Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
448001 2008 CS_{207}	16.9	X	236.99480	66.15537	172.12556	4.71579	0.0171219	0.21330434	2.7741903	21	—	—
448002 2008 CV_{213}	16.9	X	144.02654	319.67127	283.47094	1.82582	0.1627551	0.18861003	3.0113382	21	11 17.7	21.9
448003 2008 DE	19.6	X	307.03315	179.18146	55.93686	14.75761	0.4134030	0.43903889	1.7144864	21	—	—
448004 2008 DR_{2}	16.8	X	80.30803	265.34536	150.32213	11.69602	0.0615847	0.22173046	2.7034550	21	—	—
448005 2008 DH_{3}	17.4	X	351.19712	262.48616	266.72303	1.10324	0.1419830	0.22228767	2.6989353	21	1 7.4	20.4
448006 2008 DS_{17}	16.7	X	48.16579	294.53383	154.78053	5.28702	0.1345981	0.21958895	2.7210032	21	—	—
448007 2008 DK_{18}	16.9	X	14.13706	0.36466	148.48486	11.00089	0.0965293	0.22277971	2.6949598	21	1 20.9	20.1
448008 2008 DW_{21}	16.8	X	305.81422	307.64113	213.36374	12.47600	0.1737166	0.20947817	2.8078692	21	—	—
448009 2008 DC_{32}	16.8	X	97.16028	272.05207	121.82033	6.33464	0.1526940	0.21661281	2.7458699	21	1 9.4	20.1
448010 2008 DP_{33}	16.8	X	268.57196	159.02065	358.50280	13.29361	0.1589400	0.20379715	2.8598109	21	12 12.8	20.7
448011 2008 DL_{38}	16.3	X	200.15721	159.47268	1.20166	6.52386	0.2469520	0.18683451	3.0303863	21	9 26.4	21.4
448012 2008 DY_{43}	16.6	X	58.69576	283.60606	2.82345	11.66267	0.1130729	0.18375384	3.0641624	21	10 7.4	20.8
448013 2008 DT_{45}	17.1	X	39.09632	50.32008	35.62928	5.11762	0.0873801	0.21226380	2.7832492	21	—	—
448014 2008 DQ_{53}	17.1	X	11.22422	307.46694	185.83531	8.24090	0.2280736	0.21855426	2.7295845	21	—	—
448015 2008 DF_{61}	17.2	X	3.20580	353.54176	132.33531	4.18059	0.1252924	0.21618515	2.7494900	21	—	—
448016 2008 DG_{69}	17.2	X	59.85230	166.73055	295.51583	4.16602	0.2226711	0.22557675	2.6726360	21	2 13.8	19.7
448017 2008 DB_{73}	17.4	X	347.52035	338.86067	163.73209	4.05114	0.1131645	0.21709950	2.7417646	21	—	—
448018 2008 DY_{80}	17.1	X	76.40455	299.04214	173.58301	12.59087	0.2119960	0.23019756	2.6367497	21	3 31.7	20.0
448019 2008 DT_{86}	16.3	X	53.23442	123.18416	161.12606	27.12328	0.1793558	0.17990533	3.1077067	21	10 12.7	20.8
448020 2008 DO_{89}	16.7	X	54.59142	291.16286	181.93520	12.70768	0.2189444	0.22459295	2.6804351	21	2 16.7	19.3
448021 2008 EF_{11}	16.8	X	48.66947	342.98424	100.11252	5.96914	0.0939145	0.21568991	2.7536971	21	—	—
448022 2008 ET_{14}	17.1	X	4.71530	261.30019	177.14183	7.86917	0.0581474	0.20265795	2.8705181	21	—	—
448023 2008 EV_{25}	17.0	X	312.61482	19.99504	165.28935	7.74508	0.1787863	0.21742848	2.7389983	21	—	—
448024 2008 EF_{26}	16.8	X	358.53086	357.28603	171.71518	14.31217	0.1876372	0.22402740	2.6849444	21	1 10.7	20.1
448025 2008 EV_{38}	16.2	X	259.16077	132.22247	34.61254	6.37902	0.0154406	0.20045688	2.8914926	21	—	—
448026 2008 EK_{39}	16.5	X	129.88946	180.91778	134.41365	8.59085	0.1450467	0.20098405	2.8864341	21	—	—
448027 2008 ED_{42}	16.6	X	338.99633	112.07745	50.27171	8.48305	0.2953163	0.21684016	2.7439502	21	—	—
448028 2008 EC_{47}	16.1	X	90.38538	250.71937	42.99169	11.94419	0.1567174	0.18292625	3.0733972	21	11 26.1	20.9
448029 2008 EX_{50}	16.6	X	168.25218	216.03184	337.89849	4.37924	0.1988979	0.18528925	3.0472113	21	10 10.4	21.8
448030 2008 EJ_{55}	16.3	X	303.97782	111.32723	28.81863	15.49560	0.0942741	0.20325943	2.8648523	21	—	—
448031 2008 EQ_{55}	16.6	X	161.63134	164.56516	147.23984	13.13455	0.1184778	0.21406428	2.7676208	21	—	—
448032 2008 EO_{59}	16.7	X	254.09196	197.94465	354.90689	15.62769	0.0799707	0.20385585	2.8592618	21	—	—
448033 2008 EP_{69}	16.6	X	286.94184	175.39695	350.98926	10.44972	0.1005156	0.20607162	2.8387289	21	—	—
448034 2008 EB_{89}	16.2	X	228.25063	153.68183	34.07206	12.22370	0.0590625	0.19877818	2.9077490	21	12 12.0	20.4
448035 2008 ER_{100}	17.0	X	60.60893	282.30058	190.24888	13.16532	0.2264203	0.22814834	2.6525149	21	2 28.8	19.6
448036 2008 EV_{113}	16.7	X	73.61281	353.09785	337.02933	5.37799	0.0905901	0.19526392	2.9425333	21	12 17.7	21.0
448037 2008 EX_{115}	17.2	X	3.72409	299.63523	180.47764	13.17884	0.1560420	0.21355909	2.7719837	21	—	—
448038 2008 EV_{116}	17.0	X	30.95409	86.86345	19.36380	12.85908	0.1808899	0.21547991	2.7554859	21	—	—
448039 2008 ER_{143}	15.9	X	70.96202	197.59484	68.08129	16.25046	0.2359860	0.17505479	3.1648518	21	10 20.9	20.8
448040 2008 ER_{153}	17.0	X	236.18299	337.66510	185.64532	2.69131	0.0841203	0.19301560	2.9653396	21	11 19.5	21.3
448041 2008 EX_{156}	17.1	X	242.40723	113.23424	95.23285	3.24024	0.0089311	0.20345211	2.8630433	21	—	—
448042 2008 EA_{159}	15.7	X	69.42559	243.21911	31.98330	27.56477	0.2757477	0.17437308	3.1730951	21	10 27.6	20.5
448043 2008 EQ_{162}	16.5	X	187.77330	5.55268	190.79142	11.34913	0.1063226	0.18944825	3.0024491	21	11 5.8	21.2
448044 2008 EA_{168}	16.7	X	141.69694	273.87961	345.54049	4.17770	0.0620466	0.19069012	2.9893992	21	12 2.6	21.1
448045 2008 FH_{6}	16.3	X	149.60513	243.23901	331.48891	9.03074	0.2823789	0.18335400	3.0686154	21	10 18.4	22.0
448046 2008 FU_{19}	16.6	X	26.96327	245.63313	169.68900	2.22411	0.0307766	0.20396518	2.8582400	21	—	—
448047 2008 FY_{41}	16.9	X	19.93828	256.04189	196.94192	3.73584	0.0694924	0.21045840	2.7991438	21	—	—
448048 2008 FK_{45}	17.7	X	13.06464	100.99470	23.29552	3.52547	0.1443329	0.21725514	2.7404550	21	—	—
448049 2008 FE_{47}	16.1	X	310.28641	147.06938	42.96959	14.34711	0.1390338	0.21111477	2.7933390	21	—	—
448050 2008 FR_{61}	15.5	X	115.67113	77.64744	189.38899	16.24240	0.2077403	0.17983140	3.1085584	21	11 24.4	20.9
448051 Pepisensi	16.3	X	323.94334	354.87112	152.44239	26.60047	0.1036949	0.21332647	2.7739985	21	—	—
448052 2008 FS_{65}	15.9	X	128.39561	53.18880	203.17747	16.99845	0.1745587	0.18237076	3.0796350	21	11 20.9	21.1
448053 2008 FL_{66}	15.6	X	101.96746	204.18273	37.06448	16.02877	0.1259711	0.17459662	3.1703862	21	10 8.7	20.5
448054 2008 FZ_{83}	16.3	X	75.42701	249.88973	43.70259	8.99027	0.1183595	0.18072569	3.0982951	21	11 7.1	20.8
448055 2008 FG_{88}	16.7	X	153.47723	72.46433	192.32994	10.01466	0.0815554	0.19221422	2.9735760	21	12 21.8	21.5
448056 2008 FV_{94}	16.7	X	101.48427	87.43110	182.92429	9.71058	0.2001286	0.17872864	3.1213319	21	11 15.8	21.8
448057 2008 FW_{100}	16.5	X	94.46913	172.38711	116.11323	5.99303	0.0940439	0.18275822	3.0752807	21	11 20.9	21.2
448058 2008 FC_{117}	16.7	X	351.32419	277.61455	206.25908	14.58168	0.1086417	0.20602540	2.8391535	21	—	—
448059 2008 FS_{131}	14.1	X	246.22438	157.74168	192.48531	16.58836	0.0373538	0.08318338	5.1973066	21	5 10.5	21.1
448060 2008 FK_{134}	16.3	X	86.08843	172.60289	123.90347	2.98579	0.1717001	0.17980000	3.1089203	21	11 28.3	21.1
448061 2008 FX_{137}	18.5	X	338.36922	64.07149	226.67088	4.57096	0.2073954	0.30571799	2.1823382	21	5 18.3	19.7
448062 2008 GT_{24}	16.3	X	14.73086	154.69145	174.82471	11.25167	0.1561742	0.17646721	3.1479418	21	10 6.1	19.9
448063 2008 GG_{39}	16.1	X	104.82378	58.44151	209.63039	13.87807	0.2501336	0.17621912	3.1508957	21	11 18.5	21.4
448064 2008 GY_{39}	16.8	X	174.98607	225.35871	31.88346	6.09493	0.0900509	0.20187252	2.8779588	21	—	—
448065 2008 GB_{50}	16.4	X	136.00876	24.19501	199.10152	12.64817	0.1673888	0.17935842	3.1140210	21	10 18.9	21.5
448066 2008 GY_{51}	16.6	X	117.72268	226.37171	38.75517	2.76191	0.1797431	0.18397621	3.0616927	21	11 20.9	21.7
448067 2008 GV_{55}	17.0	X	55.30259	68.77653	25.54631	15.58467	0.2420094	0.21904793	2.7254818	21	2 5.8	19.9
448068 2008 GU_{70}	16.5	X	296.18696	135.43120	4.11242	14.89884	0.0850387	0.20341417	2.8633993	21	—	—
448069 2008 GT_{73}	16.7	X	56.47723	257.53932	60.95158	11.03083	0.1031899	0.18334106	3.0687598	21	11 14.2	20.9
448070 2008 GV_{80}	16.8	X	345.10333	123.74324	38.30007	12.56549	0.1896951	0.21570264	2.7535887	21	—	—
448071 2008 GC_{84}	17.3	X	356.31703	20.29633	114.06347	2.93902	0.1679522	0.21403199	2.7678992	21	—	—
448072 2008 GW_{87}	15.5	X	166.36713	88.84585	162.50396	11.38580	0.0498119	0.19252474	2.9703778	21	12 20.9	20.1
448073 2008 GA_{91}	17.7	X	5.84990	295.56742	45.45253	4.98121	0.1997735	0.32355615	2.1013720	21	11 10.8	19.2
448074 2008 GQ_{93}	16.8	X	130.95389	166.64808	70.84627	1.52401	0.1424891	0.18691344	3.0295330	21	10 30.7	21.7
448075 2008 GC_{121}	17.0	X	217.15439	125.49528	123.18945	3.08241	0.0160817	0.20284590	2.8687446	21	—	—
448076 2008 GW_{132}	16.8	X	129.82884	175.11566	114.68043	11.45364	0.1425836	0.18619337	3.0373388	21	12 28.6	21.8
448077 2008 GF_{138}	18.9	X	342.55131	113.57800	176.37421	3.85688	0.2413082	0.30437516	2.1887521	21	5 22.5	20.1
448078 2008 GL_{139}	16.6	X	151.53806	43.79593	187.38963	11.24774	0.0834898	0.18388259	3.0627319	21	11 11.2	21.4
448079 2008 GV_{139}	16.2	X	32.26338	310.38505	30.36607	14.48954	0.2830824	0.17592163	3.1544469	21	12 1.2	20.4
448080 2008 GY_{139}	16.7	X	86.57867	86.70415	213.00962	9.32413	0.0686460	0.18347771	3.0672359	21	11 22.0	21.1

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
448081 2008 HA_{16}	16.1	X	134.98444	54.42749	206.56428	15.72217	0.0798762	0.18271745	3.0757382	21	11 28.3	20.9
448082 2008 HZ_{20}	18.0	X	325.17694	189.96526	88.68249	6.29326	0.1820815	0.29928116	2.2135184	21	4 10.8	20.2
448083 2008 HD_{29}	16.9	X	142.14996	244.35734	38.10429	4.88638	0.0682909	0.19336439	2.9617726	21	12 31.8	21.5
448084 2008 HN_{29}	16.7	X	186.56181	15.15634	197.20138	13.85127	0.0764677	0.18787162	3.0192235	21	11 24.8	21.4
448085 2008 HF_{36}	16.7	X	101.89385	100.64875	199.79354	11.20662	0.1352988	0.18406856	3.0606685	21	12 14.8	21.6
448086 2008 HW_{50}	16.5	X	59.87251	107.43260	214.30943	8.84966	0.0672255	0.17930732	3.1146127	21	11 16.4	20.8
448087 2008 HO_{52}	16.4	X	272.26418	20.26175	93.66386	11.30092	0.0529346	0.18449090	3.0559958	21	11 9.7	20.7
448088 2008 JT_{15}	18.8	X	27.61517	235.52935	49.61413	2.77739	0.1454114	0.31744736	2.1282448	21	9 13.3	20.4
448089 2008 JQ_{22}	16.3	X	57.31920	175.84978	151.53810	9.37888	0.0574967	0.18113781	3.0935939	21	11 20.9	20.8
448090 2008 JK_{23}	18.4	X	7.82721	205.46610	73.75739	5.42849	0.1740187	0.30853152	2.1690507	21	7 21.0	19.6
448091 2008 JD_{24}	16.4	X	154.31875	99.28204	115.78504	10.77649	0.0502684	0.17962176	3.1109767	21	10 27.9	21.2
448092 2008 JP_{33}	16.5	X	114.53580	118.39701	164.49295	16.08591	0.2056175	0.18030945	3.1030616	21	12 11.4	22.0
448093 2008 JB_{37}	15.4	X	78.63030	66.87145	239.11191	24.73182	0.2380041	0.17599637	3.1535538	21	12 7.0	20.4
448094 2008 JK_{38}	18.7	X	42.95471	60.76923	190.78272	5.49245	0.1376521	0.31134756	2.1559519	21	8 12.0	20.8
448095 2008 KL_{4}	16.5	X	93.61411	162.80525	138.32519	10.34041	0.1319117	0.17893537	3.1189273	21	12 7.9	21.4
448096 2008 KB_{5}	15.6	X	8.75628	260.88491	92.31319	19.48243	0.1614859	0.17097610	3.2149862	21	11 3.3	19.8
448097 2008 KQ_{8}	16.1	X	129.17494	84.02204	220.33917	10.78096	0.0351766	0.19006909	2.9959074	21	—	—
448098 2008 KR_{12}	18.2	X	332.10011	205.62906	74.11513	4.06259	0.1891709	0.30134983	2.2033767	21	4 21.4	20.1
448099 2008 KF_{13}	16.8	X	134.36713	164.07541	76.36623	2.09931	0.1321253	0.17995865	3.1070929	21	11 5.1	21.7
448100 2008 KM_{16}	16.0	X	41.00929	203.22348	108.59563	13.72099	0.0640023	0.17229458	3.1985635	21	10 16.1	20.6
448101 2008 KA_{18}	16.5	X	75.65498	146.89184	173.47651	5.17397	0.1188769	0.18050280	3.1008452	21	12 9.8	21.1
448102 2008 KJ_{18}	15.9	X	115.30032	96.45895	146.96049	13.81304	0.2621660	0.17504676	3.1649487	21	11 2.6	21.5
448103 2008 KQ_{33}	16.5	X	114.82972	186.18277	118.98035	10.29178	0.0822170	0.18613575	3.0379656	21	12 29.6	21.2
448104 2008 KU_{37}	16.4	X	85.50133	150.31129	177.85365	12.31615	0.0736546	0.18547901	3.0451325	21	12 24.6	21.1
448105 2008 KC_{39}	16.1	X	159.01481	4.99473	202.95391	17.72304	0.0574200	0.17610348	3.1522750	21	10 19.7	20.8
448106 2008 KV_{39}	16.1	X	24.12957	264.47203	99.59330	16.69925	0.2745582	0.17394353	3.1783169	21	12 20.2	20.1
448107 2008 LH_{13}	16.0	X	186.67299	49.82141	132.39400	10.80030	0.0768800	0.18000240	3.1065893	21	10 22.1	20.9
448108 2008 MY_{4}	15.7	X	99.56157	248.06183	27.58570	26.05906	0.2764073	0.17666258	3.1456205	21	11 16.8	21.3
448109 2008 NZ_{1}	17.8	X	347.20535	174.34711	108.74944	11.59000	0.2941533	0.29955992	2.2121449	21	5 17.4	19.0
448110 2008 NF_{5}	17.2	X	284.36630	86.64493	259.09846	5.54920	0.2754912	0.29141183	2.2531906	21	5 1.5	20.4
448111 2008 NL_{5}	17.1	X	320.34648	51.38553	251.87423	8.66760	0.2113386	0.29260310	2.2470709	21	4 30.3	19.4
448112 2008 OA_{25}	18.0	X	237.94208	73.53131	324.66297	5.85130	0.2479236	0.28857016	2.2679585	21	5 29.0	21.7
448113 2008 PR_{7}	17.7	X	270.75076	80.22226	272.59096	5.71710	0.1480229	0.29209905	2.2496552	21	5 12.4	20.7
448114 2008 PD_{15}	18.3	X	310.64401	177.03591	139.60849	2.79803	0.1745195	0.29460155	2.2368972	21	5 14.0	20.7
448115 2008 QU	16.1	X	207.87007	353.38607	339.40507	25.43573	0.2382739	0.27288227	2.3540689	21	2 18.8	20.1
448116 2008 QG_{12}	17.7	X	215.38690	348.40582	340.05736	4.50745	0.2059992	0.27445595	2.3450617	21	2 15.7	21.4
448117 2008 RU_{1}	18.1	X	283.84820	284.12521	0.20892	1.96446	0.1993654	0.28055257	2.3109642	21	2 21.0	21.5
448118 2008 RU_{5}	17.9	X	137.55748	76.30366	19.45577	5.73699	0.1225835	0.27740534	2.3284103	21	5 7.9	21.0
448119 2008 RU_{73}	18.0	X	260.68907	39.42639	340.42523	5.36193	0.1694898	0.29116676	2.2544548	21	6 4.8	21.2
