Load Time vs Compression Batch Size (10M docs)

Legend: Total, Compression, Load

Y-axis: Time (sec) — 0, 250, 500, 750, 1000

X-axis: Compression Batch Size (1 is non-compressed) — 1, 25, 50, 100, 250, 500, 1000

Load OPS vs Compression Batch Size (10M docs)

Legend: OPS

Y-axis: Time (secs) — 12,000; 9,000; 6,000; 3,000; 0

X-axis: Compression Batch Size (1 is non-compressed) — 1, 25, 50, 100, 250, 500, 1000
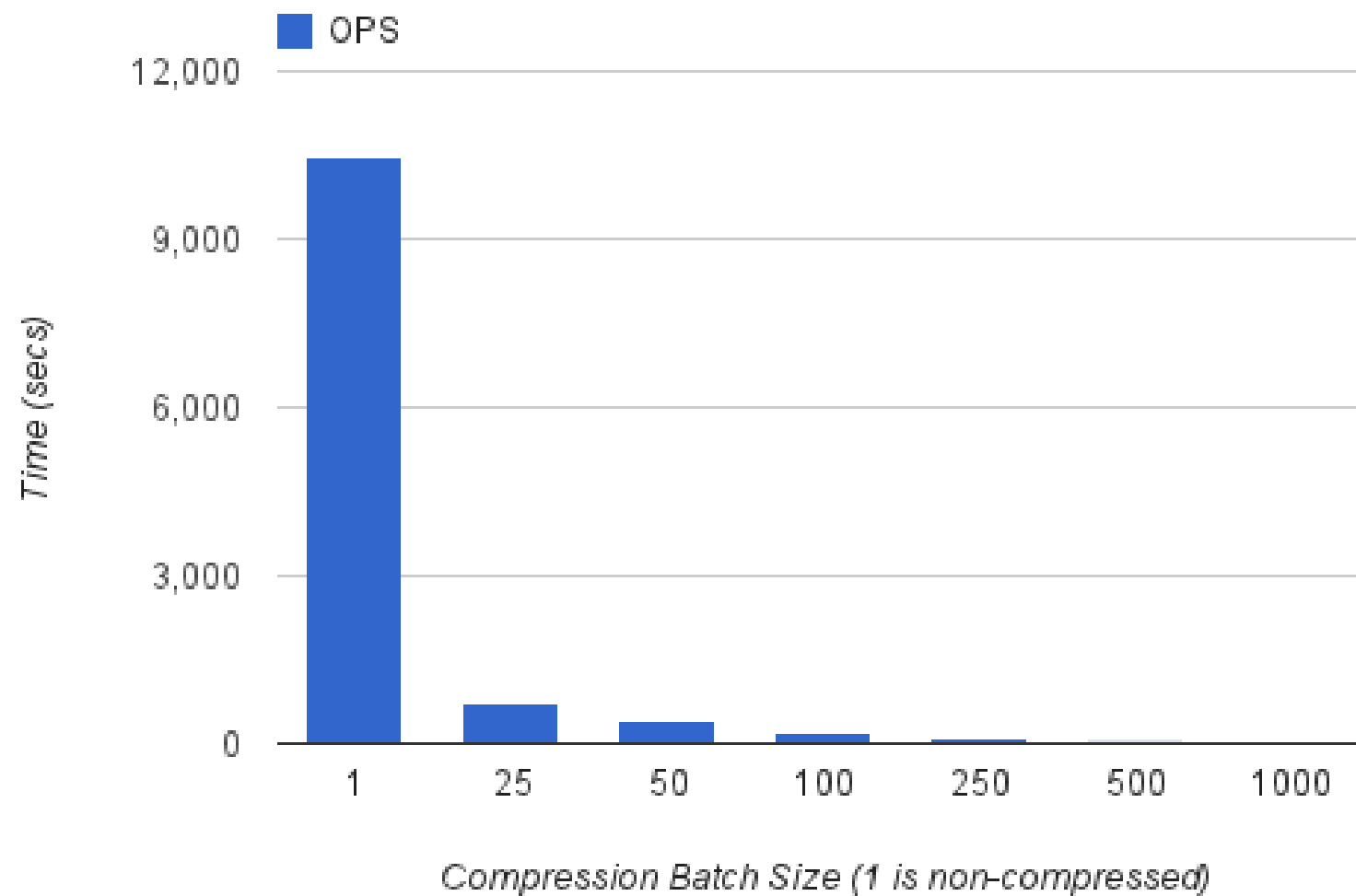
DB Size vs Compression Count (18% of total at 100)

