

Supplemental Information

Metabolite Analysis and Histology on the Exact Same Tissue: Comprehensive Metabolomic Profiling and Metabolic Classification of Prostate Cancer

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Supplemental Note N1. Experimental Section

LC-UV quantification:

Briefly, 2 μL of the labeled solution was injected onto a Waters ACQUITY BEH C18 column (2.1 mm \times 5 cm, 1.7 μm particle size, 130 \AA pore size). Solvent A was 0.1% (v/v) formic acid in 10% (v/v) acetonitrile, and solvent B was 0.1% (v/v) formic acid in acetonitrile. The gradient started with 0% B for 1 min and was increased to 95% within 0.01 min and hold at 95% B for 1 min. The gradient was restored to 0% B in 0.5 min and hold at this condition for 3.5 min to re-equilibrate the column. The flow rate used was 0.45 mL/min.

LC-MS method:

LC part: Reversed-phase Zorbax Eclipse C18 column (2.1 mm \times 100 mm, 1.8 μm particle size, 95 \AA pore size) from Agilent was used. Solvent A was 0.1% (v/v) LC-MS grade formic acid in 5% (v/v) grade ACN, and solvent B was 0.1% (v/v) LC-MS grade formic acid in LC-MS grade ACN. The gradient elution profile was as follows: $t=0.0$ min 20% B, $t=3.5$ min, 35% B, $t=18.0$ min, 65%B, $t=24$ min, 99%B, $t=28$ min, 99% B. The flow rate was 180 $\mu\text{L}/\text{min}$.

MS part: QTOF instrument parameters

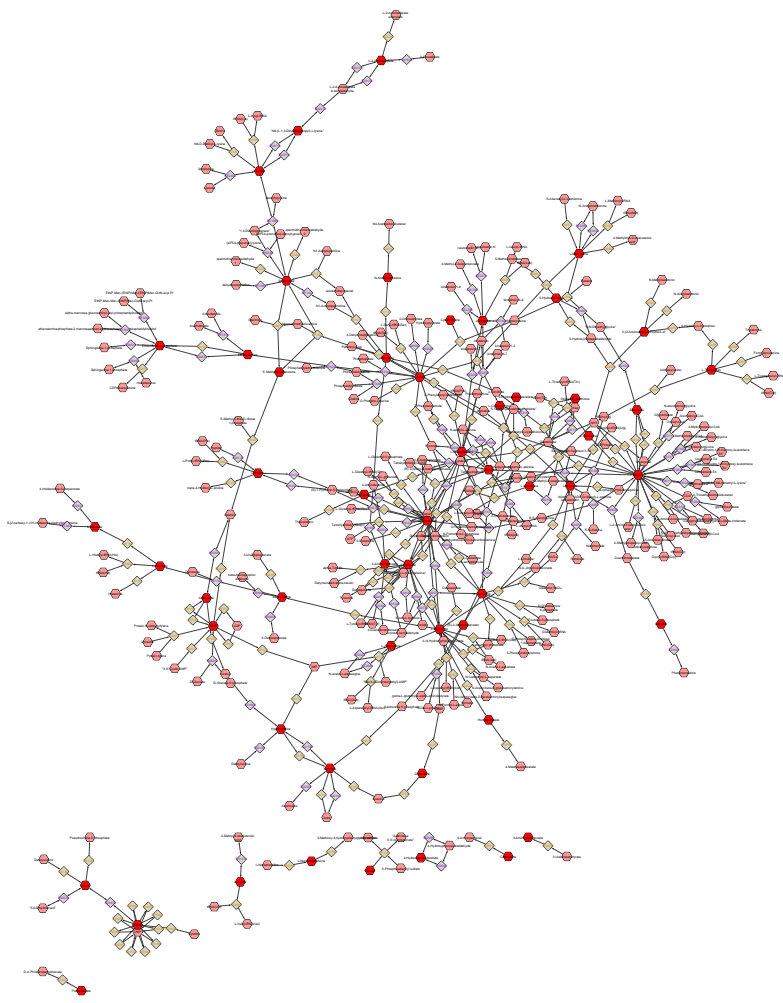
1. MS instrument parameter: m/z scan range: 150 to 1000
2. Ion mode: positive ion
3. Source parameters

End plate offset: 500 V, Capillary: 4500 V, Nebulizer: 1.8 Bar, Dry gas: 8.0 L/min, Dry temperature: 230 $^{\circ}\text{C}$.

4. Tune parameters

Funnel 1 RF 250.0 Vpp, Funnel 2 RF: 150.0 Vpp, Hexapole RF: 110.0 Vpp, Quadrupole ion energy: 3.0 eV, Low mass: 100.00, Collision RF 1500.0 Vpp, Transfer time: 80.0 μ s.

Pre pulse storage 10.0 μ s.



Supplemental Figure S1 (please zoom in to see the detail)

Supplemental Table T1. Metabolites positively identified using dansyl standards library with mass and retention time matches.

#	Input mass	Input rt	Calibrated RT	HMDB No.	Name	Monoisotopic molecular mass	mz_light	Library RT	Mass error (Da)	RT error (min)	HMDB link	KEGG link	Show Detail
1	581.1207	2.05	1.70	HMDB00045	Adenosine monophosphate	347.0631	581.1214	1.75	7.E-04	0.05	Link	Link	Detail
2	517.1496	2.56	2.13	HMDB00133	Guanosine	283.0917	517.1500	2.22	4.E-04	0.09	Link	Link	Detail
3	375.0774	2.58	2.15	HMDB00224	O-Phosphoethanolamine	141.0191	375.0774	2.02	0.E+00	0.13	Link	Link	Detail
4	403.1428	2.59	2.15	HMDB00001	1-Methylhistidine	169.0851	403.1434	2.17	6.E-04	0.02	Link	Link	Detail
	403.1428	2.59	2.15	HMDB00479	3-Methylhistidine	169.0851	403.1434	2.01	6.E-04	0.14	Link	Link	Detail
5	510.1901	2.64	2.19	HMDB00279	Saccharopine	276.1321	510.1905	2.26	4.E-04	0.07	Link	Link	Detail
6	408.1696	2.95	2.45	HMDB00517	L-Arginine	174.1117	408.1700	2.44	4.E-04	0.01	Link	Link	Detail
7	366.1111	3.34	2.88	HMDB00168	L-Asparagine	132.0535	366.1118	3.00	7.E-04	0.12	Link	Link	Detail
8	365.1280	3.38	2.93	HMDB00064	Creatine	131.0695	365.1278	3.02	2.E-04	0.09	Link	Link	Detail
9	380.1279	3.67	3.25	HMDB00641	L-Glutamine	146.0691	380.1275	3.32	4.E-04	0.07	Link	Link	Detail
10	359.1534	3.72	3.31	HMDB01861	3-Methylhistamine	125.0953	359.1536	3.27	2.E-04	0.04	Link	Link	Detail
11	510.1540	3.80	3.40	HMDB11737	Gamma Glutamylglutamic acid	276.0958	510.1541	3.44	1.E-04	0.04	Link	Link	Detail
12	399.1039	4.04	3.66	HMDB02005	Methionine Sulfoxide	165.0460	399.1043	3.72	4.E-04	0.06	Link	Link	Detail
13	501.1545	4.26	3.90	HMDB00050	Adenosine	267.0968	501.1551	3.94	6.E-04	0.04	Link	Link	Detail
14	353.1168	4.45	4.11	HMDB00719	L-Homoserine	119.0582	353.1166	4.05	2.E-04	0.06	Link	Link	Detail
15	399.1037	4.49	4.16	HMDB02005	Methionine Sulfoxide - Isomer	165.0460	399.1043	4.20	6.E-04	0.04	Link	Link	Detail
16	339.1017	4.75	4.44	HMDB00187	L-Serine	105.0426	339.1009	4.40	8.E-04	0.04	Link	Link	Detail
17	381.1115	5.30	5.06	HMDB00148	L-Glutamic Acid	147.0532	381.1115	5.05	0.E+00	0.01	Link	Link	Detail
18	367.0958	5.39	5.16	HMDB00191	L-Aspartic Acid	133.0375	367.0958	5.16	0.E+00	0.00	Link	Link	Detail
19	492.1805	5.75	5.57	HMDB00279	Saccharopine - H2O	276.1321	492.1799	5.65	6.E-04	0.08	Link	Link	Detail
20	353.1171	5.95	5.80	HMDB00167	L-Threonine	119.0582	353.1166	5.79	5.E-04	0.01	Link	Link	Detail
21	395.1267	6.09	5.94	HMDB00510	Amino adipic acid	161.0688	395.1271	5.97	4.E-04	0.03	Link	Link	Detail
22	295.1114	6.22	6.07	HMDB00149	Ethanolamine	61.0528	295.1111	6.00	3.E-04	0.07	Link	Link	Detail
23	309.0906	6.72	6.57	HMDB00123	Glycine	75.0320	309.0903	6.59	3.E-04	0.02	Link	Link	Detail
24	531.1468	7.20	7.06	HMDB01173	5'-Methylthioadenosine	297.0896	531.1479	6.97	1.E-03	0.09	Link	Link	Detail
25	364.1690	7.24	7.11	HMDB02064	N-Acetylputrescine	130.1106	364.1689	7.25	1.E-04	0.14	Link	Link	Detail
26	406.1423	7.33	7.19	HMDB00721	Glycylproline	172.0848	406.1431	7.17	8.E-04	0.02	Link	Link	Detail
27	323.1065	7.40	7.27	HMDB00056	Beta-Alanine	89.0477	323.1060	7.24	5.E-04	0.03	Link	Link	Detail
28	323.1062	7.72	7.59	HMDB00161	L-Alanine	89.0477	323.1060	7.57	2.E-04	0.02	Link	Link	Detail
29	337.1223	7.94	7.80	HMDB00112	Gamma-Aminobutyric acid	103.0633	337.1216	7.79	7.E-04	0.01	Link	Link	Detail
30	478.1280	8.04	7.90	HMDB00296	Uridine	244.0695	478.1279	7.84	1.E-04	0.06	Link	Link	Detail
31	540.1347	8.28	8.12	HMDB03337	Oxidized glutathione	612.1520	540.1343	8.07	4.E-04	0.05	Link	Link	Detail
32	453.1686	8.48	8.32	HMDB00210	Pantothenic acid	219.1107	453.1690	8.37	4.E-04	0.05	Link	Link	Detail
33	337.1220	8.85	8.67	HMDB03911	3-Aminoisobutanoic acid	103.0633	337.1216	8.67	4.E-04	0.00	Link	Link	Detail
34	370.0970	8.95	8.76	HMDB00157	Hypoxanthine - multi-tags	136.0385	370.0968	8.73	2.E-04	0.03	Link	Link	Detail
35	460.1174	8.97	8.78	HMDB00296	Uridine - H2O	244.0695	460.1173	8.67	1.E-04	0.11	Link	Link	Detail
36	386.0914	9.24	9.04	HMDB00292	Xanthine	152.0334	386.0917	8.95	3.E-04	0.09	Link	Link	Detail
37	408.1585	9.29	9.08	HMDB28854	Glycyl-Valine	174.1004	408.1588	9.19	3.E-04	0.11	Link	Link	Detail
38	337.1226	9.38	9.17	HMDB00452	L-Alpha-aminobutyric acid	103.0633	337.1216	9.13	1.E-03	0.04	Link	Link	Detail
39	363.1012	9.53	9.32	HMDB00148	L-Glutamic Acid - H2O	147.0532	363.1009	9.46	3.E-04	0.14	Link	Link	Detail
40	337.1218	9.58	9.36	HMDB00650	Alpha-aminobutyric acid	103.0633	337.1216	9.23	2.E-04	0.13	Link	Link	Detail
41	323.1059	9.59	9.37	HMDB00271	Sarcosine	89.0477	323.1060	9.34	1.E-04	0.03	Link	Link	Detail
42	363.1013	9.70	9.48	HMDB00148	L-Glutamic Acid - H2O	147.0532	363.1009	9.46	4.E-04	0.02	Link	Link	Detail
43	370.0968	9.85	9.62	HMDB00157	Hypoxanthine - Isomer	136.0385	370.0968	9.65	0.E+00	0.03	Link	Link	Detail
44	370.0976	10.00	9.76	HMDB00157	Hypoxanthine - Isomer	136.0385	370.0968	9.65	8.E-04	0.11	Link	Link	Detail
45	379.2159	10.20	10.01	HMDB01257	Spermidine	145.1579	379.2159	10.8	0.E+00	0.11	Link	Link	Detail
46	514.1656	10.31	10.06	HMDB00706	L-Aspartyl-L-phenylalanine	280.1059	514.1642	10.07	1.E-03	0.01	Link	Link	Detail
47	349.1229	10.47	10.21	HMDB00162	L-Proline	115.0633	349.1216	10.18	1.E-03	0.03	Link	Link	Detail
48	466.2002	10.58	10.32	HMDB29065	Threoninyl-Leucine	232.1423	466.2006	10.18	4.E-04	0.14	Link	Link	Detail
49	351.1382	11.13	10.85	HMDB00883	L-Valine	117.0790	351.1373	10.81	9.E-04	0.04	Link	Link	Detail
50	383.1098	11.21	10.92	HMDB00696	L-Methionine	149.0510	383.1094	10.89	4.E-04	0.03	Link	Link	Detail
51	422.1743	11.48	11.19	HMDB00759	Glycyl-L-Leucine	188.1161	422.1744	11.22	1.E-04	0.03	Link	Link	Detail
52	346.0868	11.70	11.40	HMDB00300	Uracil	112.0273	346.0856	11.34	1.E-03	0.06	Link	Link	Detail
53	436.1900	11.76	11.46	HMDB28691	Alanyl-Leucine	202.1317	436.1901	11.36	1.E-04	0.10	Link	Link	Detail
54	438.1477	11.80	11.50	HMDB00929	L-Tryptophan	204.0899	438.1482	11.44	5.E-04	0.06	Link	Link	Detail
55	470.1737	12.54	12.22	HMDB28694	Alanyl-Phenylalanine	236.1161	470.1744	12.11	7.E-04	0.11	Link	Link	Detail
56	399.1372	13.09	12.77	HMDB00159	L-Phenylalanine	165.0790	399.1373	12.74	1.E-04	0.03	Link	Link	Detail
57	365.1532	13.39	13.05	HMDB00172	L-Isoleucine	131.0946	365.1529	13.06	3.E-04	0.01	Link	Link	Detail
58	365.1529	13.72	13.35	HMDB00687	L-leucine	131.0946	365.1529	13.36	0.E+00	0.01	Link	Link	Detail
59	372.1012	13.95	13.57	HMDB00301	Urocanic acid	138.0429	372.1012	13.52	0.E+00	0.05	Link	Link	Detail
60	364.6245	14.04	13.65	HMDB04987	Alpha-Aspartyl-lysine	261.1325	364.6246	13.61	1.E-04	0.04	Link	Link	Detail
61	345.0922	14.12	13.72	HMDB00099	L-Cystathionine - Isomer	222.0674	345.0920	13.69	2.E-04	0.03	Link	Link	Detail
	345.0922	14.12	13.72	HMDB00455	Alloctathionine - Isomer	222.0674	345.0920	13.61	2.E-04	0.11	Link	Link	Detail
62	364.6239	14.12	13.72	HMDB04987	Alpha-Aspartyl-lysine	261.1325	364.6246	13.61	7.E-04	0.11	Link	Link	Detail
63	315.1088	14.27	13.87	HMDB00450	5-Hydroxylysine	162.1004	315.1085	13.88	3.E-04	0.01	Link	Link	Detail
64	354.0706	14.54	14.11	HMDB00192	L-Cystine	240.2038	354.0702	14.11	4.E-04	0.00	Link	Link	Detail
65	425.1161	15.44	15.00	HMDB00763	5-Hydroxyindoleacetic acid	191.0582	425.1166	15.09	5.E-04	0.09	Link	Link	Detail
66	414.1222	15.76	15.32	HMDB01889	Theophylline	180.0647	414.1230	15.42	8.E-04	0.10	Link	Link	Detail
67	319.1110	16.62	16.17	HMDB03911	3-Aminoisobutanoic acid - H2O	103.0633	319.1110	16.29	0.E+00	0.12	Link	Link	Detail
68	385.1226	16.66	16.21	HMDB01859	Acetaminophen	151.0633	385.1216	16.35	1.E-03	0.14	Link	Link	Detail
69	386.1052	17.02	16.55	HMDB00440	3-Hydroxyphenylacetic acid	152.0473	386.1057	16.72	5.E-04	0.17	Link	Link	Detail
	386.1052	17.02	16.55	HMDB00669	Ortho-Hydroxyphenylacetic acid	152.0473	386.1057	16.42	5.E-04	0.13	Link	Link	Detail
70	386.1049	17.37	16.90	HMDB00020	p-Hydroxyphenylacetic acid	152.0473	386.1057	16.91	8.E-04	0.01	Link	Link	Detail
	386.1049	17.37	16.90	HMDB02390	3-Cresotinic acid	152.0473	386.1057	16.80	8.E-04	0.10	Link	Link	Detail

71	402.1010	17.85	17.38	HMDB00484	Vanillic acid	168.0423	402.1006	17.34	4.E-04	0.04	Link	Link	Detail
72	307.1113	17.94	17.47	HMDB00182	L-Lysine	146.1055	307.1111	17.47	2.E-04	0.00	Link	Link	Detail
73	372.0894	18.11	17.64	HMDB00500	4-Hydroxybenzoic acid	138.0317	372.0900	17.57	6.E-04	0.07	Link	Link	Detail
74	389.1281	18.60	18.13	HMDB00177	L-Histidine	155.0695	389.1278	18.09	3.E-04	0.04	Link	Link	Detail
75	393.1830	19.52	19.06	HMDB00991	2-aminooctanoic acid	159.1259	393.1842	19.20	1.E-03	0.14	Link	Link	Detail
76	395.1048	19.75	19.29	HMDB03320	Indole-3-carboxylic acid	161.0477	395.1060	19.27	1.E-03	0.02	Link	Link	Detail
77	353.1060	20.58	20.13	HMDB29105	Tyrosyl-Glycine	238.0954	353.1060	20.19	0.E+00	0.06	Link	Link	Detail
78	278.1077	21.60	21.15	HMDB01414	1_4-diaminobutane	88.1000	278.1083	21.27	6.E-04	0.12	Link	Link	Detail
79	360.1140	22.31	21.87	HMDB28699	Alanyl-Tyrosine	252.1110	360.1138	21.85	2.E-04	0.02	Link	Link	Detail
80	501.2412	22.50	22.06	HMDB01932	Metoprolol	267.1834	501.2418	22.09	6.E-04	0.03	Link	Link	Detail
81	285.1155	22.77	22.33	HMDB02322	Cadaverine	102.1157	285.1162	22.39	7.E-04	0.06	Link	Link	Detail
82	324.5957	23.10	22.66	HMDB00158	L-Tyrosine	181.0739	324.5953	22.65	4.E-04	0.01	Link	Link	Detail
83	328.1003	23.56	23.12	HMDB00228	Phenol	94.0419	328.1002	23.16	1.E-04	0.04	Link	Link	Detail
84	325.6028	23.80	23.36	HMDB00819	Normetanephrine	183.0895	325.6031	23.41	3.E-04	0.05	Link	Link	Detail
85	342.1156	24.88	24.44	HMDB02048	m-Cresol	108.0575	342.1158	24.44	2.E-04	0.00	Link	Link	Detail
86	322.1052	25.12	24.68	HMDB00259	Serotonin	176.0950	322.1058	24.65	6.E-04	0.03	Link	Link	Detail
87	318.0793	25.39	24.95	HMDB00130	Homogentisic acid	168.0423	318.0794	24.84	1.E-04	0.11	Link	Link	Detail
88	356.1308	25.98	25.54	HMDB29306	4-Ethylphenol	122.0732	356.1315	25.63	7.E-04	0.09	Link	Link	Detail

Supplemental Table T2. Metabolites putatively identified using accurate mass match against the HMDB library.

feature ID	rt (min)	mz_light	mz_heavy	Monoisotopic		int_heavy	nCharge	nTag	Matches
				molecular mass	distance				
18	1.96	449.1137	451.1198	215.0554	2.0061	3.1E+05	1	1	1
26	2.03	722.1662	724.1704	488.1079	2.0042	6.9E+03	1	1	1
28	2.05	581.1207	583.1276	347.0623	2.0070	1.9E+04	1	1	4
37	2.12	403.0623	405.0680	169.0040	2.0056	1.4E+04	1	1	1
44	2.14	375.0775	377.0843	141.0192	2.0067	5.1E+05	1	1	1
46	2.16	389.1273	391.1339	155.0690	2.0066	2.2E+04	1	1	1
69	2.39	541.1417	543.1481	307.0834	2.0064	8.7E+03	1	1	1
78	2.49	359.0735	361.0798	125.0151	2.0063	2.3E+06	1	1	1
84	2.52	366.1002	368.1070	132.0419	2.0068	1.6E+04	1	1	7
88	2.56	517.1496	519.1562	283.0913	2.0066	1.0E+05	1	1	2
94	2.59	403.1428	405.1489	169.0845	2.0061	1.6E+04	1	1	2
98	2.60	414.1209	416.1276	180.0626	2.0067	7.8E+04	1	1	14
103	2.63	501.1533	503.1582	267.0950	2.0049	1.0E+04	1	1	1
104	2.64	510.1901	512.1963	276.1317	2.0062	1.3E+04	1	1	1
119	2.84	456.2213	458.2284	444.3259	2.0072	6.5E+03	2	2	1
123	2.85	509.1700	511.1755	275.1117	2.0055	1.7E+04	1	1	2
128	2.92	414.1213	416.1280	180.0630	2.0067	2.8E+05	1	1	14
129	2.92	424.1174	426.1237	190.0591	2.0064	1.0E+04	1	1	1
133	2.94	375.0771	377.0838	141.0188	2.0067	1.1E+04	1	1	1
135	2.95	408.1696	410.1761	174.1113	2.0065	1.1E+05	1	1	2
151	3.06	424.1167	426.1235	190.0584	2.0068	1.9E+04	1	1	1
156	3.14	518.1337	520.1397	284.0753	2.0061	1.5E+04	1	1	1
157	3.16	496.1383	498.1444	262.0800	2.0061	6.7E+03	1	1	1
161	3.19	366.1007	368.1073	132.0424	2.0066	1.6E+05	1	1	7
163	3.21	502.1391	504.1459	268.0807	2.0068	3.6E+05	1	1	4
164	3.22	422.2100	424.2171	188.1517	2.0071	9.3E+03	1	1	1
165	3.24	345.1383	347.1445	111.0800	2.0062	5.4E+04	1	1	1
171	3.28	417.0777	419.0828	183.0194	2.0050	1.4E+04	1	1	1
173	3.29	581.1214	583.1278	347.0630	2.0064	1.1E+04	1	1	4
176	3.36	515.1720	517.1761	281.1137	2.0041	9.4E+03	1	1	4
177	3.36	468.1429	470.1499	234.0846	2.0070	7.5E+03	1	1	1
182	3.38	365.1280	367.1341	131.0697	2.0061	1.6E+05	1	1	1
187	3.41	375.0767	377.0834	141.0184	2.0067	9.1E+03	1	1	1
192	3.41	424.1533	426.1590	190.0950	2.0057	1.1E+04	1	1	1
207	3.52	359.0731	361.0788	125.0148	2.0057	9.6E+03	1	1	1
237	3.67	380.1279	382.1343	146.0696	2.0065	2.5E+06	1	1	4
245	3.72	359.1534	361.1594	125.0951	2.0059	1.1E+04	1	1	2
246	3.72	436.2006	438.2069	202.1423	2.0063	9.8E+03	1	1	2
255	3.80	510.1540	512.1602	276.0957	2.0061	1.1E+04	1	1	1
264	3.88	438.1326	440.1391	204.0743	2.0064	8.3E+03	1	1	2
266	3.90	518.3183	520.3321	568.5199	2.0139	8.9E+03	2	2	1
267	3.91	409.1532	411.1595	175.0949	2.0064	2.1E+04	1	1	2
282	4.04	399.1039	401.1098	165.0456	2.0060	1.0E+04	1	1	1

