



AP37 - Pipeline Analysis Software (PAS) に 管理値を適用する方法

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方法

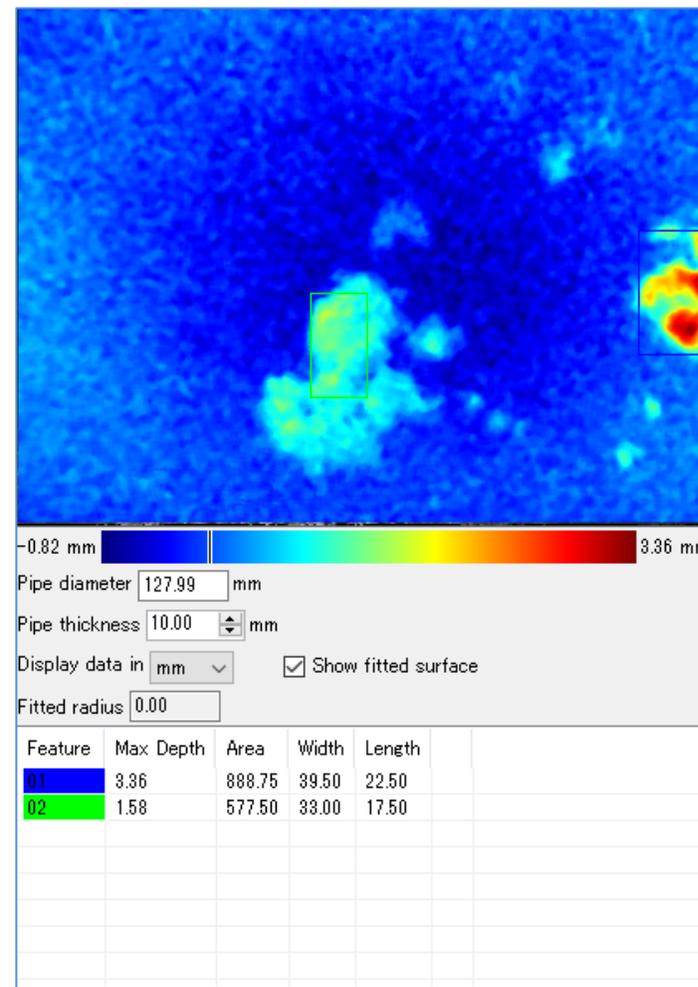
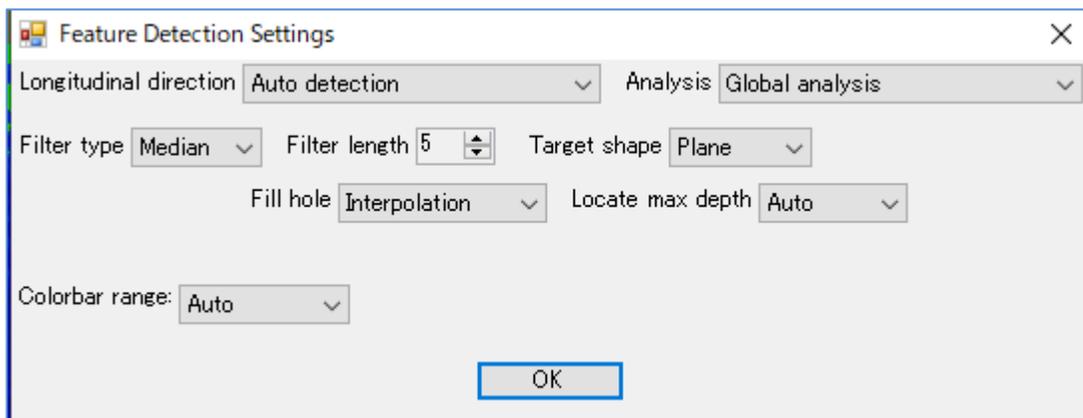
方法1