448120 2008 RF_{80}	16.9	X	230.30438	268.86047	93.27917	22.58229	0.3652231	0.28207579	2.3026371	21	4 16.3	21.7
448121 2008 RE_{103}	18.5	X	209.28926	200.58502	195.62405	9.49315	0.2735756	0.28092015	2.3089478	21	5 5.0	22.6
448122 2008 RE_{115}	17.5	X	257.69153	290.44646	36.78757	3.44449	0.1665215	0.27559685	2.3385853	21	3 25.9	21.0
448123 2008 RN_{127}	17.7	X	104.79380	133.59506	6.64482	6.61002	0.0601306	0.28315786	2.2967672	21	5 17.8	20.5
448124 2008 RG_{128}	18.2	X	210.03586	204.81326	202.89614	1.71756	0.1630939	0.28481890	2.2878288	21	5 21.8	21.7
448125 2008 RM_{139}	18.1	X	215.07185	35.55073	358.09027	6.08692	0.1819439	0.28320363	2.2965197	21	5 5.3	21.9
448126 2008 SJ_{10}	17.5	X	220.94521	321.50458	357.56315	7.05111	0.1420753	0.27223847	2.3577788	21	2 10.8	21.1
448127 2008 SF_{15}	18.4	X	260.83709	132.88495	177.43487	4.00078	0.2468217	0.28280220	2.2986924	21	2 27.1	22.0
448128 2008 SR_{16}	17.8	X	263.34560	39.94165	325.88621	5.37118	0.1579749	0.29109592	2.2548205	21	5 19.9	20.9
448129 2008 SA_{18}	17.7	X	189.01724	152.46245	315.59317	5.09617	0.1485503	0.29519596	2.2338934	21	7 21.8	21.0
448130 2008 SO_{22}	17.9	X	225.27954	242.02515	186.19441	4.64725	0.2545073	0.29069943	2.2568703	21	6 26.7	21.6
448131 2008 SS_{22}	18.6	X	251.40390	341.33698	327.40396	2.08425	0.2351389	0.27979525	2.3151323	21	2 18.9	22.4
448132 2008 SX_{40}	18.1	X	251.61512	216.90708	152.79258	2.89921	0.2287668	0.28703689	2.2760279	21	5 7.9	21.5
448133 2008 SG_{59}	17.7	X	249.75572	231.67782	45.55279	5.86226	0.1403049	0.26573689	2.3960809	21	1 17.6	21.4
448134 2008 SJ_{75}	17.9	X	258.03498	145.10369	233.12986	2.55691	0.1853789	0.28924553	2.2644267	21	5 29.5	20.9
448135 2008 SF_{82}	18.1	X	234.09533	241.23380	153.87772	5.24161	0.1466868	0.28643418	2.2792195	21	5 31.3	21.4
448136 2008 SW_{101}	17.9	X	167.85945	234.51064	210.54097	6.50082	0.0874635	0.27855759	2.3219849	21	5 27.6	21.1
448137 2008 SV_{115}	17.2	X	144.99381	68.20771	51.45644	6.81172	0.0468564	0.28371494	2.2937597	21	6 12.2	20.2
448138 2008 SN_{117}	18.1	X	272.08155	294.61317	9.42804	2.56140	0.2066271	0.27849178	2.3223507	21	3 6.1	21.7
448139 2008 SB_{125}	17.6	X	224.25050	159.09866	208.32028	6.54463	0.0675318	0.27699488	2.3307099	21	4 17.1	20.5
448140 2008 SM_{128}	17.8	X	0.54064	0.65025	236.80388	5.66738	0.1065679	0.27823717	2.3237672	21	4 22.1	20.0
448141 2008 SH_{135}	18.4	X	259.38039	214.75538	151.67114	4.83394	0.2406108	0.28885870	2.2664480	21	5 10.6	21.8
448142 2008 SG_{137}	18.0	X	297.97754	334.18740	19.91417	6.38649	0.2887166	0.29126863	2.2539291	21	5 28.1	20.6
448143 2008 SJ_{153}	18.2	X	326.06110	296.77765	9.29845	4.38940	0.1815651	0.29307659	2.2446500	21	5 21.9	20.2
448144 2008 SS_{158}	17.9	X	231.30380	234.96187	187.12440	3.48932	0.1746336	0.29052100	2.2577942	21	6 30.4	21.2
448145 2008 SE_{159}	17.6	X	264.66164	14.37541	351.79796	7.39947	0.1396409	0.28827691	2.2694963	21	5 24.1	20.8
448146 2008 SS_{161}	18.1	X	253.39559	325.47243	35.03595	3.41575	0.2160740	0.28516549	2.2859746	21	4 27.7	21.4
448147 2008 SY_{177}	18.5	X	164.68603	73.88120	343.55727	2.40538	0.1661244	0.27094457	2.3652792	21	4 20.6	22.1
448148 2008 SD_{184}	17.8	X	207.27460	255.04301	80.27656	2.85763	0.2046959	0.26945639	2.3739800	21	2 18.6	21.7
448149 2008 SM_{189}	17.9	X	263.34868	354.73509	321.01797	1.80949	0.2273943	0.27963940	2.3159924	21	3 9.8	21.5
448150 2008 SZ_{197}	17.7	X	184.49575	241.80003	194.09822	11.16503	0.1750641	0.27861701	2.3216547	21	6 4.4	21.6
448151 2008 ST_{203}	18.5	X	229.01254	222.60961	162.89909	3.90553	0.2335596	0.28105603	2.3082036	21	5 8.4	22.2
448152 2008 SN_{205}	17.8	X	247.44270	300.81472	58.91848	7.70303	0.1419711	0.28041831	2.3117018	21	4 29.0	21.0
448153 2008 SC_{214}	18.8	X	278.94180	112.09210	186.70748	4.82209	0.2048830	0.28159692	2.3052469	21	3 4.5	22.3
448154 2008 SQ_{222}	18.1	X	261.04753	357.62099	341.71617	6.87529	0.1469450	0.28353090	2.2947522	21	4 11.6	21.4
448155 2008 SA_{241}	17.9	X	304.29097	277.65406	43.36087	4.34821	0.1577811	0.28976080	2.2617415	21	5 12.4	20.4
448156 2008 SB_{241}	18.0	X	188.97427	264.04066	101.34220	2.35669	0.2053308	0.27200384	2.3591344	21	3 11.8	21.8
448157 2008 SM_{243}	17.7	X	269.23251	102.15762	180.38432	5.10421	0.2089543	0.27085145	2.3658213	21	2 3.7	21.6
448158 2008 SB_{254}	18.3	X	248.04836	186.13574	152.52349	5.20688	0.2502731	0.28028637	2.3124272	21	3 25.5	22.2
448159 2008 SV_{300}	18.0	X	299.83064	320.67779	9.26213	3.05544	0.1689540	0.29229787	2.2486349	21	5 16.1	20.4
448160 2008 TX_{14}	18.0	X	302.90539	51.58508	226.67742	2.07110	0.1529260	0.28106088	2.3081770	21	3 11.3	20.9

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
448161 2008 TG_{24}	17.8	X	146.88732	88.69062	346.29112	4.17343	0.1384779	0.27354302	2.3502765	21	4 22.1	21.2
448162 2008 TT_{30}	17.8	X	94.75034	143.10378	24.60881	24.34123	0.1693359	0.28051310	2.3111810	21	7 3.8	21.4
448163 2008 TN_{36}	18.4	X	234.94034	80.87619	335.81398	2.42060	0.1860267	0.28924821	2.2644128	21	6 26.2	21.6
448164 2008 TO_{45}	17.8	X	62.66109	136.43917	39.31131	4.01123	0.1246261	0.27316083	2.3524682	21	5 17.9	20.1
448165 2008 TP_{46}	17.6	X	285.49295	229.01578	78.01350	4.82346	0.1521684	0.27881458	2.3205578	21	4 1.7	20.7
448166 2008 TY_{52}	18.0	X	278.41373	190.36484	148.66900	1.66286	0.0857969	0.28501228	2.2867938	21	5 14.4	20.8
448167 2008 TU_{53}	17.6	X	67.65708	154.14067	34.89255	6.98687	0.0616803	0.28297700	2.2977457	21	6 4.2	20.3
448168 2008 TN_{57}	17.9	X	291.16647	243.06327	45.81929	1.59696	0.1705424	0.27938371	2.3174053	21	3 10.7	20.9
448169 2008 TH_{64}	17.7	X	43.60953	174.84910	30.57121	4.72305	0.0566701	0.27999441	2.3140344	21	5 20.2	20.1
448170 2008 TX_{67}	17.2	X	53.81574	117.56776	57.92958	6.20930	0.1110613	0.27314032	2.3525860	21	5 1.2	19.5
448171 2008 TC_{71}	17.6	X	112.61367	273.96219	189.19424	11.01603	0.2047490	0.26768750	2.3844268	21	5 2.9	20.9
448172 2008 TS_{108}	18.0	X	223.21143	0.47532	49.07271	4.88678	0.2177250	0.28500811	2.2868161	21	6 2.5	21.7
448173 2008 TM_{129}	17.8	X	213.54611	193.95356	173.81081	6.10926	0.1225546	0.27584729	2.3371697	21	4 5.1	21.3
448174 2008 TJ_{147}	18.0	X	126.22657	92.61707	44.22069	3.42463	0.0516318	0.28423881	2.2909404	21	6 12.5	20.9
448175 2008 TC_{148}	18.4	X	189.95215	267.20683	167.03873	3.99844	0.1189281	0.28340791	2.2954160	21	6 7.1	21.7
448176 2008 TS_{158}	17.6	X	157.37660	236.62875	217.66776	5.69983	0.1498110	0.28019979	2.3129035	21	5 31.8	21.0
448177 2008 TB_{163}	18.3	X	183.91386	287.92990	94.24148	6.04094	0.2546507	0.27241798	2.3567429	21	3 31.9	22.4
448178 2008 TG_{167}	18.2	X	229.64270	91.00381	292.26479	5.64564	0.1936094	0.28237691	2.3009999	21	5 4.9	22.0
448179 2008 TW_{168}	18.2	X	185.39964	44.16588	19.03574	1.56400	0.1600205	0.27501484	2.3418836	21	5 18.3	21.7
448180 2008 TB_{171}	17.5	X	258.34193	236.47553	87.66968	3.08404	0.2339264	0.27599939	2.3363109	21	3 17.9	21.2
448181 2008 TO_{186}	18.6	X	207.89479	20.68964	33.73632	3.02616	0.1817162	0.28126470	2.3070618	21	5 27.5	22.1
448182 2008 UO_{4}	18.7	X	219.07867	142.68801	227.05428	31.33672	0.2163571	0.43158715	1.7341649	21	3 21.4	21.8
448183 2008 UT_{7}	17.8	X	213.13885	235.92443	201.18943	5.80230	0.1181606	0.28985164	2.2612689	21	7 5.2	21.0
448184 2008 UA_{15}	17.7	X	290.92125	41.18218	196.46014	5.75484	0.0902208	0.26769680	2.3843715	21	1 12.7	21.1
448185 2008 UK_{17}	18.3	X	163.22229	274.63369	197.25893	5.27813	0.1083400	0.28412633	2.2915450	21	6 28.2	21.6
448186 2008 UA_{39}	17.0	X	336.16470	350.56590	238.05039	11.76154	0.1444345	0.26642503	2.3919534	21	2 16.8	20.0
448187 2008 UH_{39}	17.3	X	218.11984	273.60101	38.90472	8.48461	0.3018115	0.26698210	2.3886249	21	2 2.6	21.8
448188 2008 UT_{40}	18.0	X	344.05642	41.13760	206.42178	6.43868	0.0868869	0.27507485	2.3415429	21	4 11.2	20.4
448189 2008 US_{41}	17.9	X	169.45815	227.54128	228.55155	4.50128	0.1815913	0.27730546	2.3289693	21	6 16.2	21.5
448190 2008 UW_{46}	17.8	X	210.94778	148.83986	247.58312	5.07277	0.1348731	0.27680234	2.3317906	21	5 8.2	21.2
448191 2008 UV_{47}	17.3	X	50.98358	136.84833	32.58603	6.85065	0.0517892	0.26808914	2.3820447	21	4 11.3	19.9
448192 2008 UQ_{80}	18.0	X	249.38102	17.93475	282.19421	5.92241	0.1192740	0.26732310	2.3865932	21	2 12.3	21.6
448193 2008 UP_{85}	17.7	X	189.91332	237.66079	221.63083	6.47509	0.0591882	0.28821143	2.2698400	21	7 11.1	20.8
448194 2008 UN_{88}	17.4	X	74.49145	106.22010	61.02118	6.06755	0.0988351	0.27844068	2.3226348	21	5 20.9	19.9
448195 2008 UT_{101}	18.4	X	229.74169	345.94983	320.25340	1.76240	0.2399174	0.26987474	2.3715260	21	1 31.3	22.5
448196 2008 US_{115}	17.5	X	225.61115	129.07888	274.79506	4.65132	0.1567394	0.28204017	2.3028310	21	6 1.2	20.9
448197 2008 US_{130}	17.8	X	260.99550	290.11410	33.69937	2.52033	0.2308431	0.27851124	2.3222425	21	3 18.9	21.3
448198 2008 UY_{131}	17.8	X	297.41253	263.62050	17.33402	2.19923	0.2027074	0.27561094	2.3385056	21	3 3.7	21.0
448199 2008 UC_{135}	18.7	X	187.17268	189.15281	224.33590	4.80741	0.1074527	0.27582728	2.3372827	21	5 6.7	21.8
448200 2008 UP_{135}	17.2	X	39.11599	153.79391	44.07597	5.80908	0.1140012	0.27388415	2.3483245	21	5 7.3	19.2
448201 2008 UD_{143}	17.5	X	206.91116	204.92574	219.21015	11.86146	0.0844625	0.28146873	2.3059468	21	6 12.6	20.8
448202 2008 UF_{151}	18.0	X	206.44793	151.82469	234.25172	3.75955	0.1450694	0.27421389	2.3464416	21	4 19.9	21.5
448203 2008 UH_{167}	15.7	X	190.21025	264.13148	177.88925	2.86513	0.1911264	0.12412460	3.9801319	21	6 19.1	22.1
448204 2008 UV_{174}	17.9	X	119.67377	62.30518	31.47371	1.74330	0.1560501	0.26644592	2.3918283	21	4 20.3	21.0
448205 2008 US_{188}	17.8	X	242.01870	131.73222	211.07792	4.33754	0.1808751	0.27740783	2.3283963	21	3 27.5	21.3
448206 2008 UA_{193}	17.5	X	239.94891	276.68199	66.50850	7.66334	0.1502886	0.27619386	2.3352141	21	4 1.6	21.1
448207 2008 UM_{206}	17.4	X	93.39635	123.08707	345.80136	4.45941	0.1792903	0.26143992	2.4222639	21	4 8.8	20.2
448208 2008 UG_{212}	17.8	X	280.03292	320.61025	350.41623	4.39049	0.1176498	0.27822226	2.3238502	21	4 1.5	20.9
448209 2008 UF_{227}	17.8	X	217.04902	15.46059	26.79901	4.66519	0.1570489	0.27842181	2.3227397	21	5 20.9	21.3
448210 2008 UP_{233}	17.6	X	354.50587	233.60814	3.38033	6.87520	0.0671406	0.27388869	2.3482986	21	4 14.0	20.2
448211 2008 UH_{247}	18.1	X	179.66209	10.11097	53.73551	3.82798	0.1978718	0.27345131	2.3508020	21	5 14.9	22.0
448212 2008 UK_{248}	18.2	X	113.13927	306.74891	165.09532	1.23276	0.1417034	0.26664740	2.3906233	21	5 5.3	21.4
448213 2008 UO_{258}	17.9	X	112.37678	252.15330	241.38254	3.96454	0.1743224	0.27086524	2.3657410	21	6 7.3	21.0
448214 2008 UK_{262}	17.6	X	199.49251	24.42931	12.69497	7.52050	0.0973987	0.27299111	2.3534431	21	4 26.6	20.9
448215 2008 UF_{274}	17.8	X	76.01929	118.49639	22.21466	1.49059	0.0709999	0.26800243	2.3825584	21	4 10.7	20.4
448216 2008 UO_{276}	18.4	X	209.94515	160.34016	225.20153	0.81625	0.1955343	0.27677543	2.3319417	21	4 22.2	22.2
448217 2008 UY_{276}	18.6	X	171.35787	242.27468	208.09848	2.41972	0.1876791	0.27807053	2.3246955	21	6 10.7	22.3
448218 2008 UA_{283}	18.0	X	92.75205	328.63907	172.83207	2.42179	0.1277378	0.27227187	2.3575860	21	5 17.0	20.7
448219 2008 UW_{294}	17.3	X	342.21400	320.45539	242.52495	5.76070	0.1308073	0.26249991	2.4157386	21	1 28.4	20.1
448220 2008 UJ_{327}	16.6	X	231.38585	340.80924	87.54102	25.66610	0.2187466	0.28681679	2.2771921	21	7 4.3	20.3
448221 2008 UH_{329}	18.0	X	249.08723	127.42225	245.45864	3.66819	0.1485327	0.28281435	2.2986266	21	5 16.2	21.0
448222 2008 UO_{354}	18.2	X	192.57402	303.06053	120.41070	1.86160	0.1552523	0.27708710	2.3301928	21	5 26.2	21.6
448223 2008 UK_{355}	18.4	X	116.92840	254.09395	198.87286	2.03805	0.1689691	0.26503345	2.4003188	21	4 17.9	21.4
448224 2008 UK_{357}	18.1	X	148.82383	357.69501	35.48493	6.16554	0.2487211	0.26339711	2.4102497	21	3 16.5	22.0
448225 2008 VP_{3}	17.8	X	235.71942	316.14753	49.24484	12.25450	0.2895478	0.27934785	2.3176036	21	4 17.7	21.8
448226 2008 VV_{6}	18.1	X	269.97171	205.45091	116.89850	3.74584	0.1852662	0.27725390	2.3292581	21	3 31.1	21.4
448227 2008 VL_{20}	17.6	X	220.01751	326.79316	70.13299	7.16560	0.1401886	0.27843564	2.3226628	21	5 19.1	20.9
448228 2008 VM_{24}	17.1	X	136.63752	13.62247	74.20273	10.66700	0.2352636	0.26715788	2.3875770	21	5 11.7	20.8
448229 2008 VJ_{46}	18.0	X	153.76071	22.11460	47.39380	2.22229	0.1665971	0.26925632	2.3751558	21	4 26.8	21.3
448230 2008 VY_{68}	16.6	X	314.70021	122.21955	97.38646	13.16218	0.1116597	0.24220711	2.5488530	21	1 22.8	20.0
448231 2008 VY_{71}	17.9	X	172.84338	338.79881	73.17583	6.52674	0.2139280	0.27088737	2.3656121	21	4 26.5	21.7
448232 2008 VC_{73}	17.7	X	52.97352	92.24373	90.86310	7.15171	0.0548174	0.27156324	2.3616855	21	5 6.2	20.4
448233 2008 WN_{8}	17.2	X	30.80680	130.60833	63.26345	5.78434	0.1625373	0.27042615	2.3683011	21	4 19.7	19.0
448234 2008 WY_{22}	17.9	X	163.47322	20.40871	51.41081	2.84320	0.1837528	0.27258367	2.3557877	21	5 10.0	21.5
448235 2008 WT_{23}	18.2	X	245.54290	326.62735	17.00157	1.71021	0.2082859	0.27657803	2.3330512	21	3 31.1	21.8
448236 2008 WS_{28}	17.9	X	262.92928	111.01470	221.14439	3.99372	0.2501043	0.27927303	2.3180176	21	3 27.6	21.5