304	4.26	501.1545	503.1612	267.0961	2.0067	8.7E+04	1	1	3
327	4.36	366.1007	368.1069	132.0424	2.0062	2.8E+04	1	1	7
328	4.36	414.1209	416.1268	180.0626	2.0058	1.1E+04	1	1	14
337	4.37	501.1547	503.1615	267.0964	2.0067	2.8E+05	1	1	3
350	4.44	380.1269	382.1338	146.0685	2.0069	1.2E+04	1	1	4
353	4.45	353.1168	355.1229	119.0585	2.0061	2.2E+04	1	1	3
365	4.49	399.1037	401.1102	165.0454	2.0065	1.3E+04	1	1	1
366	4.50	451.1636	453.1701	217.1053	2.0065	7.8E+03	1	1	1
404	4.78	380.1274	382.1334	146.0691	2.0060	6.0E+03	1	1	4
410	4.81	381.1113	383.1176	147.0529	2.0063	1.9E+04	1	1	6
415	4.83	478.1268	480.1336	244.0685	2.0068	1.2E+04	1	1	2
459	5.06	523.1852	525.1916	289.1269	2.0064	2.3E+04	1	1	1
494	5.30	381.1115	383.1180	147.0532	2.0065	5.6E+06	1	1	6
503	5.39	367.0958	369.1023	133.0375	2.0065	7.2E+05	1	1	3
505	5.39	414.1212	416.1270	180.0629	2.0058	1.3E+04	1	1	14
637	5.85	734.4366	736.4414	1000.7565	2.0048	4.3E+05	2	2	2
666	5.93	379.1329	381.1382	145.0745	2.0053	1.6E+04	1	1	6
671	5.95	353.1171	355.1235	119.0588	2.0064	5.8E+05	1	1	3
698	6.09	395.1267	397.1332	161.0684	2.0065	7.5E+04	1	1	1
729	6.23	852.4616	854.4656	1236.8065	2.0040	2.8E+04	2	2	2
755	6.31	582.3519	584.3532	696.5871	2.0013	2.8E+04	2	2	1
768	6.33	601.3319	603.3330	367.2736	2.0012	3.2E+04	1	1	1
891	6.48	348.1015	350.1074	114.0431	2.0059	2.4E+04	1	1	2
952	6.53	645.3575	647.3591	411.2992	2.0016	2.9E+04	1	1	1
962	6.54	389.1277	391.1333	155.0694	2.0056	4.7E+04	1	1	1
1076	6.65	505.3014	507.3061	542.4861	2.0047	6.3E+04	2	2	3
1095	6.68	457.0875	459.0938	446.0584	2.0063	1.4E+04	2	2	1
1105	6.72	309.0906	311.0971	75.0323	2.0065	4.8E+06	1	1	1
1114	6.74	704.3956	706.3980	470.3373	2.0023	6.4E+04	1	1	1
1289	6.94	505.3004	507.3048	542.4841	2.0044	8.4E+03	2	2	3
1357	6.98	365.1165	367.1222	131.0582	2.0057	1.3E+04	1	1	8
1366	6.98	308.1425	310.1486	74.0841	2.0062	7.9E+04	1	1	1
1371	6.99	335.1663	337.1723	202.2159	2.0061	1.1E+05	2	2	1
1429	7.02	480.1796	482.1854	246.1212	2.0059	9.1E+03	1	1	2
1448	7.04	669.3243	673.3381	202.2149	4.0138	3.8E+04	1	2	1
1456	7.04	326.1060	328.1122	92.0477	2.0062	8.0E+03	1	1	1
1478	7.07	367.0953	369.1023	133.0370	2.0070	2.1E+04	1	1	3
1519	7.11	616.3649	618.3776	382.3066	2.0127	6.8E+03	1	1	2
1530	7.12	464.1485	466.1540	230.0901	2.0055	9.1E+03	1	1	1
1557	7.16	669.3245	673.3377	202.2151	4.0132	2.7E+04	1	2	1
1561	7.18	637.1257	641.1429	170.0163	4.0172	9.4E+03	1	2	1
1566	7.20	531.1468	533.1537	297.0885	2.0069	2.6E+04	1	1	1
1570	7.22	348.1379	350.1439	114.0796	2.0060	2.0E+04	1	1	1
1575	7.23	478.1110	480.1172	488.1053	2.0062	8.4E+03	2	2	1
1581	7.24	344.1068	346.1131	110.0485	2.0062	1.6E+04	1	1	1
1582	7.24	364.1690	366.1752	130.1107	2.0062	5.6E+04	1	1	1
1588	7.27	335.1663	337.1685	202.2159	2.0023	9.5E+03	2	2	1

1597	7.33	406.1423	408.1496	172.0840	2.0073	1.2E+04	1	1	2
1608	7.42	398.1261	400.1298	164.0678	2.0037	1.5E+04	1	1	6
1620	7.54	366.0639	368.0702	132.0055	2.0063	9.8E+03	1	1	1
1623	7.63	353.1167	355.1229	119.0583	2.0062	6.8E+04	1	1	3
1624	7.65	517.1491	519.1555	283.0908	2.0064	1.9E+04	1	1	2
1625	7.65	366.1001	368.1067	132.0417	2.0067	3.4E+04	1	1	7
1626	7.65	408.1216	410.1284	174.0633	2.0068	2.9E+04	1	1	2
1628	7.72	323.1062	325.1127	89.0478	2.0065	1.1E+07	1	1	4
1630	7.81	592.1236	596.1369	125.0143	4.0132	1.0E+04	1	2	1
1634	7.87	502.1392	504.1457	268.0809	2.0065	6.8E+04	1	1	3
1635	7.87	366.1005	368.1074	132.0422	2.0069	1.2E+05	1	1	7
1636	7.89	460.1168	462.1235	226.0585	2.0066	6.6E+03	1	1	1
1637	7.91	350.1527	352.1595	116.0944	2.0067	7.0E+03	1	1	1
1638	7.93	466.1636	468.1706	232.1053	2.0070	7.7E+03	1	1	2
1642	7.97	385.1074	387.1136	151.0491	2.0062	4.0E+04	1	1	3
1643	7.98	406.1428	408.1489	172.0845	2.0061	8.4E+03	1	1	2
1647	8.04	348.1381	350.1447	114.0798	2.0066	1.1E+05	1	1	1
1648	8.04	366.1005	368.1068	132.0421	2.0064	5.6E+04	1	1	7
1649	8.04	478.1280	480.1345	244.0697	2.0065	3.9E+05	1	1	2
1650	8.09	315.1084	317.1156	162.1002	2.0072	7.3E+03	2	2	1
1653	8.09	396.1354	398.1411	324.1542	2.0057	7.7E+03	2	2	1
1656	8.10	477.1613	479.1664	486.2059	2.0051	1.9E+04	2	2	1
1657	8.10	735.1904	739.2044	268.0810	4.0140	2.3E+04	1	2	3
1659	8.11	599.1517	603.1653	132.0423	4.0136	2.4E+04	1	2	7
1665	8.18	409.1423	411.1482	175.0839	2.0059	2.3E+04	1	1	1
1666	8.19	381.1113	383.1182	147.0530	2.0069	5.9E+04	1	1	6
1673	8.25	396.1106	398.1167	162.0523	2.0061	1.6E+04	1	1	5
1692	8.29	386.0924	388.0983	152.0341	2.0059	1.1E+04	1	1	3
1729	8.33	367.0960	369.1022	133.0377	2.0062	2.0E+04	1	1	3
1732	8.33	322.0741	324.0805	88.0158	2.0064	8.8E+03	1	1	2
1742	8.35	381.1115	383.1179	147.0532	2.0064	3.1E+04	1	1	6
1768	8.41	586.8538	588.8557	705.5910	2.0019	7.4E+03	2	2	1
1769	8.42	422.1740	424.1808	188.1156	2.0068	8.6E+03	1	1	3
1779	8.44	494.1943	496.2004	260.1360	2.0061	9.3E+03	1	1	2
1795	8.45	335.1659	337.1717	202.2151	2.0058	6.2E+03	2	2	1
1802	8.47	396.1107	398.1167	162.0524	2.0060	1.3E+04	1	1	5
1814	8.48	453.1686	455.1752	219.1103	2.0066	3.4E+04	1	1	1
1819	8.50	381.1116	383.1183	147.0533	2.0067	5.2E+04	1	1	6
1849	8.54	669.3254	673.3375	202.2161	4.0121	8.8E+03	1	2	1
1867	8.56	395.1264	397.1333	161.0680	2.0069	2.1E+04	1	1	1
1885	8.59	309.1267	311.1331	75.0684	2.0064	3.2E+04	1	1	2
1903	8.63	366.1003	368.1074	132.0420	2.0071	1.2E+04	1	1	7
1912	8.68	402.0859	404.0926	168.0276	2.0067	1.6E+04	1	1	1
1917	8.74	385.1078	387.1141	151.0495	2.0062	1.7E+05	1	1	3
1922	8.81	395.1273	397.1341	161.0690	2.0068	3.3E+05	1	1	1
1926	8.85	337.1220	339.1286	103.0637	2.0065	3.3E+04	1	1	8
1939	8.94	407.5895	409.5963	347.0624	2.0068	1.6E+04	2	2	4

1941	8.95	370.0970	372.1038	136.0387	2.0067	1.9E+05	1	1	1
1943	8.97	460.1174	462.1240	226.0591	2.0065	5.3E+05	1	1	1
1946	9.02	397.0885	399.0949	163.0302	2.0064	1.0E+04	1	1	1
1950	9.10	309.0907	311.0978	75.0324	2.0071	8.5E+03	1	1	1
1951	9.12	422.1735	424.1816	188.1152	2.0081	8.1E+03	1	1	3
1952	9.19	494.1951	496.2022	260.1368	2.0071	9.8E+03	1	1	2
1954	9.24	398.1265	400.1328	164.0682	2.0064	1.5E+04	1	1	6
1957	9.25	386.0920	388.0983	152.0336	2.0064	9.3E+04	1	1	3
1962	9.29	408.1585	410.1649	174.1002	2.0064	9.1E+03	1	1	1
1967	9.42	307.1113	309.1176	73.0530	2.0063	2.3E+04	1	1	3
1968	9.43	321.0905	323.0972	87.0322	2.0067	2.9E+04	1	1	1
1970	9.45	422.1735	424.1805	188.1152	2.0070	7.3E+03	1	1	3
1972	9.50	425.1198	427.1266	191.0615	2.0068	1.3E+04	1	1	1
1973	9.50	351.1013	353.1072	117.0430	2.0059	1.5E+04	1	1	3
1974	9.53	363.1012	365.1077	129.0429	2.0064	5.5E+04	1	1	5
1977	9.57	376.0961	378.1026	142.0377	2.0065	1.6E+04	1	1	1
1979	9.58	337.1218	339.1283	103.0634	2.0065	9.1E+04	1	1	8
1985	9.59	323.1059	325.1129	89.0476	2.0070	3.5E+04	1	1	4
1986	9.59	321.1268	323.1321	87.0685	2.0053	2.8E+04	1	1	1
1991	9.60	409.1061	411.1132	175.0478	2.0071	4.0E+04	1	1	2
2000	9.70	363.1013	365.1078	129.0430	2.0065	6.4E+06	1	1	5
2002	9.78	341.5866	343.5934	215.0566	2.0068	2.1E+04	2	2	1
2008	9.81	369.0944	371.1001	135.0361	2.0057	2.3E+04	1	1	2
2012	9.85	370.0968	372.1031	136.0385	2.0063	9.2E+04	1	1	1
2015	9.88	321.1269	323.1334	87.0686	2.0064	8.6E+04	1	1	1
2020	9.93	422.1741	424.1801	188.1158	2.0060	2.2E+04	1	1	3
2021	9.94	480.1796	482.1861	246.1213	2.0064	1.1E+04	1	1	2
2025	9.97	315.1086	317.1155	162.1006	2.0069	9.9E+03	2	2	1
2038	10.13	377.1170	379.1233	143.0586	2.0063	2.3E+04	1	1	1
2065	10.35	494.1955	496.2010	260.1372	2.0055	1.1E+04	1	1	2
2068	10.37	660.1463	662.1501	426.0880	2.0038	6.4E+03	1	1	1
2070	10.38	447.1028	449.1094	426.0889	2.0066	8.4E+05	2	2	1
2076	10.39	356.1067	358.1130	122.0484	2.0063	1.0E+04	1	1	1
2095	10.56	323.1063	325.1129	89.0479	2.0066	6.1E+04	1	1	4
2098	10.58	711.3358	715.3492	244.2265	4.0134	1.0E+04	1	2	1
2104	10.62	455.0948	457.1021	221.0365	2.0074	1.7E+04	1	1	1
2124	10.79	348.1378	350.1436	114.0795	2.0057	5.8E+04	1	1	1
2126	10.82	369.1129	371.1194	135.0546	2.0065	9.5E+04	1	1	1
2137	10.91	409.1425	411.1492	175.0842	2.0066	1.7E+04	1	1	1
2139	10.94	349.1219	351.1317	115.0636	2.0098	9.0E+03	1	1	2
2144	11.00	370.0967	372.1030	136.0383	2.0064	4.3E+04	1	1	1
2148	11.02	460.1175	462.1230	226.0592	2.0055	7.6E+03	1	1	1
2174	11.20	379.2159	381.2219	145.1576	2.0060	1.6E+04	1	1	1
2175	11.20	612.2667	616.2804	145.1574	4.0137	3.2E+04	1	2	1
2178	11.21	383.1098	385.1159	149.0515	2.0060	3.9E+05	1	1	1
2185	11.22	306.6375	308.6439	145.1584	2.0064	2.1E+05	2	2	1
2195	11.28	448.1891	450.1956	214.1308	2.0065	1.1E+04	1	1	1

2207	11.31	735.1907	739.2032	268.0814	4.0125	1.7E+04	1	2	3
2234	11.38	612.2668	616.2806	145.1574	4.0139	1.5E+04	1	2	1
2244	11.48	422.1743	424.1803	188.1160	2.0060	2.6E+04	1	1	3
2248	11.50	408.1694	410.1748	174.1111	2.0054	7.3E+03	1	1	2
2249	11.51	321.1142	323.1209	174.1118	2.0067	3.1E+04	2	2	2
2256	11.57	760.3451	762.3469	526.2867	2.0019	1.5E+04	1	1	2
2388	11.75	400.0851	402.0910	166.0267	2.0059	1.5E+04	1	1	3
2390	11.76	612.2673	616.2813	145.1579	4.0140	7.5E+03	1	2	1
2411	11.77	324.0903	326.0968	90.0319	2.0066	1.4E+04	1	1	5
2443	11.80	438.1477	440.1542	204.0894	2.0065	2.2E+05	1	1	1
2465	11.82	337.0856	339.0929	103.0273	2.0073	1.2E+05	1	1	2
2466	11.82	322.1109	324.1169	88.0526	2.0060	1.1E+04	1	1	3
2481	11.83	371.6323	373.6395	275.1481	2.0072	9.4E+03	2	2	2
2562	11.89	521.2875	523.2992	574.4584	2.0116	1.0E+04	2	2	2
2597	11.92	939.5171	941.5196	705.4588	2.0025	2.9E+04	1	1	4
2700	12.21	364.6250	366.6318	261.1334	2.0068	1.3E+04	2	2	3
2706	12.28	337.1219	339.1283	103.0635	2.0065	1.8E+05	1	1	8
2717	12.43	500.2211	502.2245	266.1628	2.0034	1.8E+04	1	1	1
2719	12.50	336.0901	338.0960	102.0318	2.0059	8.5E+03	1	1	6
2723	12.59	578.1894	582.2027	111.0801	4.0132	1.1E+04	1	2	1
2724	12.61	364.0850	366.0902	130.0267	2.0052	9.9E+03	1	1	4
2729	12.72	390.1113	392.1180	156.0530	2.0067	1.3E+04	1	1	3
2733	12.75	592.1245	596.1374	125.0151	4.0129	8.0E+03	1	2	1
2735	12.75	364.6245	366.6311	261.1323	2.0066	1.8E+04	2	2	3
2747	12.88	582.1052	584.1121	348.0469	2.0069	1.2E+04	1	1	3
2750	12.93	396.1103	398.1183	162.0520	2.0080	8.9E+03	1	1	5
2752	12.94	324.0898	326.0967	180.0629	2.0069	2.7E+04	2	2	14
2754	12.95	599.1520	603.1645	132.0427	4.0125	1.3E+04	1	2	7
2755	12.96	735.1910	739.2041	268.0817	4.0130	1.1E+04	1	2	3
2758	12.98	363.1368	365.1433	129.0785	2.0065	2.8E+04	1	1	4
2761	13.00	371.6318	373.6388	275.1471	2.0070	9.1E+03	2	2	2
2762	13.01	355.6010	357.6087	243.0853	2.0077	8.4E+03	2	2	1
2763	13.01	382.5811	384.5876	297.0456	2.0064	2.6E+04	2	2	1
2766	13.05	597.1151	599.1205	363.0568	2.0054	9.9E+03	1	1	2
2769	13.06	368.0985	370.1044	268.0803	2.0059	1.2E+04	2	2	4
2773	13.09	399.1372	401.1437	165.0789	2.0065	1.7E+06	1	1	4
2775	13.11	462.2047	464.2109	228.1464	2.0062	1.3E+04	1	1	2
2778	13.15	296.5655	298.5726	125.0144	2.0071	1.9E+05	2	2	1
2779	13.16	364.6242	366.6312	261.1317	2.0070	7.8E+03	2	2	3
2780	13.27	372.1245	374.1303	276.1323	2.0058	1.6E+04	2	2	1
2797	13.39	365.1532	367.1597	131.0949	2.0065	2.0E+06	1	1	6
2801	13.50	319.1111	321.1176	85.0528	2.0065	2.1E+05	1	1	1
2802	13.50	421.1425	423.1488	187.0841	2.0064	1.3E+04	1	1	1
2803	13.51	462.2046	464.2126	228.1463	2.0080	9.7E+03	1	1	2
2806	13.56	379.1318	381.1381	145.0734	2.0064	2.1E+04	1	1	6
2810	13.58	348.1013	350.1070	114.0429	2.0057	9.8E+03	1	1	2
2826	13.72	365.1529	367.1593	131.0946	2.0064	4.8E+06	1	1	6

2828	13.78	429.1117	431.1178	195.0534	2.0061	2.4E+04	1	1	6
2829	13.79	371.6317	373.6386	275.1468	2.0069	9.1E+03	2	2	2
2834	13.92	367.6061	369.6125	267.0956	2.0063	1.9E+04	2	2	3
2841	13.95	372.1012	374.1068	138.0429	2.0056	8.0E+03	1	1	2
2846	13.96	324.0900	326.0963	180.0634	2.0063	4.0E+04	2	2	14
2862	14.05	300.0796	302.0866	132.0426	2.0070	1.1E+04	2	2	7
2863	14.05	375.6039	377.6106	283.0912	2.0067	1.3E+05	2	2	2
2864	14.05	307.1109	309.1171	73.0526	2.0061	2.2E+04	1	1	3
2867	14.06	423.1215	425.1280	189.0632	2.0065	9.4E+03	1	1	2
2874	14.10	495.1903	497.1965	261.1320	2.0062	6.8E+03	1	1	3
2880	14.10	364.6247	366.6314	261.1327	2.0068	5.7E+04	2	2	3
2882	14.12	345.0922	347.0986	222.0678	2.0064	1.5E+04	2	2	3
2905	14.21	371.6327	373.6391	275.1488	2.0063	1.8E+04	2	2	2
2908	14.24	371.1059	373.1122	137.0476	2.0063	1.3E+04	1	1	5
2909	14.24	416.1154	418.1220	182.0571	2.0066	7.8E+03	1	1	6
2919	14.27	315.1088	317.1158	162.1009	2.0070	7.3E+03	2	2	1
2927	14.32	342.0790	344.0853	108.0207	2.0062	1.1E+04	1	1	2
2930	14.34	333.1270	335.1363	99.0687	2.0093	1.4E+04	1	1	1
2963	14.50	305.0951	307.1018	71.0368	2.0067	9.3E+04	1	1	1
2965	14.51	300.0853	302.0927	132.0540	2.0074	7.5E+03	2	2	4
2968	14.54	354.0706	356.0771	240.0246	2.0065	2.6E+05	2	2	1
2997	14.79	376.0965	378.1030	284.0764	2.0065	9.5E+03	2	2	1
3007	15.02	360.1127	362.1190	126.0544	2.0063	1.1E+04	1	1	2
3013	15.03	366.1006	368.1074	132.0423	2.0069	2.6E+05	1	1	7
3022	15.12	402.0999	404.1058	168.0416	2.0059	1.4E+05	1	1	7
3032	15.29	366.1004	368.1071	132.0421	2.0067	3.0E+04	1	1	7
3037	15.32	776.3307	778.3353	542.2723	2.0046	1.1E+04	1	1	1
3048	15.38	365.1163	367.1230	131.0580	2.0067	1.6E+04	1	1	8
3052	15.44	425.1161	427.1217	191.0578	2.0055	2.0E+04	1	1	1
3069	15.65	368.0987	370.1055	268.0807	2.0068	2.6E+05	2	2	4
3075	15.69	599.1515	603.1653	132.0421	4.0138	2.8E+04	1	2	7
3087	15.76	414.1222	416.1289	180.0639	2.0067	9.3E+03	1	1	17
3102	15.95	389.1274	391.1342	155.0691	2.0067	7.3E+03	1	1	1
3105	15.98	741.3908	743.3936	507.3325	2.0028	7.6E+03	1	1	2
3106	15.98	660.1826	664.1960	193.0732	4.0134	4.1E+04	1	2	3
3110	16.03	342.6297	344.6365	217.1427	2.0069	9.0E+03	2	2	1
3120	16.23	741.3913	743.3961	507.3330	2.0048	8.2E+03	1	1	2
3131	16.30	451.2000	453.2038	217.1417	2.0038	7.2E+03	1	1	1
3132	16.37	397.1243	399.1302	163.0660	2.0059	1.5E+04	1	1	1
3136	16.47	741.3896	743.3916	507.3313	2.0019	9.6E+03	1	1	2
3146	16.62	319.1110	321.1179	85.0527	2.0068	7.8E+04	1	1	1
3147	16.62	368.0990	370.1061	268.0814	2.0071	8.3E+03	2	2	3
3155	16.77	411.1040	413.1104	177.0457	2.0064	8.4E+03	1	1	1
3156	16.78	366.1479	368.1548	132.0895	2.0070	6.2E+03	1	1	2
3158	16.80	300.1035	302.1103	132.0903	2.0068	1.1E+06	2	2	2
3163	16.86	528.1619	532.1754	61.0526	4.0135	7.3E+03	1	2	1
3170	17.02	386.1052	388.1119	152.0469	2.0067	8.2E+03	1	1	9

3171	17.03	425.1157	427.1216	191.0574	2.0060	2.2E+04	1	1	1
3174	17.07	379.1318	381.1386	145.0734	2.0068	1.3E+04	1	1	6
3179	17.13	324.0898	326.0963	180.0629	2.0065	7.8E+03	2	2	14
3184	17.24	741.3895	743.3944	507.3312	2.0049	1.2E+04	1	1	2
3206	17.36	266.0845	268.0911	32.0262	2.0066	1.1E+04	1	1	1
3211	17.45	266.0844	268.0912	32.0261	2.0067	1.4E+04	1	1	1
3212	17.47	423.1000	425.1090	189.0417	2.0091	7.5E+03	1	1	1
3214	17.58	452.1630	454.1687	218.1046	2.0057	1.1E+04	1	1	1
3221	17.66	266.0845	268.0909	32.0262	2.0063	1.6E+04	1	1	1
3227	17.68	308.0948	310.1017	74.0364	2.0069	1.5E+04	1	1	5
3229	17.69	599.1516	603.1650	132.0423	4.0134	3.3E+04	1	2	7
3234	17.71	367.6067	369.6136	267.0968	2.0069	4.3E+05	2	2	2
3244	17.76	356.0931	358.0996	244.0696	2.0065	2.9E+04	2	2	2
3245	17.76	460.1167	462.1230	226.0584	2.0063	1.4E+04	1	1	1
3246	17.76	474.1795	476.1862	240.1212	2.0067	2.5E+04	1	1	3
3249	17.77	354.1198	356.1225	240.1230	2.0027	2.7E+04	2	2	3
3251	17.78	307.1111	309.1179	73.0528	2.0068	1.8E+04	1	1	3
3256	17.81	741.3888	743.3960	507.3305	2.0072	1.4E+04	1	1	2
3260	17.85	711.1777	715.1930	244.0684	4.0152	7.5E+03	1	2	2
3261	17.85	402.1010	404.1066	168.0426	2.0056	1.1E+04	1	1	7
3262	17.85	460.1643	462.1706	226.1060	2.0062	3.8E+04	1	1	1
3264	17.86	347.1115	349.1187	226.1063	2.0072	1.9E+04	2	2	1
3265	17.87	380.1639	382.1704	146.1056	2.0065	1.4E+04	1	1	4
3286	17.94	307.1113	309.1179	146.1060	2.0066	3.0E+06	2	2	4
3290	17.96	407.1629	409.1701	173.1046	2.0072	9.2E+03	1	1	4
3298	18.11	372.0894	374.0959	138.0311	2.0065	6.3E+04	1	1	4
3312	18.34	356.0931	358.0997	244.0696	2.0066	1.2E+04	2	2	2
3320	18.38	427.1313	429.1383	193.0730	2.0070	2.3E+04	1	1	3
3321	18.38	421.2260	423.2319	187.1677	2.0059	9.5E+03	1	1	2
3323	18.39	327.6423	329.6491	187.1680	2.0067	7.0E+04	2	2	2
3326	18.41	308.1424	310.1487	74.0841	2.0063	5.0E+04	1	1	1
3331	18.44	271.1003	273.1061	74.0840	2.0058	1.8E+04	2	2	1
3334	18.44	741.3900	743.3962	507.3317	2.0062	1.6E+04	1	1	2
3337	18.45	436.2731	438.2788	202.2147	2.0057	3.9E+04	1	1	1
3342	18.47	335.1662	337.1730	202.2159	2.0067	3.4E+05	2	2	1
3366	18.58	622.1789	626.1922	155.0696	4.0133	2.7E+05	1	2	1
3369	18.60	389.1281	391.1344	155.0697	2.0063	7.7E+05	1	1	1
3373	18.60	280.1000	282.1065	46.0417	2.0065	1.3E+05	1	1	1
3380	18.67	735.1900	739.2035	268.0807	4.0135	7.0E+03	1	2	4
3381	18.70	462.2048	464.2104	228.1464	2.0056	1.6E+04	1	1	2
3395	18.76	399.1732	401.1794	165.1149	2.0061	5.0E+04	1	1	2
3401	18.81	366.1010	368.1074	132.0427	2.0064	3.2E+04	1	1	7
3402	18.81	750.2008	754.2139	283.0915	4.0131	2.9E+04	1	2	2
3404	18.84	385.1070	387.1138	151.0487	2.0067	3.1E+04	1	1	3
3407	18.84	517.1502	519.1558	283.0919	2.0055	9.3E+03	1	1	2
3414	18.92	750.2011	754.2137	283.0918	4.0126	2.2E+04	1	2	2
3419	18.94	389.1171	391.1256	310.1176	2.0085	9.4E+03	2	2	1

