

Assigned Rotational lines of the  $C^1\Sigma - X^1\Sigma$  Electronic Transition of YBr ( $\text{cm}^{-1}$ )

J	$Y^{79}\text{Br}$ (0,0) band		$Y^{81}\text{Br}$ (0,0) band	
	P	R	P	R
0				13895.7174
1	13895.3485*	13895.7065	13895.4769	13895.8279
2	13895.2185	13895.8107	13895.3485*	13895.9308
3	13895.0803	13895.9078	13895.2096	13896.0261
4	13894.9331	13895.9978	13895.0655	13896.1162*
5	13894.7798	13896.0808	13894.9122	13896.1963
6	13894.6188	13896.1558*	13894.7540	13896.2719
7	13894.4507	13896.2269	13894.5882	13896.3419*
8	13894.2752	13896.2873	13894.4162	13896.4006
9	13894.0932	13896.3419*	13894.2357	13896.4534
10	13893.9044	13896.3893	13894.0497	13896.5009*
11	13893.7094	13896.4283*	13893.8556	13896.5416
12	13893.5056	13896.4618	13893.6567	13896.5739
13	13893.2959	13896.4899	13893.4465	13896.5997
14	13893.0785	13896.5096	13893.2353	13896.6201
15	13892.8547	13896.5215	13893.0135	13896.6336*
16	13892.6235	13896.5241*	13892.7833	13896.6336*
17	13892.3851	13896.5241*	13892.5498	13896.6336*
18	13892.1402	13896.5151	13892.3079	13896.6255
19	13891.8888	13896.5009*	13892.0586	13896.6088
20	13891.6279	13896.4763*	13891.8034	13896.5871
21	13891.3618	13896.4457	13891.5402	13896.5574
22	13891.0864	13896.4084	13891.2691	13896.5241*
23	13890.8064	13896.3663	13890.9921	13896.4763*
24	13890.5182	13896.3124	13890.7076	13896.4283*
25	13890.2224	13896.2549	13890.4165	13896.3663
26	13889.9217	13896.1904	13890.1179	13896.3041
27	13889.6117	13896.1162*	13889.8128	13896.2316
28	13889.2948	13896.0357	13889.4999	13896.1558*
29	13888.9726	13895.9495	13889.1823	13896.0678
30	13888.6425	13895.8564	13888.8555	13895.9747
31	13888.3052	13895.7544	13888.5240	13895.8758
32	13887.9607	13895.6466	13888.1841	13895.7685
33	13887.6094	13895.5326*	13887.8358	13895.6537
34	13887.2513	13895.4062*	13887.4825	13895.5326*
35	13886.8852	13895.2777	13887.1216	13895.4062*
36	13886.5135	13895.1423	13886.7538	13895.2719
37	13886.1334	13894.9979	13886.3800	13895.1298
38	13885.7463	13894.8471	13885.9983	13894.9803
39	13885.3522	13894.6891	13885.6087	13894.8240
40		13894.5236		13894.6609
41		13894.3508		13894.4905
42		13894.1718		13894.3130
43		13893.9853		13894.1278
44		13893.7918		13893.9383
45		13893.5920		13893.7413
46		13893.3820		13893.5358
47		13893.1692		13893.3224
48		13892.9492		13893.1024
49		13892.7163		13892.8788
50		13892.4817		13892.6442
51		13892.2381		13892.4040
52		13891.9873		13892.1571
53		13891.7294		
54		13891.4638		
55		13891.1922		
56		13890.9119		
57		13890.6264		

\*indicate overlapped with another line.

Assigned Rotational lines of the  $C^1\Sigma - X^1\Sigma$  Electronic Transition of  $Y^{79}\text{Br}$  ( $\text{cm}^{-1}$ )