448237 2008 WF_{30}	18.0	X	83.85785	153.40665	336.03792	1.84435	0.1405078	0.26239336	2.4163926	21	4 17.7	20.6
448238 2008 WK_{31}	18.3	X	141.34633	65.61903	14.14770	1.64046	0.1710366	0.26659761	2.3909210	21	4 27.5	21.7
448239 2008 WK_{40}	18.0	X	218.16641	307.67930	71.05141	3.21765	0.2153577	0.27584644	2.3371744	21	4 21.4	21.8
448240 2008 WK_{42}	18.3	X	195.48423	21.17586	35.41909	3.06562	0.1551344	0.27570183	2.3379916	21	5 19.3	21.8

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
448241 2008 WL_{43}	17.9	X	264.82606	285.99121	55.95907	6.35461	0.1855196	0.27817733	2.3241005	21	4 19.9	21.2
448242 2008 WX_{48}	17.6	X	170.04624	245.48723	219.00823	5.17570	0.1742032	0.27875781	2.3208729	21	6 27.3	21.2
448243 2008 WR_{51}	18.5	X	235.95302	61.08393	316.76798	1.72871	0.2201396	0.28132055	2.3067564	21	5 3.4	22.3
448244 2008 WK_{65}	17.8	X	308.55208	248.66112	31.34018	7.48795	0.1223556	0.27599619	2.3363290	21	3 29.9	20.5
448245 2008 WS_{68}	18.3	X	199.11879	267.55508	158.75045	2.03607	0.1964858	0.27775140	2.3264758	21	6 4.6	22.2
448246 2008 WH_{91}	17.9	X	348.09105	211.05476	42.72629	7.05827	0.0738656	0.28004134	2.3137758	21	4 29.0	20.1
448247 2008 WJ_{92}	18.2	X	212.78069	63.96553	308.44737	0.63843	0.1897694	0.27332844	2.3515064	21	4 8.2	21.9
448248 2008 WY_{104}	17.7	X	220.29272	278.10686	75.14389	8.19850	0.1354983	0.26918464	2.3755775	21	3 28.1	21.4
448249 2008 WQ_{111}	18.2	X	190.53800	144.10832	294.08143	1.40803	0.1666317	0.27748307	2.3279754	21	6 12.2	21.9
448250 2008 WC_{115}	18.1	X	249.00511	265.48253	65.86131	2.26562	0.2244108	0.27347181	2.3506845	21	3 19.1	21.8
448251 2008 WU_{117}	17.2	X	38.15748	281.31897	242.98373	3.85476	0.1287524	0.25989783	2.4318360	21	3 15.4	19.6
448252 2008 WA_{140}	17.8	X	128.49187	296.98478	166.08447	1.34352	0.1486873	0.26091267	2.4255260	21	5 13.1	21.2
448253 2008 WG_{141}	18.7	X	180.41538	80.05726	327.25206	3.37819	0.1862315	0.27110763	2.3643307	21	4 22.7	22.6
448254 2008 XF_{6}	17.5	X	143.55771	159.69734	287.60042	11.28715	0.2001237	0.26831506	2.3807073	21	5 9.6	21.4
448255 2008 XJ_{17}	17.9	X	167.20864	225.68172	213.74558	2.61146	0.1438469	0.27233412	2.3572267	21	5 21.9	21.4
448256 2008 XK_{50}	17.5	X	101.10524	22.04648	93.77107	3.21183	0.1513425	0.25781569	2.4449116	21	4 28.1	20.5
448257 2008 XG_{52}	17.2	X	189.19350	12.18921	68.63835	5.13182	0.1248166	0.27722733	2.3294069	21	6 14.6	20.7
448258 2008 YV	18.5	X	157.02526	346.99020	107.94515	3.27256	0.2520094	0.26857103	2.3791944	21	6 6.9	22.4
448259 2008 YZ_{6}	17.5	X	63.79038	332.36418	163.62280	2.73144	0.1315152	0.25473700	2.4645711	21	3 25.7	20.1
448260 2008 YE_{14}	17.5	X	83.87864	22.12939	111.24598	9.89314	0.2167929	0.25854437	2.4403156	21	5 11.7	20.5
448261 2008 YX_{16}	16.9	X	207.35328	113.61947	113.59011	11.99741	0.2123421	0.22215083	2.7000434	21	12 25.7	21.1
448262 2008 YC_{19}	18.1	X	121.48018	3.77264	98.44001	3.51420	0.1565522	0.26100108	2.4249782	21	5 5.6	21.5
448263 2008 YQ_{46}	18.4	X	157.16734	9.66276	56.10661	2.61450	0.1751924	0.26426209	2.4049874	21	4 26.5	21.9
448264 2008 YD_{51}	17.8	X	129.81364	20.21426	100.12983	5.58309	0.0856351	0.26583069	2.3955173	21	5 30.9	21.0
448265 2008 YW_{52}	18.2	X	168.84866	359.39822	62.92542	3.54256	0.1432539	0.26399042	2.4066371	21	5 1.8	21.8
448266 2008 YK_{56}	17.8	X	158.49881	5.26306	75.65657	3.40884	0.1909826	0.26778629	2.3838403	21	5 18.1	21.4
448267 2008 YM_{58}	17.9	X	160.83303	10.84767	70.09336	1.85038	0.1676777	0.26810871	2.3819287	21	5 18.8	21.4
448268 2008 YF_{62}	17.9	X	199.55118	305.75613	126.52788	7.36069	0.1514948	0.27388078	2.3483438	21	6 14.3	21.6
448269 2008 YA_{83}	17.8	X	196.70938	336.49521	81.05075	2.41259	0.1733270	0.27223359	2.3578069	21	5 22.4	21.5
448270 2008 YO_{99}	18.2	X	159.87614	143.02734	277.19728	0.54217	0.1549024	0.26309550	2.4120914	21	4 19.9	21.8
448271 2008 YS_{99}	15.7	X	247.07022	307.30581	110.78050	3.75692	0.2310250	0.12426203	3.9771968	21	7 5.9	21.7
448272 2008 YG_{102}	18.3	X	154.63930	231.57598	206.10360	0.99698	0.1539965	0.26495305	2.4008043	21	5 7.6	21.7
448273 2008 YJ_{108}	18.0	X	166.78030	338.82792	96.14800	2.27355	0.1601204	0.26609405	2.3939364	21	5 16.9	21.5
448274 2008 YB_{111}	18.0	X	74.97814	85.26587	72.77032	5.21396	0.1091238	0.26680981	2.3896530	21	5 11.4	20.6
448275 2008 YN_{123}	17.7	X	115.82420	302.36967	156.27539	2.39176	0.1867517	0.26049819	2.4280982	21	4 27.9	20.9
448276 2008 YP_{141}	17.8	X	131.95969	32.42865	27.34730	1.53682	0.1678501	0.25727121	2.4483599	21	3 23.4	21.2
448277 2008 YA_{146}	18.0	X	156.54944	293.34005	121.80935	3.23133	0.1070154	0.25850194	2.4405826	21	4 8.3	21.4
448278 2008 YW_{152}	18.0	X	184.92379	251.23018	173.74093	2.79472	0.1580614	0.26870479	2.3784049	21	5 21.4	21.7
448279 2008 YB_{153}	17.5	X	55.96783	17.09717	146.27434	3.08773	0.1196214	0.25644647	2.4536064	21	4 20.3	20.0
448280 2008 YB_{158}	17.7	X	141.16780	284.44713	117.66053	7.48326	0.1159027	0.25145361	2.4859790	21	3 7.7	21.2
448281 2008 YH_{160}	17.7	X	125.59939	295.49994	168.74811	4.63579	0.1915300	0.26249456	2.4157714	21	5 17.2	21.2
448282 2008 YG_{164}	16.6	X	330.91704	199.13511	286.63748	13.30736	0.0941208	0.23344486	2.6122406	21	—	—
448283 2008 YJ_{170}	17.8	X	224.10020	244.32259	135.65562	5.35776	0.1849233	0.26776404	2.3839724	21	4 30.9	21.6
448284 2009 AH_{8}	15.8	X	242.81538	8.58761	57.29103	3.94555	0.2214223	0.12528254	3.9555696	21	7 12.6	22.0
448285 2009 AA_{12}	18.4	X	98.85582	135.75691	348.74703	0.98223	0.1316242	0.26023646	2.4297259	21	5 2.0	21.4
448286 2009 AR_{20}	17.7	X	193.77464	170.92977	193.58952	1.96962	0.2179894	0.26132572	2.4229695	21	3 14.6	21.8
448287 2009 AK_{23}	18.5	X	97.58021	138.83240	338.02217	0.76338	0.1470243	0.25892611	2.4379165	21	4 22.2	21.5
448288 2009 AM_{26}	17.7	X	137.48180	156.59191	304.12276	3.72164	0.1558463	0.26458667	2.4030201	21	5 19.1	21.2
448289 2009 BA_{8}	17.1	X	54.91543	202.96711	292.58711	6.48465	0.1184066	0.25256971	2.4786500	21	3 4.1	19.8
448290 2009 BS_{11}	17.0	X	53.66482	326.90507	182.82035	6.32182	0.0818504	0.25408474	2.4687872	21	3 22.0	19.7
448291 2009 BV_{13}	16.5	X	44.48412	143.15773	311.03290	12.72196	0.2601145	0.24184027	2.5514299	21	—	—
448292 2009 BH_{14}	18.4	X	172.98319	129.21738	290.37248	3.78740	0.2168414	0.26733849	2.3865016	21	5 3.2	22.4
448293 2009 BQ_{18}	18.3	X	106.38211	310.99876	141.42336	1.50900	0.1348083	0.25718389	2.4489140	21	3 30.8	21.3
448294 2009 BB_{21}	18.0	X	195.49986	286.58172	120.36549	2.69073	0.2175282	0.26954970	2.3734321	21	5 8.4	21.9
448295 2009 BS_{21}	17.3	X	2.47597	322.79045	265.34605	3.74759	0.0389096	0.26098332	2.4250883	21	4 17.7	20.1
448296 2009 BE_{30}	18.1	X	70.93422	149.88117	347.47555	2.12212	0.1400857	0.25495308	2.4631785	21	4 9.1	20.6
448297 2009 BL_{33}	17.6	X	306.24161	199.35865	19.52694	2.32330	0.0703035	0.24347839	2.5399730	21	1 16.6	20.8
448298 2009 BG_{35}	17.9	X	151.80116	27.39236	43.75809	2.66747	0.1686785	0.26132522	2.4229726	21	4 27.6	21.4
448299 2009 BR_{42}	18.2	X	130.69526	328.24325	127.89121	3.14840	0.1603441	0.26016890	2.4301465	21	5 8.5	21.6
448300 2009 BN_{60}	17.6	X	219.17178	319.58817	75.38094	6.42930	0.1674242	0.27812822	2.3243740	21	5 14.7	21.3
448301 2009 BE_{62}	16.9	X	329.38989	327.02016	149.88005	14.11619	0.1241253	0.22667969	2.6639597	21	—	—
448302 2009 BN_{72}	16.9	X	336.90646	265.92939	255.22004	4.19132	0.1337801	0.23767541	2.5811499	21	—	—
448303 2009 BM_{82}	17.5	X	81.38164	94.09569	65.96173	8.23883	0.2045258	0.25981528	2.4323511	21	6 8.8	20.4
448304 2009 BD_{98}	17.4	X	150.10166	56.32687	44.57400	2.93886	0.1422222	0.26720364	2.3873044	21	6 1.3	20.9
448305 2009 BL_{101}	17.2	X	114.14439	71.90453	31.56639	7.82885	0.0498078	0.25808844	2.4431887	21	4 12.3	20.3
448306 2009 BH_{126}	17.8	X	120.76211	134.93152	331.84631	1.53564	0.1707559	0.25964662	2.4334043	21	5 11.0	21.2
448307 2009 BW_{131}	17.7	X	186.38669	194.36901	247.31217	5.74083	0.1061025	0.27189267	2.3597774	21	6 13.1	21.2
448308 2009 BP_{136}	18.1	X	112.62933	121.87050	289.77333	2.39581	0.0967267	0.24731128	2.5136614	21	2 7.2	21.1
448309 2009 BL_{141}	17.7	X	147.51545	301.84546	111.30201	2.87867	0.1681534	0.25623095	2.4549821	21	4 1.8	21.3
448310 2009 BQ_{141}	16.9	X	307.47551	85.73791	131.38222	16.09698	0.1096463	0.24122127	2.5557928	21	1 10.1	20.5
448311 2009 BV_{163}	16.7	X	323.14060	198.77583	15.42280	5.31967	0.0563244	0.24486328	2.5303870	21	2 4.7	20.0
448312 2009 BA_{173}	17.4	X	152.37534	106.98409	329.65080	4.19535	0.1322483	0.26218144	2.4176945	21	4 30.4	21.0
448313 2009 BX_{184}	17.3	X	42.86530	345.40482	178.81662	7.37052	0.1659520	0.25313850	2.4749357	21	3 31.9	19.4
448314 2009 BX_{185}	16.8	X	358.13348	74.09186	75.37864	10.35480	0.1445456	0.23817264	2.5775562	21	—	—
448315 2009 CJ_{1}	17.4	X	176.77937	271.35294	15.17497	20.88628	0.0688738	0.38846584	1.8602336	21	—	—
448316 2009 CJ_{25}	17.8	X	127.75957	47.44011	50.33648	1.91791	0.1554343	0.25864946	2.4396545	21	5 5.8	21.3
448317 2009 CU_{54}	17.6	X	164.17611	99.65906	339.08078	4.53760	0.1926833	0.26445337	2.4038276	21	5 19.1	21.5
448318 2009 CU_{65}	17.4	X	288.23085	163.16413	64.41233	3.33427	0.0846428	0.23587929	2.5942362	21	1 5.4	21.1
448319 2009 DV_{11}	16.8	X	58.61477	98.36822	328.15411	28.24260	0.1971548	0.23886454	2.5725763	21	—	—
448320 2009 DY_{51}	17.9	X	104.55220	339.03144	143.39451	6.43167	0.1264558	0.25922326	2.4360530	21	5 9.1	21.1

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
448321 2009 DW_{53}	18.1	X	141.05718	67.94132	8.84518	1.36871	0.1620832	0.25751005	2.4468457	21	4 23.1	21.7
448322 2009 DG_{56}	17.5	X	295.15725	99.58974	116.83627	3.38592	0.1323437	0.23403873	2.6078197	21	—	—
448323 2009 DK_{58}	17.4	X	349.62465	54.34072	149.56584	6.68808	0.0343350	0.24488944	2.5302068	21	3 1.1	20.4
448324 2009 DN_{70}	17.5	X	330.19305	42.33750	167.74294	3.51104	0.0553773	0.24310814	2.5425513	21	2 6.6	20.6
448325 2009 DQ_{72}	17.6	X	359.14374	195.28165	339.24500	4.09189	0.0842519	0.24244509	2.5471848	21	1 29.9	20.5
448326 2009 DU_{108}	17.4	X	326.66289	44.13934	137.31611	10.94519	0.0512485	0.23554046	2.5967235	21	—	—
448327 2009 DQ_{110}	15.9	X	241.22104	142.74594	121.15485	18.54903	0.1320525	0.23023480	2.6364654	21	—	—
448328 2009 DW_{110}	17.5	X	165.44407	78.91284	0.07872	20.89446	0.2837785	0.26652554	2.3913519	21	5 17.7	22.1
448329 2009 DJ_{124}	16.6	X	223.86366	256.06384	355.11810	14.99829	0.0854311	0.22438623	2.6820812	21	—	—
448330 2009 DZ_{136}	17.1	X	234.68865	106.41121	158.98982	12.90732	0.2549643	0.22886745	2.6469558	21	—	—
448331 2009 DX_{141}	17.0	X	300.93795	194.52699	342.83505	16.88278	0.1205146	0.23133519	2.6280982	21	—	—
448332 2009 DF_{142}	16.7	X	204.93621	240.70299	29.34898	11.20003	0.1604499	0.22222560	2.6994378	21	—	—
448333 2009 EC_{17}	18.6	X	126.11157	323.85339	336.74847	16.55707	0.0656015	0.37921980	1.8903492	21	—	—
448334 2009 EG_{30}	17.7	X	22.97065	35.69973	4.33660	20.67864	0.0491234	0.37830378	1.8933995	21	—	—
448335 2009 EJ_{30}	17.3	X	1.02185	289.00188	204.35724	3.82026	0.0510714	0.23049586	2.6344743	21	—	—
448336 2009 FU_{15}	17.8	X	37.48431	310.24282	189.70975	5.33402	0.1479210	0.24375460	2.5380539	21	2 10.7	20.3
448337 2009 FA_{24}	16.5	X	324.55361	169.48952	7.30387	11.36893	0.0337993	0.23154777	2.6264894	21	—	—
448338 2009 FP_{24}	16.7	X	250.66673	200.42806	16.65618	18.01346	0.1725373	0.22219884	2.6996546	21	—	—
448339 2009 FQ_{31}	18.0	X	274.14824	210.32481	346.09836	20.26325	0.1040106	0.38393965	1.8748250	21	—	—
448340 2009 FM_{38}	16.3	X	240.25524	180.82052	38.59144	13.51950	0.1233316	0.22021806	2.7158186	21	—	—
448341 2009 FO_{46}	17.5	X	53.93537	33.65448	29.26102	22.28687	0.0670355	0.38422480	1.8738973	21	—	—
448342 2009 FS_{46}	16.4	X	222.14483	234.13841	29.05677	13.63669	0.1488673	0.22350364	2.6891373	21	—	—
448343 2009 FJ_{48}	17.1	X	181.02126	242.04196	63.34848	4.30675	0.0555572	0.22546207	2.6735423	21	—	—
448344 2009 FX_{57}	17.1	X	213.94947	274.74902	298.78118	1.64754	0.1246918	0.21066651	2.7973000	21	12 22.8	21.0
448345 2009 FN_{58}	17.8	X	61.10558	79.28653	24.55385	2.30918	0.0369823	0.23693039	2.5865579	21	1 30.5	21.0
448346 2009 FK_{59}	17.0	X	204.66518	260.17502	1.70150	4.59674	0.0882375	0.21745444	2.7387803	21	—	—
448347 2009 FZ_{62}	16.8	X	16.84709	89.10840	15.99059	13.61085	0.0909949	0.22498250	2.6773402	21	—	—
448348 2009 FB_{64}	16.8	X	166.00867	298.55041	29.27066	6.45329	0.0922779	0.22648462	2.6654890	21	—	—
448349 2009 FU_{65}	18.2	X	15.10890	315.22654	150.60992	23.30205	0.0854865	0.39660742	1.8346877	21	—	—
448350 2009 FA_{72}	17.0	X	221.87307	351.14775	205.87689	8.04481	0.1131335	0.20901118	2.8120500	21	12 12.8	21.1
448351 2009 GR	17.7	X	258.00852	352.04677	220.43745	20.68608	0.0407065	0.37744901	1.8962570	21	—	—
448352 2009 GY	16.6	X	159.40613	254.83839	58.27259	4.99325	0.0646631	0.21339511	2.7734036	21	—	—
448353 2009 HE_{1}	17.3	X	337.80400	164.32763	27.90804	34.46912	0.1923721	0.23476185	2.6024618	21	1 12.1	21.4
448354 2009 HN_{9}	16.4	X	113.47205	292.28656	90.42325	15.33664	0.1124657	0.22277503	2.6949975	21	1 10.3	19.9
448355 2009 HL_{12}	16.9	X	234.02198	350.08305	202.12715	8.41606	0.0846424	0.20949936	2.8076798	21	12 24.2	20.9