3426	19.02	307.1109	309.1164	146.1052	2.0054	6.8E+03	2	2	4
3434	19.10	393.1472	395.1542	159.0889	2.0070	7.6E+04	1	1	6
3436	19.11	741.3892	743.3950	507.3308	2.0059	2.1E+04	1	1	2
3449	19.17	266.0844	268.0908	32.0261	2.0063	1.0E+04	1	1	1
3457	19.21	379.1684	381.1749	145.1101	2.0064	3.8E+04	1	1	1
3459	19.21	366.1008	368.1074	132.0425	2.0066	7.6E+05	1	1	7
3465	19.23	502.1388	504.1454	268.0804	2.0067	1.3E+04	1	1	4
3468	19.26	357.0900	359.0968	123.0316	2.0068	2.4E+04	1	1	2
3484	19.41	735.1898	739.2035	268.0805	4.0136	4.0E+04	1	2	4
3497	19.54	358.6008	360.6076	249.0850	2.0068	3.2E+04	2	2	2
3505	19.66	336.0902	338.0966	102.0319	2.0063	8.8E+03	1	1	6
3509	19.70	741.3898	743.3940	507.3315	2.0042	1.5E+04	1	1	2
3513	19.74	699.3688	701.3795	465.3104	2.0107	1.3E+04	1	1	2
3523	19.81	379.1683	381.1746	145.1100	2.0063	9.8E+04	1	1	1
3525	19.83	356.0927	358.0996	244.0687	2.0069	1.1E+04	2	2	2
3533	20.03	598.0994	600.1054	364.0411	2.0060	3.0E+04	1	1	1
3545	20.20	711.1779	715.1922	244.0686	4.0143	1.2E+04	1	2	2
3548	20.23	460.1177	462.1226	226.0594	2.0049	9.4E+03	1	1	1
3557	20.27	298.0877	300.0943	128.0587	2.0067	3.7E+05	2	2	1
3558	20.27	356.0931	358.0997	244.0695	2.0066	2.1E+04	2	2	2
3560	20.28	362.1169	364.1227	128.0586	2.0057	8.9E+03	1	1	1
3564	20.32	741.3893	743.3939	507.3310	2.0047	2.3E+04	1	1	2
3568	20.35	346.0746	348.0823	112.0162	2.0077	1.4E+04	1	1	2
3574	20.42	488.1957	490.2019	254.1373	2.0062	8.4E+03	1	1	1
3586	20.54	741.3906	743.3956	507.3323	2.0050	1.3E+04	1	1	2
3588	20.56	294.1161	296.1193	60.0578	2.0032	1.7E+04	1	1	2
3602	20.76	741.3908	743.3947	507.3325	2.0039	1.3E+04	1	1	2
3614	20.87	321.0664	323.0733	174.0162	2.0069	1.9E+04	2	2	3
3621	20.91	300.1033	302.1096	132.0900	2.0062	7.4E+03	2	2	2
3625	20.93	396.0929	398.0989	162.0346	2.0059	8.1E+03	1	1	1
3634	20.98	699.3690	701.3704	465.3106	2.0014	1.3E+04	1	1	2
3642	21.05	423.1404	425.1462	189.0821	2.0058	1.4E+04	1	1	1
3646	21.09	711.1792	715.1927	244.0699	4.0135	8.9E+03	1	2	2
3649	21.12	366.1005	368.1063	132.0422	2.0058	1.5E+04	1	1	7
3651	21.13	478.1267	480.1331	244.0684	2.0064	9.8E+03	1	1	2
3652	21.13	346.0860	348.0925	112.0277	2.0065	8.3E+03	1	1	1
3654	21.17	336.0900	338.0968	102.0317	2.0067	1.1E+04	1	1	6
3662	21.54	321.1082	323.1151	174.0997	2.0069	6.6E+04	2	2	1
3671	22.04	370.0973	372.1031	136.0390	2.0058	1.3E+05	1	1	1
3672	22.05	735.1901	739.2036	268.0808	4.0135	1.4E+05	1	2	4
3675	22.12	297.0855	299.0921	126.0543	2.0066	2.6E+04	2	2	2
3680	22.27	741.3894	743.3952	507.3311	2.0058	1.6E+04	1	1	2
3696	22.37	396.0935	398.0993	162.0351	2.0058	1.3E+04	1	1	1
3702	22.44	382.1587	384.1652	148.1004	2.0064	1.2E+05	1	1	1
3704	22.44	737.3578	739.3658	503.2994	2.0081	6.3E+03	1	1	6
3710	22.48	365.1315	367.1346	131.0731	2.0031	3.9E+04	1	1	1
3712	22.49	715.3755	717.3804	481.3172	2.0049	6.2E+03	1	1	3

3716	22.50	501.2412	503.2476	267.1828	2.0065	2.6E+04	1	1	1
3719	22.51	741.3901	743.3965	507.3318	2.0064	1.2E+04	1	1	2
3723	22.51	314.1193	316.1259	160.1219	2.0066	4.0E+04	2	2	2
3729	22.53	375.0773	377.0829	141.0190	2.0056	9.2E+03	1	1	1
3743	22.65	687.3443	689.3494	453.2860	2.0051	3.4E+05	1	1	2
3744	22.66	715.3770	717.3821	481.3187	2.0051	6.5E+03	1	1	3
3749	22.70	741.3898	743.3969	507.3315	2.0071	1.1E+04	1	1	2
3755	22.72	370.0961	372.1025	136.0378	2.0064	5.5E+04	1	1	2
3762	22.77	352.0980	354.1041	236.0793	2.0062	1.1E+04	2	2	1
3770	22.78	330.0904	332.0946	192.0642	2.0042	7.3E+03	2	2	1
3771	22.79	382.1102	384.1159	148.0519	2.0057	1.0E+04	1	1	2
3785	22.83	598.0997	600.1057	364.0414	2.0059	7.0E+03	1	1	1
3790	22.89	741.3892	743.3956	507.3309	2.0064	1.3E+04	1	1	2
3802	23.03	370.0975	372.1030	136.0392	2.0055	1.4E+04	1	1	1
3807	23.04	310.0747	312.0824	76.0163	2.0077	7.8E+03	1	1	1
3814	23.06	620.1738	624.1877	153.0644	4.0139	9.1E+03	1	2	1
3815	23.06	741.3917	743.3995	507.3334	2.0079	8.8E+03	1	1	2
3820	23.07	735.1909	739.2075	268.0816	4.0165	7.7E+03	1	2	3
3821	23.07	578.1891	582.2022	111.0798	4.0131	1.1E+05	1	2	1
3828	23.10	636.1943	640.2073	169.0850	4.0130	1.7E+04	1	2	2
3832	23.11	403.1433	405.1496	169.0850	2.0063	1.0E+04	1	1	2
3840	23.11	318.5950	320.6019	169.0734	2.0069	7.1E+03	2	2	4
3841	23.11	325.5961	327.6026	183.0756	2.0065	2.0E+05	2	2	1
3843	23.12	559.1567	563.1697	92.0473	4.0130	7.9E+03	1	2	1
3859	23.15	715.3764	717.3801	481.3181	2.0037	7.1E+03	1	1	3
3865	23.17	289.5981	291.6046	111.0795	2.0066	2.6E+05	2	2	1
3899	23.32	741.3901	743.3973	507.3317	2.0073	9.0E+03	1	1	2
3902	23.33	422.1745	424.1806	188.1162	2.0061	6.6E+03	1	1	3
3912	23.41	715.3743	717.3820	481.3160	2.0076	8.2E+03	1	1	3
3919	23.43	699.3694	701.3801	465.3111	2.0107	7.4E+03	1	1	2
3922	23.47	315.0844	317.0913	162.0522	2.0068	1.8E+04	2	2	5
3927	23.47	741.3909	743.3972	507.3326	2.0063	2.4E+04	1	1	2
3942	23.56	328.1003	330.1065	94.0420	2.0063	5.2E+04	1	1	1
3943	23.56	715.3741	717.3820	481.3158	2.0078	7.7E+03	1	1	3
3945	23.57	741.3909	743.3975	507.3326	2.0066	9.8E+03	1	1	2
3966	23.80	325.6028	327.6103	183.0889	2.0075	1.1E+04	2	2	3
3967	23.80	741.3886	743.3972	507.3302	2.0086	8.5E+03	1	1	2
3971	23.85	366.1001	368.1068	132.0418	2.0067	1.1E+04	1	1	7
3977	23.88	360.1123	362.1199	126.0540	2.0077	7.8E+03	1	1	2
3997	24.01	687.3451	689.3504	453.2868	2.0053	1.4E+06	1	1	2
4005	24.05	370.0969	372.1029	136.0386	2.0061	1.9E+04	1	1	1
4025	24.16	741.3915	743.3984	507.3332	2.0069	9.1E+03	1	1	2
4036	24.22	687.3439	689.3496	453.2855	2.0058	7.5E+05	1	1	2
4043	24.26	715.3742	717.3797	481.3159	2.0055	7.1E+03	1	1	3
4053	24.30	619.1561	623.1618	152.0467	4.0057	1.2E+04	1	2	9
4056	24.31	310.0752	312.0815	152.0337	2.0063	3.8E+04	2	2	3
4057	24.32	618.1589	622.1718	151.0495	4.0129	4.6E+04	1	2	3

4058	24.32	385.1072	387.1137	151.0489	2.0065	7.2E+04	1	1	3
4059	24.33	316.0923	318.0998	164.0680	2.0075	1.4E+04	2	2	6
4070	24.46	741.3906	743.3948	507.3323	2.0042	1.3E+04	1	1	2
4072	24.47	370.0967	372.1017	136.0383	2.0051	6.6E+03	1	1	1
4078	24.51	384.1265	386.1332	150.0682	2.0068	9.5E+03	1	1	6
4086	24.56	741.3909	743.3948	507.3326	2.0039	1.4E+04	1	1	2
4090	24.61	292.1055	294.1119	116.0945	2.0064	7.9E+03	2	2	1
4095	24.67	680.2517	682.2586	446.1934	2.0070	7.6E+03	1	1	1
4120	24.76	985.3646	989.3855	518.2553	4.0209	1.2E+04	1	2	1
4125	24.78	299.0715	301.0780	130.0264	2.0065	1.1E+04	2	2	4
4126	24.79	741.3916	743.3977	507.3333	2.0061	1.3E+04	1	1	2
4145	24.83	309.5830	311.5896	151.0495	2.0066	3.1E+05	2	2	3
4154	24.88	342.1156	344.1223	108.0572	2.0068	8.1E+03	1	1	4
4156	24.89	370.0963	372.1027	136.0380	2.0064	7.8E+04	1	1	1
4158	24.89	302.0778	304.0844	136.0389	2.0066	6.1E+05	2	2	1
4163	24.94	564.3343	566.3400	330.2759	2.0057	9.9E+03	1	1	2
4165	24.96	741.3905	743.3964	507.3322	2.0059	9.3E+03	1	1	2
4166	24.96	564.3356	566.3429	330.2773	2.0073	6.9E+03	1	1	2
4167	24.97	354.1157	356.1225	120.0574	2.0068	9.8E+04	1	1	2
4173	25.01	324.5956	326.6020	181.0745	2.0064	8.4E+03	2	2	5
4174	25.01	338.5925	340.6000	209.0684	2.0075	5.7E+04	2	2	1
4178	25.05	741.3905	743.3970	507.3322	2.0065	9.9E+03	1	1	2
4179	25.05	297.0855	299.0922	126.0544	2.0067	9.5E+03	2	2	2
4183	25.07	687.3434	689.3495	453.2851	2.0061	6.1E+05	1	1	2
4184	25.08	345.6005	347.6066	223.0844	2.0060	7.1E+03	2	2	1
4199	25.13	278.1025	280.1121	88.0884	2.0096	8.2E+03	2	2	1
4205	25.15	354.1159	356.1224	120.0576	2.0065	3.8E+05	1	1	2
4216	25.21	687.3440	689.3502	453.2857	2.0062	5.4E+05	1	1	2
4219	25.25	741.3898	743.3945	507.3315	2.0047	7.2E+03	1	1	2
4226	25.30	564.3340	566.3405	330.2757	2.0065	1.5E+04	1	1	2
4236	25.37	356.1710	358.1780	244.2254	2.0069	1.1E+04	2	2	1
4248	25.39	262.0533	264.0598	27.9950	2.0065	1.2E+04	1	1	1
4253	25.39	358.6017	360.6082	249.0868	2.0065	4.9E+04	2	2	2
4278	25.41	564.3356	566.3398	330.2773	2.0042	1.5E+04	1	1	2
4287	25.42	687.3438	689.3505	453.2855	2.0066	2.5E+05	1	1	2
4318	25.55	564.3340	566.3392	330.2757	2.0052	1.8E+04	1	1	2
4323	25.58	375.0773	377.0837	141.0190	2.0064	1.2E+04	1	1	1
4325	25.58	687.3442	689.3508	453.2859	2.0066	2.7E+05	1	1	2
4329	25.61	373.1230	375.1277	278.1294	2.0047	8.8E+03	2	2	1
4345	25.77	687.3430	689.3494	453.2847	2.0064	3.5E+05	1	1	2
4353	25.82	735.3427	737.3477	501.2844	2.0050	1.7E+04	1	1	4
4371	25.96	287.0792	289.0854	106.0417	2.0063	4.5E+04	2	2	1
4379	25.99	713.3601	715.3649	479.3018	2.0047	4.8E+05	1	1	4
4381	26.00	564.3356	566.3412	330.2773	2.0056	2.3E+04	1	1	2
4382	26.01	375.0771	377.0829	141.0188	2.0058	1.4E+04	1	1	1
4384	26.02	370.0961	372.1027	136.0378	2.0065	3.9E+04	1	1	2
4407	26.10	603.1482	607.1612	136.0389	4.0130	1.4E+04	1	2	1

4416	26.12	323.1137	325.1204	178.1108	2.0067	8.8E+03	2	2	3
4419	26.14	805.3386	807.3426	571.2803	2.0040	1.2E+04	1	1	1
4420	26.14	412.1578	414.1645	178.0995	2.0067	7.3E+03	1	1	1
4427	26.15	687.3439	689.3505	453.2856	2.0066	2.1E+05	1	1	2
4429	26.19	564.3345	566.3390	330.2762	2.0045	3.4E+04	1	1	2
4436	26.26	735.3420	737.3468	501.2837	2.0048	2.7E+04	1	1	4
4440	26.27	344.1065	346.1129	110.0482	2.0064	1.1E+05	1	1	1
4442	26.28	564.3340	566.3397	330.2756	2.0058	2.0E+04	1	1	2
4456	26.41	687.3431	689.3497	453.2848	2.0066	1.0E+05	1	1	2
4457	26.41	713.3581	715.3644	479.2998	2.0062	5.9E+04	1	1	4
4460	26.42	564.3350	566.3405	330.2766	2.0056	2.1E+04	1	1	2
4471	26.52	347.0878	349.0948	226.0590	2.0070	1.0E+04	2	2	1
4475	26.55	370.0963	372.1033	136.0379	2.0070	1.2E+04	1	1	1
4481	26.56	302.0778	304.0844	136.0389	2.0067	1.9E+06	2	2	1
4484	26.57	564.3357	566.3408	330.2774	2.0051	2.9E+04	1	1	2
4488	26.58	713.3598	715.3654	479.3015	2.0057	3.8E+05	1	1	4
4491	26.63	344.1064	346.1132	110.0480	2.0068	2.8E+04	1	1	1
4510	26.69	564.3359	566.3407	330.2776	2.0048	2.6E+04	1	1	2
4515	26.72	687.3437	689.3507	453.2854	2.0070	9.8E+04	1	1	2
4538	26.84	713.3604	715.3654	479.3021	2.0050	1.1E+06	1	1	4
4549	26.88	753.3891	755.3971	519.3308	2.0080	8.7E+03	1	1	1
4564	26.91	385.1071	387.1139	151.0488	2.0068	1.7E+04	1	1	3
4565	26.91	750.2004	754.2138	283.0911	4.0134	1.2E+04	1	2	2
4567	26.91	300.0792	302.0843	132.0418	2.0051	2.0E+04	2	2	7
4568	26.91	564.3350	566.3409	330.2767	2.0059	1.0E+04	1	1	2
4583	26.99	599.1520	603.1638	132.0426	4.0118	1.1E+04	1	2	7
4588	26.99	711.1787	715.1922	244.0693	4.0135	1.8E+04	1	2	2
4589	26.99	460.1166	462.1228	226.0583	2.0062	2.3E+04	1	1	1
4600	27.04	370.0972	372.1027	136.0388	2.0055	2.3E+04	1	1	1
4601	27.05	300.0794	302.0854	132.0422	2.0060	3.9E+04	2	2	7
4604	27.06	735.1907	739.2026	268.0813	4.0120	1.0E+04	1	2	3
4626	27.12	687.3435	689.3501	453.2852	2.0066	1.1E+05	1	1	2
4659	27.26	384.1622	386.1683	150.1039	2.0061	1.2E+04	1	1	3
4661	27.27	323.6055	325.6122	179.0943	2.0068	1.8E+04	2	2	2
4663	27.28	687.3437	689.3491	453.2854	2.0054	2.5E+04	1	1	2
4689	27.40	384.1623	386.1688	150.1039	2.0065	7.5E+04	1	1	3
4695	27.41	300.0797	302.0843	132.0428	2.0046	7.5E+03	2	2	7
4702	27.44	687.3431	689.3496	453.2848	2.0065	3.0E+04	1	1	2
4720	27.52	735.1904	739.2050	268.0811	4.0146	7.1E+03	1	2	3
4736	27.57	687.3447	689.3526	453.2864	2.0079	1.6E+04	1	1	2
4742	27.59	709.3263	711.3294	475.2680	2.0031	2.2E+04	1	1	4
4758	27.61	370.0968	372.1033	136.0385	2.0065	3.3E+05	1	1	1
4775	27.67	735.1908	739.2037	268.0814	4.0129	2.8E+05	1	2	3
4785	27.71	687.3450	689.3506	453.2867	2.0056	2.9E+04	1	1	2
4822	27.79	713.3602	715.3655	479.3019	2.0053	1.3E+06	1	1	4
4858	27.91	729.3894	731.3960	495.3311	2.0066	3.2E+04	1	1	1
4860	27.95	687.3452	689.3510	453.2869	2.0058	1.2E+04	1	1	2

4871	28.08	729.3892	731.3955	495.3308	2.0064	6.4E+04	1	1	1
4873	28.11	687.3443	689.3507	453.2860	2.0063	1.8E+04	1	1	2
4878	28.14	603.1621	607.1741	136.0528	4.0120	1.2E+05	1	2	1
4881	28.16	370.0975	372.1029	136.0391	2.0054	7.9E+04	1	1	1
4886	28.17	735.1897	739.2027	268.0804	4.0130	6.3E+04	1	2	4
4896	28.25	599.1512	603.1624	132.0418	4.0112	2.3E+04	1	2	7
4900	28.26	687.3439	689.3498	453.2856	2.0059	2.8E+04	1	1	2
4912	28.29	735.1876	739.2009	268.0782	4.0134	5.6E+04	1	2	1
4919	28.48	652.3076	654.3143	418.2493	2.0067	2.5E+04	1	1	2
4930	28.60	729.3901	731.3962	495.3318	2.0061	1.0E+05	1	1	1
4935	28.64	687.3440	689.3496	453.2857	2.0055	2.5E+04	1	1	2
4938	28.66	755.4057	757.4120	521.3473	2.0063	2.1E+04	1	1	2
4943	28.69	713.3597	715.3653	479.3014	2.0056	8.3E+05	1	1	4
4952	28.75	797.3171	799.3188	563.2588	2.0017	1.4E+04	1	1	1
4955	28.76	751.3729	753.3769	517.3145	2.0041	8.1E+03	1	1	2
4958	28.81	305.0952	307.1044	71.0369	2.0092	1.4E+04	1	1	1
4959	28.81	687.3441	689.3498	453.2857	2.0058	1.3E+04	1	1	2
4968	28.86	713.3596	715.3653	479.3013	2.0058	6.8E+05	1	1	4
4976	28.91	570.2897	572.2928	336.2314	2.0031	1.1E+04	1	1	22
4996	28.98	713.3596	715.3657	479.3013	2.0061	3.6E+05	1	1	4
4998	28.98	687.3442	689.3500	453.2859	2.0058	1.5E+04	1	1	2
5017	29.05	755.4057	757.4112	521.3474	2.0055	4.7E+04	1	1	2
5079	29.24	403.0625	405.0659	169.0042	2.0033	5.0E+04	1	1	1
5080	29.24	713.3598	715.3659	479.3015	2.0061	2.0E+05	1	1	4
5084	29.25	755.4060	757.4128	521.3477	2.0068	1.1E+04	1	1	2
5086	29.27	763.3728	765.3813	529.3145	2.0085	6.4E+03	1	1	2
5094	29.31	687.3430	689.3493	453.2847	2.0063	1.7E+04	1	1	2
5107	29.36	584.3052	586.3090	350.2469	2.0039	1.3E+04	1	1	5
5110	29.37	713.3595	715.3652	479.3012	2.0057	6.2E+05	1	1	4
5134	29.51	687.3451	689.3502	453.2868	2.0051	1.4E+04	1	1	2
5137	29.56	713.3597	715.3655	479.3014	2.0057	6.3E+05	1	1	4
5144	29.60	735.3421	737.3479	501.2838	2.0058	7.6E+03	1	1	4
5155	29.68	713.3588	715.3650	479.3005	2.0062	2.3E+05	1	1	4
5156	29.69	755.4072	757.4137	521.3489	2.0065	2.9E+04	1	1	2
5160	29.71	687.3446	689.3502	453.2862	2.0056	1.5E+04	1	1	2
5176	29.80	755.4062	757.4134	521.3479	2.0072	2.4E+04	1	1	2
5195	29.83	733.3305	735.3397	499.2722	2.0092	1.2E+04	1	1	2
5239	29.93	549.2991	551.3051	315.2408	2.0060	9.5E+03	1	1	1
5250	29.99	682.2661	684.2704	448.2078	2.0043	8.5E+03	1	1	5
5254	30.01	713.3598	715.3658	479.3014	2.0060	3.5E+05	1	1	4
5256	30.02	687.3441	689.3502	453.2858	2.0061	1.5E+04	1	1	2
5283	30.12	687.3447	689.3499	453.2863	2.0052	1.3E+04	1	1	2
5305	30.22	687.3459	689.3504	453.2876	2.0045	9.1E+03	1	1	2
5311	30.26	713.3591	715.3649	479.3007	2.0059	3.8E+05	1	1	4
5325	30.31	687.3438	689.3513	453.2855	2.0074	8.1E+03	1	1	2
5334	30.35	317.1077	319.1146	166.0987	2.0069	7.3E+03	2	2	1
5348	30.53	687.3442	689.3499	453.2859	2.0057	6.6E+03	1	1	2

5378	30.83	713.3593	715.3652	479.3010	2.0058	3.0E+05	1	1	4
5403	31.07	595.3196	597.3252	361.2613	2.0056	7.8E+03	1	1	1
5411	31.25	659.3115	661.3157	425.2532	2.0042	8.1E+03	1	1	2
5444	31.57	713.3595	715.3659	479.3012	2.0064	1.6E+05	1	1	4
5457	31.66	370.0958	372.1011	136.0375	2.0054	1.3E+04	1	1	2