J	(0,1)band		(0,2)band	
	P	R	P	R
1	13625.3425	13625.6997	13356.5298	13356.8863
2	13625.2087	13625.8017	13356.3973	13356.9912
3	13625.0698	13625.9005	13356.262	13357.0891
4	13624.9279	13625.9922	13356.1183	13357.1828
5	13624.7756	13626.0769	13355.9677	13357.2694
6	13624.6171	13626.1553	13355.8116	13357.3512
7	13624.4520	13626.2271	13355.6495	13357.4241
8	13624.2791	13626.2909	13355.4809	13357.4918
9	13624.1020	13626.3510*	13355.3060	13357.5544
10	13623.9162	13626.4001	13355.1249	13357.6103
11	13623.7248	13626.4453	13354.9379	13357.6590
12	13623.5272	13626.4831	13354.7440	13357.7016
13	13623.3238	13626.5145*	13354.5439	13357.7382
14	13623.1094	13626.5406	13354.3376	13357.7681
15	13622.8917	13626.5602	13354.1244	13357.7940
16	13622.6662	13626.5713*	13353.9067	13357.8090
17	13622.4350	13626.5713*	13353.6820	13357.8239
18	13622.1964	13626.5713*	13353.4505	13357.8259*
19	13621.9511	13626.5630	13353.2134	13357.8259*
20	13621.7001	13626.5471	13352.9713	13357.8173
21	13621.4405	13626.5250	13352.7198	13357.8035
22	13621.1761	13626.4963	13352.4647	13357.7829
23	13620.9046	13626.4621	13352.2015	13357.7570
24	13620.6255	13626.4190	13351.9325	13357.7234
25	13620.3410	13626.3706	13351.6572	13357.6842
26	13620.0497	13626.3155	13351.3756	13357.6397
27	13619.7523	13626.2530	13351.0876	13357.5866
28	13619.4459	13626.1857	13350.7922	13357.5295
29	13619.1333	13626.1092	13350.4921	13357.4647
30	13618.8145	13626.0259	13350.1847	13357.3937
31	13618.4894	13625.9378	13349.8721	13357.3175
32	13618.1572	13625.8413	13349.5527	13357.2342
33	13617.8189	13625.7396	13349.2272	13357.1437
34	13617.4714	13625.6311	13348.8940	13357.0485
35	13617.1206	13625.5137	13348.5561	13356.9453
36	13616.7623	13625.3910	13348.2113	13356.8363
37	13616.3976	13625.2603	13347.8600	13356.7220
38	13616.0243	13625.1240	13347.5026	13356.6008
39	13615.6478	13624.9835		13356.4725
40	13615.2620	13624.8339		13356.3395
41		13624.6776		13356.1989
42		13624.5145		13356.0508
43		13624.3440		13355.8971
44		13624.1682		13355.7394
45		13623.9842		
46		13623.7970		

\*indicate overlapped with another line.

Assigned Rotational lines of the  $C^1\Sigma - X^1\Sigma$  Electronic Transition of  $Y^{79}\text{Br}$  ( $\text{cm}^{-1}$ )

J	(0,3)band		(1,2)band	
	P	R	P	R
1	13088.9157	13089.2720*	13588.1862	13588.5397*
2	13088.7854	13089.3783*	13588.0561	13588.6449*
3	13088.6489	13089.4789*	13587.9172	13588.7441*
4	13088.5078	13089.5731*	13587.7732	13588.8333*
5	13088.3587	13089.6630*	13587.6209	13588.9167*
6	13088.2062	13089.7447*	13587.4626	13588.9962*
7	13088.0459	13089.8221*	13587.2982	13589.0667*
8	13087.8797	13089.8934*	13587.1257	13589.1314*
9	13087.7095	13089.9578*	13586.9493	13589.1887*
10	13087.5313	13090.0169*	13586.7643	13589.2394*
11	13087.3482	13090.0701*	13586.5714	13589.2825*
12	13087.1597	13090.1175*	13586.3728	13589.3191*
13	13086.9655	13090.1589*	13586.1689	13589.3505*
14	13086.7642	13090.1949*	13585.9551	13589.3746*
15	13086.5567	13090.2243*	13585.7378	13589.3916*
16	13086.3455	13090.2479*	13585.5130	13589.4019*
17	13086.1276	13090.2655*	13585.2801	13589.4019*
18	13085.9039	13090.2770*	13585.0423	13589.4019*
19	13085.6726	13090.2821*	13584.7947	13589.3916*
20	13085.4354	13090.2821*	13584.5433	13589.3746*
21	13085.1935	13090.2770*	13584.2840	13589.3505*
22	13084.9460	13090.2655*	13584.0185	13589.3191*
23	13084.6904	13090.2479*	13583.7460	13589.2825*
24	13084.4318	13090.2243*	13583.4672	13589.2394*
25	13084.1664	13090.1949*	13583.1791	13589.1887*
26	13083.8944	13090.1589*	13582.8879	13589.1314*
27	13083.6155	13090.1175*	13582.5883	13589.0667*
28	13083.3324	13090.0701*	13582.2818	13588.9962*
29	13083.0436	13090.0169*	13581.9706	13588.9167*
30	13082.7484	13089.9578*	13581.6514	13588.8333*
31	13082.4463	13089.8934*	13581.3248	13588.7441*
32	13082.1400	13089.8221*	13580.9906	13588.6449*
33	13081.8271	13089.7447*	13580.6508	13588.5397*
34	13081.5090	13089.6630*	13580.3037	13588.4286
35	13081.1851	13089.5731*		
36		13089.4789*		
37		13089.3783*		
38		13089.2720*		
39		13089.1599		