- PASのカラーバーに管理値を設定する方法

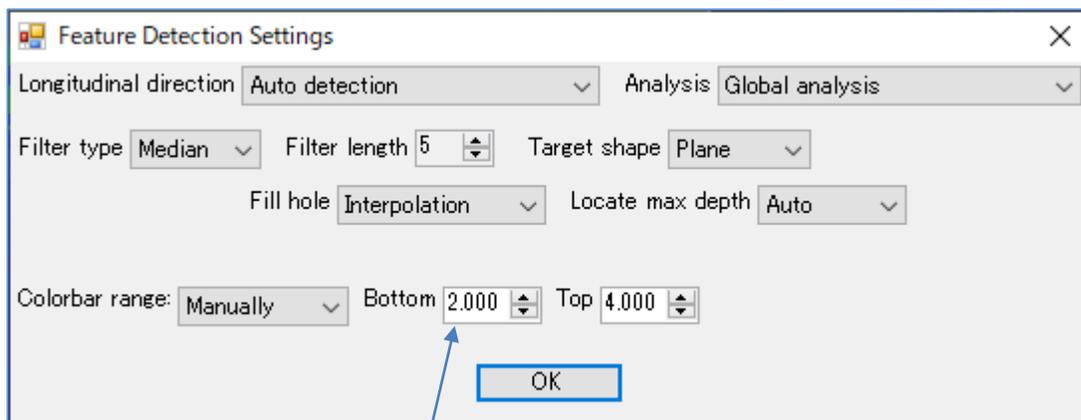
方法2

- 任意の格子で腐食減肉深さをCSVファイルとして出力し、エクセルで、管理値以上深い箇所を色付けする方法

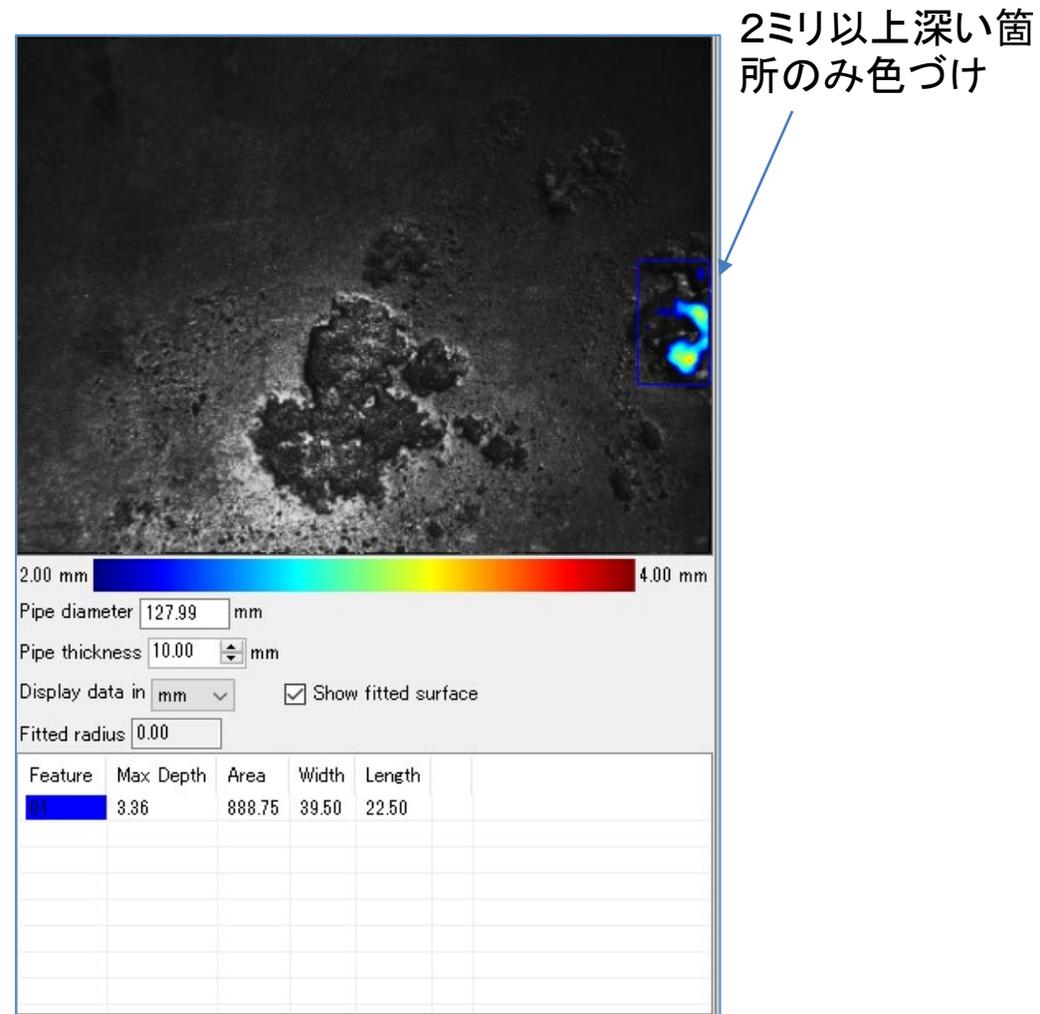
デフォルト設定の減肉解析結果