Supplemental Table T3. Metabolites putatively identified using accurate mass search against the predicted human m

feature ID	rt (min)	mz_light	mz_heavy	Monoisotopic molecular mass	distance	int_heavy	nCharge	nTag	Matches
3	1.72	778.1809	780.1876	544.1226	2.0067	3.8E+04	1	1	2
6	1.84	585.2889	587.2900	351.2306	2.0011	3.9E+04	1	1	1
7	1.85	804.1741	806.1754	570.1158	2.0013	2.3E+04	1	1	1
8	1.85	357.0671	359.0732	123.0088	2.0061	2.2E+04	1	1	2
10	1.89	549.1002	551.1069	315.0419	2.0066	3.0E+04	1	1	3
11	1.90	782.1922	784.1942	548.1338	2.0021	2.9E+04	1	1	1
12	1.90	493.0774	495.0831	259.0191	2.0056	1.3E+04	1	1	2
15	1.93	629.3149	631.3163	395.2566	2.0015	2.5E+04	1	1	2
19	1.99	573.1306	575.1383	339.0723	2.0076	2.3E+04	1	1	4
20	2.00	589.1277	591.1322	355.0694	2.0046	9.6E+03	1	1	5
21	2.01	575.1385	577.1414	341.0802	2.0029	1.3E+04	1	1	4
22	2.02	387.0676	389.0740	153.0093	2.0064	1.1E+04	1	1	8
24	2.02	778.1803	780.1870	544.1220	2.0066	2.2E+04	1	1	2
27	2.04	717.3671	719.3694	483.3088	2.0023	4.4E+04	1	1	4
29	2.09	630.1514	632.1531	396.0931	2.0017	1.9E+04	1	1	3
30	2.10	652.1337	654.1440	418.0754	2.0103	1.1E+04	1	1	2
31	2.10	881.2130	883.2216	647.1546	2.0086	8.7E+03	1	1	4
33	2.10	782.1928	784.1931	548.1345	2.0003	1.3E+04	1	1	1
34	2.11	628.1451	630.1518	394.0867	2.0067	1.9E+04	1	1	10
35	2.11	419.0408	421.0475	184.9825	2.0067	1.3E+04	1	1	2
36	2.11	903.1953	905.2042	669.1370	2.0089	8.4E+03	1	1	2
38	2.12	672.1102	674.1159	438.0519	2.0058	7.3E+03	1	1	2
40	2.12	650.1275	652.1349	416.0692	2.0074	1.1E+04	1	1	2
42	2.14	474.1433	476.1500	240.0850	2.0067	9.2E+03	1	1	25
43	2.14	879.2079	881.2147	645.1496	2.0068	1.3E+04	1	1	1
45	2.16	667.1905	669.1959	433.1321	2.0055	6.3E+03	1	1	9
54	2.26	805.4190	807.4211	571.3607	2.0022	1.4E+04	1	1	1
56	2.27	595.1364	597.1424	361.0781	2.0060	1.0E+04	1	1	17
60	2.33	761.3941	763.3951	527.3358	2.0010	1.5E+04	1	1	10
61	2.33	389.1819	391.1928	310.2471	2.0109	6.5E+03	2	2	1
63	2.36	389.0918	391.0983	155.0334	2.0065	1.4E+04	1	1	4
64	2.36	565.1300	567.1335	331.0717	2.0036	1.6E+04	1	1	4
65	2.37	543.1487	545.1479	309.0904	1.9991	3.8E+04	1	1	1
68	2.39	645.0878	647.0868	411.0294	1.9990	2.2E+04	1	1	1
74	2.43	573.1304	575.1385	339.0721	2.0081	6.9E+03	1	1	4
75	2.45	403.0356	405.0423	168.9772	2.0068	2.0E+04	1	1	1
83	2.51	759.3982	761.3973	525.3399	1.9990	7.7E+03	1	1	5
86	2.53	803.4230	805.4201	569.3647	1.9971	6.4E+03	1	1	1
90	2.58	641.1757	643.1802	407.1174	2.0045	7.4E+03	1	1	9
93	2.59	388.1076	390.1137	154.0493	2.0062	3.4E+05	1	1	10
95	2.59	610.1322	612.1400	376.0739	2.0077	8.1E+03	1	1	1
99	2.61	721.1499	723.1497	487.0916	1.9997	6.2E+04	1	1	1
100	2.61	431.1029	433.1100	197.0445	2.0071	1.2E+04	1	1	12

101	2.62	748.1806	750.1844	514.1223	2.0038	1.1E+04	1	1	5
105	2.65	403.0356	405.0424	168.9773	2.0068	1.4E+04	1	1	1
109	2.70	719.1451	721.1512	485.0867	2.0062	1.8E+04	1	1	2
110	2.70	460.1638	462.1695	226.1054	2.0057	2.2E+04	1	1	1
125	2.87	667.1894	669.1976	433.1310	2.0082	7.8E+03	1	1	4
139	2.99	724.1908	726.1992	490.1325	2.0084	7.0E+03	1	1	3
147	3.02	470.1196	472.1220	236.0613	2.0024	1.8E+04	1	1	3
166	3.24	713.2567	715.2630	479.1984	2.0063	1.5E+04	1	1	5
172	3.29	711.2498	713.2557	477.1915	2.0058	8.8E+03	1	1	4
179	3.36	543.2734	545.2846	618.4301	2.0112	6.8E+03	2	2	4
180	3.36	535.1729	537.1784	301.1146	2.0054	7.6E+03	1	1	1
184	3.38	521.2618	523.2654	574.4070	2.0036	9.6E+03	2	2	2
189	3.41	347.0555	349.0631	225.9943	2.0076	8.7E+03	2	2	2
190	3.41	693.1028	697.1155	225.9935	4.0127	3.3E+04	1	2	2
191	3.41	693.1031	695.1040	459.0448	2.0008	4.8E+04	1	1	1
199	3.44	696.1121	698.1126	462.0538	2.0006	2.8E+04	1	1	1
206	3.51	514.3059	516.3106	560.4951	2.0048	2.0E+05	2	2	4
208	3.52	471.1428	473.1495	237.0845	2.0068	9.3E+03	1	1	26
211	3.54	383.0699	385.0785	149.0116	2.0085	7.4E+03	1	1	1
216	3.59	633.1944	635.2004	399.1361	2.0060	8.2E+03	1	1	20
225	3.62	514.3058	516.3093	560.4950	2.0035	1.7E+05	2	2	4
242	3.70	547.1493	549.1585	313.0910	2.0092	1.6E+04	1	1	6
243	3.71	547.1545	549.1599	313.0962	2.0055	4.1E+04	1	1	1
253	3.79	633.1942	635.2019	399.1358	2.0077	7.7E+03	1	1	20
271	3.94	544.2767	546.2819	620.4367	2.0052	6.5E+03	2	2	1
280	4.03	699.3768	701.3922	465.3185	2.0154	7.3E+03	1	1	3
286	4.15	536.3186	538.3255	302.2603	2.0069	1.3E+05	1	1	10
293	4.18	388.1073	390.1136	154.0490	2.0063	3.8E+04	1	1	10
294	4.18	743.4024	745.4174	509.3440	2.0151	8.9E+03	1	1	3
305	4.26	780.3936	782.3997	546.3353	2.0061	2.7E+04	1	1	2
316	4.31	737.2035	739.2105	503.1452	2.0070	1.7E+04	1	1	5
322	4.33	802.4063	804.4132	568.3480	2.0068	1.6E+04	1	1	3
329	4.36	780.3935	782.3999	546.3352	2.0064	1.2E+04	1	1	2
335	4.37	566.2896	568.2946	664.4627	2.0050	8.1E+03	2	2	1
340	4.39	741.2144	743.2177	507.1561	2.0033	1.5E+04	1	1	1
354	4.46	802.4062	804.4130	568.3479	2.0068	1.1E+04	1	1	3
356	4.46	514.3061	516.3124	560.4955	2.0063	6.7E+03	2	2	4
357	4.46	737.2032	739.2092	503.1449	2.0059	1.1E+04	1	1	5
367	4.51	735.1977	737.2035	501.1394	2.0057	8.4E+03	1	1	2
384	4.65	562.3443	564.3594	656.5719	2.0151	2.4E+04	2	2	45
386	4.67	580.3452	582.3507	692.5737	2.0055	5.2E+05	2	2	4
398	4.75	580.3454	582.3476	692.5742	2.0022	6.5E+05	2	2	4
401	4.77	553.1413	555.1473	319.0830	2.0060	1.4E+04	1	1	4
419	4.86	553.1420	555.1480	319.0836	2.0060	1.5E+04	1	1	4
422	4.86	580.3443	582.3511	346.2860	2.0068	2.8E+05	1	1	15
425	4.89	602.3577	604.3614	736.5989	2.0036	7.6E+05	2	2	8
433	4.96	569.3138	571.3299	335.2555	2.0160	2.6E+04	1	1	1
441	4.99	610.3151	612.3201	752.5137	2.0050	1.9E+04	2	2	37

443	5.00	549.3179	551.3345	315.2596	2.0165	2.3E+04	1	1	1
446	5.01	631.3254	633.3417	397.2670	2.0164	2.3E+04	1	1	1
450	5.02	602.3584	604.3632	736.6001	2.0049	7.2E+05	2	2	8
477	5.17	653.3380	655.3484	419.2797	2.0104	1.1E+04	1	1	1
481	5.19	632.3283	634.3328	796.5400	2.0044	2.3E+04	2	2	35
482	5.19	624.3711	626.3752	780.6256	2.0041	6.6E+05	2	2	7
491	5.29	654.3417	656.3465	840.5668	2.0047	2.3E+04	2	2	21
500	5.37	654.3411	656.3458	840.5656	2.0047	2.5E+04	2	2	21
510	5.41	749.2066	751.2144	515.1483	2.0077	1.6E+04	1	1	2
513	5.42	675.3512	677.3646	441.2928	2.0134	2.3E+04	1	1	1
517	5.44	676.3540	678.3594	884.5913	2.0054	2.9E+04	2	2	44
522	5.49	668.3972	670.3999	868.6778	2.0026	5.8E+05	2	2	5
526	5.50	593.3609	595.3604	359.3026	1.9995	2.5E+04	1	1	1
527	5.50	549.3313	551.3337	315.2730	2.0024	2.0E+04	1	1	1
532	5.51	701.3922	703.4045	467.3339	2.0122	1.7E+04	1	1	1
540	5.54	668.3976	670.4033	868.6786	2.0057	4.8E+05	2	2	6
553	5.58	698.3676	700.3716	928.6187	2.0040	3.1E+04	2	2	28
568	5.63	690.4103	692.4143	912.7039	2.0040	5.2E+05	2	2	1
584	5.68	637.3883	639.3908	403.3300	2.0025	2.9E+04	1	1	1
588	5.68	694.4245	696.4378	920.7323	2.0134	5.4E+04	2	2	3
591	5.70	720.3814	722.3856	972.6461	2.0042	2.9E+04	2	2	1
594	5.71	712.4232	714.4263	956.7298	2.0031	4.6E+05	2	2	1
607	5.75	492.1805	494.1858	258.1221	2.0053	6.1E+03	1	1	8
614	5.78	529.3210	531.3317	295.2627	2.0107	3.1E+04	1	1	1
615	5.78	593.3606	595.3626	359.3023	2.0020	2.5E+04	1	1	1
616	5.79	637.3884	639.3891	403.3301	2.0007	3.5E+04	1	1	1
626	5.82	742.3947	744.3983	1016.6727	2.0036	2.7E+04	2	2	14
634	5.85	738.4503	740.4641	1008.7840	2.0138	2.2E+04	2	2	5
638	5.85	513.2791	515.2807	279.2207	2.0016	8.8E+03	1	1	6
640	5.86	701.3975	703.4092	467.3392	2.0118	1.2E+04	1	1	1
647	5.88	764.4073	766.4101	1060.6979	2.0028	3.6E+04	2	2	27
651	5.90	509.2704	511.2738	275.2121	2.0034	7.7E+04	1	1	1
654	5.91	362.1644	364.1708	128.1061	2.0064	2.0E+04	1	1	2
657	5.92	764.9095	766.9136	1061.7023	2.0041	1.5E+04	2	2	19
670	5.94	756.4492	758.4508	1044.7818	2.0015	3.1E+05	2	2	4
675	5.97	937.0201	939.0358	1405.9235	2.0157	1.6E+04	2	2	1
676	5.97	778.4618	780.4675	1088.8070	2.0056	2.7E+05	2	2	3
678	5.98	786.4215	788.4246	1104.7264	2.0031	2.0E+04	2	2	17
692	6.07	808.4342	810.4403	1148.7518	2.0061	2.9E+04	2	2	2
696	6.08	337.1585	339.1651	103.1002	2.0066	5.3E+05	1	1	5
701	6.11	800.4760	802.4825	566.4177	2.0065	2.2E+05	1	1	1
705	6.13	830.4483	832.4510	1192.7799	2.0027	2.6E+04	2	2	5
712	6.16	553.2965	555.3000	319.2382	2.0034	5.9E+04	1	1	1
713	6.16	548.3264	550.3312	314.2681	2.0048	1.8E+05	1	1	1
722	6.21	563.3354	565.3422	658.5541	2.0068	1.4E+05	2	2	43
747	6.29	560.3395	562.3499	652.5623	2.0104	3.9E+04	2	2	12
760	6.31	874.4753	876.4795	1280.8339	2.0043	2.4E+04	2	2	6
774	6.34	896.4889	898.4898	662.4306	2.0009	2.5E+04	1	1	1

775	6.34	593.3550	595.3578	718.5933	2.0028	4.6E+04	2	2	<u>2</u>
839	6.41	918.5021	920.5087	1368.8877	2.0066	2.4E+04	2	2	<u>3</u>
846	6.42	593.3532	595.3632	718.5898	2.0100	2.3E+04	2	2	<u>9</u>
874	6.46	613.0373	615.0429	378.9789	2.0057	4.0E+04	1	1	<u>1</u>
876	6.46	941.0218	943.0215	1413.9269	1.9997	7.7E+03	2	2	<u>4</u>
897	6.48	940.5148	942.5179	1412.9130	2.0031	2.2E+04	2	2	<u>4</u>
916	6.50	932.5559	934.5579	698.4975	2.0021	3.1E+05	1	1	<u>2</u>
929	6.51	618.3781	620.3859	768.6396	2.0077	7.3E+03	2	2	<u>3</u>
933	6.52	622.0374	624.0429	387.9790	2.0055	1.6E+05	1	1	<u>1</u>
943	6.53	334.1222	336.1287	100.0639	2.0064	1.6E+05	1	1	<u>3</u>
955	6.54	641.3491	643.3532	814.5816	2.0041	4.3E+04	2	2	<u>18</u>
959	6.54	962.5279	964.5318	728.4696	2.0039	2.1E+04	1	1	<u>1</u>
963	6.54	638.0335	642.0523	170.9242	4.0188	1.8E+05	1	2	<u>1</u>
974	6.56	954.5680	956.5649	720.5097	1.9969	2.1E+05	1	1	<u>16</u>
976	6.56	616.0285	618.0391	381.9702	2.0106	2.8E+04	1	1	<u>1</u>
984	6.56	954.5687	956.5722	720.5104	2.0035	2.9E+05	1	1	<u>17</u>
1006	6.58	667.3817	669.3947	433.3234	2.0130	1.1E+04	1	1	<u>2</u>
1010	6.59	495.2765	497.2795	261.2181	2.0030	1.5E+04	1	1	<u>1</u>
1013	6.59	660.0333	662.0351	425.9750	2.0018	4.1E+04	1	1	<u>1</u>
1020	6.59	984.5423	986.5459	750.4839	2.0036	1.4E+04	1	1	<u>11</u>
1057	6.63	627.3821	629.3857	786.6476	2.0035	2.2E+04	2	2	<u>12</u>
1061	6.63	703.4121	705.4254	469.3538	2.0133	6.8E+03	1	1	<u>3</u>
1062	6.63	495.2895	497.2999	261.2311	2.0105	3.6E+04	1	1	<u>2</u>
1081	6.66	976.5822	978.5846	742.5239	2.0024	1.5E+05	1	1	<u>28</u>
1083	6.66	657.0639	659.0701	423.0056	2.0062	4.9E+04	1	1	<u>1</u>
1086	6.67	508.0597	510.0646	274.0013	2.0050	1.7E+04	1	1	<u>2</u>
1125	6.78	695.0798	697.0835	461.0215	2.0037	1.7E+05	1	1	<u>1</u>
1126	6.78	701.0896	703.0930	467.0313	2.0034	8.1E+04	1	1	<u>1</u>
1130	6.78	671.4079	673.4116	874.6991	2.0038	1.8E+04	2	2	<u>1</u>
1131	6.78	627.3808	629.3848	786.6450	2.0040	1.5E+04	2	2	<u>12</u>
1136	6.79	530.0732	532.0729	296.0149	1.9996	2.3E+04	1	1	<u>2</u>
1143	6.79	681.4018	683.4137	894.6870	2.0118	1.4E+04	2	2	<u>8</u>
1148	6.80	735.4104	737.4138	1002.7042	2.0034	1.0E+04	2	2	<u>24</u>
1149	6.81	637.3747	639.3860	806.6328	2.0113	1.1E+04	2	2	<u>2</u>
1159	6.82	733.4110	735.4138	499.3527	2.0028	5.7E+04	1	1	<u>6</u>
1165	6.83	556.0574	558.0611	643.9981	2.0037	2.1E+04	2	2	<u>1</u>
1167	6.83	541.0804	543.0779	307.0220	1.9975	4.6E+04	1	1	<u>2</u>
1193	6.85	734.4298	736.4427	500.3715	2.0129	1.7E+04	1	1	<u>2</u>
1198	6.86	733.4236	735.4228	499.3653	1.9992	4.5E+04	1	1	<u>5</u>
1205	6.87	552.0875	554.0832	636.0584	1.9957	5.8E+04	2	2	<u>1</u>
1206	6.87	552.0864	554.0870	318.0280	2.0006	3.8E+04	1	1	<u>5</u>
1227	6.89	527.3148	529.3205	586.5129	2.0057	6.3E+03	2	2	<u>1</u>
1229	6.89	748.4218	750.4329	514.3635	2.0111	3.5E+04	1	1	<u>8</u>
1232	6.90	560.0789	562.0816	326.0206	2.0027	9.4E+04	1	1	<u>1</u>
1233	6.90	811.4902	813.4947	577.4319	2.0045	2.9E+04	1	1	<u>2</u>
1243	6.90	763.0947	767.1041	295.9854	4.0093	1.6E+04	1	2	<u>1</u>
1250	6.91	730.1073	732.1085	496.0490	2.0012	2.6E+04	1	1	<u>1</u>
1253	6.91	682.0759	686.0832	214.9666	4.0073	7.3E+03	1	2	<u>1</u>

1270	6.92	747.4384	749.4388	1026.7601	2.0004	3.2E+04	2	2
1275	6.93	715.4347	717.4366	962.7527	2.0020	9.1E+03	2	2
1280	6.93	763.0976	765.1082	529.0393	2.0106	3.4E+04	1	1
1283	6.94	467.0563	469.0669	232.9980	2.0106	7.0E+03	1	1
1284	6.94	627.1792	629.1837	393.1208	2.0045	8.1E+03	1	1
1287	6.94	756.1120	760.1251	289.0026	4.0131	1.6E+04	1	2
1299	6.94	381.1478	383.1543	147.0895	2.0064	1.1E+04	1	1
1310	6.95	570.0948	572.0968	672.0730	2.0020	5.5E+04	2	2
1319	6.96	551.3295	553.3400	634.5425	2.0104	6.2E+03	2	2
1323	6.96	582.0900	586.1082	114.9807	4.0182	6.0E+04	1	2
1324	6.96	593.3474	595.3549	718.5782	2.0075	2.1E+04	2	2
1328	6.96	582.0923	584.0962	348.0340	2.0039	5.1E+04	1	1
1333	6.96	777.4406	779.4389	543.3823	1.9983	2.3E+04	1	1
1335	6.97	563.0942	565.0969	329.0359	2.0027	1.6E+04	1	1
1343	6.97	777.4380	779.4434	543.3797	2.0054	2.7E+04	1	1
1346	6.97	778.1062	780.1060	544.0479	1.9998	1.6E+04	1	1
1352	6.97	777.4400	779.4533	543.3817	2.0133	1.7E+04	1	1
1358	6.98	582.0958	584.0993	348.0374	2.0035	4.4E+04	1	1
1370	6.98	723.4384	725.4362	489.3800	1.9978	3.2E+04	1	1
1375	6.99	748.1086	752.1288	280.9993	4.0202	6.4E+03	1	2
1378	6.99	600.3376	602.3463	732.5585	2.0088	9.8E+03	2	2
1381	6.99	778.1073	780.1204	544.0490	2.0131	1.8E+04	1	1
1395	7.00	768.4601	770.4626	534.4018	2.0026	1.9E+04	1	1
1397	7.00	574.1007	576.1025	340.0424	2.0018	1.7E+04	1	1
1404	7.01	783.1342	787.1553	316.0249	4.0211	7.4E+03	1	2
1410	7.01	783.1317	785.1343	549.0734	2.0026	7.9E+03	1	1
1411	7.01	670.3278	672.3318	436.2695	2.0040	2.0E+04	1	1
1414	7.01	592.1078	594.1098	716.0989	2.0020	3.0E+04	2	2
1415	7.01	783.4664	785.4708	549.4081	2.0044	1.2E+04	1	1
1426	7.02	792.4474	794.4526	558.3891	2.0052	1.4E+04	1	1
1435	7.03	679.4118	681.4124	445.3535	2.0007	1.6E+04	1	1
1441	7.03	593.1014	595.1081	359.0431	2.0066	3.3E+04	1	1
1442	7.03	584.0978	586.1095	700.0789	2.0118	9.8E+03	2	2
1447	7.03	695.3193	697.3236	461.2610	2.0043	1.4E+04	1	1
1454	7.04	450.1682	452.1797	216.1099	2.0114	1.1E+04	1	1
1459	7.04	785.1385	789.1420	318.0291	4.0036	2.1E+04	1	2
1462	7.05	770.1286	774.1353	303.0193	4.0067	1.2E+04	1	2
1470	7.06	611.0915	613.0954	754.0663	2.0039	1.8E+04	2	2
1483	7.07	595.1036	597.1131	722.0905	2.0095	7.8E+03	2	2
1494	7.08	392.1636	394.1699	158.1053	2.0063	9.3E+03	1	1
1496	7.08	596.1128	598.1144	362.0545	2.0016	9.4E+03	1	1
1497	7.08	603.1148	605.1168	738.1130	2.0020	1.6E+04	2	2
1512	7.10	427.0983	429.1052	193.0400	2.0070	8.7E+03	1	1
1515	7.11	615.1205	617.1301	381.0621	2.0096	1.1E+04	1	1
1518	7.11	615.1136	619.1277	148.0043	4.0141	1.3E+04	1	2
1526	7.11	625.1997	627.2036	391.1413	2.0039	7.3E+03	1	1
1527	7.12	619.8721	621.8729	771.6275	2.0009	8.0E+03	2	2
1529	7.12	614.1206	616.1232	760.1245	2.0026	9.0E+03	2	2