448356 2009 HS_{13}	16.4	X	356.41740	154.91414	24.38125	22.92830	0.0940190	0.23550349	2.5969952	21	2 13.7	20.0
448357 2009 HV_{14}	16.7	X	159.69124	240.05010	152.72128	9.18091	0.1309536	0.24281075	2.5446269	21	3 17.7	20.4
448358 2009 HD_{18}	16.9	X	215.23189	259.38279	1.21660	3.54657	0.1460668	0.21878241	2.7276864	21	—	—
448359 2009 HZ_{21}	18.2	X	118.53919	218.76895	191.34337	22.21887	0.0266214	0.39680179	1.8340886	21	—	—
448360 2009 HS_{27}	17.0	X	164.15493	62.28643	209.00302	8.37152	0.1284000	0.20921425	2.8102301	21	—	—
448361 2009 HA_{44}	17.3	X	1.37687	350.02099	146.68097	3.61597	0.0369072	0.22588552	2.6702000	21	—	—
448362 2009 HX_{47}	16.5	X	275.30832	46.31207	192.84293	13.80314	0.0224125	0.22887224	2.6469189	21	1 10.8	20.4
448363 2009 HA_{48}	16.9	X	357.51359	332.47862	191.75878	13.03441	0.1151437	0.23270471	2.6177767	21	1 9.3	20.3
448364 2009 HO_{51}	16.9	X	197.74890	82.56285	189.46594	12.40698	0.1725868	0.21504232	2.7592228	21	—	—
448365 2009 HB_{52}	16.7	X	160.94175	178.95575	49.90386	14.48308	0.1587118	0.20094183	2.8868385	21	11 16.7	21.4
448366 2009 HF_{60}	18.0	X	328.43785	85.04453	74.62484	26.57720	0.0553534	0.38436781	1.8734325	21	—	—
448367 2009 HB_{65}	17.2	X	274.74368	204.14517	40.61086	3.98519	0.0054962	0.23130706	2.6283112	21	1 22.0	20.7
448368 2009 HV_{71}	16.8	X	56.54573	294.60990	189.89356	11.33853	0.1421356	0.23484994	2.6018110	21	2 26.2	19.6
448369 2009 HH_{74}	16.7	X	303.83234	128.40170	85.32733	15.72197	0.1295230	0.22961084	2.6412395	21	1 1.2	20.4
448370 2009 HX_{97}	16.8	X	257.00069	146.30043	80.36212	12.67112	0.0656222	0.22120405	2.7077423	21	—	—
448371 2009 JK_{12}	16.8	X	320.32338	164.03785	49.98369	10.78908	0.1326166	0.23267012	2.6180362	21	1 23.6	20.4
448372 2009 KJ_{1}	17.6	X	248.77036	128.82123	57.88386	23.74339	0.0335117	0.37084678	1.9186969	21	—	—
448373 2009 KM_{4}	15.4	X	14.83896	184.80765	189.39515	28.73350	0.1796724	0.17391373	3.1786799	21	12 4.3	19.8
448374 2009 KL_{5}	17.0	X	352.96214	328.49167	195.88835	13.37215	0.1831140	0.23051428	2.6343340	21	—	—
448375 2009 KB_{11}	16.6	X	42.58330	213.20329	106.18471	16.46487	0.2008663	0.18608889	3.0384756	21	11 17.1	20.9
448376 2009 KL_{14}	18.0	X	182.38540	46.38368	211.57798	20.25902	0.0468144	0.37006973	1.9213818	21	—	—
448377 2009 KC_{16}	17.0	X	309.80950	18.45238	150.73161	5.19045	0.0557967	0.21877163	2.7277761	21	—	—
448378 2009 KL_{24}	16.4	X	97.78711	95.42466	155.98997	13.02864	0.1306170	0.18807593	3.0170365	21	10 17.5	21.1
448379 2009 LV_{1}	16.8	X	82.79476	120.83210	193.98434	8.26834	0.2309274	0.19280330	2.9675160	21	12 23.0	21.7
448380 2009 LX_{1}	16.1	X	144.68809	131.15767	213.36221	12.86955	0.2026493	0.21317086	2.7753483	21	1 10.1	20.6
448381 2009 ML_{10}	15.8	X	31.34382	273.31404	114.21309	22.03736	0.2255975	0.18244774	3.0787687	21	—	—
448382 2009 OD	16.2	X	62.26765	16.34930	297.26120	10.58243	0.1987874	0.18135219	3.0911554	21	11 25.4	20.8
448383 2009 OX_{10}	15.8	X	62.15834	91.81581	254.95581	10.41595	0.1751286	0.18330260	3.0691890	21	—	—
448384 2009 OH_{14}	15.3	X	25.67234	107.83748	266.13450	15.01825	0.2238997	0.17835545	3.1256845	21	12 26.8	19.2
448385 2009 PS_{8}	14.9	X	51.59116	341.88899	338.84183	18.98092	0.1522895	0.17393070	3.1784731	21	11 7.3	19.7
448386 2009 PP_{17}	16.8	X	109.98208	65.61934	208.30447	10.27347	0.2680977	0.18442827	3.0566876	21	11 30.7	22.2
448387 2009 PW_{19}	15.5	X	35.12941	195.81687	156.10808	27.98172	0.1192591	0.17856815	3.1232018	21	12 3.6	20.3
448388 2009 QS_{7}	16.4	X	83.52754	109.16176	188.05372	15.29220	0.2558093	0.17925752	3.1151894	21	12 5.3	21.7
448389 2009 QX_{14}	16.0	X	300.41909	122.03846	346.36501	8.75957	0.0386937	0.17824862	3.1269331	21	12 4.6	20.4
448390 2009 QJ_{16}	16.1	X	22.85126	20.03927	359.60276	8.01461	0.0849879	0.17684983	3.1433998	21	12 9.8	20.4
448391 2009 QM_{17}	16.0	X	11.66357	82.57794	293.78534	8.06489	0.1041972	0.17597370	3.1538247	21	11 21.7	20.2
448392 2009 QK_{19}	16.2	X	62.12021	172.18233	159.88325	9.94509	0.3060662	0.17848991	3.1241145	21	12 29.9	21.2
448393 2009 QM_{28}	16.4	X	48.67025	356.89038	329.96068	9.00430	0.1135796	0.17695051	3.1422073	21	11 10.9	20.9
448394 2009 QP_{37}	16.4	X	63.81124	166.95258	162.65468	10.33382	0.0819590	0.17767213	3.1336935	21	12 3.3	21.0
448395 2009 QM_{45}	16.4	X	32.37099	325.60258	25.48208	8.70489	0.2287014	0.17423843	3.1747296	21	12 7.1	20.6
448396 2009 QN_{45}	15.6	X	67.76005	144.40989	170.58273	23.22158	0.2788232	0.17582679	3.1555812	21	12 14.1	21.0
448397 2009 QV_{60}	15.6	X	95.38651	127.09021	162.42059	27.24469	0.1810833	0.17838308	3.1253616	21	12 3.1	21.1
448398 2009 RD_{3}	16.0	X	21.56110	179.58920	198.49503	17.51113	0.2048896	0.17552760	3.1591660	21	12 21.9	20.3
448399 2009 RF_{10}	16.2	X	1.66988	203.35607	190.16496	11.05066	0.0682348	0.17283258	3.1919222	21	11 27.6	20.5
448400 2009 RL_{11}	16.5	X	109.50906	127.62801	185.63804	11.79519	0.1464425	0.18260798	3.0769673	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
448401 2009 RV_{17}	16.5	X	335.50811	45.08597	24.62027	11.46426	0.0712355	0.17319340	3.1874876	21	12 1.8	20.8
448402 2009 RD_{61}	17.7	X	50.87604	132.78898	208.45214	21.83000	0.0896580	0.34366370	2.0185845	21	12 31.9	20.7
448403 2009 RQ_{65}	15.5	X	42.79696	277.88597	60.53512	22.19383	0.1877092	0.17440837	3.1726670	21	11 29.6	19.8
448404 2009 RY_{67}	16.2	X	111.50951	67.39180	199.08273	26.00509	0.1972230	0.17239880	3.1972743	21	11 18.3	21.7
448405 2009 RV_{74}	15.9	X	3.95988	181.36957	211.25609	16.50805	0.1262596	0.17381925	3.1798317	21	12 3.9	20.0
448406 2009 SZ_{3}	16.6	X	110.20726	347.77181	310.09408	3.73205	0.1952667	0.18216089	3.0820000	21	12 22.9	21.6
448407 2009 SS_{10}	15.6	X	331.28726	270.69041	151.75749	25.97617	0.1817947	0.16982658	3.2294775	21	11 23.1	19.8
448408 2009 SJ_{16}	16.4	X	38.70063	201.01680	184.57060	7.60105	0.1574374	0.18162581	3.0880501	21	—	—
448409 2009 SB_{26}	15.8	X	84.15067	111.31501	190.90434	26.24623	0.0855258	0.17304425	3.1893187	21	11 23.3	20.8
448410 2009 SL_{66}	16.1	X	299.63886	297.09836	196.93937	25.30161	0.2035482	0.17382995	3.1797012	21	12 18.1	20.3
448411 2009 SR_{91}	16.9	X	79.95483	175.14030	155.05404	2.89645	0.1448690	0.18152599	3.0891820	21	12 28.2	21.6
448412 2009 SS_{109}	16.2	X	15.55457	222.41297	173.55102	10.62529	0.2153015	0.17476650	3.1683314	21	—	—
448413 2009 SE_{138}	16.8	X	37.25475	166.05901	204.90885	11.84376	0.1030182	0.17356751	3.1829056	21	12 20.4	21.3
448414 2009 SE_{139}	16.0	X	93.48472	106.79382	188.07604	15.45537	0.1302227	0.17565414	3.1576485	21	11 29.8	21.0
448415 2009 SQ_{139}	15.7	X	28.05946	179.57512	202.93752	22.34348	0.1249780	0.17617736	3.1513936	21	12 24.2	20.3
448416 2009 SK_{152}	16.5	X	43.79888	204.49054	178.66086	16.80286	0.2209216	0.18185230	3.0854855	21	—	—
448417 2009 SQ_{157}	16.3	X	285.80555	290.36625	213.89726	9.09252	0.1830473	0.17533765	3.1614472	21	12 12.9	20.2
448418 2009 SA_{168}	15.7	X	43.15510	2.75375	352.35917	16.62539	0.1330625	0.17585717	3.1552177	21	12 12.4	20.3
448419 2009 SP_{207}	15.4	X	2.12729	116.76592	275.13890	17.66743	0.1890988	0.17193257	3.2030516	21	12 5.8	19.1
448420 2009 SZ_{220}	15.4	X	20.95040	165.68644	228.53805	21.75394	0.0795830	0.17737612	3.1371789	21	12 22.8	19.9
448421 2009 SD_{255}	15.8	X	49.77843	267.82139	73.77583	16.89829	0.2183505	0.17796085	3.1303032	21	12 17.3	20.2
448422 2009 SJ_{255}	15.5	X	47.67043	238.04687	113.54191	17.51685	0.1909504	0.17819387	3.1275736	21	12 24.7	19.9
448423 2009 SG_{270}	15.4	X	78.06761	286.19421	21.59136	25.48947	0.2131915	0.17466301	3.1695827	21	11 29.3	20.7
448424 2009 SY_{273}	15.6	X	233.13807	133.82502	16.63189	8.37598	0.0254209	0.17015322	3.2253432	21	11 2.4	20.1
448425 2009 SV_{279}	15.9	X	325.31314	45.34886	27.90123	17.66031	0.1923494	0.16927307	3.2365138	21	11 14.0	19.5
448426 2009 SY_{346}	16.2	X	15.75674	216.11707	175.02266	9.47275	0.0878440	0.17379531	3.1801237	21	12 15.4	20.5
448427 2009 UZ_{51}	18.7	X	312.87203	277.39246	28.69206	2.69830	0.1738032	0.30922143	2.1658231	21	4 28.6	20.7
448428 2009 UF_{82}	17.8	X	260.18299	350.25261	358.66611	4.33964	0.1490485	0.30406559	2.1902375	21	4 23.1	20.9
448429 2009 UK_{105}	16.9	X	333.69215	188.21701	215.71401	4.47988	0.1411668	0.16086877	3.3482783	21	10 26.6	20.8
448430 2009 UB_{116}	16.3	X	92.99192	270.68828	37.08633	9.61943	0.0815972	0.17522320	3.1628237	21	12 6.7	21.0
448431 2009 VV_{48}	15.5	X	40.72523	268.54090	88.78513	26.11629	0.2792882	0.17278386	3.1925222	21	—	—
448432 2009 VJ_{115}	15.6	X	306.05579	46.08149	52.10517	15.88771	0.2932233	0.16215426	3.3305591	21	11 1.9	19.3
448433 2009 WM_{46}	16.4	X	99.76780	107.19094	209.09640	9.70205	0.0680259	0.17435330	3.1733351	21	12 23.1	21.2
448434 2009 WA_{72}	18.1	X	308.99201	270.17996	72.71931	7.43270	0.0429803	0.31039717	2.1603505	21	7 13.8	20.4
448435 2009 WM_{76}	18.2	X	83.35069	201.99764	24.22774	5.88398	0.0771992	0.31080918	2.1584409	21	8 31.3	20.7
448436 2009 WX_{85}	18.2	X	293.22733	81.14499	291.20205	4.56743	0.1137484	0.31364742	2.1453998	21	7 21.1	20.2
448437 2009 WS_{86}	16.1	X	353.78309	345.20205	41.67778	10.51478	0.0539752	0.16052743	3.3530231	21	11 4.3	20.5
448438 2009 WL_{113}	16.2	X	78.14078	113.00038	211.03545	14.17388	0.1078751	0.17502529	3.1652074	21	12 13.8	21.0
448439 2009 WE_{177}	17.8	X	106.36834	157.71874	5.71672	6.42585	0.0993996	0.30098178	2.2051725	21	7 1.9	20.6
448440 2009 WU_{235}	18.2	X	287.94707	42.90396	250.10919	3.81953	0.1241495	0.29594516	2.2301216	21	3 13.4	21.2
448441 2009 WP_{245}	17.6	X	178.45325	173.63570	306.20125	5.32504	0.0876841	0.29941053	2.2128807	21	7 27.3	20.4
448442 2009 WF_{254}	17.6	X	23.85719	40.15359	268.85665	5.26135	0.0703105	0.31728246	2.1289821	21	9 27.1	19.8
448443 2009 YL_{24}	18.4	X	208.48033	120.19012	305.35705	4.77174	0.2561474	0.30051700	2.2074456	21	6 8.9	22.1
448444 2010 AP_{96}	16.0	X	4.40353	177.69640	215.96704	27.35092	0.1613526	0.17088055	3.2161845	21	12 6.8	20.2
448445 2010 BU_{74}	17.0	X	246.47491	334.99628	282.93463	10.58356	0.1463353	0.24426089	2.5345455	21	—	—
448446 2010 CL_{183}	17.5	X	111.99885	0.60170	152.27605	6.10420	0.1065449	0.28333954	2.2957853	21	6 24.5	20.6
448447 2010 DA_{45}	17.1	X	37.85270	196.16397	342.00143	6.54636	0.0509485	0.27152706	2.3618953	21	3 30.3	19.7
448448 2010 DU_{57}	17.5	X	206.91211	210.33827	80.65688	31.86527	0.2575084	0.23545901	2.5973223	21	—	—
448449 2010 DX_{75}	18.1	X	220.63377	282.73512	163.60615	5.16565	0.0469023	0.29458305	2.2369909	21	8 3.5	21.0
448450 2010 DB_{77}	16.5	X	75.20495	61.27069	118.74426	23.57618	0.1562618	0.28106202	2.3081708	21	6 23.2	19.4
448451 2010 DX_{77}	17.1	X	347.56494	214.50935	350.93472	12.19136	0.1234047	0.26322637	2.4112919	21	2 15.8	19.7
448452 2010 EX_{29}	17.4	X	2.38129	178.31921	40.98812	5.78565	0.1779942	0.27046916	2.3680501	21	3 26.1	19.4
448453 2010 ES_{44}	17.3	X	72.60030	114.06367	78.02835	8.31309	0.0653269	0.28011320	2.3133801	21	6 18.4	19.8
448454 2010 EW_{70}	17.6	X	196.46892	62.27811	194.90361	8.70884	0.1441285	0.23459975	2.6036605	21	—	—
448455 2010 EG_{71}	17.9	X	268.73914	286.09005	353.49690	1.08072	0.1608783	0.26073047	2.4266558	21	2 6.2	21.4
448456 2010 ET_{79}	18.1	X	116.99047	359.67104	145.99267	4.27319	0.0799977	0.28375785	2.2935284	21	6 17.2	20.9
448457 2010 EZ_{84}	18.0	X	26.67367	38.25040	182.81606	5.57780	0.1183774	0.27578548	2.3375188	21	5 21.4	20.1
448458 2010 EC_{87}	17.8	X	93.88694	13.94745	152.01901	2.51836	0.1487602	0.27962835	2.3160535	21	6 25.5	20.5
448459 2010 EY_{107}	17.0	X	317.47741	233.29966	34.50261	6.51113	0.1082011	0.26628630	2.3927840	21	3 29.5	19.7
448460 2010 EO_{109}	17.8	X	11.44091	259.18836	2.97628	1.93989	0.0631677	0.28482342	2.2878045	21	6 22.7	20.1
448461 2010 ER_{110}	17.4	X	349.65924	25.60607	200.52398	3.84051	0.1671426	0.26489211	2.4011725	21	3 9.8	19.7
448462 2010 EH_{129}	17.4	X	199.32283	269.58941	17.79600	3.85544	0.2445601	0.23741569	2.5830319	21	—	—
448463 2010 EB_{130}	17.9	X	37.24609	5.81097	197.47576	6.59170	0.1371386	0.27268075	2.3552286	21	5 16.1	20.0
448464 2010 EK_{137}	16.5	X	64.60009	345.04629	201.54395	24.14999	0.1835223	0.27414962	2.3468083	21	6 16.0	19.7
448465 2010 ES_{143}	17.1	X	234.25600	31.53377	200.14373	12.97123	0.2170190	0.23567049	2.5957682	21	—	—
448466 2010 FJ_{20}	17.5	X	207.57048	70.26989	168.24185	13.39078	0.2133798	0.23448871	2.6044824	21	—	—
448467 2010 FQ_{29}	17.7	X	7.61765	71.65568	168.00500	1.21763	0.1462919	0.27144520	2.3623701	21	5 10.7	19.5
448468 2010 FR_{29}	17.8	X	25.37892	153.04124	49.37974	2.03222	0.1156366	0.26882472	2.3776974	21	4 18.6	19.8
448469 2010 FH_{47}	17.9	X	71.47703	9.89514	171.24238	4.31444	0.1856645	0.27835844	2.3230922	21	6 21.4	20.5
448470 2010 GP_{25}	17.1	X	235.43951	255.31560	346.98790	7.28245	0.1688234	0.23885965	2.5726114	21	—	—
448471 2010 GA_{28}	17.4	X	61.31186	8.05334	201.80181	23.75805	0.1429017	0.27676980	2.3319734	21	7 6.1	20.7
448472 2010 GP_{29}	17.3	X	335.26872	228.22295	30.40231	5.40710	0.1354473	0.26608843	2.3939701	21	4 8.0	19.6
448473 2010 GO_{30}	18.1	X	279.08458	196.17619	49.08685	3.71398	0.1858962	0.25120277	2.4876337	21	1 4.6	22.0