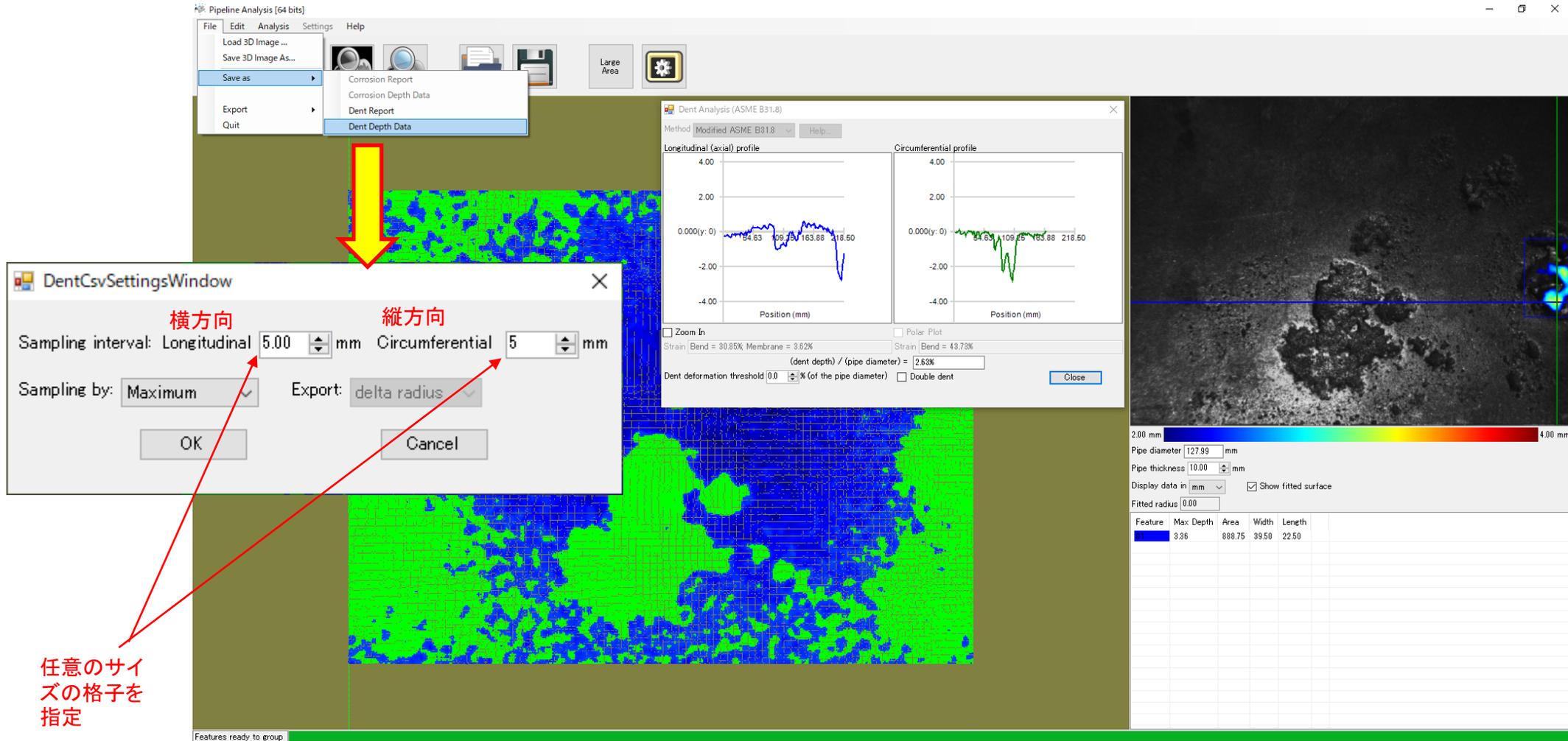
方法1: カラーバーに管理値を使う



腐食減肉の管理値 = 2ミリの場合



方法2: CSV出力



The screenshot shows the 'DentCsvSettingsWindow' dialog box with the following settings:

- Sampling interval: **横方向** (Longitudinal) 5.00 mm, **縦方向** (Circumferential) 5 mm
- Sampling by: Maximum
- Export: delta radius

The background shows the 'Dent Analysis (ASME B31.8)' window with two profile graphs and a 3D surface plot of a pipe dent. The 'Dent Analysis' window includes the following data:

- Method: Modified ASME B31.8
- Strain | Bend = 30.85%, Membrane = 3.62%
- Strain | Bend = 43.72%
- (dent depth) / (pipe diameter) = 2.63%
- Dent deformation threshold 0.0 % (of the pipe diameter)

The 3D surface plot shows a color scale from 2.00 mm (blue) to 4.00 mm (red). The 'Display data in' is set to mm, and 'Show fitted surface' is checked. The fitted radius is 0.00 mm.

A table at the bottom right of the 'Dent Analysis' window displays the following data:

Feature	Max Depth	Area	Width	Length
1	3.36	888.75	39.50	22.50

A red arrow points from the 'DentCsvSettingsWindow' dialog box to the 'Dent Analysis' window, indicating the flow of data. A yellow arrow points from the 'File' menu to the 'Dent Depth Data' option.

任意のサイズの格子を指定

CSVファイル(5ミリ格子:左上隅)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
1		0.00 mm	5.00 mm	10.00 mm	15.00 mm	20.00 mm	25.00 mm	30.00 mm	35.00 mm	40.00 mm	45.00 mm	50.00 mm	55.00 mm	60.00 mm	65.00 mm	70.00 mm	75.00 mm
2	0.00 mm	0.28	0.2	-0.2	-0.22	-0.13	-0.38	-0.23	0.22	-0.22	-0.25	-0.24	-0.42	-0.29	-0.29	-0.28	
3	5.00 mm	0.14	0.2	0.2	-0.18	0.19	-0.39	-0.24	-0.2	-0.19	-0.26	-0.25	-0.27	0.17	-0.29	-0.21	
4	10.00 mm	0.2	0.14	0.14	0.13	-0.23	-0.34	-0.37	-0.15	0.22	-0.17	-0.19	-0.24	0.34	0.28	0.26	
5	15.00 mm	-0.28	-0.27	-0.2	-0.2	-0.15	-0.19	-0.19	-0.15	-0.23	-0.31	-0.25	0.22	0.21	-0.3	-0.17	
6	20.00 mm	-0.26	-0.26	-0.34	0.18	-0.21	-0.3	-0.3	0.28	0.26	-0.17	0.3	0.28	0.21	0.4	0.3	
7	25.00 mm	-0.35	-0.28	-0.34	-0.26	-0.32	-0.31	-0.28	-0.2	0.16	0.23	0.27	0.28	0.35	-0.22	-0.21	