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1533	7.13	553.3304	555.3331	319.2721	2.0026	7.3E+03	1	1
1535	7.13	626.1173	630.1366	159.0080	4.0192	1.4E+04	1	2
1544	7.14	626.1296	628.1403	392.0712	2.0107	9.0E+03	1	1
1546	7.15	383.0730	385.0794	149.0147	2.0064	9.6E+03	1	1
1547	7.15	616.6156	618.6276	765.1146	2.0119	7.2E+03	2	2
1552	7.16	630.3735	632.3743	396.3152	2.0008	9.0E+03	1	1
1564	7.18	633.3827	635.3870	798.6488	2.0043	1.1E+04	2	2
1571	7.22	367.1317	369.1375	133.0733	2.0059	2.1E+04	1	1
1576	7.23	605.1589	607.1651	371.1006	2.0062	7.6E+03	1	1
1578	7.24	669.3228	671.3261	435.2645	2.0033	1.2E+04	1	1
1579	7.24	478.1634	480.1699	244.1051	2.0065	9.1E+03	1	1
1590	7.30	606.3574	608.3628	372.2991	2.0055	7.2E+03	1	1
1596	7.31	677.4094	679.4118	886.7021	2.0025	8.4E+03	2	2
1599	7.35	358.0416	360.0477	123.9833	2.0061	1.9E+04	1	1
1611	7.44	378.1483	380.1540	144.0900	2.0057	8.0E+03	1	1
1613	7.48	625.1625	627.1667	391.1042	2.0042	1.5E+04	1	1
1614	7.48	359.1059	361.1125	125.0476	2.0066	1.4E+04	1	1
1615	7.50	437.0943	439.0987	203.0360	2.0044	1.1E+04	1	1
1622	7.61	587.1299	589.1339	353.0716	2.0040	8.1E+03	1	1
1631	7.82	452.1842	454.1903	218.1259	2.0061	1.7E+04	1	1
1632	7.83	453.1317	455.1387	219.0734	2.0070	1.0E+04	1	1
1633	7.86	623.1555	625.1617	389.0972	2.0062	1.2E+04	1	1
1645	8.02	355.0922	357.0987	242.0678	2.0065	1.6E+04	2	2
1651	8.09	737.1916	739.2033	503.1333	2.0117	6.8E+03	1	1
1654	8.10	657.3943	659.3960	846.6720	2.0017	6.3E+03	2	2
1655	8.10	739.2036	741.2042	505.1453	2.0007	1.4E+04	1	1
1658	8.10	736.1933	740.2058	269.0839	4.0125	9.6E+03	1	2
1671	8.24	420.1582	422.1650	186.0998	2.0069	9.5E+03	1	1
1678	8.28	635.2398	637.2413	401.1815	2.0015	8.6E+03	1	1
1684	8.28	451.1049	453.1094	434.0931	2.0045	1.4E+04	2	2
1685	8.28	489.1214	491.1263	255.0630	2.0049	6.2E+03	1	1
1694	8.29	601.1473	603.1514	367.0889	2.0041	8.8E+03	1	1
1697	8.29	559.1093	561.1137	325.0510	2.0044	7.2E+03	1	1
1708	8.31	540.1349	542.1414	306.0765	2.0065	6.1E+05	1	1
1717	8.32	639.3851	641.3879	405.3268	2.0028	7.2E+03	1	1
1719	8.32	567.0953	569.0987	333.0370	2.0034	1.3E+04	1	1
1723	8.32	661.1576	663.1561	427.0992	1.9985	1.7E+05	1	1
1727	8.33	695.3338	697.3415	461.2755	2.0077	1.2E+04	1	1
1730	8.33	645.2454	647.2466	411.1871	2.0012	9.7E+03	1	1
1733	8.34	659.1510	661.1576	425.0927	2.0066	8.5E+04	1	1
1735	8.34	584.1187	586.1249	350.0604	2.0062	7.7E+03	1	1
1745	8.36	664.2584	666.2596	430.2000	2.0012	1.1E+04	1	1
1749	8.37	571.2038	575.2181	104.0945	4.0143	7.1E+03	1	2
1750	8.38	583.6037	585.6047	699.0907	2.0010	7.4E+03	2	2
1751	8.38	664.1144	666.1165	430.0561	2.0021	1.1E+04	1	1
1752	8.38	667.1172	669.1177	433.0589	2.0005	6.2E+03	1	1
1756	8.39	654.3956	656.3960	420.3373	2.0003	6.4E+03	1	1
1758	8.39	673.1207	675.1227	439.0624	2.0019	9.0E+03	1	1

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1759	8.39	677.2653	679.2669	443.2070	2.0016	6.2E+03	1	1	<u>3</u>
1760	8.40	664.4003	666.4025	430.3420	2.0022	8.6E+03	1	1	<u>4</u>
1765	8.40	682.3286	684.3307	896.5405	2.0022	9.2E+03	2	2	<u>12</u>
1767	8.40	658.2537	660.2551	424.1954	2.0014	7.3E+03	1	1	<u>8</u>
1776	8.43	589.1053	591.1077	710.0940	2.0023	7.8E+03	2	2	<u>3</u>
1782	8.44	677.1225	681.1303	210.0131	4.0078	9.5E+03	1	2	<u>1</u>
1784	8.44	683.4108	685.4131	449.3525	2.0022	9.6E+03	1	1	<u>9</u>
1789	8.45	605.7412	607.7418	743.3657	2.0007	8.0E+03	2	2	<u>1</u>
1793	8.45	685.3384	687.3374	451.2801	1.9990	2.8E+04	1	1	<u>1</u>
1796	8.45	597.7340	599.7389	727.3513	2.0050	6.7E+03	2	2	<u>3</u>
1798	8.46	683.2688	685.2703	449.2104	2.0015	9.1E+03	1	1	<u>2</u>
1800	8.47	692.4175	694.4191	916.7183	2.0016	6.5E+03	2	2	<u>9</u>
1805	8.47	677.1225	679.1228	443.0641	2.0003	6.7E+03	1	1	<u>2</u>
1806	8.48	600.1137	602.1156	732.1108	2.0019	6.3E+03	2	2	<u>3</u>
1812	8.48	614.2448	616.2480	380.1865	2.0031	7.2E+03	1	1	<u>2</u>
1817	8.49	702.1375	704.1398	468.0792	2.0023	7.7E+03	1	1	<u>4</u>
1820	8.50	616.7491	618.7502	765.3816	2.0011	7.1E+03	2	2	<u>2</u>
1822	8.50	512.1249	514.1312	278.0665	2.0064	1.8E+04	1	1	<u>1</u>
1823	8.50	512.6239	514.6302	557.1311	2.0063	1.7E+04	2	2	<u>2</u>
1827	8.50	609.1169	611.1193	750.1172	2.0023	6.1E+03	2	2	<u>1</u>
1832	8.51	708.4283	710.4297	474.3699	2.0015	9.8E+03	1	1	<u>5</u>
1837	8.52	616.6213	618.6247	765.1260	2.0034	8.7E+03	2	2	<u>1</u>
1847	8.53	633.3814	635.3846	798.6461	2.0032	7.0E+03	2	2	<u>12</u>
1854	8.54	622.2522	624.2544	776.3877	2.0022	6.1E+03	2	2	<u>4</u>
1870	8.56	630.8808	632.8809	793.6449	2.0001	9.3E+03	2	2	<u>14</u>
1875	8.56	644.2632	646.2647	820.4099	2.0014	6.2E+03	2	2	<u>3</u>
1876	8.56	644.3912	646.3886	820.6658	1.9974	7.0E+03	2	2	<u>8</u>
1899	8.62	652.8917	654.8929	837.6669	2.0011	9.7E+03	2	2	<u>14</u>
1900	8.62	493.2112	495.2167	259.1529	2.0055	7.3E+03	1	1	<u>4</u>
1904	8.64	320.1063	322.1115	86.0480	2.0052	3.0E+04	1	1	<u>5</u>
1914	8.69	674.9066	676.9125	881.6966	2.0059	6.3E+03	2	2	<u>2</u>
1915	8.69	376.1696	378.1754	142.1113	2.0057	9.4E+03	1	1	<u>5</u>
1918	8.76	680.0716	682.0747	446.0133	2.0031	7.0E+03	1	1	<u>3</u>
1923	8.81	366.1017	368.1080	132.0434	2.0063	7.7E+03	1	1	<u>4</u>
1931	8.88	969.2027	971.2069	735.1443	2.0043	8.8E+03	1	1	<u>1</u>
1932	8.88	466.1995	468.2071	232.1412	2.0076	8.1E+03	1	1	<u>9</u>
1933	8.89	420.1582	422.1651	186.0999	2.0068	1.0E+04	1	1	<u>15</u>
1934	8.89	947.2202	949.2222	713.1619	2.0020	4.6E+04	1	1	<u>1</u>
1936	8.91	496.0956	498.0927	262.0373	1.9971	6.2E+04	1	1	<u>1</u>
1938	8.93	434.1151	436.1217	400.1135	2.0066	6.6E+03	2	2	<u>15</u>
1942	8.96	924.2434	926.2435	690.1851	2.0001	1.9E+04	1	1	<u>1</u>
1947	9.05	367.1320	369.1381	133.0737	2.0061	2.7E+04	1	1	<u>40</u>
1958	9.25	489.1326	491.1347	255.0743	2.0022	2.1E+04	1	1	<u>9</u>
1959	9.27	278.0956	280.1032	44.0373	2.0076	9.1E+03	1	1	<u>1</u>
1960	9.28	602.1301	604.1351	368.0718	2.0049	9.8E+03	1	1	<u>3</u>
1961	9.28	543.2092	545.2108	309.1509	2.0016	7.6E+03	1	1	<u>1</u>
1963	9.33	485.1208	487.1252	251.0624	2.0045	1.1E+04	1	1	<u>6</u>
1964	9.35	440.1306	442.1343	206.0722	2.0038	1.1E+04	1	1	<u>19</u>

1966	9.41	466.2000	468.2091	232.1417	2.0091	1.1E+04	1	1
1971	9.49	357.0889	359.0955	123.0305	2.0066	1.2E+04	1	1
1980	9.58	531.1298	533.1354	594.1429	2.0056	1.8E+04	2	2
1981	9.58	341.5870	343.5934	215.0574	2.0064	9.8E+03	2	2
1992	9.60	476.1150	478.1211	242.0567	2.0061	1.6E+04	1	1
1998	9.63	476.6130	478.6185	485.1093	2.0055	1.2E+04	2	2
2001	9.76	414.5979	416.6043	361.0792	2.0064	1.3E+04	2	2
2004	9.80	785.1847	787.1843	551.1264	1.9996	3.0E+04	1	1
2005	9.80	783.1785	785.1838	549.1202	2.0054	4.1E+04	1	1
2006	9.81	711.1326	713.1352	477.0742	2.0026	1.5E+04	1	1
2007	9.81	355.0637	357.0693	242.0108	2.0055	7.1E+03	2	2
2011	9.85	714.3312	716.3408	480.2729	2.0096	6.4E+03	1	1
2016	9.88	367.1070	369.1106	133.0487	2.0036	1.4E+04	1	1
2022	9.97	795.2759	797.2787	561.2176	2.0029	1.6E+04	1	1
2024	9.97	292.1112	294.1162	58.0528	2.0051	2.9E+04	1	1
2030	9.99	711.1323	713.1363	477.0740	2.0040	8.9E+03	1	1
2032	10.02	397.1348	399.1418	326.1529	2.0070	7.7E+03	2	2
2034	10.07	399.5879	401.5950	331.0592	2.0070	6.3E+03	2	2
2035	10.07	436.1897	438.1950	202.1314	2.0053	1.1E+04	1	1
2037	10.10	379.5836	381.5902	291.0506	2.0066	8.1E+03	2	2
2040	10.15	296.0953	298.1014	62.0370	2.0061	4.7E+04	1	1
2041	10.16	439.0989	441.1043	205.0406	2.0054	1.5E+04	1	1
2044	10.24	340.1215	342.1282	106.0632	2.0067	2.0E+04	1	1
2045	10.25	362.1532	364.1595	128.0948	2.0063	5.7E+04	1	1
2046	10.26	486.1697	488.1760	252.1114	2.0062	1.0E+04	1	1
2049	10.29	458.1191	460.1213	224.0608	2.0022	2.4E+04	1	1
2051	10.31	514.1656	516.1768	280.1073	2.0112	6.8E+03	1	1
2052	10.31	446.0936	448.1017	424.0705	2.0081	6.4E+03	2	2
2055	10.33	381.1474	383.1545	147.0891	2.0071	9.1E+03	1	1
2059	10.34	424.0994	426.1057	190.0411	2.0063	6.3E+04	1	1
2060	10.34	727.2555	729.2611	493.1972	2.0056	6.9E+03	1	1
2063	10.34	581.1188	583.1212	347.0605	2.0024	1.2E+04	1	1
2069	10.38	899.2100	901.2090	665.1517	1.9990	2.7E+04	1	1
2071	10.38	410.5865	412.5933	353.0564	2.0067	1.2E+04	2	2
2073	10.39	409.5867	411.5932	351.0567	2.0065	3.6E+04	2	2
2075	10.39	448.1026	450.1090	428.0885	2.0064	2.6E+05	2	2
2077	10.39	384.1478	386.1543	150.0894	2.0065	3.3E+04	1	1
2078	10.41	897.2111	899.2110	663.1528	1.9998	4.1E+04	1	1
2081	10.47	554.1311	556.1381	320.0728	2.0071	2.6E+04	1	1
2096	10.56	697.3207	701.3337	230.2114	4.0130	1.2E+04	1	2
2097	10.57	530.1084	532.1133	296.0501	2.0049	9.8E+03	1	1
2099	10.58	466.2002	468.2058	232.1418	2.0057	1.5E+04	1	1
2105	10.65	711.3360	713.3382	477.2776	2.0022	2.5E+04	1	1
2108	10.68	420.1117	422.1182	372.1067	2.0065	6.3E+03	2	2
2110	10.68	658.2377	660.2365	424.1794	1.9988	8.6E+03	1	1
2121	10.75	436.1894	438.1951	202.1310	2.0057	1.1E+04	1	1
2127	10.83	785.1850	787.1851	551.1267	2.0001	2.4E+04	1	1
2128	10.83	783.1785	785.1837	549.1201	2.0053	2.8E+04	1	1

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2131	10.87	495.0531	497.0557	260.9947	2.0026	2.4E+04	1	1	<u>2</u>
2132	10.88	318.1271	320.1329	84.0688	2.0057	4.4E+04	1	1	<u>2</u>
2135	10.90	441.1145	443.1209	207.0562	2.0063	1.8E+04	1	1	<u>22</u>
2145	11.00	418.5910	420.5979	369.0653	2.0070	7.9E+04	2	2	<u>3</u>
2153	11.03	419.5908	421.5980	371.0650	2.0072	1.2E+04	2	2	<u>2</u>
2157	11.06	886.3586	888.3650	652.3003	2.0064	1.7E+04	1	1	<u>1</u>
2160	11.16	565.2695	567.2751	331.2112	2.0056	2.1E+04	1	1	<u>3</u>
2169	11.18	563.2623	565.2693	329.2040	2.0070	1.2E+04	1	1	<u>6</u>
2182	11.21	335.1428	337.1495	101.0845	2.0067	1.2E+04	1	1	<u>20</u>
2190	11.24	626.2628	628.2677	392.2045	2.0049	6.3E+03	1	1	<u>4</u>
2192	11.26	606.2857	608.2889	372.2274	2.0032	5.0E+04	1	1	<u>1</u>
2196	11.29	736.1932	740.2054	269.0839	4.0122	9.7E+03	1	2	<u>1</u>
2208	11.31	427.1197	429.1267	386.1227	2.0070	7.4E+03	2	2	<u>5</u>
2210	11.31	388.1376	390.1448	308.1585	2.0072	9.1E+03	2	2	<u>12</u>
2213	11.31	426.1176	428.1254	384.1186	2.0077	2.9E+04	2	2	<u>13</u>
2227	11.35	340.1217	342.1272	106.0633	2.0055	1.8E+04	1	1	<u>19</u>
2231	11.37	665.3315	667.3379	431.2732	2.0064	4.3E+04	1	1	<u>1</u>
2235	11.38	711.3657	713.3679	477.3073	2.0022	1.1E+05	1	1	<u>12</u>
2238	11.42	753.3836	755.3878	519.3253	2.0042	6.1E+05	1	1	<u>2</u>
2243	11.47	709.3571	711.3637	475.2987	2.0067	8.6E+04	1	1	<u>4</u>
2250	11.53	892.4242	894.4270	658.3659	2.0027	9.0E+04	1	1	<u>2</u>
2253	11.55	335.1427	337.1501	101.0844	2.0074	8.7E+03	1	1	<u>20</u>
2255	11.56	887.4700	889.4733	653.4116	2.0033	1.1E+05	1	1	<u>2</u>
2258	11.58	560.2521	562.2561	326.1938	2.0040	5.1E+04	1	1	<u>3</u>
2261	11.61	384.1469	386.1512	150.0885	2.0043	2.3E+04	1	1	<u>16</u>
2268	11.62	621.1583	625.1717	154.0490	4.0134	4.4E+04	1	2	<u>10</u>
2271	11.63	311.0827	313.0894	154.0487	2.0068	5.9E+04	2	2	<u>10</u>
2282	11.65	846.3887	848.3944	612.3304	2.0057	1.8E+04	1	1	<u>1</u>
2284	11.65	499.2551	501.2621	530.3935	2.0071	7.2E+03	2	2	<u>2</u>
2323	11.70	587.3060	589.3134	706.4954	2.0074	9.7E+03	2	2	<u>58</u>
2324	11.70	346.0868	348.0931	112.0285	2.0063	8.1E+05	1	1	<u>1</u>
2330	11.70	565.2947	567.3030	662.4728	2.0083	1.1E+04	2	2	<u>1</u>
2344	11.71	621.1584	625.1708	154.0490	4.0124	3.4E+04	1	2	<u>10</u>
2356	11.72	609.3179	611.3264	750.5191	2.0085	1.2E+04	2	2	<u>94</u>
2359	11.72	631.3322	633.3409	397.2738	2.0088	1.3E+04	1	1	<u>3</u>
2369	11.74	653.3462	655.3537	838.5759	2.0075	1.9E+04	2	2	<u>5</u>
2377	11.74	524.2802	526.2910	290.2219	2.0108	2.4E+04	1	1	<u>2</u>
2392	11.76	697.3718	699.3795	463.3135	2.0077	2.9E+04	1	1	<u>1</u>
2394	11.76	436.1900	438.1959	202.1317	2.0059	1.1E+04	1	1	<u>14</u>
2417	11.77	764.4144	766.4218	530.3561	2.0074	1.4E+04	1	1	<u>4</u>
2421	11.78	786.4278	788.4341	552.3694	2.0063	1.5E+04	1	1	<u>2</u>
2422	11.78	808.4404	810.4472	574.3821	2.0068	1.6E+04	1	1	<u>3</u>
2430	11.79	697.8737	699.8812	927.6308	2.0075	2.0E+04	2	2	<u>12</u>
2431	11.79	785.4241	787.4294	551.3658	2.0053	4.1E+04	1	1	<u>2</u>
2444	11.80	852.4669	854.4727	618.4085	2.0058	1.7E+04	1	1	<u>1</u>
2446	11.80	829.9516	831.9581	595.8933	2.0065	3.0E+04	1	1	<u>1</u>
2447	11.81	914.4685	916.4822	680.4102	2.0137	1.1E+04	1	1	<u>2</u>
2449	11.81	452.2467	454.2533	218.1884	2.0066	2.6E+04	1	1	<u>4</u>

2458	11.81	830.4532	832.4595	596.3948	2.0064	1.5E+04	1	1	<u>7</u>
2459	11.81	719.3858	721.3927	485.3275	2.0069	3.4E+04	1	1	<u>18</u>
2467	11.82	874.4789	876.4842	640.4205	2.0053	1.7E+04	1	1	<u>1</u>
2473	11.82	958.4948	960.5044	724.4364	2.0096	1.3E+04	1	1	<u>7</u>
2480	11.83	741.3985	743.4056	507.3402	2.0072	3.8E+04	1	1	<u>6</u>
2482	11.83	895.9915	897.9957	661.9332	2.0042	2.9E+04	1	1	<u>1</u>
2483	11.83	896.4924	898.4971	662.4341	2.0047	1.6E+04	1	1	<u>1</u>
2489	11.84	918.5057	920.5097	684.4474	2.0040	1.5E+04	1	1	<u>3</u>
2490	11.84	763.4115	765.4181	529.3532	2.0065	3.9E+04	1	1	<u>10</u>
2494	11.84	563.2621	565.2679	329.2038	2.0057	1.3E+04	1	1	<u>6</u>
2497	11.85	940.5190	942.5186	706.4607	1.9996	1.4E+04	1	1	<u>4</u>
2501	11.85	744.4099	746.4223	1020.7031	2.0124	1.4E+04	2	2	<u>10</u>
2507	11.86	962.5311	964.5345	1456.9456	2.0034	1.4E+04	2	2	<u>1</u>
2510	11.86	496.2724	498.2817	262.2141	2.0093	6.8E+04	1	1	<u>3</u>
2513	11.86	807.4372	809.4441	573.3789	2.0069	4.1E+04	1	1	<u>7</u>
2521	11.87	607.2887	609.2989	373.2304	2.0101	1.1E+04	1	1	<u>5</u>
2522	11.87	956.4882	958.4945	722.4298	2.0064	1.9E+04	1	1	<u>1</u>
2532	11.87	870.4427	872.4463	636.3844	2.0037	2.1E+04	1	1	<u>2</u>
2535	11.87	912.4624	914.4693	678.4041	2.0069	2.5E+04	1	1	<u>1</u>
2537	11.87	851.4641	853.4688	617.4057	2.0048	3.8E+04	1	1	<u>2</u>
2538	11.88	514.2862	516.2977	280.2279	2.0115	1.4E+04	1	1	<u>1</u>
2561	11.89	983.5444	985.5476	749.4861	2.0032	2.1E+04	1	1	<u>13</u>
2570	11.90	603.3383	605.3439	738.5600	2.0056	8.7E+03	2	2	<u>46</u>
2572	11.91	520.2943	522.2985	572.4720	2.0041	2.3E+04	2	2	<u>1</u>
2573	11.91	895.4908	897.4968	661.4325	2.0060	3.5E+04	1	1	<u>10</u>
2585	11.91	384.1470	386.1536	150.0887	2.0066	1.8E+04	1	1	<u>16</u>
2612	11.94	577.3115	579.3204	343.2532	2.0089	1.9E+04	1	1	<u>1</u>
2613	11.94	592.5871	594.5997	717.0575	2.0126	8.9E+03	2	2	<u>3</u>
2625	11.95	549.3133	551.3142	630.5100	2.0008	1.2E+04	2	2	<u>1</u>
2632	11.96	564.3203	566.3258	660.5239	2.0055	9.7E+03	2	2	<u>3</u>
2634	11.96	505.2860	507.2875	542.4553	2.0016	1.8E+04	2	2	<u>5</u>
2637	11.96	788.4350	790.4456	1108.7533	2.0106	7.0E+03	2	2	<u>15</u>
2645	11.96	722.3998	724.4023	976.6830	2.0025	1.4E+04	2	2	<u>3</u>
2656	11.98	562.3107	564.3207	656.5047	2.0100	1.5E+04	2	2	<u>66</u>
2659	11.98	729.0721	731.0778	495.0138	2.0058	1.2E+04	1	1	<u>1</u>
2665	11.98	661.3720	663.3749	427.3137	2.0029	1.0E+04	1	1	<u>1</u>
2675	11.99	720.0715	722.0780	486.0132	2.0064	9.3E+03	1	1	<u>1</u>
2679	11.99	760.4296	762.4422	526.3713	2.0126	7.6E+03	1	1	<u>1</u>
2694	12.03	562.0678	564.0708	328.0095	2.0029	9.5E+03	1	1	<u>2</u>
2698	12.16	456.1581	458.1637	222.0997	2.0056	8.4E+03	1	1	<u>23</u>
2699	12.20	332.1428	334.1497	98.0845	2.0069	3.1E+04	1	1	<u>1</u>
2705	12.25	420.1582	422.1648	186.0999	2.0066	9.6E+03	1	1	<u>15</u>
2708	12.29	355.1636	357.1700	242.2106	2.0064	2.4E+04	2	2	<u>1</u>
2709	12.30	371.1405	373.1462	274.1643	2.0057	7.7E+03	2	2	<u>2</u>
2715	12.42	569.2171	571.2218	335.1588	2.0047	5.9E+04	1	1	<u>16</u>
2720	12.54	470.1737	472.1812	236.1154	2.0075	9.8E+03	1	1	<u>11</u>
2721	12.57	367.0785	369.0849	133.0202	2.0063	2.4E+06	1	1	<u>4</u>
2739	12.75	473.0861	475.0915	239.0278	2.0054	5.0E+04	1	1	<u>2</u>