Size (GB)

5.00

3.90

2.80

1.70

0.60

Compression Batch Size (1 is non-compressed)

1   25   50   100   250   500   1000
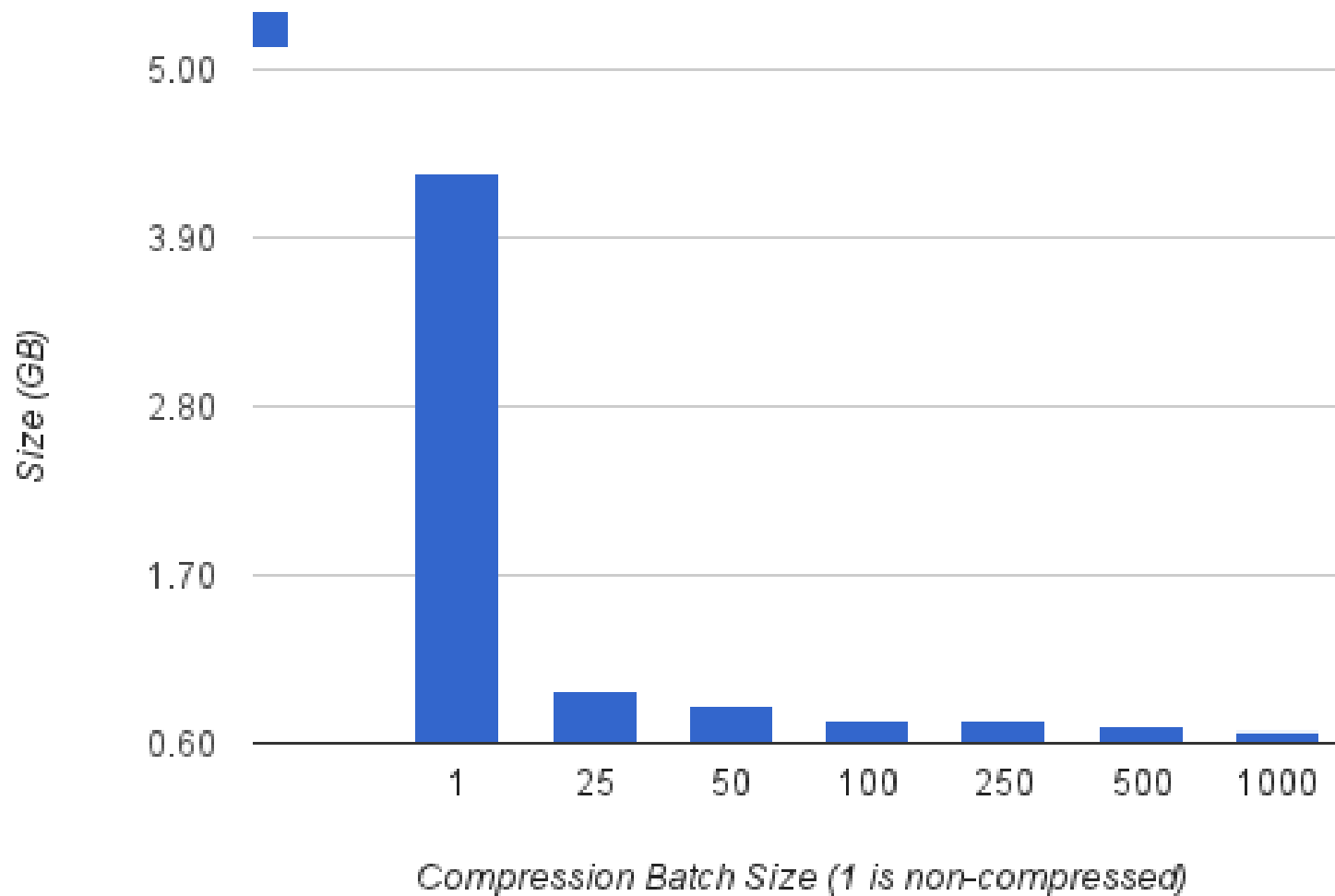
Query Time vs Compression Batch Size (10M docs, {device_id : { $in : <4 ids>} }, returns 4k docs, 1 col)