448474 2010 GV_{65}	17.1	X	29.80988	121.10312	60.04305	9.49952	0.1002943	0.26716866	2.3875128	21	3 30.6	19.6
448475 2010 GZ_{97}	17.4	X	306.23751	98.43486	165.50769	6.53388	0.0931351	0.26262857	2.4149496	21	3 9.4	20.3
448476 2010 GJ_{103}	17.1	X	176.59607	218.76241	62.68346	14.89379	0.1734448	0.22996380	2.6385363	21	—	—
448477 2010 GG_{107}	18.3	X	77.69470	269.00355	254.41871	0.46175	0.1282847	0.27417335	2.3466729	21	5 25.6	21.0
448478 2010 GM_{112}	16.7	X	180.20916	247.94074	46.52975	16.15598	0.3538239	0.23143243	2.6273619	21	—	—
448479 2010 GU_{119}	16.9	X	183.63384	112.70314	189.66960	28.69106	0.3545933	0.23613655	2.5923516	21	—	—
448480 2010 GZ_{141}	17.6	X	331.57315	38.58538	188.17103	6.06071	0.0733870	0.26365167	2.4086981	21	2 23.4	20.6

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
448481 2010 GM_{145}	16.9	X	73.30923	202.15559	181.83828	9.40577	0.0705064	0.23261256	2.6184680	21	—	—
448482 2010 HJ_{55}	16.6	X	183.78836	263.22745	75.36527	12.88429	0.1272539	0.23211464	2.6222113	21	2 6.2	20.8
448483 2010 JP_{45}	17.4	X	165.01515	176.38857	169.08513	4.42102	0.2569878	0.23718730	2.5846898	21	2 1.1	21.8
448484 2010 JQ_{68}	16.2	X	229.50134	184.14990	124.96262	17.39538	0.1979335	0.23621200	2.5917996	21	2 9.0	20.5
448485 2010 JR_{73}	17.1	X	151.46539	284.43348	49.50386	15.88721	0.0965241	0.23713268	2.5850866	21	—	—
448486 2010 JU_{73}	17.6	X	325.76721	12.65220	219.78138	1.92961	0.1390404	0.25746654	2.4471214	21	2 14.4	20.7
448487 2010 JN_{75}	17.6	X	159.63438	112.55235	205.65472	12.03023	0.2818190	0.22811220	2.6527951	21	—	—
448488 2010 JG_{78}	16.7	X	123.21231	95.08032	191.97414	3.06744	0.1739754	0.21709105	2.7418358	21	12 25.1	21.2
448489 2010 JS_{80}	16.9	X	305.79624	61.85279	142.35240	13.78935	0.0829493	0.24641993	2.5197193	21	—	—
448490 2010 JG_{120}	17.0	X	117.11520	234.24109	89.21658	12.45530	0.1695686	0.22248048	2.6973757	21	—	—
448491 2010 JM_{135}	16.1	X	240.98911	352.82087	276.86599	14.60253	0.1598101	0.23117995	2.6292745	21	1 3.6	20.4
448492 2010 JQ_{153}	16.9	X	140.62701	183.91670	76.88253	10.00939	0.1573898	0.21665198	2.7455389	21	12 9.0	21.4
448493 2010 JV_{154}	16.6	X	78.46230	308.45162	76.31764	10.65546	0.0697483	0.23165097	2.6257093	21	—	—
448494 2010 KY_{9}	16.8	X	4.44946	12.93901	135.45302	15.08611	0.0199705	0.24565128	2.5249727	21	1 7.9	20.1
448495 2010 KD_{49}	17.5	X	117.78059	179.74146	182.38601	8.42949	0.2728687	0.21436820	2.7650043	21	1 13.0	21.6
448496 2010 KX_{119}	17.0	X	121.44368	174.53304	148.07824	5.13221	0.1962390	0.20877272	2.8141908	21	—	—
448497 2010 KR_{128}	16.8	X	269.78330	27.31806	209.28530	6.84405	0.1610742	0.24203745	2.5500440	21	—	—
448498 2010 LK_{31}	16.3	X	162.88854	4.55710	313.73457	14.23667	0.1633442	0.21794927	2.7346333	21	—	—
448499 2010 LE_{35}	17.0	X	55.58833	36.60311	137.17919	7.46695	0.0518376	0.26411848	2.4058591	21	4 28.0	19.9
448500 2010 LM_{77}	16.5	X	121.66671	14.94193	343.41413	10.61141	0.1577909	0.21427222	2.7658299	21	—	—
448501 2010 LO_{82}	16.9	X	111.88671	335.16086	14.01958	8.44340	0.1467994	0.21014566	2.8019202	21	—	—
448502 2010 LZ_{112}	16.6	X	171.80853	244.37076	105.25938	12.80828	0.2786965	0.23795002	2.5791636	21	2 15.8	21.2
448503 2010 LW_{116}	16.5	X	142.57719	330.03382	348.44598	7.72091	0.2177218	0.21233420	2.7826340	21	—	—
448504 2010 LE_{119}	16.5	X	6.14523	24.10047	330.25907	6.96092	0.2193613	0.18354876	3.0664443	21	10 27.5	19.9
448505 2010 MJ_{4}	16.9	X	112.62881	236.56822	140.70576	11.00034	0.2710384	0.21705845	2.7421103	21	1 25.8	20.8
448506 2010 MZ_{45}	16.6	X	94.05228	32.68801	278.21425	11.10067	0.1431850	0.19676702	2.9275288	21	12 22.2	21.0
448507 2010 MY_{82}	16.9	X	100.37862	356.59319	9.49435	4.26848	0.0819239	0.20851181	2.8165380	21	—	—
448508 2010 MX_{84}	16.0	X	297.82042	61.53092	348.13685	21.36417	0.2025697	0.17380349	3.1800239	21	9 1.5	20.0
448509 2010 ME_{100}	16.3	X	46.70420	306.29417	5.46814	9.87974	0.1086729	0.18349924	3.0669959	21	10 22.1	20.6
448510 2010 MF_{102}	16.2	X	121.52816	282.96195	21.26785	12.64413	0.1424545	0.20146281	2.8818594	21	—	—
448511 2010 NU_{13}	16.6	X	334.37623	215.56606	168.53669	10.18154	0.2140631	0.17789027	3.1311311	21	10 3.7	19.7
448512 2010 NT_{16}	17.1	X	60.31262	129.28673	210.11045	4.05130	0.1009411	0.19200752	2.9757097	21	12 14.6	21.3
448513 2010 NU_{45}	16.6	X	127.77873	140.65205	195.45223	21.58111	0.2873284	0.20989174	2.8041796	21	—	—
448514 2010 NV_{46}	16.6	X	327.51217	218.67817	209.63185	11.77564	0.1952063	0.18470271	3.0536590	21	11 21.2	19.8
448515 2010 NH_{56}	16.7	X	23.74054	329.71225	8.32888	4.70125	0.1671341	0.18227737	3.0806868	21	10 31.8	20.5
448516 2010 OG_{3}	16.4	X	132.78250	50.37828	232.64219	8.02867	0.1693009	0.19779158	2.9174103	21	12 25.1	21.2
448517 2010 OP_{10}	16.4	X	345.48221	171.88024	184.15908	4.84212	0.1619523	0.17454553	3.1710047	21	9 16.2	19.8
448518 2010 OV_{15}	15.5	X	312.19107	202.22324	196.87438	27.82753	0.1887244	0.17382961	3.1797054	21	9 6.5	19.6
448519 2010 ON_{23}	15.8	X	290.12111	107.75617	10.77217	26.23448	0.2099404	0.18467577	3.0539560	21	11 4.3	19.9
448520 2010 OA_{43}	16.4	X	9.76725	91.50387	294.93055	7.88954	0.1527321	0.18599164	3.0395347	21	12 10.6	20.2
448521 2010 OL_{49}	16.8	X	0.10906	198.53738	163.26616	12.85611	0.2791451	0.17939369	3.1136128	21	11 7.3	19.9
448522 2010 OU_{50}	16.2	X	66.11527	324.28219	21.10277	29.45360	0.1559803	0.19292925	2.9662244	21	—	—
448523 2010 OM_{59}	16.3	X	138.58835	70.60426	233.78107	11.04084	0.0090965	0.19848538	2.9106079	21	—	—
448524 2010 OO_{73}	15.8	X	283.32247	35.60946	36.01968	17.60624	0.0875746	0.17334344	3.1856480	21	9 29.6	20.3
448525 2010 OM_{89}	16.0	X	326.29871	238.76232	197.31349	16.75703	0.1500269	0.18405449	3.0608245	21	11 30.5	19.7
448526 2010 OJ_{93}	16.6	X	36.29512	177.22094	235.71362	10.34981	0.0879301	0.19789057	2.9164373	21	—	—
448527 2010 OO_{99}	16.2	X	327.32440	54.48784	354.77645	26.46426	0.1773630	0.17782468	3.1319010	21	10 12.3	20.1
448528 2010 OO_{110}	16.6	X	18.84770	36.94057	57.35874	27.48959	0.1915978	0.20096373	2.8866288	21	—	—
448529 2010 OO_{111}	16.3	X	51.98218	268.97138	38.42260	21.90092	0.2517500	0.18288559	3.0738528	21	11 12.3	20.6
448530 2010 PK_{2}	16.0	X	179.76126	210.05893	136.42239	15.42872	0.0696899	0.23281448	2.6169538	21	2 4.3	19.9
448531 2010 PL_{10}	16.3	X	132.82528	21.84071	317.86996	8.85745	0.2040490	0.21421920	2.7662862	21	—	—
448532 2010 PT_{10}	16.2	X	206.65646	334.09118	299.29300	14.79800	0.1054081	0.22246842	2.6974732	21	—	—
448533 2010 PD_{33}	17.0	X	135.90177	3.44176	302.61225	10.60989	0.0512301	0.22738101	2.6584791	21	—	—
448534 2010 PP_{33}	16.1	X	80.31656	68.01822	280.76090	9.23194	0.1515865	0.19521081	2.9430670	21	—	—
448535 2010 PY_{36}	16.7	X	47.35738	44.89076	348.45744	15.69359	0.2076932	0.19502689	2.9449170	21	—	—
448536 2010 PP_{51}	16.0	X	320.69785	37.79517	26.86387	14.40017	0.0702955	0.17992388	3.1074931	21	11 5.6	20.0
448537 2010 PV_{60}	16.5	X	183.82682	154.13374	169.07250	7.03556	0.1075489	0.22412377	2.6841746	21	1 14.3	20.7
448538 2010 PO_{68}	16.8	X	12.69189	61.76252	2.75329	15.11527	0.2135495	0.19129404	2.9831042	21	—	—
448539 2010 PW_{70}	15.8	X	290.39372	37.51798	36.90568	19.93471	0.1930443	0.17157734	3.2074712	21	9 29.3	20.1
448540 2010 PZ_{79}	16.6	X	115.89179	42.20587	300.01630	3.94613	0.1685505	0.21068375	2.7971474	21	—	—
448541 2010 RL_{10}	17.3	X	81.08590	171.20495	226.96633	2.68848	0.1002144	0.21024854	2.8010061	21	—	—
448542 2010 RN_{11}	16.9	X	116.25563	90.95871	194.03169	18.46708	0.1787589	0.20068882	2.8892642	21	12 14.8	22.0
448543 2010 RM_{12}	15.5	X	305.33884	63.56451	341.40429	15.93610	0.2055931	0.17671065	3.1450501	21	9 4.1	19.0
448544 2010 RQ_{13}	16.7	X	61.93044	47.20258	346.48500	13.39882	0.1911556	0.20531350	2.8457126	21	—	—
448545 2010 RV_{36}	17.7	X	87.13986	166.73443	165.50191	23.52174	0.0710061	0.38218171	1.8805698	21	—	—
448546 2010 RH_{57}	16.8	X	0.14879	202.49153	275.06531	3.99184	0.0791772	0.21163527	2.7887571	21	—	—
448547 2010 RF_{61}	16.6	X	93.23687	318.21366	8.90782	9.14755	0.1104979	0.19596178	2.9355431	21	—	—
448548 2010 RJ_{61}	16.6	X	83.16791	133.23602	195.65264	10.57258	0.0921499	0.19329635	2.9624677	21	12 25.9	21.1
448549 2010 RU_{67}	16.8	X	35.94464	265.62788	110.49675	0.91093	0.2632601	0.18799732	3.0178775	21	—	—
448550 2010 RQ_{73}	16.5	X	175.62350	272.89704	8.63879	11.26218	0.1862632	0.21435659	2.7651041	21	—	—
448551 2010 RT_{83}	17.2	X	59.49988	54.91471	355.18516	9.86016	0.1246409	0.20988249	2.8042620	21	—	—
448552 2010 RZ_{91}	16.9	X	131.88948	12.37538	310.03411	6.10284	0.1176591	0.20964109	2.8064143	21	—	—
448553 2010 RJ_{100}	16.7	X	286.51785	125.13122	329.83514	4.86784	0.0890851	0.18322385	3.0700684	21	10 25.1	20.8
448554 2010 RM_{102}	17.3	X	149.07378	114.19626	222.67129	3.27482	0.1064734	0.21390013	2.7690366	21	—	—
448555 2010 RY_{105}	16.7	X	46.26879	291.08746	9.14520	13.00736	0.1136616	0.17877557	3.1207856	21	10 8.5	20.9
448556 2010 RQ_{108}	16.7	X	96.36148	252.13481	193.58446	21.63208	0.0708310	0.22586179	2.6703870	21	2 26.7	20.4
448557 2010 RT_{108}	16.5	X	119.91225	311.29503	3.89061	14.88627	0.1511756	0.20322814	2.8651464	21	—	—
448558 2010 RD_{118}	16.6	X	54.56909	350.42176	53.74467	6.61026	0.0661283	0.20351351	2.8624674	21	—	—
448559 2010 RD_{124}	16.8	X	349.89497	33.55049	350.26870	9.89484	0.0050284	0.18870864	3.0102890	21	10 25.6	21.1
448560 2010 RZ_{124}	16.6	X	128.96903	248.09508	64.29092	2.97269	0.0554673	0.20320472	2.8653665	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
448561 2010 RN_{128}	15.9	X	31.39798	33.66323	338.40449	13.91564	0.0392873	0.19292609	2.9662568	21	12 8.8	20.2
448562 2010 RZ_{143}	18.5	X	209.15242	138.23300	186.75383	18.34248	0.1490492	0.41099948	1.7916034	21	1 10.6	21.1
448563 2010 RO_{150}	16.6	X	44.21684	85.38357	350.14357	8.71768	0.1428256	0.20940547	2.8085190	21	—	—
448564 2010 RC_{151}	16.6	X	205.32779	116.88667	186.20040	12.60733	0.1238776	0.22290925	2.6939157	21	1 11.1	21.1
448565 2010 RY_{151}	16.7	X	121.89807	176.66108	152.05599	2.45299	0.0719987	0.20483976	2.8500985	21	—	—
448566 2010 RP_{152}	17.2	X	71.97579	42.29579	18.56375	6.06582	0.0659517	0.21335096	2.7737862	21	—	—
448567 2010 RB_{174}	17.1	X	348.45237	14.67365	3.69065	2.18549	0.1297892	0.18420924	3.0591101	21	10 22.8	20.8
448568 2010 SL_{2}	16.4	X	303.56869	109.12681	15.89693	11.24216	0.0963767	0.19052848	2.9910898	21	12 30.2	20.4
448569 2010 SR_{5}	16.5	X	241.61645	200.68059	345.79990	9.67413	0.1040782	0.19610265	2.9341372	21	12 21.5	20.8
448570 2010 SL_{7}	15.9	X	70.92650	247.54739	349.89280	10.03888	0.1863998	0.17607110	3.1526614	21	9 3.9	20.2
448571 2010 SZ_{14}	16.9	X	118.39934	281.66343	40.88551	2.56999	0.0633076	0.20309048	2.8664410	21	—	—
448572 2010 SB_{18}	16.8	X	312.49467	68.63912	4.10226	13.93319	0.1812779	0.18355412	3.0663846	21	10 24.1	20.3
448573 2010 SJ_{24}	16.2	X	358.13455	327.05985	13.86656	9.78474	0.1161603	0.17752406	3.1354358	21	9 20.6	20.0
448574 2010 ST_{40}	16.9	X	123.48881	191.84678	159.64715	4.82104	0.1067972	0.20905734	2.8116361	21	—	—
448575 2010 TA_{9}	17.0	X	95.87712	114.87253	237.04358	1.06519	0.0754429	0.20393268	2.8585437	21	—	—
448576 2010 TH_{12}	17.2	X	111.76078	126.69474	250.15586	4.98862	0.0588888	0.21252841	2.7809385	21	—	—
448577 2010 TG_{17}	16.6	X	339.46420	267.52821	214.84297	14.29640	0.1096510	0.20234693	2.8734588	21	—	—
448578 2010 TC_{18}	16.5	X	0.25794	25.76334	324.09695	8.17694	0.1723228	0.18081045	3.0973268	21	10 4.1	20.0
448579 2010 TD_{18}	17.2	X	54.10630	53.44093	329.88574	9.14761	0.1117413	0.20130998	2.8833178	21	—	—
448580 2010 TV_{19}	16.1	X	30.56081	304.55117	358.47249	11.12060	0.1360202	0.17843264	3.1247828	21	9 23.2	19.8
448581 2010 TE_{22}	17.0	X	93.38498	320.42100	37.54096	2.46810	0.0793662	0.20270853	2.8700405	21	—	—
448582 2010 TG_{28}	17.3	X	112.43791	71.44999	291.36791	2.46728	0.0606603	0.21063798	2.7975526	21	—	—
448583 2010 TQ_{38}	16.3	X	80.55677	86.93988	277.41048	13.44777	0.1652657	0.20438266	2.8543464	21	—	—
448584 2010 TE_{44}	17.1	X	83.10033	139.19147	186.86900	11.79511	0.0594588	0.19449271	2.9503067	21	12 19.7	21.6
448585 2010 TU_{44}	16.6	X	336.93260	195.23120	208.80196	9.30938	0.1048607	0.18217533	3.0818371	21	11 6.6	20.3
448586 2010 TC_{53}	17.0	X	115.26821	268.21682	72.09401	3.13453	0.0736744	0.20349508	2.8626402	21	—	—
448587 2010 TA_{68}	16.7	X	351.38959	193.88824	205.00177	11.91893	0.0499623	0.18777227	3.0202884	21	11 21.6	20.8
448588 2010 TR_{71}	16.7	X	125.97196	42.27493	201.88997	11.38078	0.0473670	0.18329886	3.0692307	21	10 28.2	21.2
448589 2010 TK_{77}	16.7	X	27.35608	71.23244	20.92509	15.13696	0.1224457	0.20584339	2.8408269	21	—	—
448590 2010 TH_{82}	16.3	X	80.48019	156.89499	209.47766	14.58213	0.1438827	0.20384023	2.8594079	21	—	—
448591 2010 TC_{90}	17.2	X	4.62494	316.89663	133.88179	2.82696	0.0295258	0.20359378	2.8617150	21	—	—
448592 2010 TA_{95}	17.3	X	67.51024	225.68355	150.03916	2.67347	0.0792784	0.20166898	2.8798950	21	—	—
448593 2010 TU_{96}	16.7	X	90.96264	289.15187	65.68426	3.04318	0.0778081	0.20292311	2.8680169	21	—	—
448594 2010 TH_{99}	17.0	X	26.15191	177.79027	145.23209	1.59859	0.1890532	0.18116624	3.0932702	21	10 20.9	20.7
