm]	$L_0/D_0$
3.81	9.18	2.41

$\gamma_d$ [g/cm <sup>3</sup> ]	w [%]	$G_s$ [-]	S [%]
1.61	12.2	2.75	47.6



Strain rate [mm/min]	Failure strain [%]	$q_u$ [kg/cm <sup>2</sup> ]	$c_u$ [kg/cm <sup>2</sup> ]
1.17	11.70	1.25	0.625

Test data

# Unconfined compression - Test Data

Project: Sample	BH/TP: BH-01
Client: Client	Depth: 3
Location: Location	USCS: CH
Code: Project code	Sample: Undisturbed

D <sub>0</sub> [cm]	L <sub>0</sub> [cm]	L <sub>0</sub> /D <sub>0</sub>	γ <sub>d</sub> [g/cm <sup>3</sup> ]	w [%]	G <sub>s</sub> [-]	S [%]
3.81	7.92	2.08	1.58	10.5	2.72	39.8

Strain rate:      • 0.61 [%/min]  
                           ○ 0.48 [mm/min]

Load:  
                           • Ring factor : 0.10 [kg]  
                           ○ Force  
                           ○ Stress

Gauge factor, 1 div. : -

No.	Elapsed time [min]	Axial			Corrected area [cm <sup>2</sup> ]	Axial		
		Deformation reading	Deformation [mm]	Strain [%]		Load reading	Load [kg]	Stress [kg/cm <sup>2</sup> ]
1	0.00	-	0.00	0.00	11.40	0.0	0.00	0.00
2	1.33	-	0.64	0.81	11.49	46.7	4.67	0.41
3	2.65	-	1.28	1.62	11.59	65.8	6.58	0.57
4	3.98	-	1.92	2.43	11.68	73.2	7.32	0.63
5	5.31	-	2.56	3.24	11.78	80.6	8.06	0.68
6	6.63	-	3.20	4.05	11.88	85.9	8.59	0.72
7	7.96	-	3.84	4.85	11.98	87.5	8.75	0.73
8	9.28	-	4.49	5.66	12.09	91.4	9.14	0.76
9	10.61	-	5.13	6.47	12.19	92.3	9.23	0.76
10	11.94	-	5.77	7.28	12.30	94.3	9.43	0.77
11	13.26	-	6.41	8.09	12.40	95.5	9.55	0.77
12	14.59	-	7.05	8.90	12.51	97.6	9.76	0.78
13	15.62	-	7.55	9.53	12.60	95.6	9.56	0.76
14	16.42	-	7.93	10.02	12.67	93.9	9.39	0.74
15	17.20	-	8.31	10.49	12.74	93.1	9.31	0.73
16	18.19	-	8.79	11.10	12.82	90.2	9.02	0.70

# Unconfined compression - Test Data

Project: Sample	BH/TP: BH-01
Client: Client	Depth: 4
Location: Location	USCS: CL
Code: Project code	Sample: Remolded

D <sub>0</sub> [cm]	L <sub>0</sub> [cm]	L <sub>0</sub> /D <sub>0</sub>	γ <sub>d</sub> [g/cm <sup>3</sup> ]	w [%]	G <sub>s</sub> [-]	S [%]
3.63	9.07	2.50	1.67	13.1	2.72	56.8

Strain rate:     0.84 [%/min]  
                    0.76 [mm/min]

Load:  
 Ring factor :  
 Force  
 Stress

Gauge factor, 1 div. : -

No.	Elapsed time [min]	Axial			Corrected area [cm <sup>2</sup> ]	Axial		
		Deformation reading	Deformation [mm]	Strain [%]		Load reading	Load [kg]	Stress [kg/cm <sup>2</sup> ]
1	0.00	-	0.00	0.00	10.35	-	0.00	0.00
2	0.31	-	0.24	0.26	10.38	-	6.78	0.65
3	0.62	-	0.47	0.52	10.40	-	14.88	1.43
4	0.93	-	0.71	0.78	10.43	-	21.00	2.01
5	1.24	-	0.94	1.04	10.46	-	23.86	2.28
6	1.54	-	1.18	1.30	10.49	-	25.95	2.48
7	1.85	-	1.41	1.56	10.51	-	28.00	2.66
8	2.16	-	1.65	1.82	10.54	-	29.67	2.82
9	2.47	-	1.88	2.08	10.57	-	30.53	2.89
10	2.78	-	2.12	2.34	10.60	-	32.10	3.03
11	3.09	-	2.35	2.60	10.62	-	33.10	3.12
12	3.40	-	2.59	2.85	10.65	-	34.09	3.20
13	3.71	-	2.82	3.11	10.68	-	34.84	3.26
14	4.02	-	3.06	3.37	10.71	-	36.49	3.41
15	4.33	-	3.30	3.63	10.74	-	38.29	3.57
16	4.63	-	3.53	3.89	10.77	-	39.62	3.68
17	4.94	-	3.77	4.15	10.80	-	41.02	3.80
18	5.25	-	4.00	4.41	10.83	-	41.99	3.88
19	5.56	-	4.24	4.67	10.86	-	43.08	3.97
20	5.87	-	4.47	4.93	10.89	-	43.49	3.99
21	6.18	-	4.71	5.19	10.92	-	43.98	4.03
22	6.49	-	4.94	5.45	10.95	-	44.55	4.07
23	6.80	-	5.18	5.71	10.98	-	45.11	4.11
24	7.11	-	5.41	5.97	11.01	-	45.64	4.15
25	7.41	-	5.65	6.23	11.04	-	46.17	4.18
26	7.72	-	5.88	6.49	11.07	-	47.54	4.30
27	8.03	-	6.12	6.75	11.10	-	48.82	4.40
28	8.34	-	6.36	7.01	11.13	-	50.49	4.54
29	8.65	-	6.59	7.27	11.16	-	51.58	4.62
30	8.96	-	6.83	7.53	11.19	-	53.06	4.74
31	9.27	-	7.06	7.79	11.22	-	54.17	4.83