8	30.00 mm	-0.27	-0.33	-0.39	-0.34	-0.32	-0.32	-0.31	-0.2	0.22	0.24	-0.23	0.28	0.24	0.36	0.43	
9	35.00 mm	-0.29	-0.39	-0.39	-0.24	-0.23	-0.14	-0.21	0.2	0.15	0.22	0.19	0.29	0.24	0.37	0.38	
10	40.00 mm	-0.31	-0.39	-0.2	-0.21	-0.18	-0.18	-0.21	-0.19	0.23	0.2	0.28	0.27	0.45	0.46	0.43	
11	45.00 mm	-0.44	-0.26	-0.29	-0.28	-0.32	-0.24	-0.18	0.32	0.18	-0.25	0.18	0.33	0.51	0.46	0.39	
12	50.00 mm	-0.5	-0.3	-0.36	-0.26	-0.21	-0.18	-0.14	0.33	0.24	0.2	0.23	0.27	0.41	0.38	0.43	
13	55.00 mm	-0.38	-0.41	-0.19	-0.24	-0.2	-0.19	0.14	0.22	0.29	0.3	0.27	0.33	0.48	0.49	0.48	
14	60.00 mm	-0.42	-0.4	-0.32	-0.33	-0.28	-0.28	0.23	0.25	0.22	0.22	0.34	0.37	0.6	0.55	0.48	
15	65.00 mm	-0.39	-0.42	-0.31	-0.28	-0.3	-0.31	0.18	0.24	0.29	0.42	0.42	0.32	0.41	0.33	0.44	
16	70.00 mm	-0.38	-0.44	-0.36	-0.33	-0.24	0.19	0.23	0.23	0.3	0.42	0.42	0.39	0.44	0.51	0.53	
17	75.00 mm	-0.47	-0.45	-0.36	-0.35	-0.35	-0.23	-0.16	0.22	0.2	0.25	0.31	0.4	0.44	0.5	0.43	
18	80.00 mm	-0.5	-0.43	-0.4	-0.37	-0.34	-0.26	0.15	0.22	0.24	0.32	0.34	0.37	0.37	0.51	0.55	
19	85.00 mm	-0.54	-0.53	-0.49	-0.4	-0.3	-0.22	-0.27	0.25	0.31	0.22	0.36	0.5	0.39	0.6	0.45	
20	90.00 mm	-0.47	-0.47	-0.32	-0.33	-0.24	-0.26	-0.22	0.2	0.2	0.37	0.49	0.34	0.42	0.33	0.55	
21	95.00 mm	-0.45	-0.45	-0.37	-0.35	-0.32	-0.24	-0.25	-0.13	-0.14	0.25	0.38	0.37	0.45	0.49	0.55	
22	100.00 mm	-0.39	-0.37	-0.44	-0.34	-0.32	-0.28	-0.21	-0.22	-0.24	0.21	0.39	0.38	0.34	0.37	0.49	
23	105.00 mm	-0.46	-0.43	-0.44	-0.44	-0.34	-0.26	-0.22	-0.28	0.2	0.24	0.4	0.46	0.39	0.35	0.47	
24	110.00 mm	-0.45	-0.44	-0.44	-0.44	-0.37	-0.28	-0.23	-0.18	-0.32	-0.3	0.34	0.37	0.4	0.36	0.49	
25	115.00 mm	-0.43	-0.43	-0.38	-0.43	-0.42	-0.29	-0.18	-0.18	-0.32	-0.28	0.24	0.21	0.24	0.35	0.37	
26	120.00 mm	-0.43	-0.39	-0.4	-0.29	-0.32	-0.32	-0.33	-0.37	-0.24	-0.23	-0.29	0.2	0.22	0.28	0.31	
27	125.00 mm	-0.37	-0.27	-0.33	-0.33	-0.34	-0.33	-0.3	-0.36	-0.21	-0.22	0.24	0.24	0.2	0.18	-0.37	