\*indicate overlapped with another line.

Assigned Rotational lines of the  $C^1\Sigma - X^1\Sigma$  Electronic Transition of  $Y^{79}\text{Br}$  ( $\text{cm}^{-1}$ )

J	(1,3) band		(1,4) band	
	P	R	P	R
1	13320.5742			
2	13320.4438	13321.0319	13054.0186	13054.6077
3	13320.3063	13321.1314	13053.8838	13054.7090
4	13320.1624	13321.2230	13053.7419	13054.8023
5	13320.0140	13321.3093	13053.5939	13054.8894
6	13319.8582	13321.3907	13053.4408	13054.9716
7	13319.6944	13321.4636	13053.2820	13055.0482
8	13319.5263	13321.5307	13053.1160	13055.1182
9	13319.3505	13321.5909	13052.9444	13055.1814
10	13319.1706	13321.6447	13052.7669	13055.2400
11	13318.9827	13321.6932	13052.5845	13055.2931*
12	13318.7892	13321.7382*	13052.3948*	13055.3397
13	13318.5891	13321.7735*	13052.1995	13055.3818
14	13318.3822	13321.8017*	13051.9978	13055.4171
15	13318.1699	13321.8236*	13051.7915	13055.4463
16	13317.9501	13321.8414*	13051.5781	13055.4687
17	13317.7243	13321.8499*	13051.3597	13055.4849
18	13317.4926	13321.8499*	13051.1342	13055.4945
19	13317.2542	13321.8499*	13050.9038	13055.4961
20	13317.0093	13321.8414*	13050.6674	13055.4980
21	13316.7591	13321.8236*	13050.4231	13055.4904
22	13316.5017	13321.8017*	13050.1748	13055.4779
23	13316.2381	13321.7735*	13049.9197	13055.4594
24	13315.9679	13321.7382*	13049.6596	13055.4344
25	13315.6921	13321.6989	13049.3927	13055.4023
26	13315.4090	13321.6515	13049.1203	13055.3638
27	13315.1201	13321.5981	13048.8415	13055.3204
28	13314.8248	13321.5385	13048.5572	13055.2697
29	13314.5236	13321.4725	13048.2676	13055.2157
30	13314.2151	13321.3990	13047.9712	13055.1533
31		13321.3208		13055.0892
32		13321.2345		13055.0129
33		13321.1427		13054.9351
34		13321.0455		13054.8514
35		13320.9414		13054.7593
36		13320.8300		13054.6619
37		13320.7128		13054.5596
38		13320.5900		
39		13320.4609		
40		13320.3226		
41		13320.1794		
42		13320.0312		
43		13319.8745		
44		13319.7123		
45		13319.5443		
46		13319.3676		
47		13319.1880		
48		13318.9978		
49		13318.8063		
50		13318.6067		

\*indicate overlapped with another line.