# Unconfined compression - Test Data

Project: Sample	BH/TP: BH-01
Client: Client	Depth: 4
Location: Location	USCS: CL
Code: Project code	Sample: Remolded

No.	Elapsed time [min]	Axial			Corrected area [cm <sup>2</sup> ]	Axial		
		Deformation reading	Deformation [mm]	Strain [%]		Load reading	Load [kg]	Stress [kg/cm <sup>2</sup> ]
32	9.58	-	7.30	8.05	11.25	-	54.63	4.85
33	9.89	-	7.53	8.30	11.29	-	55.27	4.90
34	10.20	-	7.77	8.56	11.32	-	55.72	4.92
35	10.50	-	8.00	8.82	11.35	-	56.13	4.94
36	10.81	-	8.24	9.08	11.38	-	56.70	4.98
37	11.12	-	8.47	9.34	11.42	-	57.16	5.01
38	11.43	-	8.71	9.60	11.45	-	57.85	5.05
39	11.74	-	8.94	9.86	11.48	-	58.55	5.10
40	12.05	-	9.18	10.12	11.51	-	59.17	5.14
41	12.36	-	9.42	10.38	11.55	-	60.22	5.21
42	12.67	-	9.65	10.64	11.58	-	61.15	5.28
43	12.98	-	9.89	10.90	11.62	-	61.91	5.33
44	13.27	-	10.11	11.14	11.65	-	61.76	5.30
45	13.56	-	10.33	11.39	11.68	-	61.70	5.28
46	13.85	-	10.55	11.63	11.71	-	61.63	5.26
47	14.14	-	10.77	11.88	11.74	-	61.38	5.23
48	14.43	-	10.99	12.12	11.78	-	61.21	5.20
49	14.72	-	11.22	12.37	11.81	-	61.02	5.17
50	15.01	-	11.44	12.61	11.84	-	60.16	5.08
51	15.30	-	11.66	12.86	11.88	-	59.45	5.01
52	15.60	-	11.88	13.10	11.91	-	58.89	4.94

# Unconfined compression - Test Data

Project: Sample	BH/TP: BH-01
Client: Client	Depth: 5
Location: Location	USCS: CH
Code: Project code	Sample: Rock core

D <sub>0</sub> [cm]	L <sub>0</sub> [cm]	L <sub>0</sub> /D <sub>0</sub>	γ <sub>d</sub> [g/cm <sup>3</sup> ]	w [%]	G <sub>s</sub> [-]	S [%]
3.63	8.17	2.25	1.73	15.3	2.75	71.9

Strain rate:     • 1.62 [%/min]  
                     ○ 1.32 [mm/min]

Gauge factor, 1 div. :   0.01 [mm]

Load:  
           ○ Ring factor :  
           ○ Force  
           • Stress

No.	Elapsed time [min]	Axial			Corrected area [cm <sup>2</sup> ]	Axial		
		Deformation reading	Deformation [mm]	Strain [%]		Load reading	Load [kg]	Stress [kg/cm <sup>2</sup> ]
1	0.00	0.0	0.00	0.00	-	-	-	0.00
2	0.24	31.2	0.31	0.38	-	-	-	1.00
3	0.47	62.4	0.62	0.76	-	-	-	1.67
4	0.71	93.6	0.94	1.15	-	-	-	2.45
5	0.94	124.9	1.25	1.53	-	-	-	2.69
6	1.18	156.1	1.56	1.91	-	-	-	2.85
7	1.42	187.3	1.87	2.29	-	-	-	3.05
8	1.65	218.5	2.18	2.67	-	-	-	3.25
9	1.89	249.7	2.50	3.06	-	-	-	3.42
10	2.12	280.9	2.81	3.44	-	-	-	3.59
11	2.36	312.1	3.12	3.82	-	-	-	3.76
12	2.59	343.3	3.43	4.20	-	-	-	4.03
13	2.83	374.6	3.75	4.58	-	-	-	4.21
14	3.07	405.8	4.06	4.97	-	-	-	4.24
15	3.30	437.0	4.37	5.35	-	-	-	4.28
16	3.54	468.2	4.68	5.73	-	-	-	4.31
17	3.77	499.4	4.99	6.11	-	-	-	4.37
18	4.01	530.6	5.31	6.49	-	-	-	4.44
19	4.25	561.8	5.62	6.88	-	-	-	4.48
20	4.48	593.1	5.93	7.26	-	-	-	4.53
21	4.72	624.3	6.24	7.64	-	-	-	4.59
22	4.95	655.5	6.55	8.02	-	-	-	4.65
23	5.19	686.7	6.87	8.41	-	-	-	4.64
24	5.42	717.9	7.18	8.79	-	-	-	4.64
25	5.66	749.1	7.49	9.17	-	-	-	4.63
26	5.90	780.3	7.80	9.55	-	-	-	4.78
27	6.13	811.6	8.12	9.93	-	-	-	4.88
28	6.37	842.8	8.43	10.32	-	-	-	5.00
29	6.60	874.0	8.74	10.70	-	-	-	4.99
30	6.84	905.2	9.05	11.08	-	-	-	4.97
31	7.08	936.4	9.36	11.46	-	-	-	4.95