2746	12.86	371.1405	373.1473	274.1644	2.0068	9.5E+03	2	2	2
2753	12.95	400.1398	402.1486	332.1630	2.0088	1.4E+04	2	2	6
2767	13.05	369.0976	371.1071	270.0786	2.0095	7.1E+03	2	2	1
2770	13.07	736.1929	740.2068	269.0835	4.0139	6.2E+03	1	2	1
2774	13.10	847.1922	851.2059	380.0829	4.0137	1.4E+04	1	2	2
2783	13.31	461.0989	463.1055	454.0812	2.0066	2.6E+04	2	2	3
2786	13.33	425.1071	427.1129	382.0975	2.0058	7.7E+03	2	2	2
2788	13.33	462.0995	464.1059	456.0824	2.0064	9.4E+03	2	2	1
2791	13.34	393.1348	395.1408	318.1530	2.0060	8.3E+03	2	2	5
2804	13.53	683.3213	685.3228	449.2629	2.0016	1.3E+04	1	1	2
2807	13.56	681.3102	683.3221	447.2519	2.0118	1.5E+04	1	1	1
2816	13.62	351.1015	353.1085	117.0432	2.0070	2.7E+05	1	1	1
2820	13.65	312.6370	314.6439	157.1573	2.0070	3.8E+04	2	2	1
2824	13.68	434.1734	436.1794	200.1151	2.0060	1.1E+04	1	1	11
2825	13.70	491.1120	493.1176	257.0537	2.0055	2.1E+04	1	1	2
2830	13.85	596.0822	598.0883	362.0239	2.0061	2.6E+04	1	1	3
2843	13.96	391.6002	393.6063	315.0838	2.0061	6.9E+03	2	2	7
2844	13.96	390.6004	392.6071	313.0841	2.0068	2.6E+04	2	2	11
2847	13.97	350.6272	352.6343	233.1378	2.0071	2.9E+04	2	2	1
2861	14.04	751.2039	755.2170	284.0945	4.0132	1.3E+04	1	2	1
2869	14.08	346.0926	348.0972	224.0686	2.0046	1.2E+04	2	2	12
2870	14.09	729.2445	733.2589	262.1351	4.0144	9.0E+03	1	2	2
2895	14.17	365.6235	367.6305	263.1305	2.0069	7.2E+03	2	2	6
2897	14.18	464.2202	466.2274	230.1619	2.0071	7.9E+03	1	1	4
2899	14.19	363.6174	365.6245	259.1181	2.0072	6.3E+03	2	2	11
2902	14.21	439.0986	441.1004	205.0403	2.0018	2.3E+04	1	1	18
2916	14.25	622.1612	626.1754	155.0518	4.0143	7.0E+03	1	2	1
2925	14.31	360.0902	362.0966	126.0319	2.0064	1.8E+04	1	1	15
2933	14.36	311.0826	313.0892	154.0486	2.0065	8.3E+04	2	2	10
2935	14.36	457.0645	459.0710	446.0124	2.0065	1.2E+04	2	2	3
2938	14.37	357.6353	359.6421	247.1540	2.0067	8.7E+03	2	2	2
2950	14.44	711.1454	713.1463	477.0871	2.0009	1.8E+04	1	1	6
2960	14.49	913.1219	917.1354	446.0125	4.0135	6.5E+03	1	2	3
2961	14.49	621.1575	625.1712	154.0481	4.0137	2.8E+04	1	2	2
2971	14.56	381.0937	383.1003	147.0354	2.0067	1.8E+04	1	1	4
2975	14.58	621.1581	625.1711	154.0487	4.0131	1.1E+04	1	2	10
2979	14.62	804.3203	806.3264	570.2620	2.0061	1.8E+04	1	1	1
2984	14.72	457.0654	459.0699	446.0142	2.0045	1.4E+04	2	2	3
2987	14.73	703.1674	705.1690	469.1091	2.0015	9.8E+03	1	1	4
2992	14.75	708.1878	710.1878	474.1295	2.0000	1.3E+04	1	1	2
2994	14.75	599.1208	601.1219	365.0625	2.0011	1.3E+04	1	1	7
2995	14.77	352.0895	354.0936	236.0623	2.0042	8.8E+03	2	2	3
2998	14.80	597.1139	599.1196	363.0556	2.0056	1.8E+04	1	1	1
2999	14.81	357.6350	359.6414	247.1534	2.0064	8.7E+03	2	2	2
3003	15.00	754.2036	758.2168	287.0943	4.0131	1.1E+05	1	2	4
3005	15.01	725.2059	729.2197	258.0966	4.0138	1.1E+04	1	2	15
3011	15.03	388.1074	390.1141	154.0491	2.0067	3.0E+05	1	1	10
3012	15.03	377.1038	379.1102	286.0910	2.0064	2.4E+04	2	2	8

3014	15.04	378.1068	380.1106	288.0969	2.0038	8.2E+03	2	2
3016	15.06	754.2026	756.2077	520.1443	2.0051	5.1E+04	1	1
3019	15.06	318.0794	320.0862	84.0211	2.0068	4.4E+04	1	1
3020	15.10	349.1584	351.1648	115.1000	2.0065	8.1E+03	1	1
3023	15.13	498.2054	500.2101	264.1471	2.0047	7.1E+03	1	1
3024	15.16	335.6220	337.6291	203.1273	2.0072	6.2E+03	2	2
3025	15.16	754.2031	758.2175	287.0938	4.0144	2.5E+04	1	2
3031	15.28	377.1031	379.1099	286.0896	2.0068	7.2E+03	2	2
3034	15.30	377.1775	379.1839	286.2384	2.0064	5.7E+04	2	2
3040	15.33	776.3294	780.3436	309.2200	4.0142	2.7E+04	1	2
3046	15.35	439.0987	441.1053	205.0404	2.0066	1.1E+04	1	1
3047	15.38	349.1582	351.1646	115.0999	2.0064	7.2E+03	1	1
3049	15.40	377.1761	379.1825	143.1178	2.0063	3.2E+05	1	1
3050	15.42	779.3409	781.3416	545.2826	2.0007	1.8E+04	1	1
3056	15.50	776.3289	780.3418	309.2195	4.0129	3.6E+04	1	2
3060	15.55	384.1484	386.1552	150.0900	2.0069	1.6E+04	1	1
3062	15.59	478.2359	480.2427	244.1775	2.0068	1.7E+04	1	1
3064	15.63	318.0796	320.0867	84.0213	2.0070	1.1E+04	1	1
3066	15.63	736.1923	740.2051	269.0829	4.0128	5.6E+04	1	2
3067	15.64	349.1579	351.1650	115.0995	2.0071	8.9E+03	1	1
3085	15.75	501.2054	503.2105	267.1471	2.0051	1.1E+04	1	1
3086	15.76	736.1924	740.2059	269.0831	4.0135	1.2E+04	1	2
3089	15.76	335.6221	337.6287	203.1276	2.0066	5.3E+04	2	2
3090	15.77	349.1583	351.1647	115.1000	2.0064	7.0E+03	1	1
3091	15.79	336.1193	338.1259	204.1219	2.0067	1.8E+04	2	2
3099	15.93	311.0822	313.0896	154.0479	2.0074	9.6E+03	2	2
3101	15.95	664.1955	666.1961	430.1372	2.0006	2.0E+04	1	1
3103	15.96	370.0567	372.0635	271.9967	2.0068	7.8E+03	2	2
3107	16.01	604.2216	606.2281	370.1633	2.0065	9.0E+03	1	1
3109	16.03	334.0741	336.0806	100.0158	2.0065	3.4E+04	1	1
3118	16.22	604.2195	606.2257	370.1612	2.0062	8.4E+03	1	1
3121	16.24	393.1499	395.1530	159.0916	2.0031	1.1E+04	1	1
3122	16.25	478.2366	480.2401	244.1782	2.0036	1.6E+04	1	1
3135	16.43	466.1429	468.1493	232.0846	2.0064	6.9E+03	1	1
3137	16.48	679.1411	681.1403	445.0827	1.9993	1.6E+04	1	1
3145	16.62	346.0660	348.0725	224.0154	2.0065	1.3E+04	2	2
3159	16.81	977.4105	981.4264	510.3012	4.0158	1.0E+04	1	2
3162	16.85	363.6537	365.6606	259.1908	2.0069	1.1E+04	2	2
3165	16.90	346.5960	348.6028	225.0753	2.0068	8.2E+03	2	2
3169	16.97	307.1476	309.1536	73.0892	2.0060	1.4E+04	1	1
3175	17.08	343.1214	345.1286	218.1262	2.0071	9.3E+03	2	2
3176	17.08	738.3205	740.3278	504.2622	2.0072	8.9E+03	1	1
3177	17.13	440.1737	442.1789	206.1154	2.0052	3.7E+04	1	1
3178	17.13	509.1776	511.1824	275.1193	2.0048	9.4E+03	1	1
3218	17.65	644.2236	646.2239	410.1652	2.0004	1.7E+04	1	1
3222	17.66	300.0799	302.0867	132.0432	2.0067	2.6E+04	2	2
3228	17.69	735.2087	739.2218	268.0994	4.0131	1.7E+05	1	2
3230	17.69	735.2076	737.2134	501.1493	2.0059	4.8E+04	1	1

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3232	17.70	318.0794	320.0861	84.0210	2.0068	1.6E+04	1	1
3236	17.72	388.1070	390.1134	154.0487	2.0064	1.0E+04	1	1
3237	17.73	438.1573	440.1646	408.1981	2.0073	6.3E+03	2	2
3241	17.75	792.2607	796.2731	325.1514	4.0124	6.3E+03	1	2
3242	17.76	348.0904	350.0968	114.0321	2.0064	1.4E+04	1	1
3243	17.76	712.1818	716.1980	245.0724	4.0162	6.9E+03	1	2
3254	17.80	735.2061	737.2142	501.1478	2.0080	8.6E+03	1	1
3294	18.04	350.1300	352.1367	232.1433	2.0067	1.5E+04	2	2
3300	18.11	355.6370	357.6435	243.1575	2.0065	1.2E+04	2	2
3301	18.12	741.3880	743.3929	507.3296	2.0049	1.5E+04	1	1
3305	18.15	334.1582	336.1643	100.0999	2.0061	1.9E+04	1	1
3307	18.27	334.1583	336.1619	100.0999	2.0037	4.6E+04	1	1
3309	18.29	904.3773	908.3955	437.2680	4.0181	1.5E+05	1	2
3310	18.31	320.6344	322.6413	173.1523	2.0069	8.5E+03	2	2
3314	18.34	362.1893	364.1953	128.1310	2.0059	3.1E+04	1	1
3318	18.36	355.6372	357.6444	243.1579	2.0071	1.1E+04	2	2
3328	18.43	452.6916	454.7009	437.2666	2.0093	1.7E+05	2	2
3344	18.47	369.0672	371.0729	270.0178	2.0056	1.1E+04	2	2
3345	18.48	453.1911	455.2020	438.2655	2.0109	6.7E+03	2	2
3346	18.48	924.3568	926.3613	690.2984	2.0046	1.9E+04	1	1
3352	18.52	368.0675	370.0742	268.0184	2.0067	1.9E+04	2	2
3361	18.57	362.1895	364.1956	128.1312	2.0060	3.2E+04	1	1
3364	18.58	381.0938	383.0999	147.0355	2.0060	1.8E+04	1	1
3365	18.58	453.1909	455.2018	438.2651	2.0110	1.1E+04	2	2
3371	18.60	356.6459	358.6522	245.1751	2.0063	2.0E+04	2	2
3378	18.65	324.1049	326.1112	90.0466	2.0063	1.3E+04	1	1
3388	18.73	311.0832	313.0898	154.0497	2.0066	7.0E+04	2	2
3403	18.83	389.1245	391.1325	310.1324	2.0080	1.5E+04	2	2
3405	18.84	751.2035	755.2162	284.0941	4.0127	1.9E+04	1	2
3410	18.89	389.1201	391.1257	310.1237	2.0056	7.7E+03	2	2
3420	18.94	387.1137	389.1188	153.0554	2.0051	1.1E+04	1	1
3425	18.97	409.1245	411.1303	175.0662	2.0058	1.7E+04	1	1
3431	19.07	908.3958	910.3975	674.3375	2.0017	1.8E+04	1	1
3435	19.11	354.5653	356.5715	241.0140	2.0062	6.2E+03	2	2
3442	19.13	690.1395	692.1403	456.0812	2.0007	1.4E+04	1	1
3443	19.14	711.1324	715.1505	244.0230	4.0182	8.5E+03	1	2
3444	19.15	409.1245	411.1311	175.0662	2.0066	2.7E+04	1	1
3447	19.16	347.0887	349.0953	113.0304	2.0066	2.4E+05	1	1
3452	19.19	904.3773	908.3951	437.2680	4.0178	1.1E+04	1	2
3453	19.19	354.0792	356.0876	120.0209	2.0084	6.4E+03	1	1
3454	19.20	736.1931	738.1982	502.1348	2.0051	1.3E+05	1	1
3460	19.22	318.0793	320.0863	84.0210	2.0069	1.4E+05	1	1
3461	19.22	276.0689	278.0754	42.0105	2.0066	1.3E+05	1	1
3464	19.23	736.1940	740.2074	269.0847	4.0134	3.6E+05	1	2
3477	19.33	736.1929	740.2061	269.0836	4.0131	1.3E+05	1	2
3478	19.33	908.3964	910.3987	674.3380	2.0023	1.5E+04	1	1
3479	19.33	904.3767	908.3928	437.2673	4.0161	1.0E+04	1	2
3483	19.40	428.6061	430.6128	389.0955	2.0068	7.4E+03	2	2

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3485	19.42	307.1473	309.1539	73.0889	2.0067	1.5E+05	1	1	8
3488	19.45	359.1018	361.1114	250.0870	2.0096	7.7E+03	2	2	4
3489	19.46	697.3646	699.3695	463.3063	2.0049	1.0E+04	1	1	19
3498	19.55	717.1974	721.2095	250.0881	4.0121	8.4E+03	1	2	4
3501	19.56	421.1579	423.1653	374.1992	2.0074	6.8E+03	2	2	1
3504	19.66	303.0795	305.0859	69.0211	2.0064	2.0E+04	1	1	3
3507	19.67	375.1186	377.1247	282.1205	2.0061	6.5E+03	2	2	13
3508	19.69	697.3643	699.3702	463.3060	2.0059	1.4E+04	1	1	19
3512	19.72	721.2976	723.2978	487.2393	2.0001	3.1E+04	1	1	1
3514	19.75	718.2892	720.2942	484.2309	2.0050	9.2E+03	1	1	1
3517	19.76	699.3185	701.3196	465.2602	2.0011	2.5E+04	1	1	4
3526	19.84	757.3709	759.3729	523.3125	2.0020	7.1E+03	1	1	2
3529	19.86	476.2203	478.2265	242.1620	2.0062	7.8E+03	1	1	4
3534	20.03	363.6531	365.6603	259.1896	2.0072	7.3E+03	2	2	3
3536	20.11	311.0827	313.0893	154.0488	2.0065	8.4E+03	2	2	10
3541	20.18	697.3635	699.3702	463.3052	2.0068	1.6E+04	1	1	19
3550	20.25	421.1791	423.1853	187.1208	2.0062	8.8E+03	1	1	22
3551	20.25	363.6527	365.6601	259.1887	2.0075	9.8E+03	2	2	3
3552	20.26	712.1815	716.1955	245.0722	4.0140	8.5E+03	1	2	6
3554	20.26	600.1055	602.1077	366.0472	2.0022	1.8E+04	1	1	9
3556	20.27	715.1922	717.1939	481.1339	2.0017	1.9E+04	1	1	1
3562	20.28	593.1626	595.1671	359.1043	2.0044	1.5E+04	1	1	1
3566	20.34	699.3715	701.3729	465.3131	2.0015	1.2E+04	1	1	2
3567	20.34	697.3632	699.3704	463.3048	2.0072	1.6E+04	1	1	19
3570	20.35	759.3673	761.3714	525.3090	2.0041	7.3E+03	1	1	5
3571	20.36	368.0994	370.1068	268.0822	2.0074	7.6E+03	2	2	3
3575	20.42	361.1284	363.1328	254.1401	2.0044	8.9E+03	2	2	1
3576	20.44	759.3656	761.3689	525.3073	2.0033	8.3E+03	1	1	9
3580	20.47	590.1352	592.1421	356.0769	2.0069	7.6E+03	1	1	2
3584	20.49	669.3058	671.3085	435.2475	2.0027	3.6E+04	1	1	3
3590	20.58	353.1060	355.1131	238.0954	2.0071	1.0E+04	2	2	19
3592	20.65	697.3641	699.3705	463.3058	2.0064	1.2E+04	1	1	19
3599	20.74	667.2935	669.3055	433.2352	2.0119	1.0E+04	1	1	1
3600	20.74	697.3640	699.3693	463.3057	2.0052	3.7E+04	1	1	19
3605	20.79	333.1635	335.1698	99.1052	2.0063	7.9E+03	1	1	1
3611	20.85	383.1033	385.1118	298.0899	2.0085	9.1E+03	2	2	16
3617	20.90	757.3495	759.3560	523.2912	2.0065	9.1E+03	1	1	9
3620	20.91	383.6025	385.6093	299.0883	2.0068	1.4E+04	2	2	4
3622	20.91	564.2565	566.2602	330.1982	2.0037	3.5E+04	1	1	9
3626	20.93	765.1979	769.2149	298.0885	4.0171	6.9E+03	1	2	7
3627	20.93	382.6019	384.6088	297.0872	2.0069	5.9E+04	2	2	19
3630	20.96	697.3639	699.3707	463.3056	2.0068	1.2E+04	1	1	19
3631	20.96	674.2417	678.2558	207.1323	4.0142	8.4E+03	1	2	1
3635	20.98	454.2048	456.2111	220.1464	2.0064	6.8E+03	1	1	1
3636	20.99	631.2061	633.2072	397.1478	2.0011	3.4E+04	1	1	3
3638	21.01	412.1811	414.1865	356.2455	2.0054	6.0E+03	2	2	1
3639	21.03	980.4081	984.4266	513.2988	4.0185	6.5E+03	1	2	1
3641	21.05	759.3638	761.3704	525.3055	2.0066	1.4E+04	1	1	9

3645	21.08	588.2253	590.2320	354.1670	2.0067	6.5E+03	1	1
3647	21.10	741.3870	743.3956	507.3287	2.0086	8.3E+03	1	1
3653	21.16	697.3627	699.3706	463.3044	2.0079	2.0E+04	1	1
3655	21.22	368.1059	370.1100	134.0476	2.0041	1.2E+04	1	1
3657	21.27	697.3649	699.3709	463.3066	2.0059	2.2E+04	1	1
3660	21.39	317.5931	319.5997	167.0696	2.0066	1.9E+04	2	2
3669	22.02	736.1926	740.2063	269.0833	4.0136	5.2E+04	1	2
3677	22.14	711.1329	713.1343	477.0746	2.0014	3.7E+04	1	1
3679	22.24	662.0613	664.0658	428.0030	2.0045	1.1E+04	1	1
3681	22.29	349.1585	351.1640	115.1002	2.0055	2.1E+04	1	1
3684	22.31	360.1140	362.1195	252.1114	2.0055	1.1E+04	2	2
3688	22.34	759.3612	761.3696	525.3029	2.0084	1.5E+04	1	1
3691	22.34	697.3635	699.3701	463.3052	2.0066	9.1E+03	1	1
3694	22.36	699.3717	701.3766	465.3133	2.0049	1.4E+04	1	1
3695	22.36	335.1242	337.1308	202.1317	2.0066	6.7E+03	2	2
3697	22.38	711.1323	713.1334	477.0740	2.0011	1.7E+04	1	1
3699	22.41	518.2568	520.2620	284.1985	2.0052	6.4E+03	1	1
3705	22.45	697.3652	699.3715	463.3069	2.0063	1.3E+04	1	1
3708	22.47	557.2073	559.2148	323.1489	2.0075	1.5E+04	1	1
3711	22.49	450.1361	452.1402	216.0778	2.0041	1.3E+04	1	1
3713	22.49	311.0829	313.0895	154.0492	2.0066	8.9E+03	2	2
3726	22.53	355.0636	357.0696	242.0107	2.0060	2.2E+04	2	2
3727	22.53	654.1871	656.1859	420.1288	1.9988	5.4E+04	1	1
3728	22.53	651.1773	653.1816	417.1189	2.0044	6.4E+03	1	1
3731	22.53	650.1736	654.1863	183.0642	4.0127	8.4E+03	1	2
3732	22.54	699.3704	701.3785	465.3121	2.0081	1.3E+04	1	1
3733	22.54	711.1315	713.1317	477.0732	2.0003	6.3E+04	1	1
3736	22.56	759.3623	761.3696	525.3040	2.0073	2.1E+04	1	1
3739	22.58	354.0638	356.0706	120.0055	2.0068	1.1E+04	1	1
3741	22.62	431.1036	433.1096	197.0452	2.0061	9.4E+03	1	1
3747	22.68	697.3644	699.3713	463.3061	2.0069	1.1E+04	1	1
3748	22.69	757.3489	759.3613	523.2906	2.0124	8.5E+03	1	1
3750	22.70	359.0931	361.1006	250.0695	2.0076	7.8E+03	2	2
3751	22.70	352.0964	354.1069	118.0381	2.0105	7.0E+03	1	1
3756	22.73	699.3714	701.3806	465.3130	2.0093	1.2E+04	1	1
3757	22.75	611.2354	613.2375	377.1771	2.0020	1.5E+04	1	1
3768	22.78	318.0791	320.0861	84.0207	2.0070	8.8E+04	1	1
3769	22.78	348.0900	350.0966	114.0317	2.0066	5.1E+04	1	1
3776	22.80	717.1789	721.1923	250.0696	4.0134	4.0E+04	1	2
3780	22.81	697.3636	699.3705	463.3053	2.0069	1.9E+04	1	1
3781	22.82	311.0828	313.0893	154.0490	2.0065	1.8E+05	2	2
3782	22.82	718.1840	720.1854	484.1257	2.0014	1.5E+04	1	1
3783	22.82	388.1068	390.1132	154.0485	2.0064	4.5E+04	1	1
3787	22.84	759.3620	761.3686	525.3037	2.0066	1.9E+04	1	1
3788	22.87	757.3498	759.3623	523.2915	2.0125	7.7E+03	1	1
3791	22.91	697.3637	699.3697	463.3054	2.0060	8.8E+03	1	1
3792	22.91	761.3695	763.3702	527.3111	2.0008	1.1E+04	1	1
3801	23.01	761.3679	763.3717	527.3096	2.0038	8.0E+03	1	1

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3804	23.03	373.1204	375.1284	278.1242	2.0080	1.0E+04	2	2
3805	23.03	699.3705	701.3795	465.3122	2.0090	1.4E+04	1	1
3808	23.04	431.1036	433.1088	197.0453	2.0052	6.6E+03	1	1
3810	23.05	392.1642	394.1708	158.1059	2.0066	1.3E+04	1	1
3818	23.07	697.3621	699.3697	463.3038	2.0076	9.3E+03	1	1
3824	23.08	725.4323	727.4347	491.3740	2.0023	1.1E+04	1	1
3825	23.08	747.4143	749.4155	513.3560	2.0012	6.5E+04	1	1
3835	23.11	640.2084	642.2102	406.1501	2.0017	1.3E+04	1	1
3837	23.11	639.1511	641.1533	405.0928	2.0022	1.2E+04	1	1
3844	23.12	603.1581	605.1580	369.0998	1.9999	1.9E+04	1	1
3846	23.13	697.3660	699.3715	463.3077	2.0055	1.0E+04	1	1
3847	23.13	484.2146	486.2213	250.1563	2.0067	6.2E+03	1	1
3852	23.13	301.0761	303.0821	134.0355	2.0060	1.3E+04	2	2
3858	23.15	761.3709	763.3753	527.3125	2.0044	7.4E+03	1	1
3861	23.17	757.3530	759.3592	523.2947	2.0062	6.8E+03	1	1
3868	23.19	699.3727	701.3813	465.3144	2.0086	1.1E+04	1	1
3871	23.19	359.1063	361.1123	250.0960	2.0060	1.3E+04	2	2
3872	23.20	328.1035	330.1122	188.0903	2.0087	1.4E+04	2	2
3879	23.22	699.3174	701.3196	465.2590	2.0022	1.2E+04	1	1
3884	23.24	697.3662	699.3719	463.3079	2.0057	1.2E+04	1	1
3886	23.25	753.3552	755.3573	519.2969	2.0021	9.0E+03	1	1
3888	23.25	721.2990	723.3005	487.2406	2.0015	1.4E+04	1	1
3889	23.26	437.1564	439.1605	203.0981	2.0041	1.2E+04	1	1
3891	23.26	759.3552	761.3601	525.2969	2.0050	6.9E+03	1	1
3893	23.27	759.3630	761.3705	525.3047	2.0075	2.1E+04	1	1
3894	23.28	652.1965	654.1997	418.1382	2.0032	8.5E+03	1	1
3900	23.32	397.1572	399.1634	163.0989	2.0062	9.8E+03	1	1
3903	23.34	761.3694	763.3727	527.3111	2.0033	9.4E+03	1	1
3904	23.35	699.3728	701.3817	465.3145	2.0089	1.0E+04	1	1
3906	23.35	466.2153	468.2205	232.1570	2.0051	1.3E+04	1	1
3911	23.38	759.3559	761.3557	525.2976	1.9998	6.8E+03	1	1
3917	23.43	759.3623	761.3707	525.3040	2.0084	1.1E+04	1	1
3918	23.43	761.3670	763.3680	527.3087	2.0010	1.1E+04	1	1
3925	23.47	360.1138	362.1198	252.1110	2.0060	1.1E+04	2	2
3926	23.47	697.3653	699.3728	463.3070	2.0076	8.6E+03	1	1
3929	23.48	757.3497	759.3606	523.2914	2.0109	7.5E+03	1	1
3931	23.51	761.3713	763.3731	527.3130	2.0018	1.1E+04	1	1
3934	23.52	313.0765	315.0836	158.0364	2.0071	1.1E+04	2	2
3939	23.53	759.3556	761.3599	525.2972	2.0044	6.6E+03	1	1
3941	23.55	387.0892	389.0953	153.0309	2.0061	2.3E+04	1	1
3946	23.58	757.3482	759.3611	523.2899	2.0130	6.2E+03	1	1
3949	23.62	699.3711	701.3780	465.3128	2.0069	1.3E+04	1	1
3952	23.66	699.3709	701.3823	465.3125	2.0114	1.1E+04	1	1
3954	23.68	306.0614	308.0680	144.0061	2.0067	1.2E+04	2	2
3955	23.69	374.1288	376.1366	140.0705	2.0078	9.8E+03	1	1
3957	23.69	458.1982	460.2058	224.1399	2.0076	9.5E+03	1	1
3958	23.71	761.3707	763.3720	527.3124	2.0013	1.1E+04	1	1
3960	23.72	697.3617	699.3709	463.3034	2.0092	1.0E+04	1	1