Time (secs)

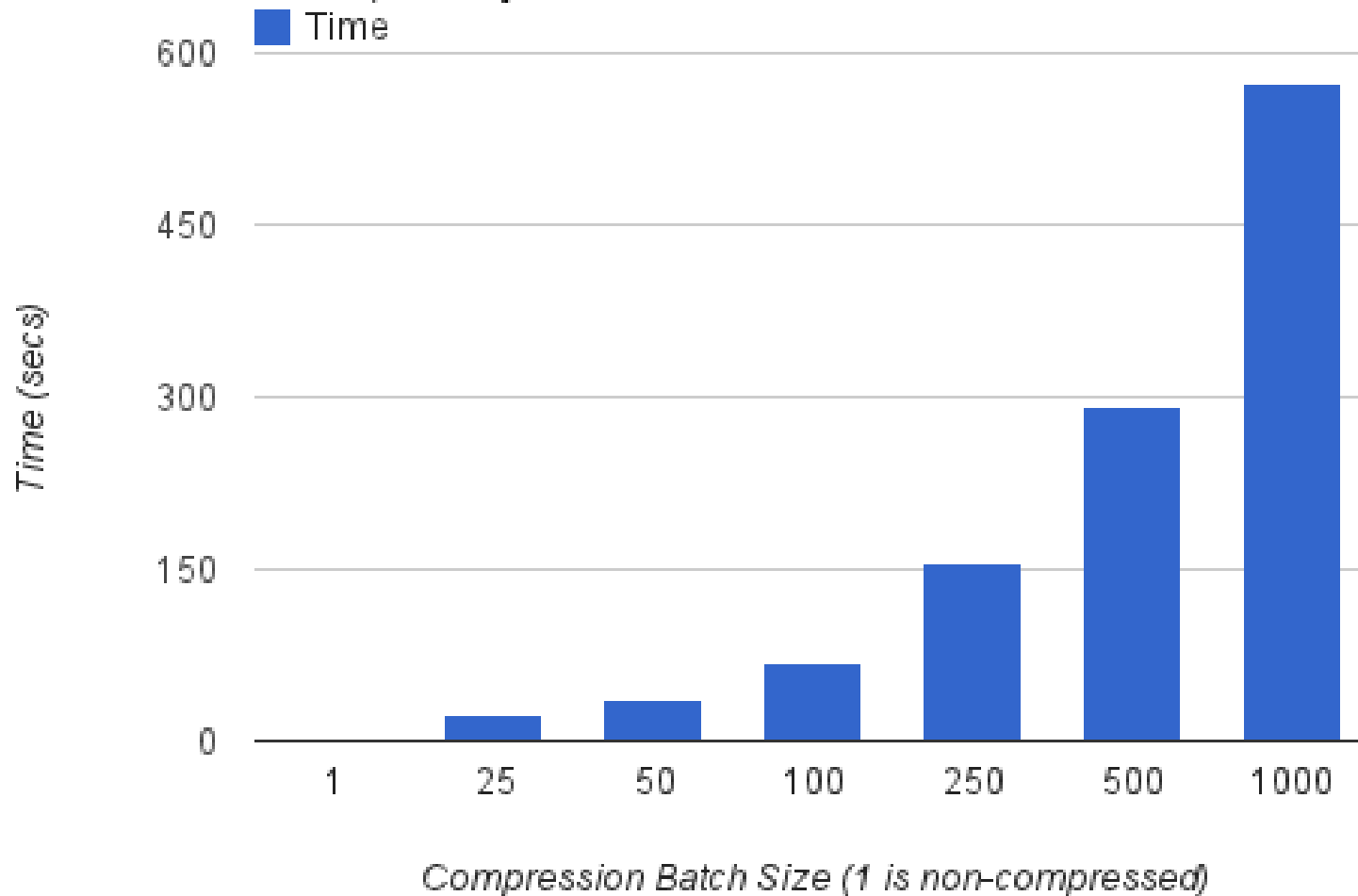Compression Batch Size (1 is non-compressed)