Assigned Rotational lines of the  $C^1\Sigma - X^1\Sigma$  Electronic Transition of  $Y^{79}\text{Br}$  ( $\text{cm}^{-1}$ )

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(2,4) band

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J	P	R
1		13284.9171
2	13284.4331	13285.0222
3	13284.2981	13285.1186
4	13284.1568	13285.2115
5	13284.0055	13285.2967
6	13283.8503	13285.3746
7	13283.6879	13285.4477
8	13283.5194	13285.5139
9	13283.3453	13285.5750
10	13283.1637	13285.6287
11	13282.9756	13285.6741
12	13282.7808	13285.7156
13	13282.5817	13285.7498
14	13282.3727	13285.7768
15	13282.1604	13285.7984
16	13281.9410	13285.8135
17	13281.7148	13285.8239*
18	13281.4826	13285.8239*
19	13281.2431	13285.8239*
20	13280.9979	13285.8100
21	13280.7476	13285.7953
22	13280.4885	13285.7700
23	13280.2250	13285.7401
24	13279.9538	13285.7055
25	13279.6772	13285.6630
26	13279.3925	13285.6133
27	13279.1030	13285.5583
28	13278.8071	13285.4961
29	13278.5050	13285.4276
30	13278.1949	13285.3528
31	13277.8795	13285.2720
32	13277.5579	13285.1844
33	13277.2289	13285.0901
34	13276.8944	13284.9905
35	13276.5538	13284.8814
36	13276.2046	13284.7691
37	13275.8513	13284.6524
38		13284.5251
39		13284.3911
40		13284.2526
41		13284.1063
42		13283.9568
43		13283.7985
44		13283.6349
45		13283.4638
46		13283.2842
47		13283.0994
48		13282.9114
49		13282.7128

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\*indicate overlapped with another line.

Assigned Rotational lines of the  $C^1\Sigma - X^1\Sigma$  Electronic Transition of  $Y^{81}\text{Br}$  ( $\text{cm}^{-1}$ )

J	(0,1) band		(0,2) band	
	P	R	P	R
0		13627.4710		
1	13627.2315	13627.5817	13360.1648	13360.5162
2	13627.1010	13627.6842	13360.0370	13360.6205
3	13626.9648	13627.7816	13359.9041	13360.7179
4	13626.8223	13627.8718	13359.7622	13360.8100
5	13626.6728	13627.9567	13359.6146	13360.8965
6	13626.5145*	13628.0331	13359.4595	13360.9753
7	13626.3510*	13628.1036	13359.2996	13361.0497
8	13626.1857	13628.1675	13359.1345	13361.1170
9	13626.0085	13628.2248	13358.9603	13361.1775
10	13625.8253	13628.2762	13358.7823	13361.2319
11	13625.6358	13628.3201	13358.5967	13361.2795
12	13625.4401	13628.3575	13358.4068	13361.3225
13	13625.2366	13628.3881	13358.2086	13361.3582
14	13625.0293	13628.4135	13358.0057	13361.3883
15	13624.8140	13628.4340*	13357.7940	13361.4121
16	13624.5913	13628.4438*	13357.5793	13361.4290
17	13624.3631	13628.4438*	13357.3554	13361.4430*
18	13624.1270	13628.4438*	13357.1276	13361.4430*
19	13623.8853	13628.4340*	13356.8934	13361.4430*
20	13623.6371	13628.4193	13356.6520	13361.4358
21	13623.3829	13628.3979	13356.4053	13361.4237
22	13623.1178	13628.3700	13356.1514	13361.4027
23	13622.8513	13628.3357	13355.8910	13361.3754
24	13622.5758	13628.2940	13355.6252	13361.3424
25	13622.2950	13628.2456	13355.3541	13361.3042
26	13622.0064	13628.1906	13355.0758	13361.2592
27	13621.7115	13628.1289	13354.7913	13361.2084
28	13621.4096	13628.0612	13354.5005	13361.1513
29	13621.1036	13627.9867	13354.2032	13361.0868
30	13620.7882	13627.9057	13353.9029	13361.0168
31	13620.4685	13627.8162	13353.5922	13360.9403
32	13620.1400	13627.7225	13353.2776	13360.8588
33	13619.8033	13627.6212	13352.9562	13360.7703
34	13619.4654	13627.5139	13352.6296	13360.6753
35	13619.1174	13627.3991	13352.2949	13360.5741
36	13618.7644	13627.2782	13351.9554	13360.4671
37	13618.4032	13627.1502	13351.6087	13360.3542
38	13618.0338	13627.0157	13351.2561	13360.2339
39	13617.6601	13626.8750	13350.8965	13360.1087
40	13617.2793	13626.7275	13350.5323	13359.9750
41	13616.8942	13626.5713	13350.1592	13359.8374
42	13616.5006	13626.4143	13349.7808	13359.6929
43	13616.0992	13626.2468	13349.3939	13359.5423
44	13615.6932	13626.0701	13349.0106	13359.3833
45	13615.2791	13625.8913	13348.6115	13359.2202
46		13625.7028	13348.2085	13359.0511
47		13625.5121		13358.8730
48		13625.3078		13358.6899
49		13625.0974		13358.5038
50		13624.8852		

\*indicate overlapped with another line.