CSVファイル(5ミリ格子:全体、色づけ)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS
1		0.00	5.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00	55.00	60.00	65.00	70.00	75.00	80.00	85.00	90.00	95.00	100.00	105.00	110.00	115.00	120.00	125.00	130.00	135.00	140.00	145.00	150.00	155.00	160.00	165.00	170.00	175.00	180.00	185.00	190.00	195.00	200.00	205.00	210.00	mm
2	0.00	0.28	0.20	-0.20	-0.22	-0.13	-0.38	-0.23	0.22	-0.22	-0.25	-0.24	-0.42	-0.29	-0.29	-0.28	-0.27	-0.29	0.21	0.23	0.24	0.20	-0.27	-0.20	-0.24	-0.29	-0.29	-0.26	-0.29	-0.22	-0.23	-0.32	-0.18	-0.26	-0.25	-0.28	-0.36	-0.24	-0.33	-0.55	-0.55	-0.25	-0.25	-0.28	
3	5.00	0.14	0.20	0.20	-0.18	0.19	-0.39	-0.24	-0.20	-0.19	-0.26	-0.25	-0.27	0.17	-0.29	-0.21	-0.16	0.28	0.23	0.22	0.17	0.20	0.20	0.24	-0.22	-0.16	0.26	0.20	-0.18	-0.33	0.24	-0.25	-0.20	0.26	0.26	0.21	-0.19	-0.20	-0.22	-0.28	-0.43	-0.30	-0.22	-0.27	
4	10.00	0.20	0.14	0.14	0.13	-0.23	-0.34	-0.37	-0.15	0.22	-0.17	-0.19	-0.24	0.34	0.28	0.26	-0.27	0.24	0.31	0.36	0.30	0.30	0.22	0.30	0.39	0.29	0.20	0.25	0.31	-0.32	0.21	0.17	0.21	0.25	0.28	0.27	0.18	0.16	0.16	-0.22	-0.36	-0.22	-0.27	-0.32	
5	15.00	-0.28	-0.27	-0.20	-0.20	-0.15	-0.19	-0.19	-0.15	-0.23	-0.31	-0.25	0.22	0.21	-0.30	-0.17	0.23	0.28	0.28	0.31	0.44	0.47	0.44	0.34	0.41	0.37	0.38	0.18	0.32	0.24	0.23	0.23	-0.28	0.24	0.25	0.20	0.26	0.29	-0.16	-0.19	-0.22	-0.30	-0.31	-0.33	
6	20.00	-0.26	-0.26	-0.34	0.18	-0.21	-0.30	-0.30	0.28	0.26	-0.17	0.30	0.28	0.21	0.40	0.30	0.36	0.35	0.25	0.33	0.37	0.39	0.33	0.26	0.26	0.39	0.39	0.31	0.40	0.30	0.30	-0.32	-0.33	0.25	0.24	0.28	0.25	0.23	-0.18	-0.22	-0.29	-0.26	-0.29	-0.29	
7	25.00	-0.35	-0.28	-0.34	-0.26	-0.32	-0.31	-0.28	-0.20	0.16	0.23	0.27	0.28	0.35	-0.22	-0.21	0.32	0.32	0.28	0.41	0.43	0.38	0.36	0.36	0.38	0.34	0.35	0.42	0.40	0.38	0.30	0.32	-0.30	0.41	0.21	0.22	-0.28	-0.25	-0.31	-0.19	-0.22	-0.24	-0.13	-0.22	
8	30.00	-0.27	-0.33	-0.39	-0.34	-0.32	-0.32	-0.31	-0.20	0.22	0.24	-0.23	0.28	0.24	0.36	0.43	0.28	0.32	0.34	0.40	0.47	0.43	0.52	0.46	0.44	0.45	0.52	0.50	0.46	0.42	0.44	0.33	0.29	0.39	0.34	0.38	0.20	-0.37	-0.29	-0.27	-0.25	-0.21	-0.20	-0.28	
9	35.00	-0.29	-0.39	-0.39	-0.24	-0.23	-0.14	-0.21	0.20	0.15	0.22	0.19	0.29	0.24	0.37	0.38	0.45	0.45	0.53	0.53	0.48	0.52	0.56	0.46	0.54	0.57	0.44	0.50	0.46	0.52	0.42	0.39	0.44	0.39	0.33	-0.23	-0.38	-0.56	-0.41	-0.15	-0.17	-0.23	-0.33	-0.38	