Query Time vs Compression Batch Size (10M docs, {device_id : { $in : <4 ids>}, ts : { $gte : t1, $lte : 21 } }, returns 1.6k docs, 1 col)

■ Time

Time (secs)

24

18

12

6

0

0   25   50   100   250   500   1000

Compression Batch Size (1 is non-compressed)

Query Time vs Compression Batch Size (10M docs, {device_id : { $in : <4 ids>}, ts : { $gte : t1, $lte : 21 } }, returns 1.6k docs, 4 cols)

■ Time

Time (secs)
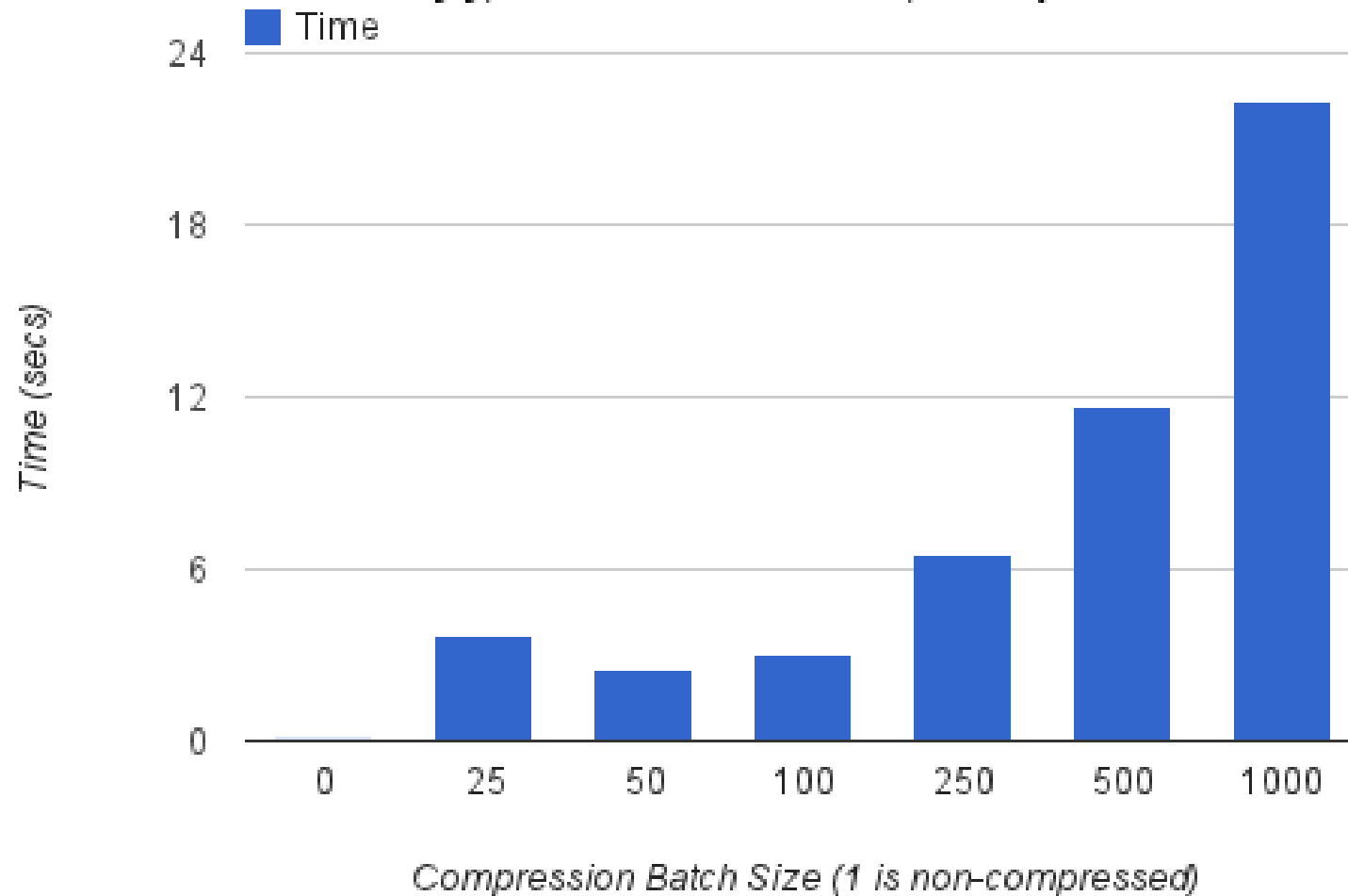
Compression Batch Size (1 is non-compressed)