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3961	23.72	759.3626	761.3696	525.3043	2.0070	1.6E+04	1	1	9
3962	23.73	428.0650	430.0698	194.0067	2.0048	9.4E+03	1	1	1
3963	23.74	374.1295	376.1344	280.1423	2.0049	1.5E+04	2	2	11
3965	23.78	699.3711	701.3808	465.3128	2.0096	9.0E+03	1	1	2
3969	23.85	699.3720	701.3845	465.3137	2.0125	1.1E+04	1	1	2
3974	23.86	432.1215	434.1273	198.0632	2.0058	2.6E+04	1	1	20
3975	23.86	507.1548	509.1581	273.0965	2.0033	1.3E+04	1	1	40
3979	23.89	639.3329	641.3371	405.2746	2.0042	1.7E+04	1	1	6
3981	23.91	697.3646	699.3715	463.3063	2.0069	9.9E+03	1	1	19
3985	23.95	759.3635	761.3702	525.3052	2.0067	1.1E+04	1	1	9
3986	23.96	363.1732	365.1799	129.1149	2.0067	3.9E+04	1	1	10
3987	23.97	988.4361	990.4440	754.3778	2.0079	1.5E+04	1	1	1
3990	23.99	567.2093	571.2228	100.0999	4.0136	2.0E+04	1	2	2
3991	23.99	431.1032	433.1083	197.0449	2.0051	4.5E+04	1	1	7
3992	23.99	349.1637	351.1715	230.2108	2.0078	1.7E+04	2	2	2
3993	24.00	488.6838	490.6934	509.2511	2.0096	7.2E+03	2	2	2
3994	24.01	276.0926	278.1015	84.0685	2.0089	7.0E+03	2	2	2
4000	24.02	695.3478	697.3597	461.2894	2.0119	1.1E+04	1	1	19
4002	24.04	348.0901	350.0976	114.0317	2.0075	9.1E+03	1	1	28
4009	24.08	431.1035	433.1098	197.0452	2.0062	4.2E+04	1	1	7
4010	24.08	717.1796	721.1924	250.0703	4.0127	7.0E+03	1	2	13
4014	24.11	699.3723	701.3817	465.3140	2.0093	8.8E+03	1	1	2
4016	24.12	474.1942	476.2041	480.2718	2.0099	1.5E+04	2	2	23
4021	24.13	625.2621	629.2762	158.1528	4.0141	1.2E+04	1	2	3
4023	24.14	695.3491	697.3584	461.2908	2.0093	1.6E+04	1	1	19
4026	24.16	332.5588	334.5643	197.0009	2.0055	2.6E+04	2	2	1
4027	24.16	944.4095	946.4196	710.3512	2.0101	1.2E+04	1	1	2
4028	24.16	759.3610	761.3708	525.3027	2.0097	8.0E+03	1	1	4
4030	24.17	363.1732	365.1795	129.1148	2.0063	1.6E+04	1	1	10
4031	24.17	331.5593	333.5659	195.0020	2.0066	2.1E+04	2	2	2
4039	24.23	729.3562	731.3610	495.2979	2.0047	6.4E+03	1	1	13
4041	24.25	567.2089	571.2223	100.0996	4.0133	9.9E+03	1	2	2
4042	24.25	653.1664	655.1682	419.1081	2.0017	1.3E+04	1	1	5
4044	24.26	759.3624	761.3708	525.3040	2.0084	7.8E+03	1	1	4
4046	24.28	697.3571	699.3720	463.2988	2.0149	7.3E+03	1	1	4
4047	24.28	329.0792	331.0856	190.0417	2.0064	1.4E+04	2	2	2
4051	24.30	388.1114	390.1157	154.0531	2.0043	8.4E+03	1	1	1
4052	24.30	388.1054	390.1134	154.0471	2.0080	6.3E+03	1	1	2
4061	24.34	620.1550	624.1634	153.0457	4.0083	9.8E+03	1	2	4
4062	24.35	699.3719	701.3820	465.3136	2.0101	6.8E+03	1	1	2
4064	24.37	900.3848	902.3917	666.3265	2.0069	6.5E+03	1	1	1
4065	24.40	441.1809	443.1874	207.1226	2.0065	1.9E+04	1	1	3
4069	24.46	556.1293	558.1344	322.0710	2.0051	4.4E+04	1	1	2
4073	24.47	695.3500	697.3591	461.2917	2.0091	7.9E+03	1	1	16
4076	24.49	759.3632	761.3711	525.3048	2.0079	1.2E+04	1	1	9
4080	24.52	697.3617	699.3726	463.3033	2.0110	7.7E+03	1	1	2
4084	24.54	428.0645	430.0702	194.0062	2.0056	7.0E+04	1	1	1
4085	24.55	450.1583	452.1631	216.1000	2.0048	1.2E+04	1	1	10

4087	24.57	474.1940	476.2035	480.2714	2.0094	1.1E+04	2	2
4091	24.61	431.1030	433.1091	197.0447	2.0062	3.2E+04	1	1
4092	24.61	759.3609	761.3714	525.3026	2.0105	6.2E+03	1	1
4093	24.62	695.3488	697.3610	461.2905	2.0122	9.1E+03	1	1
4098	24.70	357.1376	359.1435	123.0793	2.0059	1.6E+04	1	1
4099	24.70	590.1889	594.2022	123.0796	4.0133	9.4E+03	1	2
4101	24.70	759.3621	761.3703	525.3038	2.0083	9.4E+03	1	1
4104	24.71	530.6942	532.7033	593.2719	2.0091	7.7E+03	2	2
4110	24.72	485.1242	487.1329	251.0659	2.0087	1.1E+04	1	1
4111	24.73	356.5946	358.6011	245.0725	2.0066	3.0E+04	2	2
4112	24.73	357.5935	359.6003	247.0703	2.0068	8.1E+03	2	2
4116	24.75	810.3277	814.3363	343.2184	4.0086	7.2E+03	1	2
4121	24.76	451.1723	453.1773	217.1140	2.0050	1.2E+04	1	1
4122	24.77	601.1490	603.1590	367.0906	2.0100	8.8E+03	1	1
4127	24.79	984.3650	988.3839	517.2557	4.0189	1.6E+04	1	2
4130	24.79	473.1894	475.1999	239.1310	2.0105	2.4E+04	1	1
4133	24.80	472.1899	474.1960	238.1315	2.0062	6.0E+04	1	1
4136	24.81	355.1636	357.1700	242.2106	2.0063	1.1E+05	2	2
4148	24.83	349.1641	351.1701	230.2116	2.0060	1.1E+04	2	2
4160	24.91	697.3621	699.3704	463.3038	2.0083	9.9E+03	1	1
4171	25.00	759.3629	761.3695	525.3046	2.0065	8.8E+03	1	1
4175	25.02	416.6560	418.6623	365.1953	2.0063	6.9E+03	2	2
4176	25.03	677.1801	679.1877	443.1217	2.0077	8.1E+03	1	1
4177	25.04	680.1909	682.1922	446.1326	2.0013	1.5E+04	1	1
4182	25.07	611.2453	613.2486	377.1869	2.0034	9.6E+03	1	1
4190	25.12	579.1878	581.1903	345.1295	2.0025	1.3E+04	1	1
4193	25.12	300.0804	302.0840	132.0442	2.0036	7.7E+03	2	2
4196	25.13	557.2070	559.2110	323.1487	2.0040	1.5E+04	1	1
4197	25.13	570.2151	572.2189	336.1568	2.0038	6.2E+03	1	1
4200	25.13	452.1877	454.1944	218.1294	2.0066	8.4E+03	1	1
4202	25.13	611.2476	615.2587	144.1383	4.0111	1.1E+04	1	2
4203	25.14	644.2081	646.2106	410.1497	2.0025	9.6E+03	1	1
4204	25.14	323.1064	325.1127	178.0961	2.0064	3.4E+04	2	2
4207	25.15	759.3627	761.3720	525.3043	2.0094	8.3E+03	1	1
4208	25.15	277.1004	279.1086	86.0842	2.0082	3.0E+04	2	2
4209	25.16	647.2174	649.2189	413.1590	2.0015	2.7E+04	1	1
4212	25.18	424.1618	426.1701	380.2070	2.0083	9.5E+03	2	2
4215	25.21	431.1039	433.1099	197.0455	2.0060	1.0E+04	1	1
4218	25.22	664.2577	666.2636	430.1994	2.0059	1.4E+04	1	1
4223	25.27	452.1883	454.1942	218.1299	2.0060	2.2E+04	1	1
4225	25.29	530.1832	532.1921	296.1249	2.0089	9.0E+03	1	1
4227	25.30	759.3628	761.3706	525.3044	2.0078	8.0E+03	1	1
4229	25.31	287.5769	289.5831	107.0371	2.0063	8.2E+03	2	2
4230	25.32	467.1902	469.1993	233.1319	2.0091	6.8E+03	1	1
4231	25.33	431.1023	433.1097	197.0440	2.0074	9.2E+03	1	1
4233	25.36	466.1914	468.1957	464.2661	2.0043	9.3E+03	2	2
4242	25.37	359.1014	361.1092	250.0861	2.0078	6.9E+03	2	2
4245	25.38	388.1072	390.1137	154.0488	2.0065	6.4E+04	1	1

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4250	25.39	318.0793	320.0866	84.0209	2.0074	1.1E+04	1	1	13
4254	25.39	473.6964	475.7060	479.2761	2.0096	2.2E+04	2	2	2
4255	25.39	969.3722	973.3923	502.2628	4.0201	8.1E+03	1	2	1
4257	25.39	605.1571	607.1610	371.0987	2.0039	2.0E+04	1	1	6
4280	25.41	753.2008	757.2142	286.0914	4.0134	7.4E+03	1	2	7
4294	25.43	464.2694	466.2757	230.2111	2.0063	8.3E+03	1	1	2
4295	25.44	933.3748	935.3870	699.3165	2.0122	6.2E+03	1	1	5
4299	25.46	349.1635	351.1700	230.2103	2.0065	7.0E+04	2	2	2
4302	25.47	466.1897	468.1962	232.1314	2.0065	3.7E+04	1	1	12
4303	25.47	467.1899	469.2002	466.2631	2.0104	1.8E+04	2	2	1
4304	25.48	599.1520	601.1532	365.0937	2.0012	2.5E+04	1	1	1
4305	25.48	661.2012	665.2152	194.0919	4.0139	8.8E+03	1	2	2
4313	25.51	946.3840	950.4040	479.2747	4.0200	6.5E+03	1	2	1
4314	25.51	431.1037	433.1099	197.0454	2.0062	1.2E+04	1	1	7
4315	25.52	759.3638	761.3701	525.3055	2.0064	8.9E+03	1	1	9
4316	25.53	487.1798	489.1857	253.1215	2.0059	4.2E+04	1	1	2
4317	25.54	442.2039	444.2107	208.1456	2.0068	9.8E+03	1	1	2
4322	25.58	352.6095	354.6162	237.1024	2.0067	7.0E+03	2	2	3
4326	25.59	460.2143	462.2207	226.1560	2.0064	6.7E+03	1	1	3
4327	25.59	697.3639	699.3688	463.3056	2.0049	2.3E+04	1	1	19
4330	25.62	663.2020	665.2100	429.1437	2.0080	1.3E+04	1	1	2
4334	25.63	530.1834	532.1901	296.1250	2.0068	2.8E+04	1	1	7
4335	25.64	664.2570	666.2625	430.1986	2.0055	1.6E+05	1	1	6
4336	25.65	720.2525	724.2645	253.1431	4.0120	8.4E+03	1	2	8
4338	25.66	460.1729	462.1827	452.2292	2.0098	1.0E+04	2	2	4
4340	25.68	717.4392	719.4406	483.3809	2.0014	1.4E+04	1	1	1
4343	25.73	967.4203	969.4304	733.3620	2.0101	2.0E+04	1	1	1
4347	25.80	431.1017	433.1090	197.0433	2.0074	1.0E+04	1	1	5
4348	25.80	697.3627	699.3707	463.3044	2.0079	2.9E+04	1	1	19
4351	25.81	620.2433	622.2500	386.1850	2.0067	1.2E+04	1	1	7
4354	25.82	759.3630	761.3711	525.3046	2.0081	6.9E+03	1	1	9
4358	25.86	664.2567	666.2623	430.1983	2.0057	1.4E+05	1	1	8
4363	25.88	595.1757	597.1820	361.1174	2.0062	6.5E+03	1	1	2
4364	25.89	652.2255	656.2406	185.1161	4.0152	7.2E+03	1	2	3
4365	25.90	345.5573	347.5633	222.9980	2.0060	1.3E+04	2	2	3
4366	25.90	431.1033	433.1095	197.0450	2.0062	8.7E+03	1	1	7
4367	25.91	530.1832	532.1890	296.1248	2.0058	8.6E+03	1	1	7
4373	25.96	358.0970	360.1040	124.0387	2.0070	8.2E+03	1	1	2
4377	25.98	316.0525	318.0591	163.9885	2.0066	1.3E+04	2	2	1
4385	26.02	667.1890	671.2023	200.0796	4.0133	1.2E+04	1	2	11
4389	26.02	518.2193	520.2266	284.1610	2.0074	8.7E+03	1	1	3
4393	26.03	530.1831	532.1896	296.1247	2.0066	9.2E+03	1	1	18
4395	26.05	431.1036	433.1102	197.0453	2.0066	8.5E+03	1	1	7
4397	26.05	664.2569	666.2627	430.1986	2.0057	5.1E+04	1	1	6
4399	26.05	759.3647	761.3743	525.3064	2.0096	8.1E+03	1	1	9
4400	26.07	613.1478	615.1498	379.0895	2.0020	1.7E+04	1	1	5
4402	26.09	668.2041	670.2052	434.1458	2.0011	1.4E+04	1	1	14
4403	26.09	635.1303	637.1332	401.0720	2.0028	1.4E+04	1	1	5

4405	26.09	671.2036	673.2057	437.1452	2.0021	9.9E+03	1	1	18
4411	26.11	697.3636	699.3708	463.3053	2.0072	9.1E+03	1	1	19
4412	26.11	671.2128	673.2165	437.1545	2.0037	1.2E+04	1	1	7
4414	26.12	706.3187	708.3224	472.2604	2.0037	1.0E+04	1	1	19
4415	26.12	678.3241	680.3298	444.2658	2.0057	9.0E+03	1	1	7
4422	26.14	380.1285	382.1348	292.1404	2.0063	1.0E+04	2	2	3
4423	26.14	803.3331	805.3398	569.2748	2.0067	1.3E+04	1	1	7
4426	26.15	431.1031	433.1099	197.0447	2.0068	9.9E+03	1	1	7
4430	26.21	610.2214	612.2291	376.1630	2.0077	6.9E+03	1	1	3
4445	26.31	664.2561	666.2629	430.1978	2.0068	2.3E+04	1	1	8
4448	26.33	648.2616	650.2680	414.2033	2.0064	1.7E+04	1	1	2
4450	26.34	431.1034	433.1092	197.0450	2.0058	1.0E+04	1	1	7
4451	26.37	697.3626	699.3699	463.3043	2.0073	1.0E+04	1	1	19
4461	26.43	668.3050	670.3078	434.2467	2.0028	9.1E+03	1	1	1
4464	26.45	309.0983	311.1040	150.0800	2.0057	6.9E+03	2	2	8
4466	26.50	393.1243	395.1308	318.1319	2.0065	7.2E+03	2	2	5
4468	26.51	689.1873	691.1884	455.1290	2.0011	1.6E+04	1	1	6
4470	26.51	779.3372	781.3420	545.2789	2.0048	4.4E+04	1	1	3
4473	26.55	723.3451	725.3509	489.2867	2.0058	1.8E+04	1	1	12
4474	26.55	431.1039	433.1106	197.0456	2.0067	1.2E+04	1	1	7
4480	26.55	684.2316	686.2325	450.1733	2.0009	1.2E+04	1	1	1
4485	26.58	697.3630	699.3720	463.3046	2.0091	8.7E+03	1	1	19
4490	26.58	725.3519	727.3549	491.2936	2.0030	9.9E+03	1	1	2
4501	26.65	424.1625	426.1720	380.2083	2.0095	3.1E+05	2	2	3
4508	26.68	283.1113	285.1176	49.0529	2.0064	5.6E+05	1	1	3
4511	26.70	423.1620	425.1686	189.1037	2.0066	8.9E+04	1	1	2
4514	26.72	639.1397	641.1404	405.0814	2.0006	1.1E+04	1	1	2
4516	26.72	662.2420	664.2496	428.1836	2.0076	9.0E+03	1	1	1
4517	26.73	639.1401	643.1529	172.0307	4.0128	1.1E+04	1	2	1
4520	26.74	421.1576	423.1609	187.0992	2.0033	5.1E+04	1	1	2
4522	26.75	620.2433	622.2499	386.1850	2.0066	7.6E+04	1	1	7
4523	26.76	689.1887	691.1908	455.1303	2.0021	1.3E+04	1	1	4
4528	26.79	589.1787	591.1801	355.1204	2.0013	1.1E+04	1	1	1
4529	26.79	567.1254	571.1394	100.0161	4.0140	1.0E+04	1	2	16
4530	26.80	431.1031	433.1095	197.0447	2.0064	1.8E+04	1	1	7
4531	26.81	611.1603	613.1616	377.1020	2.0013	1.2E+04	1	1	2
4532	26.81	500.2463	502.2524	266.1879	2.0062	8.2E+03	1	1	10
4539	26.85	697.3623	699.3704	463.3040	2.0080	1.1E+04	1	1	19
4550	26.88	738.2906	740.2960	504.2322	2.0054	1.5E+04	1	1	1
4551	26.88	835.3039	837.3094	601.2456	2.0055	1.9E+04	1	1	1
4555	26.89	815.3290	817.3291	581.2707	2.0002	5.2E+05	1	1	4
4557	26.89	712.3017	714.3036	478.2434	2.0019	1.1E+04	1	1	3
4561	26.90	847.3217	851.3387	380.2124	4.0169	6.6E+03	1	2	1
4563	26.91	837.3107	839.3114	603.2524	2.0007	2.5E+04	1	1	1
4570	26.91	751.2049	755.2176	284.0956	4.0127	7.8E+03	1	2	1
4571	26.92	706.3142	708.3170	472.2559	2.0028	8.6E+03	1	1	7
4572	26.93	363.2098	365.2166	129.1515	2.0068	2.7E+05	1	1	1
4574	26.93	724.3291	726.3350	490.2708	2.0058	7.5E+03	1	1	3

4576	26.95	652.2717	654.2805	418.2134	2.0088	9.0E+03	1	1	<u>6</u>
4580	26.97	514.1886	516.1955	280.1302	2.0069	7.0E+03	1	1	<u>1</u>
4581	26.97	986.2535	990.2725	519.1441	4.0190	7.1E+03	1	2	<u>1</u>
4582	26.98	664.2563	666.2626	430.1980	2.0063	3.8E+04	1	1	<u>8</u>
4584	26.99	712.1821	716.1958	245.0728	4.0137	1.0E+04	1	2	<u>6</u>
4585	26.99	735.3404	737.3493	501.2821	2.0089	1.5E+04	1	1	<u>5</u>
4586	26.99	813.3229	815.3272	579.2646	2.0043	4.0E+05	1	1	<u>5</u>
4587	26.99	711.3309	713.3421	477.2726	2.0112	1.0E+04	1	1	<u>5</u>
4590	27.00	703.2038	705.2051	469.1455	2.0013	1.8E+04	1	1	<u>4</u>
4591	27.00	946.2310	950.2500	479.1216	4.0190	8.3E+03	1	2	<u>2</u>
4595	27.02	452.1757	454.1847	436.2348	2.0090	6.2E+03	2	2	<u>2</u>
4598	27.04	711.1777	713.1801	477.1194	2.0024	1.9E+04	1	1	<u>2</u>
4607	27.06	485.1247	487.1318	251.0663	2.0071	1.4E+04	1	1	<u>14</u>
4613	27.07	485.6238	487.6334	503.1310	2.0096	2.7E+04	2	2	<u>13</u>
4614	27.07	611.2826	613.2884	377.2243	2.0058	1.3E+04	1	1	<u>1</u>
4616	27.08	572.1242	574.1281	338.0658	2.0039	4.6E+04	1	1	<u>1</u>
4623	27.10	486.1249	488.1348	252.0666	2.0100	7.9E+03	1	1	<u>1</u>
4628	27.14	416.1496	418.1535	182.0913	2.0038	7.5E+03	1	1	<u>4</u>
4629	27.14	353.1065	355.1144	238.0963	2.0079	1.0E+04	2	2	<u>22</u>
4631	27.16	703.2052	705.2043	469.1469	1.9990	3.0E+04	1	1	<u>1</u>
4632	27.16	828.5207	830.5227	594.4624	2.0020	6.6E+03	1	1	<u>21</u>
4635	27.16	275.5767	277.5833	83.0368	2.0065	8.0E+03	2	2	<u>2</u>
4638	27.18	352.1084	354.1146	236.1001	2.0062	1.4E+04	2	2	<u>13</u>
4640	27.19	697.3667	699.3697	463.3084	2.0030	1.3E+04	1	1	<u>17</u>
4641	27.19	446.1985	448.2049	212.1401	2.0065	1.6E+04	1	1	<u>1</u>
4642	27.19	601.1480	603.1494	367.0896	2.0014	9.9E+03	1	1	<u>4</u>
4651	27.23	807.4359	809.4372	573.3776	2.0012	1.3E+05	1	1	<u>7</u>
4654	27.24	470.1973	472.2044	236.1390	2.0070	1.8E+04	1	1	<u>2</u>
4666	27.28	431.1037	433.1088	197.0453	2.0051	1.9E+04	1	1	<u>7</u>
4667	27.28	757.3220	759.3251	523.2637	2.0031	2.8E+04	1	1	<u>3</u>
4668	27.30	567.1615	569.1582	333.1032	1.9966	1.3E+04	1	1	<u>2</u>
4669	27.30	891.2021	893.2011	657.1438	1.9990	1.2E+04	1	1	<u>1</u>
4672	27.30	755.3170	757.3226	521.2586	2.0057	2.7E+04	1	1	<u>2</u>
4674	27.31	697.3647	699.3731	463.3064	2.0084	1.0E+04	1	1	<u>19</u>
4677	27.34	523.1172	525.1228	289.0588	2.0057	6.3E+03	1	1	<u>2</u>
4679	27.34	575.2925	577.2919	341.2341	1.9994	5.0E+04	1	1	<u>4</u>
4680	27.35	784.4962	786.4971	550.4379	2.0009	6.6E+03	1	1	<u>6</u>
4681	27.35	432.1624	434.1656	198.1040	2.0033	8.3E+03	1	1	<u>1</u>
4684	27.36	614.2815	616.2838	380.2232	2.0023	2.4E+04	1	1	<u>1</u>
4693	27.41	809.3467	811.3487	575.2884	2.0020	1.0E+04	1	1	<u>4</u>
4700	27.43	611.1179	615.1307	144.0086	4.0128	8.7E+04	1	2	<u>2</u>
4704	27.45	717.2189	719.2177	483.1606	1.9988	1.8E+04	1	1	<u>9</u>
4706	27.47	611.2821	613.2886	377.2238	2.0065	1.7E+04	1	1	<u>1</u>
4710	27.48	875.2524	877.2557	641.1941	2.0033	1.1E+04	1	1	<u>1</u>
4713	27.50	438.1289	440.1422	408.1411	2.0134	1.7E+04	2	2	<u>2</u>
4714	27.51	263.0850	265.0913	29.0267	2.0063	1.2E+04	1	1	<u>1</u>
4718	27.51	436.1206	438.1305	404.1246	2.0099	2.6E+04	2	2	<u>2</u>
4721	27.52	697.3631	699.3706	463.3048	2.0075	1.4E+04	1	1	<u>19</u>