448595 2010 TR_{101}	16.8	X	92.99671	290.08360	32.91742	9.43246	0.1855887	0.19830873	2.9123361	21	—	—
448596 2010 TW_{114}	16.0	X	349.49436	357.36435	14.91827	17.86733	0.2084206	0.17700500	3.1415624	21	10 16.2	19.2
448597 2010 TU_{124}	16.9	X	48.88228	286.92568	66.48396	6.47168	0.1721410	0.19179509	2.9779065	21	12 27.5	21.1
448598 2010 TT_{143}	17.3	X	303.43454	130.77389	327.66619	4.50256	0.1182791	0.18362791	3.0655631	21	11 20.8	21.2
448599 2010 TZ_{145}	15.9	X	57.78609	291.77138	21.86880	16.10609	0.1639399	0.18288196	3.0738934	21	11 13.3	20.3
448600 2010 TH_{146}	16.4	X	334.19887	57.19645	16.56969	11.29592	0.0304162	0.18719943	3.0264468	21	12 8.1	20.7
448601 2010 TM_{156}	16.3	X	279.28664	263.49404	212.14337	11.36793	0.1256405	0.18305793	3.0719232	21	11 7.8	20.3
448602 2010 TQ_{168}	18.3	X	72.32207	10.62310	16.06243	19.67738	0.0914304	0.38589218	1.8684955	21	—	—
448603 2010 TN_{180}	16.7	X	69.35145	173.48151	214.32488	7.49902	0.1282277	0.20385931	2.8592295	21	—	—
448604 2010 UX_{9}	16.7	X	17.50927	194.54392	215.64582	8.14536	0.1609495	0.19131250	2.9829123	21	—	—
448605 2010 UK_{14}	17.7	X	7.35612	130.63513	295.40895	1.04976	0.0687682	0.19463999	2.9488182	21	—	—
448606 2010 UG_{25}	15.6	X	50.38572	305.99058	62.25710	13.89836	0.2854961	0.18981121	2.9986203	21	—	—
448607 2010 UA_{31}	16.6	X	63.40038	91.05786	235.23169	11.09710	0.1434589	0.18570738	3.0426356	21	12 6.8	21.0
448608 2010 UT_{34}	16.4	X	63.74633	12.48476	348.48800	6.18143	0.1763722	0.19411845	2.9540976	21	—	—
448609 2010 UE_{36}	16.4	X	14.63012	109.73164	266.45116	10.61355	0.1517456	0.18012391	3.1051921	21	12 3.6	20.1
448610 2010 UT_{36}	16.3	X	31.37287	125.39233	263.08671	9.43551	0.0834589	0.18563385	3.0434390	21	—	—
448611 2010 UG_{45}	17.0	X	17.11219	51.63543	322.43604	5.29838	0.1391024	0.18403796	3.0610078	21	12 3.4	20.8
448612 2010 UH_{47}	16.4	X	296.81656	209.02040	229.81475	8.97677	0.0567106	0.17861894	3.1226098	21	10 23.2	20.5
448613 2010 UX_{52}	16.4	X	333.37005	70.64253	300.97914	3.74847	0.1919237	0.17185101	3.2040650	21	9 10.9	20.0
448614 2010 UL_{53}	16.0	X	272.26345	207.70232	248.80217	7.64844	0.0507028	0.17461232	3.1701961	21	10 11.7	20.6
448615 2010 UK_{57}	16.7	X	358.46812	17.86841	17.05667	4.89648	0.0180435	0.17856485	3.1232403	21	11 20.5	21.1
448616 2010 UW_{58}	15.5	X	334.06064	157.10719	251.56689	7.86648	0.0509462	0.17551630	3.1593015	21	11 5.5	19.7
448617 2010 UB_{63}	15.6	X	336.50630	353.60660	31.12444	12.01603	0.0597385	0.17351532	3.1835438	21	10 12.5	19.8
448618 2010 UN_{67}	17.1	X	320.53482	52.06859	51.36545	8.22945	0.1557389	0.18448071	3.0561083	21	12 24.6	20.5
448619 2010 UL_{70}	15.8	X	318.09135	224.39263	224.64614	14.50210	0.2469812	0.18084191	3.0969676	21	11 24.6	18.7
448620 2010 UF_{71}	16.1	X	11.99056	10.71212	44.46052	11.79508	0.0737325	0.18926533	3.0043833	21	—	—
448621 2010 UN_{75}	15.8	X	78.62752	268.93712	30.16851	15.17622	0.0317044	0.17722111	3.1390079	21	11 3.9	20.2
448622 2010 UE_{78}	16.4	X	32.41175	55.19702	276.01852	8.90622	0.1113210	0.17816447	3.1279176	21	10 25.6	20.6
448623 2010 UJ_{88}	15.9	X	302.99973	20.01418	31.26001	16.30116	0.1678477	0.16953511	3.2331781	21	9 20.6	20.1
448624 2010 UY_{89}	16.8	X	49.10145	256.89856	203.83855	12.45156	0.1804281	0.21033709	2.8002199	21	1 18.7	19.9
448625 2010 UE_{91}	16.1	X	348.13779	139.92933	232.57853	8.55524	0.0875263	0.17500615	3.1654382	21	10 10.4	20.2
448626 2010 UZ_{94}	16.5	X	335.95438	349.35553	74.29777	6.42032	0.2481119	0.18209402	3.0827544	21	12 1.5	19.4
448627 2010 UP_{101}	16.2	X	41.29717	295.27872	32.02615	10.77154	0.0772063	0.18068063	3.0988103	21	10 31.2	20.4
448628 2010 VF_{1}	20.4	X	162.30997	334.28725	216.35826	22.14063	0.6532067	0.71018948	1.2441896	21	10 20.7	22.3
448629 2010 VH_{16}	16.2	X	283.74445	132.47203	6.25285	11.93163	0.0814613	0.18903797	3.0067918	21	12 18.3	20.4
448630 2010 VB_{19}	17.4	X	80.51859	297.22777	73.46415	23.96192	0.0780957	0.38148241	1.8828673	21	—	—
448631 2010 VR_{22}	16.2	X	26.18753	117.98978	257.72848	3.36467	0.1625186	0.18412014	3.0600970	21	12 22.6	19.9
448632 2010 VR_{28}	15.6	X	337.88229	355.11782	61.96459	17.66510	0.1022789	0.18236343	3.0797175	21	11 24.2	19.2
448633 2010 VT_{37}	16.0	X	326.45442	21.29792	74.63886	13.33067	0.1610234	0.18609128	3.0384495	21	12 25.8	19.3
448634 2010 VF_{46}	15.8	X	115.60401	30.36458	246.06714	18.92275	0.0742587	0.17914866	3.1164513	21	11 24.9	20.4
448635 2010 VP_{52}	16.8	X	327.03053	248.58171	214.29169	8.26542	0.2066940	0.18655339	3.0334298	21	—	—
448636 2010 VD_{57}	17.0	X	46.81213	234.78488	148.17420	2.36850	0.0954698	0.19147916	2.9811811	21	—	—
448637 2010 VG_{65}	16.0	X	279.64633	92.49945	43.64861	12.66925	0.1015393	0.18133339	3.0913692	21	12 4.2	20.1
448638 2010 VG_{70}	16.5	X	33.25384	136.30906	239.49754	9.70889	0.1291580	0.18688443	3.0298465	21	12 27.4	20.6
448639 2010 VZ_{74}	16.2	X	348.42698	35.41696	18.77618	10.30662	0.0881288	0.18220071	3.0815508	21	12 4.2	20.2
448640 2010 VW_{82}	16.0	X	331.35576	60.86575	49.84046	9.33301	0.0836138	0.18938103	3.0031596	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
448641 2010 VD_{83}	15.7	X	81.18014	60.93028	235.26355	17.94547	0.1183304	0.17993671	3.1073454	21	11 16.5	20.2
448642 2010 VK_{84}	15.9	X	50.44910	271.64179	61.13034	17.21268	0.2530432	0.18213537	3.0822878	21	12 12.2	20.3
448643 2010 VH_{85}	16.8	X	302.22394	46.36126	69.77197	4.34687	0.1286595	0.18194518	3.0844355	21	12 11.1	20.6
448644 2010 VU_{87}	16.8	X	339.00053	152.27392	265.66463	3.90043	0.0903986	0.18035680	3.1025184	21	11 26.1	20.6
448645 2010 VV_{95}	16.6	X	52.78708	53.13010	263.42743	2.31222	0.1553121	0.17903631	3.1177549	21	11 12.7	20.8
448646 2010 VO_{96}	16.4	X	51.93061	314.29243	66.27302	1.35884	0.2517809	0.19095872	2.9865954	21	—	—
448647 2010 VP_{101}	17.1	X	343.80920	2.42807	52.87242	1.93296	0.1568124	0.18090698	3.0962249	21	12 2.8	20.4
448648 2010 VA_{102}	16.0	X	77.91312	69.59610	240.90814	9.50787	0.0874267	0.17863532	3.1224189	21	11 25.9	20.5
448649 2010 VK_{103}	17.5	X	344.43390	229.20832	187.37029	1.12436	0.2473765	0.18086985	3.0966486	21	12 11.2	20.5
448650 2010 VD_{104}	16.6	X	347.97168	171.90097	228.70659	3.03656	0.1709736	0.17816661	3.1278927	21	11 21.4	20.1
448651 2010 VW_{106}	16.1	X	74.59259	256.14696	60.11706	11.11568	0.0224199	0.18330954	3.0691115	21	11 21.4	20.5
448652 2010 VK_{110}	16.5	X	105.39249	201.38546	100.56758	5.58492	0.1601188	0.18984556	2.9982586	21	12 22.4	21.1
448653 2010 VM_{112}	16.7	X	19.88759	289.54106	97.43873	3.58693	0.1382250	0.18488067	3.0516991	21	12 24.5	20.4
448654 2010 VG_{119}	17.2	X	349.93618	293.12946	137.98153	1.59799	0.1647641	0.18542042	3.0457740	21	—	—
448655 2010 VD_{130}	15.6	X	300.11438	21.09340	49.33387	22.45637	0.1112885	0.17307331	3.1889618	21	10 19.3	19.9
448656 2010 VX_{131}	16.2	X	91.93072	248.48226	48.97554	10.82061	0.1816610	0.18674583	3.0313455	21	12 5.1	21.0
448657 2010 VA_{132}	16.3	X	68.96718	105.34094	221.99618	14.67387	0.1009515	0.18594930	3.0399960	21	12 8.8	20.8
448658 2010 VV_{147}	16.0	X	357.70803	323.59974	70.48603	12.03852	0.0867133	0.17995841	3.1070956	21	11 24.8	19.8
448659 2010 VG_{152}	16.6	X	35.52140	159.92728	228.44213	7.56634	0.1740986	0.18701133	3.0284758	21	—	—
448660 2010 VM_{152}	16.2	X	262.61604	40.56258	93.41608	12.10220	0.0467806	0.17533151	3.1615209	21	11 20.4	20.7
448661 2010 VL_{163}	16.0	X	26.66334	101.57097	249.79677	16.23559	0.1827308	0.17906896	3.1173759	21	11 24.7	19.8
448662 2010 VB_{165}	16.6	X	340.44806	60.82765	11.15229	5.02929	0.1243541	0.18466198	3.0541080	21	12 18.2	20.3
448663 2010 VB_{170}	15.8	X	248.61091	100.19986	62.05529	17.34968	0.0362557	0.18153336	3.0890985	21	12 5.9	20.1
448664 2010 VW_{177}	15.6	X	303.71467	258.21259	235.39108	20.42275	0.1712133	0.18678496	3.0309221	21	12 30.1	19.4
448665 2010 VO_{178}	16.3	X	33.65249	154.44369	237.64569	4.25671	0.1545888	0.18984801	2.9982328	21	—	—
448666 2010 VU_{178}	16.8	X	37.68289	312.09540	53.78130	4.27403	0.1218964	0.18491774	3.0512913	21	12 20.2	21.0
448667 2010 VP_{179}	16.6	X	36.10641	169.61982	237.08901	10.00468	0.0842273	0.19239468	2.9717163	21	—	—
448668 2010 VH_{181}	15.5	X	304.71927	38.62621	68.85241	18.02489	0.0823856	0.18122080	3.0926493	21	12 7.2	19.5
448669 2010 VO_{184}	16.9	X	93.24334	52.99102	259.13629	1.22015	0.1691933	0.18602946	3.0391227	21	12 23.1	21.5
448670 2010 VT_{190}	16.3	X	26.59238	288.93474	86.33195	12.67054	0.1183629	0.18432592	3.0578190	21	12 16.6	20.2
448671 2010 VL_{192}	16.2	X	341.80509	96.84990	13.61065	12.73998	0.2005956	0.19131516	2.9828846	21	—	—
448672 2010 VN_{193}	16.6	X	86.39957	132.42696	183.21893	11.73191	0.1163291	0.18769817	3.0210832	21	12 16.3	21.3
448673 2010 VJ_{197}	16.2	X	314.87256	10.50370	113.72563	15.69829	0.1649636	0.17415675	3.1757222	21	—	—
448674 2010 VN_{203}	16.2	X	329.81051	165.52103	238.04975	10.01746	0.0510534	0.17976031	3.1093779	21	10 24.6	20.3
448675 2010 VY_{204}	16.2	X	348.28974	11.22015	47.15716	11.42872	0.1162491	0.18402589	3.0611416	21	12 11.9	20.1
448676 2010 VH_{208}	16.8	X	72.02684	81.69984	251.32891	2.02871	0.1170462	0.18904478	3.0067196	21	12 21.5	21.3
448677 2010 VR_{208}	15.7	X	193.91617	298.79242	237.90351	9.12236	0.0739116	0.17828196	3.1265433	21	10 16.7	20.5
448678 2010 VO_{210}	16.6	X	36.78771	151.34493	296.68773	8.19677	0.1033753	0.20491446	2.8494058	21	—	—
448679 2010 VU_{219}	16.3	X	31.63291	141.21723	230.22268	7.95864	0.0107115	0.18455505	3.0552875	21	12 4.8	20.5
448680 2010 WV	16.2	X	295.02621	209.44056	245.67973	9.62487	0.0310951	0.17944073	3.1130687	21	11 13.3	20.4
448681 2010 WF_{4}	16.2	X	99.87176	36.34086	224.59777	9.93584	0.0457076	0.17496464	3.1659389	21	10 15.5	20.8
448682 2010 WV_{9}	16.6	X	43.85937	351.41274	29.59936	7.89693	0.1504611	0.19001350	2.9964917	21	—	—
448683 2010 WB_{13}	16.6	X	58.65665	285.76481	79.62005	7.74493	0.1160402	0.18985022	2.9982096	21	—	—
448684 2010 WY_{31}	16.0	X	205.50464	121.97940	69.85649	11.87607	0.0229880	0.17824782	3.1269425	21	11 23.5	20.4
448685 2010 WH_{33}	17.1	X	95.15901	237.71410	103.31227	2.47332	0.0587375	0.18985927	2.9981142	21	—	—
448686 2010 WP_{36}	16.2	X	48.13234	108.80107	235.44826	9.24939	0.1792128	0.18221658	3.0813719	21	12 14.7	20.5
448687 2010 WB_{37}	15.9	X	51.02319	262.02655	71.54293	22.31049	0.2259575	0.18204057	3.0833578	21	12 10.7	20.3
448688 2010 WH_{41}	15.3	X	26.81262	61.95016	261.79170	14.10193	0.0655619	0.16846043	3.2469139	21	9 27.9	20.0
448689 2010 WN_{47}	16.9	X	290.37456	61.11021	56.44658	2.03623	0.1262816	0.17792880	3.1306791	21	11 24.3	20.7
448690 2010 WM_{58}	17.4	X	326.52152	253.39688	207.25042	1.11991	0.2209165	0.18332350	3.0689557	21	12 31.4	20.5
448691 2010 WC_{64}	15.9	X	17.12554	301.37025	80.87204	12.45802	0.1170788	0.18004817	3.1060629	21	12 10.8	19.9
448692 2010 WP_{71}	15.7	X	254.67000	278.08564	241.61412	14.65275	0.2322194	0.17612613	3.1520047	21	11 13.1	20.2
448693 2010 XO_{2}	16.4	X	57.84635	116.64505	234.79792	4.90039	0.1422579	0.18496944	3.0507227	21	12 29.7	20.8
448694 2010 XP_{8}	16.0	X	206.67094	119.68996	98.51240	15.76372	0.1684632	0.17967864	3.1103201	21	12 12.8	20.9
448695 2010 XQ_{22}	15.6	X	176.52148	128.99116	63.81139	14.11689	0.1039558	0.17018534	3.2249373	21	10 22.9	20.8
448696 2010 XK_{23}	16.6	X	146.68241	191.32375	106.66237	11.52573	0.0656941	0.19003073	2.9963105	21	—	—
448697 2010 XV_{26}	15.5	X	81.16510	28.47369	254.84907	14.24221	0.1093306	0.17187598	3.2037547	21	10 27.2	20.3
448698 2010 XX_{31}	16.5	X	54.13875	233.11614	79.78758	4.52304	0.2262205	0.17745508	3.1362482	21	11 20.5	21.0
448699 2010 XP_{32}	16.6	X	14.07749	78.36895	295.57450	8.61283	0.1351650	0.17860321	3.1227931	21	11 26.6	20.6
448700 2010 XQ_{33}	16.5	X	2.58174	3.48491	76.40401	13.86187	0.1105773	0.18901480	3.0070375	21	—	—
448701 2010 XW_{35}	15.9	X	96.05972	223.88457	81.44230	11.17448	0.0597153	0.17960205	3.1112042	21	12 7.2	20.4
448702 2010 XQ_{44}	15.7	X	316.11234	189.00334	273.75485	14.24420	0.1187629	0.18217237	3.0818704	21	12 17.5	19.4
448703 2010 XB_{47}	16.9	X	320.46989	336.78926	121.80982	2.60942	0.1573171	0.17936435	3.1139524	21	12 16.9	20.4
448704 2010 XK_{50}	16.4	X	63.18852	284.47111	42.72200	1.24084	0.1641590	0.18131465	3.0915821	21	12 9.4	20.9
448705 2010 XP_{57}	16.2	X	299.28810	204.88227	259.08917	9.26463	0.1865293	0.17557583	3.1585874	21	11 11.7	20.1
448706 2010 XQ_{58}	15.7	X	14.66985	291.18046	98.38214	19.59277	0.2574310	0.18242705	3.0790014	21	—	—
448707 2010 XV_{76}	16.7	X	237.98835	304.62021	193.88876	3.72929	0.2168074	0.16716497	3.2636672	21	10 3.3	21.6
448708 2010 XT_{79}	17.4	X	359.67630	286.08385	149.49494	4.80639	0.2986666	0.18773420	3.0206967	21	—	—
448709 2010 XP_{83}	15.9	X	34.79901	137.08130	232.13365	9.34232	0.1427716	0.18070398	3.0985433	21	12 22.2	20.1
448710 2010 XV_{87}	16.9	X	43.11622	254.05053	71.33542	2.26773	0.1807057	0.17713146	3.1400670	21	11 15.2	21.0
448711 2010 YT_{3}	15.6	X	316.73031	17.91985	76.44827	19.36831	0.0530329	0.18154319	3.0889869	21	12 10.2	19.7
448712 2011 AU_{10}	16.0	X	292.18293	344.81463	116.40156	9.93517	0.0566414	0.16832799	3.2486168	21	11 16.3	20.5