Assigned Rotational lines of the  $C^1\Sigma - X^1\Sigma$  Electronic Transition of  $Y^{81}\text{Br}$  ( $\text{cm}^{-1}$ )

(0,3) band			(1,2) band	
J	P	R	P	R
0		13094.5244*		13590.5525*
1	13094.2836	13094.6350*	13590.3142	13590.6629*
2	13094.1567	13094.7400*	13590.1839	13590.7663*
3	13094.0225	13094.8403*	13590.0479	13590.8624*
4	13093.8835	13094.9338*	13589.9049	13590.9533*
5	13093.7380	13095.0216*	13589.7558	13591.0367*
6	13093.5859	13095.1038*	13589.5999	13591.1133*
7	13093.4289	13095.1799*	13589.4372	13591.1827*
8	13093.2648	13095.2500*	13589.2682	13591.2466*
9	13093.0947	13095.3144*	13589.0916	13591.3026*
10	13092.9205	13095.3729*	13588.9081	13591.3525*
11	13092.7395	13095.4252*	13588.7194	13591.3960*
12	13092.5531	13095.4717*	13588.5229	13591.4320*
13	13092.3606	13095.5121*	13588.3194	13591.4613*
14	13092.1616	13095.5480*	13588.1122	13591.4852*
15	13091.9583	13095.5775*	13587.8951	13591.5024*
16	13091.7485	13095.6010*	13587.6729	13591.5122*
17	13091.5326	13095.6180*	13587.4435	13591.5122*
18	13091.3121	13095.6288*	13587.2079	13591.5122*
19	13091.0828	13095.6352*	13586.9658	13591.5024*
20	13090.8503	13095.6352*	13586.7173	13591.4852*
21	13090.6103	13095.6288*	13586.4606	13591.4613*
22	13090.3657	13095.6180*	13586.1996	13591.4320*
23	13090.1175*	13095.6010*	13585.9292	13591.3960*
24	13089.8578	13095.5775*	13585.6555	13591.3525*
25	13089.5957	13095.5480*	13585.3720	13591.3026*
26	13089.3267	13095.5121*	13585.0838	13591.2466*
27	13089.0533	13095.4717*	13584.7874	13591.1827*
28	13088.7717	13095.4252*	13584.4836	13591.1133*
29	13088.4875	13095.3729*	13584.1755	13591.0367*
30	13088.1949	13095.3144*	13583.8601	13590.9533*
31	13087.8993	13095.2500*	13583.5381	13590.8624*
32	13087.5941	13095.1799*	13583.2092	13590.7663*
33	13087.2840	13095.1038*	13582.8738	13590.6629*
34	13086.9691	13095.0216*	13582.5309	13590.5525*
35	13086.6484	13094.9338*	13582.1819	13590.4360
36	13086.3264	13094.8403*	13581.8275	
37	13085.9929	13094.7401*	13581.4660	
38	13085.6523	13094.6350*	13581.0972	
39	13085.3073	13094.5244*	13580.7225	
40	13084.9599	13094.4049	13580.3384	
41	13084.6028			

\*indicate overlapped with another line.