4724	27.53	431.1031	433.1103	197.0447	2.0072	1.5E+04	1	1	<u>7</u>
4730	27.54	514.1883	516.1953	280.1300	2.0069	1.6E+04	1	1	<u>1</u>
4731	27.55	695.3290	699.3451	228.2196	4.0161	2.8E+04	1	2	<u>1</u>
4732	27.56	665.2884	667.2946	431.2301	2.0062	2.9E+04	1	1	<u>3</u>
4733	27.57	756.3025	758.3070	522.2441	2.0046	1.3E+04	1	1	<u>10</u>
4734	27.57	562.7084	564.7199	657.3002	2.0115	8.3E+03	2	2	<u>1</u>
4747	27.60	462.3408	464.3539	228.2825	2.0130	9.8E+03	1	1	<u>1</u>
4755	27.61	485.1248	487.1315	251.0664	2.0067	2.3E+05	1	1	<u>14</u>
4759	27.61	318.0795	320.0860	84.0212	2.0065	3.8E+04	1	1	<u>13</u>
4761	27.61	736.1934	740.2065	269.0840	4.0131	5.4E+04	1	2	<u>1</u>
4762	27.62	291.0739	293.0806	114.0312	2.0067	1.4E+04	2	2	<u>28</u>
4763	27.62	752.8136	754.8231	1037.5105	2.0095	6.7E+03	2	2	<u>3</u>
4764	27.63	300.0801	302.0866	132.0435	2.0065	1.1E+06	2	2	<u>4</u>
4769	27.65	485.6250	487.6342	503.1333	2.0092	3.0E+05	2	2	<u>13</u>
4770	27.65	737.1915	739.2042	503.1332	2.0127	4.3E+04	1	1	<u>13</u>
4772	27.65	706.3162	708.3214	472.2579	2.0052	9.2E+03	1	1	<u>26</u>
4776	27.69	696.4398	698.4441	462.3814	2.0043	9.1E+03	1	1	<u>2</u>
4777	27.69	717.2212	719.2211	483.1629	1.9999	7.8E+03	1	1	<u>2</u>
4780	27.70	740.2224	744.2392	273.1130	4.0168	1.2E+04	1	2	<u>1</u>
4788	27.72	841.3164	843.3241	607.2581	2.0077	6.4E+03	1	1	<u>14</u>
4791	27.73	865.3060	867.3055	631.2477	1.9995	9.2E+03	1	1	<u>1</u>
4793	27.74	810.2412	812.2477	576.1829	2.0065	7.0E+03	1	1	<u>3</u>
4796	27.74	569.2692	571.2676	335.2109	1.9983	7.2E+04	1	1	<u>2</u>
4802	27.76	736.1931	738.1948	502.1348	2.0017	1.9E+04	1	1	<u>3</u>
4807	27.76	668.2277	670.2394	434.1694	2.0117	9.2E+03	1	1	<u>1</u>
4810	27.77	576.2221	578.2201	342.1638	1.9980	1.1E+04	1	1	<u>1</u>
4811	27.77	567.1589	569.1600	333.1006	2.0011	1.2E+04	1	1	<u>8</u>
4815	27.78	670.2414	672.2513	436.1831	2.0099	8.5E+03	1	1	<u>1</u>
4816	27.78	395.6332	397.6426	323.1497	2.0094	2.2E+04	2	2	<u>8</u>
4818	27.79	843.3248	845.3248	609.2665	1.9999	9.1E+04	1	1	<u>1</u>
4819	27.79	552.2067	554.2081	318.1484	2.0013	8.9E+03	1	1	<u>1</u>
4823	27.79	581.2705	583.2723	347.2122	2.0018	1.2E+04	1	1	<u>5</u>
4828	27.80	289.0761	291.0816	110.0355	2.0055	6.6E+03	2	2	<u>1</u>
4834	27.82	574.2183	576.2186	340.1600	2.0002	1.4E+04	1	1	<u>2</u>
4836	27.82	441.1447	443.1474	207.0863	2.0027	1.9E+04	1	1	<u>1</u>
4838	27.83	648.2603	650.2664	414.2020	2.0061	5.3E+04	1	1	<u>4</u>
4839	27.84	570.2194	572.2313	672.3222	2.0118	8.9E+03	2	2	<u>6</u>
4840	27.84	581.1763	583.1736	347.1180	1.9973	1.5E+04	1	1	<u>1</u>
4841	27.84	369.1024	371.1061	270.0881	2.0038	9.9E+03	2	2	<u>9</u>
4842	27.84	556.2738	558.2777	322.2155	2.0038	2.8E+04	1	1	<u>52</u>
4845	27.85	663.3923	665.3968	429.3340	2.0044	2.8E+04	1	1	<u>1</u>
4849	27.87	549.1733	551.1726	315.1150	1.9993	2.3E+04	1	1	<u>1</u>
4853	27.88	682.3619	684.3648	448.3036	2.0029	3.4E+04	1	1	<u>4</u>
4857	27.90	456.2200	458.2261	222.1617	2.0061	8.4E+03	1	1	<u>2</u>
4859	27.95	735.3403	737.3465	501.2820	2.0062	2.8E+04	1	1	<u>5</u>
4863	28.03	620.2323	622.2388	386.1740	2.0065	1.2E+05	1	1	<u>2</u>
4866	28.03	683.3552	685.3552	449.2969	2.0000	2.5E+04	1	1	<u>1</u>
4884	28.17	301.0786	303.0842	134.0406	2.0056	3.2E+04	2	2	<u>3</u>

4887	28.18	736.1934	740.2084	269.0841	4.0150	3.7E+04	1	2
4888	28.20	739.2032	741.2040	505.1448	2.0009	1.6E+04	1	1
4893	28.23	576.2205	578.2228	342.1621	2.0023	7.2E+03	1	1
4897	28.25	476.6190	478.6291	485.1213	2.0101	6.7E+03	2	2
4898	28.25	737.1913	739.2038	503.1329	2.0126	8.1E+03	1	1
4899	28.26	458.1980	460.2042	224.1397	2.0062	3.4E+04	1	1
4901	28.26	648.2578	650.2664	414.1995	2.0086	3.3E+04	1	1
4904	28.27	697.3632	699.3713	463.3049	2.0081	8.2E+03	1	1
4906	28.27	446.1988	448.2043	212.1405	2.0055	8.3E+03	1	1
4907	28.27	668.2284	670.2367	434.1700	2.0083	2.6E+04	1	1
4914	28.29	670.2358	672.2458	436.1775	2.0099	1.2E+04	1	1
4915	28.29	595.1920	597.1933	361.1337	2.0013	8.0E+03	1	1
4921	28.52	617.2095	619.2202	383.1512	2.0107	4.3E+04	1	1
4942	28.68	457.1538	459.1606	223.0955	2.0068	5.7E+04	1	1
4953	28.75	583.2857	585.2845	349.2274	1.9988	2.0E+04	1	1
4954	28.76	528.2440	530.2455	294.1857	2.0015	1.3E+04	1	1
4962	28.83	697.3615	699.3738	463.3031	2.0123	6.7E+03	1	1
4975	28.90	735.3402	737.3480	501.2818	2.0078	8.3E+03	1	1
4978	28.91	738.3506	740.3544	504.2923	2.0038	1.5E+04	1	1
4980	28.93	583.2856	585.2844	349.2273	1.9988	3.7E+04	1	1
4984	28.94	563.1890	565.1905	329.1307	2.0015	1.1E+04	1	1
4988	28.95	856.2100	860.2311	389.1007	4.0210	7.5E+03	1	2
4991	28.96	723.3794	725.3865	489.3210	2.0071	7.4E+03	1	1
4995	28.97	689.3487	691.3503	455.2904	2.0016	1.6E+04	1	1
4997	28.98	621.1579	625.1711	154.0486	4.0132	1.2E+04	1	2
4999	28.98	757.3261	759.3325	523.2678	2.0064	9.9E+03	1	1
5000	28.99	444.2192	446.2253	210.1609	2.0061	1.3E+05	1	1
5001	28.99	737.3474	739.3512	503.2891	2.0038	2.0E+04	1	1
5005	29.01	561.1304	563.1317	327.0721	2.0013	1.1E+04	1	1
5009	29.02	456.2192	458.2256	222.1609	2.0063	1.7E+05	1	1
5012	29.03	659.2478	661.2531	425.1895	2.0053	9.0E+03	1	1
5014	29.04	757.4131	759.4174	523.3548	2.0044	1.3E+04	1	1
5015	29.04	686.2869	688.2881	452.2286	2.0012	2.5E+04	1	1
5018	29.06	684.2801	686.2851	450.2218	2.0050	4.2E+04	1	1
5023	29.07	569.2201	571.2253	335.1617	2.0052	1.9E+04	1	1
5025	29.08	519.1376	521.1356	285.0793	1.9980	1.4E+04	1	1
5041	29.12	405.0630	407.0659	171.0047	2.0029	6.5E+04	1	1
5045	29.13	379.1470	381.1516	145.0887	2.0046	9.3E+04	1	1
5047	29.13	453.1909	455.2014	438.2651	2.0106	6.2E+03	2	2
5049	29.13	686.2860	688.2882	452.2276	2.0022	1.9E+04	1	1
5055	29.15	486.2299	488.2362	252.1716	2.0063	1.2E+04	1	1
5057	29.15	319.0648	321.0705	170.0130	2.0057	4.4E+05	2	2
5065	29.18	542.2599	544.2607	308.2015	2.0009	2.7E+04	1	1
5067	29.19	723.3793	725.3864	489.3210	2.0071	6.5E+03	1	1
5069	29.20	838.3399	842.3527	371.2306	4.0128	7.5E+03	1	2
5075	29.23	700.3463	702.3549	466.2880	2.0086	1.3E+04	1	1
5077	29.24	768.3826	770.3955	534.3242	2.0129	6.5E+03	1	1
5082	29.25	556.2756	558.2753	322.2173	1.9997	1.0E+05	1	1

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5085	29.25	789.2989	791.3071	555.2406	2.0082	7.5E+03	1	1
5087	29.27	643.1344	645.1361	409.0761	2.0017	2.3E+04	1	1
5092	29.30	637.1225	641.1354	170.0132	4.0129	2.3E+04	1	2
5096	29.32	707.2506	709.2513	473.1923	2.0007	1.2E+04	1	1
5100	29.34	597.3020	599.3014	363.2437	1.9994	4.7E+04	1	1
5102	29.35	749.2285	751.2283	515.1702	1.9998	8.5E+03	1	1
5105	29.36	705.2520	707.2501	471.1937	1.9981	7.5E+04	1	1
5109	29.37	443.1352	445.1417	418.1538	2.0065	6.8E+03	2	2
5111	29.37	643.1338	645.1349	409.0755	2.0011	1.5E+04	1	1
5115	29.39	637.1225	641.1346	170.0131	4.0122	2.0E+04	1	2
5118	29.39	639.1221	643.1338	172.0127	4.0117	7.4E+03	1	2
5121	29.41	751.2274	753.2276	517.1691	2.0002	1.1E+04	1	1
5128	29.45	700.3464	702.3594	466.2881	2.0130	1.4E+04	1	1
5129	29.46	757.3232	759.3308	523.2649	2.0076	1.2E+04	1	1
5130	29.46	707.2508	709.2503	473.1925	1.9995	4.1E+04	1	1
5132	29.49	468.2211	470.2247	234.1627	2.0036	6.1E+03	1	1
5142	29.59	536.2241	538.2298	302.1658	2.0057	3.0E+04	1	1
5151	29.66	595.2867	597.2932	361.2284	2.0065	1.1E+05	1	1
5159	29.71	737.3477	739.3497	503.2894	2.0020	1.5E+04	1	1
5162	29.72	705.2518	707.2519	471.1935	2.0001	7.7E+03	1	1
5175	29.78	738.3600	742.3680	271.2507	4.0080	1.7E+04	1	2
5179	29.80	899.2880	903.2958	432.1786	4.0078	7.8E+03	1	2
5190	29.82	597.3001	599.3014	363.2417	2.0013	2.1E+04	1	1
5192	29.83	577.1937	581.2043	110.0844	4.0106	8.4E+03	1	2
5196	29.84	757.3227	759.3294	523.2643	2.0067	9.3E+03	1	1
5207	29.87	921.2664	925.2793	454.1570	4.0130	1.0E+04	1	2
5208	29.87	556.2757	558.2767	322.2174	2.0010	6.3E+04	1	1
5210	29.87	542.2597	544.2650	308.2014	2.0053	7.0E+03	1	1
5212	29.87	789.2996	791.3062	555.2413	2.0066	1.6E+04	1	1
5213	29.87	606.3458	608.3514	372.2875	2.0055	8.9E+03	1	1
5225	29.90	614.2807	616.2838	380.2224	2.0031	1.4E+04	1	1
5230	29.90	711.3332	713.3436	477.2749	2.0104	8.9E+03	1	1
5232	29.90	554.2219	556.2274	320.1635	2.0055	3.2E+04	1	1
5234	29.91	628.3269	630.3344	394.2686	2.0075	1.1E+04	1	1
5236	29.92	449.1573	451.1661	430.1979	2.0088	1.4E+04	2	2
5242	29.95	612.2742	614.2798	378.2159	2.0056	5.0E+04	1	1
5244	29.97	536.3411	538.3518	302.2827	2.0107	6.3E+03	1	1
5247	29.97	499.2250	501.2319	265.1667	2.0070	1.1E+04	1	1
5253	30.00	611.3177	613.3194	377.2593	2.0018	2.5E+04	1	1
5261	30.04	757.3217	759.3283	523.2634	2.0066	1.0E+04	1	1
5265	30.04	536.3545	538.3510	302.2962	1.9965	6.2E+03	1	1
5271	30.06	700.3465	702.3505	466.2881	2.0040	1.4E+04	1	1
5281	30.11	556.2750	558.2774	322.2167	2.0024	1.2E+04	1	1
5284	30.12	499.2257	501.2316	265.1673	2.0060	1.2E+04	1	1
5286	30.13	743.4553	745.4578	509.3970	2.0025	2.6E+04	1	1
5298	30.20	699.4145	701.4142	465.3562	1.9997	9.1E+03	1	1
5303	30.22	499.2248	501.2312	265.1665	2.0064	1.0E+04	1	1
5307	30.24	629.2650	631.2645	395.2066	1.9995	5.8E+04	1	1

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5310	30.26	513.1230	515.1293	279.0646	2.0063	8.1E+03	1	1
5314	30.26	627.2588	629.2631	393.2005	2.0043	2.0E+05	1	1
5315	30.27	680.2668	682.2750	446.2085	2.0082	7.3E+03	1	1
5317	30.28	733.5170	735.5208	499.4587	2.0038	7.9E+03	1	1
5320	30.29	757.3235	759.3310	523.2652	2.0075	8.5E+03	1	1
5323	30.29	759.3308	761.3338	525.2725	2.0030	1.1E+04	1	1
5330	30.33	536.3546	538.3600	302.2963	2.0054	7.1E+03	1	1
5332	30.35	611.3176	613.3198	377.2593	2.0022	1.6E+04	1	1
5340	30.43	440.2244	442.2307	206.1661	2.0063	3.4E+06	1	1
5342	30.46	689.4907	691.4938	455.4324	2.0030	2.8E+04	1	1
5344	30.48	536.3563	538.3647	302.2980	2.0084	1.1E+04	1	1
5352	30.56	757.3244	759.3286	523.2661	2.0042	1.4E+04	1	1
5357	30.65	765.3017	767.3081	531.2433	2.0064	1.1E+04	1	1
5358	30.65	539.2600	541.2663	305.2017	2.0063	1.1E+04	1	1
5369	30.78	700.3467	702.3504	466.2884	2.0037	1.4E+04	1	1
5373	30.80	593.2706	595.2765	359.2123	2.0059	2.7E+04	1	1
5377	30.82	533.2819	535.2903	299.2235	2.0084	1.3E+04	1	1
5381	30.90	535.3204	537.3244	301.2621	2.0040	9.2E+03	1	1
5390	30.94	757.3236	759.3304	523.2653	2.0068	8.8E+03	1	1
5398	30.99	479.2685	481.2747	245.2102	2.0061	1.2E+04	1	1
5399	30.99	623.2815	625.2885	389.2232	2.0070	1.3E+04	1	1
5408	31.19	700.3464	702.3506	466.2881	2.0042	1.5E+04	1	1
5414	31.27	757.3226	759.3291	523.2643	2.0065	8.6E+03	1	1
5418	31.34	566.2627	568.2668	332.2044	2.0041	1.5E+04	1	1
5432	31.43	491.2935	493.3006	257.2351	2.0071	1.3E+04	1	1
5436	31.47	454.2403	456.2467	220.1820	2.0064	9.3E+03	1	1
5438	31.50	440.2250	442.2301	206.1667	2.0050	2.5E+04	1	1
5448	31.61	485.6245	487.6337	503.1324	2.0092	2.1E+04	2	2
5450	31.64	757.3246	759.3319	523.2662	2.0073	8.4E+03	1	1
5455	31.66	673.4975	675.5059	439.4392	2.0084	8.1E+03	1	1
5456	31.66	737.3464	739.3515	503.2880	2.0052	3.4E+04	1	1
5460	31.68	454.2407	456.2467	220.1824	2.0060	1.9E+04	1	1
5463	31.70	735.3405	737.3473	501.2822	2.0068	3.1E+04	1	1
5466	31.73	693.2838	695.2900	459.2254	2.0063	1.1E+04	1	1
5469	31.74	612.1782	614.1739	378.1199	1.9957	1.4E+04	1	1
5473	31.76	700.3454	702.3482	466.2870	2.0028	1.2E+04	1	1
5475	31.77	345.1389	347.1456	222.1611	2.0067	3.5E+04	2	2
5476	31.77	635.1478	637.1462	401.0894	1.9985	2.6E+04	1	1
5477	31.77	759.3326	761.3429	525.2742	2.0104	6.8E+03	1	1
5478	31.77	747.3234	749.3247	513.2651	2.0013	1.2E+04	1	1
5479	31.79	757.3220	759.3285	523.2636	2.0066	7.5E+03	1	1
5480	31.79	674.4816	676.4821	440.4232	2.0006	7.7E+03	1	1
5483	31.82	737.3488	739.3558	503.2904	2.0070	2.8E+04	1	1
5486	31.84	454.2410	456.2462	220.1827	2.0052	3.5E+04	1	1
5487	31.84	657.2588	659.2629	423.2005	2.0041	1.7E+04	1	1
5488	31.85	700.3463	702.3532	466.2880	2.0068	1.2E+04	1	1
5494	31.89	655.2533	657.2582	421.1949	2.0050	2.0E+04	1	1
5499	31.98	582.2371	584.2412	348.1787	2.0041	7.5E+03	1	1

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<u>6</u>
<u>6</u>

5500	31.98	669.3328	671.3398	435.2744	2.0071	1.5E+04	1	1	11
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Supplemental Table T4. List of significant metabolites.

ID	rt (min)	mz_light	mz	nCharge	nTag	VIP Score (large vs. negative)	Fold Change Medium vs. Negative	Fold Change Large vs. Negative	Identification	Source
28	2.05	581.1207	347.0623	1	1	1.951	0.64	0.51	Adenosine monophosphate	Dns-lib
129	2.92	424.1174	190.0591	1	1	2.384	0.94	0.62	Glycyl-Aspartate	HMDB
156	3.14	518.1337	284.0753	1	1	2.260	1.66	2.74		
164	3.22	422.2100	188.1517	1	1	2.391	1.57	2.58		
180	3.36	535.1729	301.1146	1	1	2.358	1.05	0.69		
919	6.51	627.3779	393.3195	1	1	1.951	0.81	0.55		
1120	6.77	516.3147	49.2054	1	2	2.348	0.91	0.79	Xanthosine	HMDB
1357	6.98	365.1165	131.0582	1	1	2.386	1.08	1.69	Unknown	
1438	7.03	611.0893	754.0620	2	2	2.175	0.69	0.41		
1472	7.06	591.3602	357.3019	1	1	2.080	1.00	0.51		
1631	7.82	452.1842	218.1259	1	1	1.565	0.86	0.54	Threoninyl-Valine	HMDB
1694	8.29	601.1473	367.0889	1	1	2.125	0.52	0.51		
1733	8.34	659.1510	425.0927	1	1	2.188	0.47	0.45		
1734	8.34	556.1243	322.0660	1	1	2.234	0.49	0.46		
1735	8.34	584.1187	350.0604	1	1	2.199	0.66	0.50		
1868	8.56	633.2566	798.3965	2	2	2.478	0.96	0.77		
1939	8.94	407.5895	347.0624	2	2	1.939	0.59	0.50		
2001	9.76	414.5979	361.0792	2	2	2.124	2.16	2.33		
2025	9.97	315.1086	162.1006	2	2	2.499	0.86	0.63	Unknown	
2027	9.98	792.2656	325.1563	1	2	2.395	1.00	0.66		
2029	9.99	396.1351	324.1536	2	2	2.516	1.01	0.64		
2032	10.02	397.1348	326.1529	2	2	2.463	1.03	0.68		
2096	10.56	697.3207	230.2114	1	2	2.330	1.11	3.04		
2106	10.68	419.1107	370.1047	2	2	2.328	1.14	2.26		
2108	10.68	420.1117	372.1067	2	2	2.432	1.16	2.38		
2130	10.86	382.6482	297.1798	2	2	1.718	1.27	2.81		
2145	11.00	418.5910	369.0653	2	2	1.742	1.97	4.07		
2149	11.02	419.0931	185.0348	1	1	1.759	1.88	3.98		
2153	11.03	419.5908	371.0650	2	2	1.791	1.94	3.62		
2174	11.20	379.2159	145.1576	1	1	2.642	2.04	3.08	Spermidine	Dns-lib
2324	11.70	346.0868	112.0285	1	1	1.897	1.88	2.91	Uracil	Dns-lib
2812	13.59	625.2693	158.1600	1	2	2.228	3.14	3.81		
3103	15.96	370.0567	271.9967	2	2	2.638	3.14	9.71		
3452	19.19	904.3773	437.2680	1	2	1.936	0.73	2.56		
3488	19.45	359.1018	250.0870	2	2	2.364	1.65	2.02		
3497	19.54	358.6008	249.0850	2	2	2.052	1.32	2.06		
3706	22.46	357.4276	123.3693	1	1	2.442	1.02	2.46		
3850	23.13	297.0848	126.0529	2	2	2.351	1.46	1.65		
3852	23.13	301.0761	134.0355	2	2	2.037	2.81	2.58		
4157	24.89	303.0776	138.0386	2	2	2.439	1.46	1.77		
4384	26.02	370.0961	136.0378	1	1	2.414	1.36	1.76		
4476	26.55	290.0715	112.0264	2	2	1.786	1.44	3.08		
4487	26.58	294.5652	121.0138	2	2	2.334	1.24	1.65		
4533	26.82	310.1231	76.0648	1	1	1.635	0.60	0.43		
4550	26.88	738.2906	504.2322	1	1	1.895	0.55	0.53		
4586	26.99	813.3229	579.2646	1	1	1.986	0.52	0.54		
4672	27.30	755.3170	521.2586	1	1	2.022	0.51	0.53		
4715	27.51	291.0831	57.0248	1	1	1.740	0.82	0.27		
4748	27.60	375.4752	141.4169	1	1	2.061	N.A.	0.43		
4982	28.94	545.4018	78.2925	1	2	1.773	0.44	0.50		
5039	29.12	280.8565	46.7982	1	1	2.091	0.39	0.31		
5212	29.87	789.2996	555.2413	1	1	1.946	0.60	0.55		

Supplemental Table T5. Classification results.

ID	Validation dataset	Case#	Date produced	Prediction results	Real classification result
37	VS_2	CA5927-4	Feb-14	no	no
38	VS_2	CA5927-7	Feb-14	yes	yes
39	VS_2	CA5938-6	Feb-14	no	no
40	VS_2	CA5938-7	Feb-14	yes	yes
41	VS_2	CA5940-3	Feb-14	yes	no
42	VS_2	CA5940-12	Feb-14	yes	yes
43	VS_2	CA5962-6	Apr-14	yes	yes
44	VS_2	CA5962-8	Apr-14	no	no
45	VS_2	CA5964-8	Apr-14	yes	yes
46	VS_2	CA5964-9	Apr-14	no	no
47	VS_2	CA5965-2	Apr-14	no	no
48	VS_2	CA5965-8	Apr-14	yes	yes
49	VS_2	CA6032-10	Jul-14	yes	yes
50	VS_2	CA6035-8	Jul-14	yes	yes
51	VS_2	CA6035-11	Jul-14	no	no
52	VS_2	CA6032-11	Jul-14	no	no
53	VS_2	CA6037-7	Jul-14	no	no
54	VS_2	CA6037-10	Jul-14	no	yes
55	VS_2	CA6038-9	Jul-14	yes	yes
56	VS_2	CA6038-10	Jul-14	yes	no
57	VS_2	CA6046-4	Jul-14	yes	yes
58	VS_2	CA6046-12	Jul-14	no	no
59	VS_2	CA6049-8	Jul-14	yes	yes
60	VS_2	CA6049-10	Jul-14	no	no

	Not correctly predicted
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Supplemental Table T6. List of metabolites used for group classification.

	ID	Name	rt	mz_light	Monoisotopic molecular mass	intensity	fold change (tumor vs. negative)	p value	AUC
1	28	Adenosine monophosphate	2.05	581.1207	347.0623	1.9E+04	0.53	4.6E-03	0.821
2	1357	Unknown ID1357*	6.98	365.1165	131.0582	1.3E+04	1.55	1.8E-03	0.881
3	2025	Unknown ID2025**	9.97	315.1086	162.1006	9.9E+03	0.68	3.5E-04	0.878
4	2174	Spermidine	11.20	379.2159	145.1576	1.6E+04	2.91	8.5E-03	0.849
5	2324	Uracil	11.70	346.0868	112.0285	8.1E+05	2.67	8.0E-03	0.913
6	2106	Ophthalmic acid +HPO3***	10.68	419.1107	370.1047	1.5E+04	2.00	3.1E-03	0.821
7	2149	2,3-Diaminopropionic acid +HPO3****	11.02	419.0931	185.0348	4.1E+04	3.50	1.7E-02	0.827

*confirmed to be not 4-hydroxyproline.

**confirmed to be not 5-hydroxylysine.

***based on mass match alone, it was proposed to be a phospholyated form of ophthalmic acid.

****based on mass match alone, it was proposed to be a phospholyated form of 2,3-diaminopropionic acid.