# Unconfined compression - Test Data

Project: Sample Client: Client Location: Location Code: Project code	BH/TP: BH-01 Depth: 5 USCS: CH Sample: Rock core
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No.	Elapsed time [min]	Axial			Corrected area [cm <sup>2</sup> ]	Axial		
		Deformation reading	Deformation [mm]	Strain [%]		Load reading	Load [kg]	Stress [kg/cm <sup>2</sup> ]
32	7.31	967.6	9.68	11.84	-	-	-	5.02
33	7.55	998.8	9.99	12.23	-	-	-	5.08
34	7.78	1030.0	10.30	12.61	-	-	-	5.12
35	8.02	1061.3	10.61	12.99	-	-	-	5.23
36	8.25	1092.5	10.92	13.37	-	-	-	5.35
37	8.49	1123.7	11.24	13.75	-	-	-	5.45
38	8.73	1154.9	11.55	14.14	-	-	-	5.52
39	8.96	1186.1	11.86	14.52	-	-	-	5.55
40	9.20	1217.3	12.17	14.90	-	-	-	5.62

# Unconfined compression - Test Data

Project: Sample	BH/TP: BH-01
Client: Client	Depth: 6
Location: Location	USCS: CL
Code: Project code	Sample: Remolded

D <sub>0</sub> [cm]	L <sub>0</sub> [cm]	L <sub>0</sub> /D <sub>0</sub>	γ <sub>d</sub> [g/cm <sup>3</sup> ]	w [%]	G <sub>s</sub> [-]	S [%]
3.81	9.18	2.41	1.61	12.2	2.75	47.6

Strain rate:

- 1.27 [%/min]
- 1.17 [mm/min]

Gauge factor, 1 div. : 0.01 [mm]

Load:

- Ring factor : 1.00 [kg]
- Force
- Stress

No.	Elapsed time [min]	Axial			Corrected area [cm <sup>2</sup> ]	Axial		
		Deformation reading	Deformation [mm]	Strain [%]		Load reading	Load [kg]	Stress [kg/cm <sup>2</sup> ]
1	0.00	0.0	0.00	0.00	11.40	0.0	0.00	0.00
2	0.46	53.7	0.54	0.59	11.47	4.9	4.89	0.43
3	0.92	107.4	1.07	1.17	11.54	12.7	12.69	1.10
4	1.38	161.1	1.61	1.76	11.60	13.9	13.88	1.20
5	1.84	214.8	2.15	2.34	11.67	16.5	16.47	1.41
6	2.30	268.5	2.69	2.93	11.74	18.7	18.72	1.59
7	2.76	322.2	3.22	3.51	11.82	21.5	21.47	1.82
8	3.22	375.9	3.76	4.10	11.89	22.2	22.24	1.87
9	3.69	429.6	4.30	4.68	11.96	23.4	23.38	1.95
10	4.15	483.3	4.83	5.27	12.03	24.4	24.38	2.03
11	4.61	537.0	5.37	5.85	12.11	25.1	25.14	2.08
12	5.07	590.7	5.91	6.44	12.19	25.7	25.66	2.11
13	5.53	644.4	6.44	7.02	12.26	26.6	26.56	2.17
14	5.99	698.1	6.98	7.61	12.34	27.2	27.25	2.21
15	6.45	751.8	7.52	8.19	12.42	27.9	27.88	2.25
16	6.91	805.5	8.06	8.78	12.50	28.1	28.14	2.25
17	7.37	859.2	8.59	9.36	12.58	28.7	28.66	2.28
18	7.83	913.0	9.13	9.95	12.66	29.4	29.37	2.32
19	8.29	966.7	9.67	10.53	12.74	29.6	29.61	2.32
20	8.75	1020.4	10.20	11.12	12.83	30.1	30.06	2.34
21	9.21	1074.1	10.74	11.70	12.91	30.6	30.60	2.37