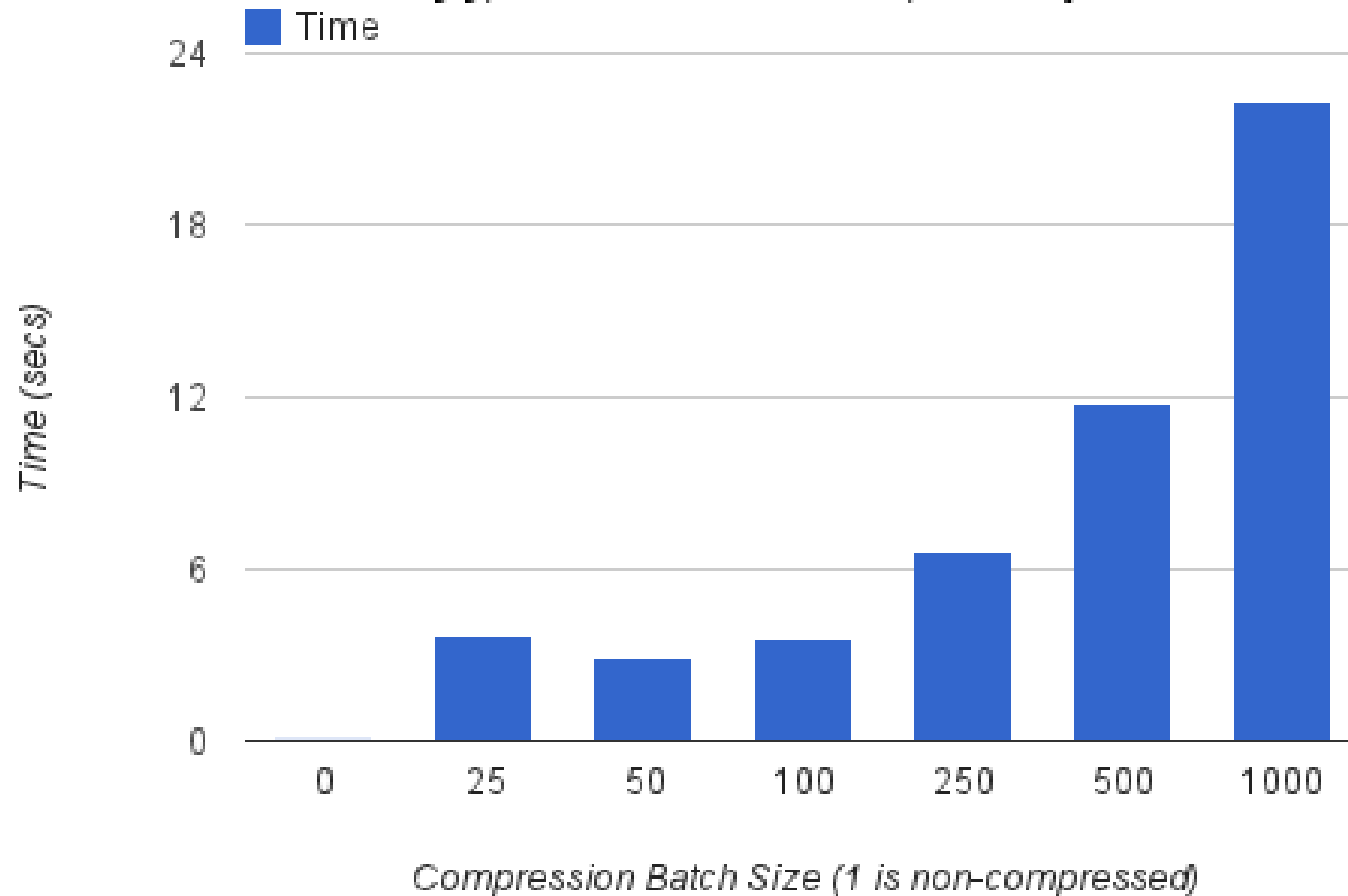
Compression	Total	Compression	Setup	Load	Load Ave (k		Pct of serial	OPS
1	953.231	0	97.263	855.968	85.6	0.0856		10,491
25	544.066	416.984	514.247	29.819	3	0.003	0.5708982162	735
50	489.898	369.845	467.108	22.79	2.3	0.0023	0.5140587618	408
100	457.336	343.39	440.653	16.683	1.7	0.0017	0.4798908709	219
250	448.055	338.054	435.317	12.738	1.3	0.0013	0.4701521511	89
500	448.198	339.287	436.55	11.648	1.2	0.0012	0.4703022036	45
1000	580.06	471.837	569.1	10.96	Load-ave	0.0011	0.6086673662	17