448713 2011 AJ_{23}	16.0	X	275.32483	63.91919	117.56378	17.24758	0.1714969	0.17949509	3.1124401	21	—	—
448714 2011 AY_{24}	15.7	X	336.97890	117.37457	291.35657	25.40758	0.2036626	0.17162925	3.2068245	21	11 1.1	19.8
448715 2011 AR_{38}	16.1	X	33.22335	302.74478	96.99958	12.43306	0.1899774	0.18249155	3.0782759	21	—	—
448716 2011 AN_{65}	16.3	X	331.99811	4.18167	121.24112	16.59585	0.1383098	0.18089937	3.0963118	21	—	—
448717 2011 AU_{70}	16.8	X	38.54204	65.98549	304.64055	8.80270	0.1175951	0.17464420	3.1698103	21	12 24.8	21.1
448718 2011 AL_{72}	15.7	X	244.02462	48.82659	118.61329	17.41140	0.0817503	0.17066464	3.2188966	21	12 3.5	20.5
448719 2011 AA_{76}	16.5	X	311.08439	160.14053	306.33168	3.00828	0.2027215	0.17464122	3.1698463	21	12 4.9	19.9
448720 2011 BE_{19}	15.5	X	319.87022	38.14234	59.85803	28.18611	0.1798126	0.17387877	3.1791060	21	12 8.3	19.2

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
448721 2011 BN_{24}	20.9	X	71.91210	61.82409	195.75961	3.93534	0.4121389	0.51364516	1.5441657	21	11 24.1	23.1
448722 2011 BZ_{26}	15.9	X	346.68272	275.34775	135.28494	13.63427	0.2876826	0.17282788	3.1919801	21	12 10.8	19.0
448723 2011 BX_{30}	15.8	X	309.12729	142.09629	321.49910	13.78962	0.1033311	0.17075092	3.2178121	21	12 4.1	20.1
448724 2011 BB_{45}	19.4	X	16.56820	351.29487	304.84351	17.12240	0.3047761	0.51511057	1.5412357	21	11 12.9	20.9
448725 2011 BS_{50}	15.8	X	309.49426	347.65128	138.83735	16.98746	0.1748522	0.17434822	3.1733968	21	12 31.2	19.7
448726 2011 BW_{55}	15.8	X	339.86700	289.63769	136.32824	17.00615	0.2198609	0.17470050	3.1691292	21	12 13.0	19.3
448727 2011 BT_{80}	15.9	X	350.90975	289.19211	121.21113	10.88534	0.2144919	0.17446152	3.1720227	21	12 13.2	19.3
448728 2011 BC_{107}	16.3	X	356.86265	67.34205	345.70471	10.73743	0.1264629	0.17229662	3.1985382	21	12 17.5	20.4
448729 2011 BU_{117}	16.3	X	347.45111	333.66831	89.78508	11.97039	0.1988392	0.17712633	3.1401276	21	12 21.9	19.7
448730 2011 BN_{153}	15.8	X	83.25335	40.39356	268.75320	10.38780	0.0991163	0.18690072	3.0296705	21	12 2.7	20.2
448731 2011 DQ_{24}	17.8	X	353.49718	106.22969	347.56491	18.40316	0.0923978	0.36447258	1.9410027	21	—	—
448732 2011 EJ_{18}	17.0	X	15.45339	293.11693	135.96199	12.55384	0.3231364	0.18253270	3.0778133	21	—	—
448733 2011 EN_{37}	17.9	X	333.85695	67.96027	147.56653	9.07395	0.1872961	0.28624618	2.2802174	21	1 19.8	20.6
448734 2011 EJ_{45}	17.6	X	3.72392	147.77781	72.34179	4.88554	0.0991500	0.29727144	2.2234835	21	4 2.6	19.6
448735 2011 EK_{82}	16.8	X	304.46256	97.55388	9.34218	8.88612	0.2632081	0.16693996	3.2665991	21	11 10.9	20.6
448736 2011 FY_{13}	18.3	X	328.83653	116.90852	155.54565	3.88244	0.2383502	0.29352252	2.2423760	21	3 26.5	20.6
448737 2011 HS_{11}	18.1	X	296.40879	195.48260	82.03266	5.35673	0.1501176	0.28358181	2.2944775	21	3 6.1	21.2
448738 2011 HD_{23}	18.1	X	26.24933	28.25971	285.54647	1.39956	0.1063232	0.32087403	2.1130657	21	10 17.8	20.0
448739 2011 HD_{30}	18.1	X	334.02704	54.58746	220.83253	4.70060	0.1777044	0.29466496	2.2365763	21	4 18.9	20.0
448740 2011 HX_{83}	17.5	X	358.07813	55.64350	222.04919	6.46697	0.1685098	0.30228492	2.1988304	21	6 19.6	18.9
448741 2011 HT_{84}	17.8	X	349.48411	218.34352	51.47019	8.57040	0.1214682	0.29658053	2.2269354	21	5 19.7	19.5
448742 2011 JP_{2}	15.1	X	255.87258	147.64826	12.99021	35.66260	0.3577386	0.16879293	3.2426485	21	10 20.1	20.5
448743 2011 JK_{4}	18.0	X	267.16174	130.26467	139.48820	6.47252	0.1398668	0.27482769	2.3429466	21	1 22.2	21.5
448744 2011 JG_{16}	18.1	X	18.96762	57.19944	203.19805	6.60788	0.1100270	0.30400040	2.1905506	21	7 5.7	20.0
448745 2011 JF_{26}	18.1	X	318.49014	215.29742	83.50177	5.19656	0.1702733	0.29399357	2.2399801	21	5 1.4	20.3
448746 2011 ON_{10}	17.9	X	236.50798	101.29672	215.60163	1.35636	0.1854294	0.26389129	2.4072398	21	2 19.8	21.8
448747 2011 OV_{19}	17.6	X	253.66238	34.15809	280.53920	1.41784	0.2116201	0.26861021	2.3789631	21	3 2.1	21.4
448748 2011 OC_{24}	17.8	X	271.45326	241.79936	52.28024	6.77873	0.1604105	0.27084857	2.3658381	21	3 1.0	21.3
448749 2011 OV_{30}	18.0	X	332.63349	266.56947	343.68751	6.55716	0.1477136	0.27858205	2.3218489	21	3 16.3	20.6
448750 2011 OO_{31}	17.9	X	301.95892	247.91857	18.87968	4.61519	0.2029891	0.27535470	2.3399562	21	2 19.5	21.0
448751 2011 PB_{10}	17.4	X	292.24581	162.22746	133.82504	7.87317	0.2062529	0.27670195	2.3323545	21	3 19.1	20.6
448752 2011 PV_{10}	17.9	X	246.42506	305.87947	53.25202	7.27818	0.1363187	0.27592393	2.3367368	21	4 27.6	21.1
448753 2011 QE_{7}	17.7	X	197.94633	120.76813	274.78787	4.70168	0.1148669	0.27092012	2.3654215	21	4 22.9	21.3
448754 2011 QR_{10}	17.5	X	275.88972	285.96333	329.23654	5.94943	0.0990068	0.25561547	2.4589213	21	1 21.4	21.0
448755 2011 QE_{11}	17.7	X	307.48595	341.14867	326.21685	7.17355	0.1216542	0.27722124	2.3294410	21	5 1.2	20.6
448756 2011 QA_{12}	17.8	X	305.66785	39.83392	202.63000	5.57669	0.2024220	0.26386361	2.4074081	21	1 22.0	21.3
448757 2011 QV_{12}	17.9	X	286.51387	56.08298	239.60741	6.35809	0.2615377	0.27367460	2.3495231	21	2 28.8	21.6
448758 2011 QG_{15}	17.1	X	174.24557	296.22449	338.67511	13.53163	0.1864373	0.23551418	2.5969166	21	—	—
448759 2011 QN_{24}	18.0	X	220.43210	46.48025	310.47521	0.66597	0.1993429	0.26442486	2.4040004	21	3 27.0	21.7
448760 2011 QD_{66}	18.0	X	278.34589	141.32567	149.32371	6.15457	0.2230995	0.26991303	2.3713017	21	2 22.3	21.7
448761 2011 QO_{74}	17.1	X	20.56941	273.22032	287.83201	6.91527	0.0677107	0.26839468	2.3802365	21	4 2.8	19.9
448762 2011 QJ_{85}	17.9	X	166.84031	358.71164	299.92088	3.30084	0.1219259	0.23630161	2.5911443	21	—	—
448763 2011 QL_{91}	17.8	X	203.34279	196.11752	206.55292	2.02566	0.2126636	0.26670880	2.3902563	21	5 8.9	21.7
448764 2011 QP_{97}	15.7	X	72.79174	81.75042	34.55260	28.41117	0.1835190	0.23751299	2.5823264	21	4 4.5	18.9
448765 2011 RQ_{3}	17.8	X	183.48266	143.96826	272.93303	5.56545	0.0994017	0.27044509	2.3681906	21	5 5.9	21.4
448766 2011 RG_{8}	17.7	X	182.13363	127.39309	276.63527	5.58288	0.2354411	0.26313293	2.4118627	21	4 21.2	21.9
448767 2011 RV_{13}	18.2	X	173.53647	116.58980	180.27900	8.96093	0.1623739	0.23861443	2.5743736	21	—	—
448768 2011 SR_{33}	17.2	X	178.54013	326.86710	96.59549	7.67157	0.3827774	0.25754132	2.4466477	21	5 19.4	22.0
448769 2011 SH_{53}	16.9	X	146.75653	308.16373	9.45981	14.43429	0.1160228	0.23113396	2.6296233	21	—	—
448770 2011 SZ_{68}	17.0	X	132.20252	133.02937	166.26018	16.81177	0.3398753	0.22765850	2.6563184	21	—	—
448771 2011 SR_{77}	17.8	X	191.68226	294.78995	354.71432	1.77985	0.2065554	0.24097480	2.5575352	21	—	—
448772 2011 SL_{78}	17.6	X	152.92997	260.32322	190.47852	4.48031	0.2044802	0.26317058	2.4116327	21	5 27.1	21.4
448773 2011 SH_{84}	17.8	X	103.86326	37.07772	17.62666	9.16202	0.1697923	0.23794445	2.5792038	21	2 16.9	21.1
448774 2011 SW_{85}	17.5	X	169.52243	288.37254	39.29967	15.80610	0.1870021	0.23746092	2.5827039	21	1 12.7	21.9
448775 2011 SE_{91}	17.6	X	161.46882	17.13272	302.20183	2.75508	0.2213439	0.23473099	2.6026899	21	—	—
448776 2011 SW_{92}	17.5	X	214.45249	146.43626	215.88111	5.91059	0.1290896	0.26118605	2.4238332	21	3 28.9	21.1
448777 2011 SW_{112}	17.4	X	208.02205	333.59567	50.59086	2.87173	0.1952707	0.26210179	2.4181843	21	4 20.4	21.3
448778 2011 SK_{114}	16.5	X	73.94682	290.12181	74.34547	5.86259	0.1749285	0.22040696	2.7142666	21	—	—
448779 2011 SP_{114}	17.4	X	114.53027	2.65817	42.93326	4.90927	0.3133203	0.23737187	2.5833498	21	3 9.1	21.1
448780 2011 SG_{118}	15.9	X	259.22927	271.59152	346.45799	12.56178	0.1382526	0.24278128	2.5448328	21	1 8.5	20.0
448781 2011 SP_{130}	17.6	X	265.37816	253.11920	51.32608	6.20064	0.1232417	0.25882882	2.4385273	21	3 12.7	21.1
448782 2011 ST_{131}	16.3	X	15.13159	49.68590	37.72018	10.17112	0.0322364	0.22122135	2.7076011	21	—	—
448783 2011 SQ_{141}	17.3	X	105.72940	156.82669	174.52095	2.27526	0.1013446	0.22063137	2.7124259	21	—	—
448784 2011 SW_{143}	17.9	X	204.75207	242.85615	51.11869	2.23721	0.1839528	0.24122982	2.5557324	21	—	—
448785 2011 SN_{149}	17.8	X	216.93400	166.74957	173.62039	7.40407	0.1458199	0.25727868	2.4483125	21	3 4.7	21.7
448786 2011 SG_{162}	16.4	X	19.11675	212.14528	217.58521	7.20009	0.1591859	0.21865832	2.7287184	21	—	—
448787 2011 SK_{162}	17.6	X	130.23753	109.33370	222.91263	11.06162	0.2363584	0.23050372	2.6344144	21	—	—
448788 2011 SJ_{165}	18.1	X	101.95807	230.39741	188.81074	5.78570	0.2409934	0.23755735	2.5820049	21	2 25.9	21.3
448789 2011 SV_{168}	16.7	X	85.84308	214.16145	199.89789	21.68141	0.0440791	0.23502932	2.6004870	21	—	—
448790 2011 SX_{168}	17.0	X	40.20395	199.96760	205.25962	4.90599	0.1189750	0.21935742	2.7229176	21	—	—
448791 2011 SW_{182}	16.9	X	118.09087	345.55562	5.70509	5.78892	0.0495302	0.22591918	2.6699348	21	—	—
448792 2011 SW_{187}	17.5	X	318.92387	14.82919	263.54406	3.51917	0.1674936	0.27061197	2.3672169	21	4 1.2	20.3
448793 2011 SL_{212}	16.9	X	229.76012	164.68727	193.45546	13.34098	0.1465737	0.26233688	2.4167394	21	4 8.8	20.5
448794 2011 SM_{215}	17.5	X	96.01601	26.88665	27.83002	14.74406	0.2646175	0.23289728	2.6163335	21	2 25.6	21.0
448795 2011 SM_{227}	17.4	X	52.39792	143.62072	283.56636	4.38248	0.0544126	0.22879199	2.6475378	21	—	—
448796 2011 SM_{235}	17.5	X	100.44932	57.49946	349.15603	4.88637	0.2485199	0.23469281	2.6029722	21	2 11.7	20.7
448797 2011 SV_{238}	17.7	X	210.29031	16.64395	340.75668	0.67921	0.2000956	0.25947861	2.4344546	21	3 19.6	21.6
448798 2011 SF_{249}	16.1	X	133.70221	310.94974	36.28160	32.57951	0.2875161	0.23080600	2.6321137	21	1 16.9	20.8
448799 2011 SX_{259}	17.6	X	179.98262	115.94078	213.58085	6.02695	0.1294968	0.23905038	2.5712428	21	1 16.6	21.5
448800 2011 SA_{261}	17.3	X	31.96881	72.18775	36.06437	12.80333	0.2330820	0.22632363	2.6667529	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
448801 2011 SW_{272}	17.5	X	170.25027	177.03529	138.41068	9.76912	0.1638333	0.23927881	2.5696061	21	—	—
448802 2011 SK_{273}	17.2	X	300.32219	160.05899	132.99650	7.30826	0.2205409	0.27230768	2.3573792	21	3 23.2	20.4
448803 2011 SU_{273}	17.2	X	82.41776	252.26055	102.70241	5.61659	0.1519751	0.22099710	2.7094325	21	—	—
448804 2011 TF_{2}	17.1	X	130.57088	141.01637	224.43221	33.12636	0.3153166	0.23618305	2.5920114	21	1 21.8	21.8
448805 2011 TG_{6}	16.7	X	222.33241	256.54511	76.13755	8.53201	0.2131088	0.25875215	2.4390090	21	3 3.8	20.9
448806 2011 TH_{16}	17.0	X	129.65943	282.13530	46.05171	13.18116	0.2903921	0.23110449	2.6298469	21	—	—
448807 2011 TB_{17}	17.9	X	208.16395	308.91304	33.41827	1.68376	0.2024713	0.25610693	2.4557746	21	2 28.7	21.9
448808 2011 UD_{7}	17.7	X	48.06723	238.93324	216.76218	3.90820	0.2188785	0.22687254	2.6624498	21	1 7.7	19.9
448809 2011 UK_{7}	16.9	X	222.45702	209.65396	45.11705	9.41047	0.0724926	0.22516101	2.6759249	21	—	—
448810 2011 UO_{7}	18.0	X	165.25347	188.92467	161.28681	0.52290	0.2728146	0.24142023	2.5543884	21	2 8.1	22.2
448811 2011 UT_{9}	17.3	X	45.89878	50.29809	49.14034	4.01203	0.0951218	0.22912736	2.6449537	21	1 5.8	20.4
448812 2011 UZ_{9}	17.5	X	101.94546	227.16362	206.76925	4.00227	0.1888827	0.23817038	2.5775725	21	3 9.2	20.7
448813 2011 UJ_{12}	17.1	X	175.75248	296.41986	107.77378	2.46833	0.1753595	0.25718340	2.4489172	21	4 17.8	20.9
448814 2011 UO_{16}	17.6	X	170.38987	310.92494	35.82345	12.24242	0.2004000	0.24040605	2.5615674	21	2 8.7	21.9
448815 2011 UQ_{16}	17.6	X	121.53005	195.36819	203.70633	0.75509	0.1772393	0.23654216	2.5893873	21	2 16.3	21.0
448816 2011 UT_{16}	16.1	X	175.00479	307.47872	227.09611	9.64280	0.0196978	0.18592205	3.0402930	21	9 25.2	20.5
448817 2011 UD_{18}	18.7	X	113.71257	35.51654	9.85652	1.21667	0.3177893	0.23768814	2.5810577	21	3 6.5	22.5
448818 2011 UU_{20}	17.9	X	128.10895	137.20588	355.14012	21.99088	0.5280917	0.25237002	2.4799574	21	7 23.8	23.3
448819 2011 UK_{24}	17.1	X	122.37453	158.25048	222.00333	12.46488	0.1819130	0.23449108	2.6044648	21	1 22.0	20.9
448820 2011 UZ_{26}	18.3	X	142.99482	337.40241	62.27935	3.04903	0.2022581	0.24418440	2.5350747	21	3 15.9	22.2
448821 2011 UT_{28}	17.5	X	48.47739	127.91952	327.31341	3.84748	0.1531894	0.22833333	2.6510821	21	1 6.2	20.0
448822 2011 UJ_{29}	17.0	X	85.78011	12.29171	1.80587	4.75553	0.1259405	0.22052450	2.7133021	21	—	—
448823 2011 UV_{30}	17.4	X	147.98153	166.14542	215.87947	3.65100	0.1437390	0.23981196	2.5657962	21	2 18.5	21.2
448824 2011 UT_{43}	16.4	X	155.77430	4.70562	232.37682	9.36604	0.0399666	0.20629026	2.8367228	21	11 24.4	20.4
448825 2011 US_{50}	17.3	X	162.83811	295.54111	48.09359	14.81668	0.1908438	0.23758585	2.5817984	21	1 27.9	21.6
448826 2011 UR_{54}	16.8	X	206.55766	270.85494	45.34523	11.06003	0.2043675	0.24137612	2.5546996	21	2 1.1	21.3
448827 2011 UE_{56}	16.9	X	78.29595	346.42582	36.96094	6.37743	0.0520158	0.21908687	2.7251588	21	—	—
448828 2011 UL_{56}	16.6	X	60.25526	211.51574	239.87748	8.43999	0.0250779	0.23238287	2.6201931	21	1 10.9	20.1
448829 2011 UT_{59}	18.3	X	170.57057	125.84398	230.44094	10.67034	0.3318897	0.24483243	2.5305995	21	2 17.8	23.1
448830 2011 UA_{66}	17.4	X	260.79162	58.15751	183.99661	10.73137	0.0913883	0.23712566	2.5851377	21	—	—
448831 2011 UF_{72}	17.5	X	77.41775	74.34024	355.93290	3.96083	0.1753981	0.23275011	2.6174363	21	1 26.9	20.2