10	40.00	-0.31	-0.39	-0.20	-0.21	-0.18	-0.18	-0.21	-0.19	0.23	0.20	0.28	0.27	0.45	0.46	0.43	0.41	0.50	0.42	0.53	0.58	0.50	0.58	0.60	0.63	0.60	0.57	0.61	0.50	0.47	0.41	0.48	0.38	0.33	-0.37	-0.45	-0.41	-0.52	-0.52	-0.19	-0.18	-0.25	-0.36	-0.38	
11	45.00	-0.44	-0.26	-0.29	-0.28	-0.32	-0.24	-0.18	0.32	0.18	-0.25	0.18	0.33	0.51	0.46	0.39	0.44	0.40	0.40	0.50	0.59	0.54	0.62	0.60	0.63	0.58	0.61	0.57	0.54	0.50	0.59	0.47	0.59	0.30	-0.72	-0.75	-0.21	0.18	-0.22	-0.17	0.18	0.32	-0.36	-0.38	
12	50.00	-0.50	-0.30	-0.36	-0.26	-0.21	-0.18	-0.14	0.33	0.24	0.20	0.23	0.27	0.41	0.38	0.43	0.51	0.45	0.41	0.54	0.54	0.48	0.78	0.76	0.51	0.62	0.61	0.56	0.61	0.54	0.50	0.52	0.46	0.54	-0.73	-0.70	0.54	0.54	0.29	0.31	-0.15	-0.18	-0.20	-0.30	
13	55.00	-0.38	-0.41	-0.19	-0.24	-0.20	-0.19	0.14	0.22	0.29	0.30	0.27	0.33	0.48	0.49	0.48	0.65	0.65	0.45	0.51	0.69	0.63	0.81	0.77	0.58	0.51	0.63	0.64	0.63	0.54	0.61	0.53	0.44	0.54	0.35	0.43	0.55	0.53	0.34	0.26	0.20	0.21	0.15	-0.25	
14	60.00	-0.42	-0.40	-0.32	-0.33	-0.28	-0.28	0.13	0.25	0.22	0.22	0.34	0.37	0.60	0.55	0.48	0.57	0.53	0.53	0.51	0.65	0.64	0.62	0.63	0.53	0.34	0.42	0.66	0.65	0.64	0.58	0.53	0.53	0.39	0.44	0.46	0.37	0.34	0.27	0.27	0.23	-0.34	-0.61		
15	65.00	-0.39	-0.42	-0.31	-0.28	-0.30	-0.31	0.18	0.24	0.29	0.42	0.42	0.32	0.41	0.33	0.44	0.63	0.58	0.55	0.53	0.61	0.63	0.57	0.47	-0.32	-0.28	0.52	0.76	0.66	0.59	0.53	0.55	0.63	0.54	0.46	0.43	0.45	0.35	0.39	0.31	0.39	-1.03	-1.04	-0.61	
16	70.00	-0.38	-0.44	-0.36	-0.33	-0.24	0.19	0.23	0.23	0.30	0.42	0.42	0.39	0.44	0.51	0.53	0.58	0.68	0.68	0.58	0.60	0.60	0.58	0.35	0.59	0.58	0.49	0.77	0.80	0.82	0.73	0.67	0.68	0.61	0.56	0.40	0.43	0.38	0.39	0.31	-0.90	-1.20	-1.20	-2.16	
17	75.00	-0.47	-0.45	-0.36	-0.35	-0.35	-0.23	-0.16	0.22	0.20	0.25	0.31	0.40	0.44	0.50	0.43	0.50	0.63	0.65	0.70	0.64	0.58	0.58	0.45	0.64	0.68	0.76	0.76	0.78	0.82	0.79	0.64	0.66	0.60	0.60	0.58	0.65	0.41	0.34	0.35	0.27	-0.41	-0.77	-2.16	
18	80.00	-0.50	-0.43	-0.40	-0.37	-0.34	-0.26	0.15	0.22	0.24	0.32	0.34	0.37	0.37	0.51	0.55	0.47	0.58	0.64	0.74	0.66	0.57	0.60	0.56	0.64	0.65	0.67	0.76	0.72	0.66	0.66	0.65	0.65	0.62	0.64	0.48	0.48	0.41	0.30	0.30	-0.79	-1.85	-2.48	-2.30	
19	85.00	-0.54	-0.53	-0.49	-0.40	-0.30	-0.22	-0.27	0.25	0.31	0.22	0.36	0.50	0.39	0.60	0.45	0.58	0.61	0.64	0.71	0.58	-0.84	-0.92	-0.72	0.59	0.74	0.82	0.68	0.77	0.73	0.67	0.60	0.73	0.62	0.59	0.62	0.55	0.43	0.43	-0.91	-1.91	-2.10	-2.62	-3.13	