Compress	Time	Query-type	Query-cnt	Found	Ave	Factor of serial
1	0.41	1	1	40000	0.41	
25	23.306	1	1	40000	23.306	56.84
50	37.78	1	1	39987	37.78	92.15
100	68.363	1	1	39895	68.363	166.74
250	156.179	1	1	39249	156.179	380.92
500	291.369	1	1	37237	291.369	710.66
1000	574.056	1	1	33600	574.056	1,400.14

Compress-size	Time	Query-type	Query-cnt	Found	Ave	Factor of serial
0	0.09	2	1	1600	0.09	
25	3.656	2	1	1600	3.656	40.62
50	2.493	2	1	1600	2.493	27.70
100	3.065	2	1	1599	3.065	34.06
250	6.504	2	1	1574	6.504	72.27
500	11.673	2	1	1478	11.673	129.70
1000	22.304	2	1	1340	22.304	247.82

Compress-size	Time	Query-type	Query-cnt	Found	Ave	Factor of serial
0	0.087	3	1	1600	0.087	
25	3.679	3	1	1600	3.679	42.29
50	2.994	3	1	1600	2.994	34.41
100	3.572	3	1	1599	3.572	41.06
250	6.668	3	1	1574	6.668	76.64
500	11.757	3	1	1478	11.757	135.14
1000	22.28	3	1	1340	22.28	256.09

Compression	Size (GB)	Size	Pct
1	4.32	4640000016	
25	0.95	1017598768	21.93%
50	0.86	918399824	19.79%
100	0.76	817598064	17.62%
250	0.76	818559472	17.64%
500	0.72	770886640	16.61%
1000	0.69	737120000	15.89%