Assigned Rotational lines of the  $C^1\Sigma - X^1\Sigma$  Electronic Transition of  $Y^{81}\text{Br}$  ( $\text{cm}^{-1}$ )

J	(1,3) band		(1,4)band	
	P	R	P	R
1		13324.7799	13059.7246	13060.0747
2	13324.3027	13324.8832	13059.5955	13060.1791
3	13324.1693	13324.9830	13059.4621	13060.2768
4	13324.0263	13325.0733	13059.3216	13060.3691
5	13323.8793	13325.1580	13059.1763	13060.4551
6	13323.7258	13325.2364	13059.0239	13060.5372
7	13323.5654	13325.3096	13058.8685	13060.6126
8	13323.3982	13325.3761	13058.7042	13060.6818
9	13323.2250	13325.4362	13058.5343	13060.7441
10	13323.0474	13325.4912	13058.3605	13060.8023
11	13322.8618	13325.5372	13058.1794	13060.8536
12	13322.6700	13325.5811*	13057.9924	13060.8998
13	13322.4730	13325.6153*	13057.8005	13060.9402
14	13322.2703	13325.6439*	13057.6020	13060.9724
15	13322.0597	13325.6662*	13057.3966	13061.0010
16	13321.8414*	13325.6822*	13057.1867	13061.0227
17	13321.6197	13325.6919*	13056.9710	13061.0398
18	13321.3907	13325.6919*	13056.7488	13061.0521*
19	13321.1563	13325.6919*	13056.5201	13061.0521*
20	13320.9139	13325.6822*	13056.2866	13061.0521*
21	13320.6669	13325.6662*	13056.0460	13061.0454
22	13320.4125	13325.6439*	13055.8012	13061.0331
23	13320.1527	13325.6153*	13055.5466	13061.0131
24	13319.8857	13325.5811*	13055.2931*	13060.9870
25	13319.6125	13325.5400	13055.0281	13060.9569
26	13319.3336	13325.4949	13054.7593	13060.9208
27	13319.0480	13325.4424	13054.4846	13060.8769
28	13318.7572	13325.3823	13054.2026	13060.8294
29	13318.4597	13325.3183	13053.9168	13060.7763
30	13318.1552	13325.2445	13053.6240	13060.7137
31	13317.8453	13325.1674	13053.3240	13060.6480
32	13317.5287	13325.0842	13053.0210	13060.5739
33	13317.2047	13324.9924	13052.7112	13060.4961
34	13316.8749	13324.8969	13052.3948*	13060.4134
35	13316.5405	13324.7927	13052.0710	13060.3215
36	13316.1986	13324.6824	13051.7450	13060.2253
37	13315.8508	13324.5666	13051.4102	13060.1262
38	13315.4965	13324.4445	13051.0703	13060.0181
39	13315.1342	13324.3159	13050.7239	13059.9044
40	13314.7680	13324.1817	13050.3694	13059.7839
41	13314.3952	13324.0376	13050.0155	13059.6580
42	13314.0174	13323.8927		

\*indicate overlapped with another line.



Assigned Rotational lines of the  $C^1\Sigma - X^1\Sigma$  Electronic Transition of  $Y^{81}\text{Br}$  ( $\text{cm}^{-1}$ )

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(2,4)band		
J	P	R
1		13288.9926
2	13288.5159	13289.0952
3	13288.3824	13289.1922
4	13288.2423	13289.2828
5	13288.0934	13289.3677
6	13287.9397	13289.4466
7	13287.7788	13289.5168
8	13287.6134	13289.5824
9	13287.4399	13289.6419
10	13287.2616	13289.6941
11	13287.0762	13289.7405
12	13286.8852	13289.7817
13	13286.6863	13289.8147
14	13286.4822	13289.8414
15	13286.2726	13289.8618
16	13286.0551	13289.8768*
17	13285.8307	13289.8869*
18	13285.6026	13289.8869*
19	13285.3655	13289.8869*
20	13285.1236	13289.8768*
21	13284.8769	13289.8587
22	13284.6234	13289.8342
23	13284.3609	13289.8056
24	13284.0933	13289.7698
25	13283.8212	13289.7270
26	13283.5404	13289.6794
27	13283.2539	13289.6244
28	13282.9608	13289.5630
29	13282.6621	13289.4963
30	13282.3573	13289.4211
31	13282.0447	13289.3413
32	13281.7278	13289.2555
33	13281.4033	13289.1616
34	13281.0709	13289.0629
35	13280.7359	13288.9576
36	13280.3918	13288.8454
37	13280.0421	13288.7269
38	13279.6879	13288.6030
39	13279.3254	13288.4728
40	13278.9570	13288.3346
41	13278.5799	13288.1934
42		13288.0390
43		13287.8862
44		13287.7222
45		13287.5525
46		13287.3761
47		13287.1955

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\*indicate overlapped with another line.