20	90.00	-0.47	-0.47	-0.32	-0.33	-0.24	-0.26	-0.22	0.20	0.20	0.37	0.49	0.34	0.42	0.33	0.55	0.55	0.58	0.74	-0.99	-1.24	-1.23	-1.04	-0.93	-0.74	0.63	0.68	0.66	0.78	0.67	0.68	0.73	0.74	0.60	0.57	0.61	0.45	0.43	0.45	-1.19	-2.03	-1.96	-2.00	-2.99	
21	95.00	-0.45	-0.45	-0.37	-0.35	-0.32	-0.24	-0.25	-0.13	-0.14	0.25	0.38	0.37	0.45	0.49	0.55	0.57	0.56	0.50	-1.47	-1.58	-1.30	-1.01	-0.98	-0.77	0.55	0.63	0.67	0.70	0.68	0.69	0.64	0.76	0.57	0.56	0.54	0.42	0.36	0.31	-1.06	-1.61	-2.44	-2.90	-2.76	
22	100.00	-0.39	-0.37	-0.44	-0.34	-0.32	-0.28	-0.21	-0.22	-0.24	0.21	0.39	0.38	0.34	0.37	0.49	0.49	0.58	0.57	-1.40	-1.44	-1.17	-1.03	-1.03	-0.67	0.41	-0.83	-0.80	0.57	0.70	0.68	0.72	0.65	0.55	0.44	0.48	0.40	0.35	0.33	0.28	-0.74	-2.66	-3.22	-3.36	
23	105.00	-0.46	-0.43	-0.44	-0.44	-0.34	-0.26	-0.22	-0.28	0.20	0.24	0.40	0.46	0.39	0.35	0.47	0.46	0.61	0.52	-1.17	-1.28	-1.16	-1.10	-1.04	-0.40	-0.46	-1.05	-1.07	0.40	0.60	0.61	0.62	0.56	0.45	0.45	0.46	0.48	0.48	0.36	0.30	-0.50	-1.77	-2.95	-3.00	
24	110.00	-0.45	-0.44	-0.44	-0.44	-0.37	-0.28	-0.23	-0.18	-0.32	-0.30	0.34	0.37	0.40	0.36	0.49	0.34	0.30	0.52	-1.02	-1.11	-1.17	-1.07	-0.81	0.51	0.40	-0.81	-0.89	0.53	0.55	0.77	0.61	0.48	0.45	0.44	0.32	0.32	0.48	0.35	0.21	-0.28	-0.37	-0.95	-1.18	
25	115.00	-0.43	-0.43	-0.38	-0.43	-0.42	-0.29	-0.18	-0.18	-0.32	-0.28	0.24	0.21	0.24	0.35	0.37	-1.01	-1.00	-0.91	-1.14	-1.37	-1.18	-0.82	-0.75	-0.75	-0.60	0.45	0.61	0.59	0.50	0.56	0.50	0.41	0.39	0.38	0.35	0.40	0.24	0.18	-0.15	-0.25	-0.29	-0.32	-0.26	
26	120.00	-0.43	-0.39	-0.40	-0.29	-0.32	-0.32	-0.33	-0.37	-0.24	-0.23	-0.29	0.20	0.22	0.28	0.31	-1.07	-1.05	-1.04	-1.13	-1.30	-1.05	-0.96	-1.01	-0.75	-0.75	-0.65	0.51	0.58	-0.59	0.50	0.37	0.51	0.48	0.31	0.37	0.27	0.25	0.21	-0.31	0.67	-0.32	-0.48	-0.26	
27	125.00	-0.37	-0.27	-0.33	-0.33	-0.34	-0.33	-0.30	-0.36	-0.21	-0.22	0.24	0.24	0.20	0.18	-0.37	-1.01	-1.29	-1.06	-0.92	-0.97	-0.95	-1.04	-1.14	-0.75	-0.71	-0.71	-0.42	0.38	-0.67	0.31	0.32	0.39	0.45	0.43	0.23	0.15	-0.14	-0.19	-0.21	-1.14	-1.04	-0.35	-0.35	
28	130.00	-0.34	-0.37	-0.31	-0.29	-0.27	-0.26	-0.25	-0.23	-0.25	0.20	0.22	0.16	0.25	0.16	0.34	-0.86	-1.33	-1.31	-0.99	-1.00	-0.92	-0.80	-0.83	-0.68	-0.33	-0.27	0.28	0.36	0.37	-0.49	-0.53	-0.38	0.29	0.25	0.27	0.24	-0.22	-0.24	-0.32	-0.86	-0.83	-0.32	-0.35	
29	135.00	-0.32	-0.34	-0.35	-0.33	-0.36	-0.28	-0.29	-0.32	-0.27	-0.20	0.14	0.13	0.12	0.13	-0.25	-0.69	-1.19	-1.21	-1.00	-0.98	-0.90	-0.77	-0.55	-0.31	0.26	0.27	0.23	0.31	0.37	0.32	0.30	0.32	0.20	0.24	0.22	0.13	-0.12	-0.55	-0.61	-0.34	-			