448832 2011 UH_{73}	17.4	X	79.51905	32.99485	52.78844	5.26851	0.1934258	0.23378573	2.6097008	21	2 25.3	20.3
448833 2011 UK_{73}	17.6	X	130.57286	238.20313	148.14691	0.92178	0.1923833	0.23673705	2.5879660	21	2 12.8	21.3
448834 2011 UP_{73}	17.2	X	151.83852	322.53032	47.47255	5.33142	0.1974668	0.23960448	2.5672771	21	2 16.9	21.2
448835 2011 US_{73}	16.6	X	252.86008	353.36419	221.56850	11.59702	0.0704539	0.21985216	2.7188311	21	—	—
448836 2011 UU_{76}	17.1	X	73.57821	94.69434	308.96278	2.88959	0.1535753	0.22504843	2.6768172	21	—	—
448837 2011 UA_{81}	17.2	X	33.48040	77.75112	47.02413	5.19868	0.1533527	0.23025512	2.6363103	21	1 19.1	19.8
448838 2011 UU_{81}	17.6	X	103.39122	230.47001	189.67422	2.49257	0.1984889	0.23590194	2.5940701	21	2 23.5	20.9
448839 2011 UN_{83}	17.5	X	74.87789	95.51413	22.14687	5.03721	0.2079065	0.23828901	2.5767169	21	4 2.3	20.3
448840 2011 UE_{86}	17.3	X	88.90063	241.87273	189.10972	12.05069	0.1486698	0.23638506	2.5905344	21	2 6.6	20.5
448841 2011 UH_{90}	17.0	X	59.84842	44.84756	53.60260	12.49289	0.0891998	0.23306821	2.6150542	21	1 29.1	20.3
448842 2011 UH_{95}	17.7	X	32.68534	338.30379	144.91259	0.51463	0.1195040	0.23526890	2.5987212	21	1 13.3	20.5
448843 2011 UT_{98}	16.7	X	7.08780	64.27576	359.39697	7.34819	0.2213197	0.20995391	2.8036259	21	—	—
448844 2011 US_{100}	17.6	X	164.22706	141.20579	188.38618	7.01987	0.1907145	0.23769685	2.5809946	21	1 7.2	21.7
448845 2011 UV_{101}	16.8	X	172.57435	157.96665	211.50489	15.03905	0.1237011	0.24366708	2.5386615	21	2 22.8	21.0
448846 2011 UX_{103}	16.9	X	51.65922	52.40575	30.18633	9.90060	0.0682870	0.22735168	2.6587078	21	—	—
448847 2011 UM_{107}	17.4	X	103.84700	152.73752	243.25551	1.84337	0.2650008	0.23319473	2.6141082	21	2 3.5	20.7
448848 2011 UF_{118}	16.8	X	90.20111	81.86192	339.72572	21.97136	0.0455553	0.23685619	2.5870980	21	1 23.2	20.4
448849 2011 UC_{122}	18.0	X	98.47386	225.48555	197.90860	3.77935	0.1552813	0.23812753	2.5778817	21	2 13.1	21.2
448850 2011 UB_{126}	17.1	X	75.26960	105.83359	356.50335	6.79215	0.0838240	0.23938029	2.5688798	21	2 23.1	20.2
448851 2011 US_{126}	16.4	X	244.01627	200.00443	30.98249	9.41727	0.1222899	0.22298536	2.6933026	21	—	—
448852 2011 UM_{127}	16.7	X	3.13146	32.98871	70.14888	9.04809	0.1883289	0.21529672	2.7570488	21	—	—
448853 2011 UO_{128}	17.2	X	181.68337	297.23359	26.95268	8.79241	0.1776492	0.23771700	2.5808488	21	1 18.7	21.4
448854 2011 UB_{133}	16.6	X	121.95057	1.11673	32.74499	13.20617	0.1557276	0.23641008	2.5903517	21	2 13.9	20.4
448855 2011 UJ_{136}	17.2	X	89.70788	76.99670	324.02515	2.51513	0.1194491	0.22833393	2.6510775	21	—	—
448856 2011 UG_{137}	16.9	X	241.86537	327.51194	258.94215	3.82839	0.0520498	0.22108345	2.7087269	21	—	—
448857 2011 UO_{139}	16.6	X	19.62308	23.93826	47.81786	13.70254	0.1011326	0.21375236	2.7703126	21	—	—
448858 2011 UK_{144}	16.8	X	34.46243	65.88413	22.27123	8.95761	0.0977473	0.22116833	2.7080339	21	—	—
448859 2011 UL_{146}	17.4	X	134.07363	55.68847	351.89738	1.57190	0.1151561	0.23939030	2.5688082	21	3 5.5	21.0
448860 2011 UF_{147}	16.6	X	43.97957	7.76954	37.99705	9.54370	0.2263841	0.21551917	2.7551513	21	—	—
448861 2011 UJ_{150}	17.7	X	134.52908	138.40513	214.31781	4.86583	0.0326993	0.23446297	2.6046730	21	—	—
448862 2011 UT_{152}	18.0	X	109.95735	224.82078	185.31230	1.83598	0.2490473	0.23381827	2.6094586	21	2 26.9	21.4
448863 2011 UH_{156}	17.1	X	142.23141	275.19575	65.62094	13.20281	0.2889486	0.23150674	2.6267997	21	1 12.9	21.4
448864 2011 UQ_{161}	16.9	X	127.96893	11.96629	23.03788	5.83053	0.2539310	0.23731514	2.5837615	21	3 2.4	20.7
448865 2011 UY_{161}	17.6	X	102.73882	73.78227	24.42286	3.23354	0.1904095	0.24150870	2.5537646	21	4 12.6	21.0
448866 2011 UT_{166}	17.2	X	122.53264	353.63530	68.95213	3.66386	0.2054793	0.24003506	2.5642061	21	3 24.8	20.9
448867 2011 UQ_{179}	17.3	X	182.86049	298.28745	36.93433	15.34043	0.2810555	0.24122841	2.5557424	21	2 10.7	22.1
448868 2011 UZ_{179}	17.3	X	97.15669	109.36572	303.88666	1.76175	0.0994901	0.23045284	2.6348022	21	1 23.5	20.6
448869 2011 UT_{182}	16.6	X	248.35053	280.97228	24.72277	9.19838	0.1197458	0.24640273	2.5198366	21	2 27.1	20.4
448870 2011 UB_{183}	16.6	X	98.32474	332.18387	39.23501	10.75489	0.1008380	0.22082391	2.7108490	21	—	—
448871 2011 UM_{185}	17.3	X	141.58341	233.40248	124.54312	6.42526	0.1712770	0.23486637	2.6016897	21	1 18.3	20.9
448872 2011 UQ_{199}	17.7	X	157.44385	347.10313	2.07927	3.74536	0.2186756	0.23486765	2.6016802	21	1 29.3	21.8
448873 2011 UG_{204}	18.0	X	106.41133	257.76073	200.07810	3.84501	0.1618390	0.24263775	2.5458363	21	4 12.5	21.4
448874 2011 UT_{204}	18.3	X	89.39481	258.76691	171.43835	1.61114	0.1234763	0.23212519	2.6221319	21	2 6.3	21.3
448875 2011 UE_{206}	17.7	X	153.32153	281.90331	83.36560	5.99492	0.1498341	0.24228578	2.5483012	21	2 6.8	21.4
448876 2011 UR_{221}	17.0	X	60.77284	319.89959	40.06956	4.65098	0.0881744	0.21366111	2.7711012	21	—	—
448877 2011 UY_{238}	17.9	X	122.84316	34.35208	45.96565	15.61954	0.0898215	0.24584550	2.5236427	21	4 5.4	21.5
448878 2011 UH_{239}	17.5	X	71.63283	24.08448	21.30068	1.00295	0.1025829	0.22288625	2.6941010	21	—	—
448879 2011 UZ_{239}	17.0	X	8.44521	232.09988	232.42157	8.88073	0.1524477	0.21748849	2.7384944	21	—	—
448880 2011 UN_{240}	16.9	X	215.78607	245.78959	33.96768	8.34128	0.1089293	0.23098445	2.6307579	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
448881 2011 UE_{242}	17.6	X	161.37875	290.64951	30.36747	1.37725	0.2928884	0.23271766	2.6176796	21	1 4.9	22.1
448882 2011 UH_{250}	17.9	X	116.12914	208.36410	208.63636	3.74427	0.1758789	0.23704506	2.5857237	21	3 3.4	21.5
448883 2011 UL_{250}	17.3	X	160.46076	147.59789	216.76947	6.70550	0.2123766	0.23936642	2.5689791	21	2 14.4	21.6
448884 2011 UW_{252}	16.8	X	201.72801	61.40031	198.56525	4.69222	0.0849227	0.21718928	2.7410090	21	—	—
448885 2011 UF_{266}	17.0	X	209.72320	267.53592	65.59329	5.60451	0.1549557	0.24400667	2.5363056	21	2 21.9	21.1
448886 2011 UB_{267}	17.3	X	80.81957	148.40069	229.53650	10.04865	0.0311606	0.22197767	2.7014474	21	—	—
448887 2011 UW_{267}	16.7	X	59.72183	8.79425	85.77290	6.15066	0.1785810	0.23115989	2.6294267	21	1 29.2	19.2
448888 2011 UH_{269}	17.8	X	128.26023	133.13691	266.43166	3.00590	0.1949149	0.23644021	2.5901316	21	2 25.7	21.5
448889 2011 UQ_{269}	17.7	X	161.14295	333.63553	24.00442	4.46025	0.1843783	0.23885019	2.5726793	21	2 8.9	21.7
448890 2011 UV_{277}	16.8	X	299.84240	281.99703	260.40055	3.81498	0.0497581	0.22056783	2.7129467	21	—	—
448891 2011 UV_{286}	17.5	X	104.84483	62.77382	359.61559	6.71401	0.0778053	0.23948660	2.5681195	21	2 12.1	20.8
448892 2011 UE_{287}	16.8	X	97.26334	98.74343	263.14628	4.83047	0.0140209	0.22157965	2.7046815	21	—	—
448893 2011 UJ_{293}	17.4	X	170.46911	278.27130	74.85947	4.58434	0.2293409	0.24087587	2.5582355	21	2 14.8	21.7
448894 2011 UY_{293}	17.3	X	28.65820	239.80081	192.11841	4.11636	0.0505008	0.21590127	2.7518996	21	—	—
448895 2011 UZ_{293}	17.0	X	179.14773	236.36515	69.86251	12.39448	0.1541878	0.22797720	2.6538423	21	—	—
448896 2011 US_{295}	16.4	X	285.89092	116.94350	36.94809	17.04639	0.1355861	0.21138279	2.7909773	21	—	—
448897 2011 UV_{295}	16.8	X	89.09329	195.71795	218.13745	10.33760	0.0428965	0.23253238	2.6190699	21	1 3.4	20.4
448898 2011 UN_{298}	18.0	X	79.24910	78.01918	9.10803	5.81938	0.2410195	0.23320821	2.6140075	21	3 5.3	20.8
448899 2011 UV_{298}	17.6	X	69.00912	174.75538	294.10986	3.28340	0.0928117	0.23813874	2.5778007	21	2 20.8	20.6
448900 2011 UM_{299}	17.3	X	153.27699	271.43757	60.24451	5.91465	0.1523034	0.22994413	2.6386867	21	—	—
448901 2011 UJ_{300}	16.7	X	63.90091	339.10520	70.76696	7.82036	0.0266898	0.22061475	2.7125620	21	—	—
448902 2011 UT_{300}	17.3	X	154.20643	358.21937	349.87113	9.69238	0.2119616	0.23652104	2.5895414	21	1 25.8	21.5
448903 2011 UH_{315}	16.6	X	327.38069	323.78061	209.08313	12.62049	0.1178213	0.22633080	2.6666966	21	—	—
448904 2011 UO_{317}	16.8	X	98.10898	4.90405	51.45176	4.76355	0.0163760	0.23178897	2.6246670	21	1 18.2	20.2
448905 2011 UH_{318}	18.3	X	80.94329	102.92490	349.94155	1.74258	0.1673114	0.23722132	2.5844427	21	3 1.8	21.1
448906 2011 UT_{318}	17.4	X	308.64415	116.48118	66.75146	5.15392	0.0235245	0.22445143	2.6815617	21	—	—
448907 2011 UB_{322}	17.0	X	16.42959	267.92477	184.82810	8.11366	0.2058765	0.21723744	2.7406039	21	—	—
448908 2011 UQ_{326}	17.6	X	139.38068	316.98682	95.76544	2.29437	0.0995362	0.24549344	2.5260549	21	3 16.7	21.2
448909 2011 UN_{331}	18.3	X	93.76241	80.05422	331.86780	5.60332	0.2994988	0.23125771	2.6286851	21	2 17.1	21.3
448910 2011 UP_{334}	18.4	X	93.62888	95.00770	310.81901	4.75483	0.3095647	0.23387696	2.6090221	21	2 9.4	21.4
448911 2011 UN_{339}	17.5	X	129.35983	217.04398	194.03338	14.78227	0.1118301	0.24318811	2.5419939	21	2 28.3	21.1
448912 2011 UY_{342}	17.1	X	129.09353	128.14519	230.85616	17.52132	0.2188123	0.23045714	2.6347693	21	1 8.8	21.2
448913 2011 UK_{364}	16.1	X	334.62217	118.27866	37.99953	26.74989	0.0218438	0.23051293	2.6343442	21	—	—
448914 2011 UP_{365}	17.9	X	132.10081	258.68820	108.72865	1.60632	0.1254848	0.23552805	2.5968147	21	1 13.3	21.4
448915 2011 UM_{368}	17.1	X	169.11343	216.02625	58.22893	7.26538	0.0191615	0.21518215	2.7580273	21	—	—
448916 2011 UV_{378}	17.7	X	204.01217	200.60922	169.63281	6.76487	0.1423983	0.25606532	2.4560406	21	3 31.6	21.5
448917 2011 UD_{379}	17.4	X	59.81032	197.98054	271.50840	4.24620	0.2337477	0.23083755	2.6318739	21	2 23.3	19.9
448918 2011 UU_{379}	17.7	X	87.10065	147.02797	235.64925	0.61212	0.1960358	0.22150709	2.7052722	21	—	—
448919 2011 UO_{382}	17.2	X	168.67060	318.13566	40.87704	5.79685	0.2393921	0.24091982	2.5579243	21	2 21.8	21.5
448920 2011 UT_{386}	17.0	X	178.78172	265.26878	140.14846	8.19821	0.0959389	0.25522896	2.4614031	21	4 21.4	20.7
448921 2011 UZ_{387}	17.2	X	87.19766	283.33785	174.34447	8.75748	0.1266082	0.23968322	2.5667149	21	3 10.9	20.2
448922 2011 UR_{394}	18.0	X	173.39531	24.77989	339.08560	1.72255	0.1342742	0.24615704	2.5215130	21	2 21.9	21.8
448923 2011 UH_{397}	17.3	X	97.06980	31.13596	50.95941	12.24866	0.1595526	0.24319147	2.5419704	21	3 16.3	20.6
448924 2011 UJ_{397}	16.8	X	4.16553	191.69205	277.91780	3.96735	0.1297320	0.22312523	2.6921769	21	—	—
448925 2011 UL_{407}	17.2	X	174.23224	56.10864	304.90903	10.93792	0.1181210	0.24475225	2.5311522	21	2 15.7	21.0
448926 2011 VG_{3}	16.6	X	51.90862	185.33744	298.42125	10.99366	0.0621386	0.23961792	2.5671812	21	2 10.1	19.7
448927 2011 VG_{4}	17.2	X	75.57653	84.25648	14.20721	12.77852	0.2369295	0.23507277	2.6001665	21	3 15.7	20.0
448928 2011 VQ_{6}	16.8	X	147.31253	222.38445	80.34677	15.43976	0.3169453	0.22644612	2.6657912	21	—	—
448929 2011 VC_{8}	17.1	X	50.90805	313.85381	104.45066	8.81930	0.1683186	0.22021673	2.7158296	21	—	—
448930 2011 VH_{11}	16.9	X	90.55154	124.43208	230.80749	16.68548	0.1166894	0.21787946	2.7352175	21	—	—
448931 2011 VN_{16}	16.9	X	165.08342	102.70376	252.88500	11.40041	0.1873075	0.23832784	2.5764370	21	2 4.3	21.2
448932 2011 VS_{17}	16.3	X	104.30132	323.27634	80.99441	12.46695	0.1826575	0.23281951	2.6169162	21	2 6.2	19.8
448933 2011 VL_{18}	18.0	X	184.31814	308.92227	60.78409	9.69409	0.2316990	0.25169046	2.4844192	21	3 19.9	22.4
448934 2011 WN_{1}	16.7	X	24.08233	33.25281	66.96766	8.59016	0.0786673	0.21941682	2.7224262	21	—	—
448935 2011 WC_{2}	16.7	X	219.02806	86.35402	242.48335	12.20373	0.1691609	0.24400641	2.5363074	21	2 16.9	21.1
448936 2011 WD_{4}	16.4	X	104.88870	309.95755	70.10734	14.75501	0.2868594	0.22731451	2.6589976	21	1 22.9	20.0
448937 2011 WC_{9}	17.3	X	30.76359	90.43809	41.02016	3.45097	0.0836783	0.23202749	2.6228679	21	1 24.4	20.4
448938 2011 WT_{9}	17.3	X	151.78200	303.28654	56.00902	4.06061	0.1090628	0.23428583	2.6059858	21	1 25.1	21.1
448939 2011 WY_{15}	16.1	X	67.21685	252.28834	239.44683	16.12529	0.1654235	0.23740040	2.5831428	21	3 26.9	19.4
448940 2011 WE_{16}	16.8	X	152.14309	254.14458	150.30803	2.65041	0.1916301	0.24349724	2.5398419	21	3 28.9	20.6
448941 2011 WM_{17}	17.3	X	64.06973	29.31245	65.55319	4.86992	0.1475090	0.22891771	2.6465684	21	2 4.7	20.2
448942 2011 WL_{31}	16.4	X	171.92991	32.67514	284.36828	12.22630	0.1787835	0.22865962	2.6485595	21	1 1.0	20.5
448943 2011 WL_{32}	16.3	X	156.61664	217.23896	63.02371	10.54184	0.1424791	0.21518489	2.7580038	21	—	—
448944 2011 WJ_{34}	17.1	X	142.90323	65.28421	243.14384	4.62727	0.0651967	0.21628969	2.7486040	21	—	—
448945 2011 WJ_{43}	16.9	X	151.29184	167.02280	224.69834	2.10931	0.1468350	0.24024099	2.5627406	21	3 6.9	20.8
448946 2011 WR_{43}	16.7	X	187.91142	130.41090	231.04923	5.35402	0.1286297	0.24344572	2.5402002	21	3 2.7	20.7
448947 2011 WL_{52}	17.4	X	46.75816	15.54145	35.47972	1.33384	0.0665419	0.21448805	2.7639741	21	—	—
448948 2011 WN_{56}	17.4	X	100.54986	19.63810	68.99651	18.55138	0.1343043	0.23981637	2.5657647	21	3 30.9	21.1
448949 2011 WG_{62}	16.3	X	310.96556	13.02464	79.02999	12.22737	0.0619801	0.19768459	2.9184629	21	12 3.1	19.9
448950 2011 WC_{66}	16.4	X	176.76233	274.98141	77.31040	15.45177	0.1753752	0.23534811	2.5981382	21	2 20.9	20.8
448951 2011 WT_{66}	17.1	X	133.14101	339.52150	80.78957	11.85249	0.1042285	0.24343011	2.5403088	21	3 25.7	20.8
448952 2011 WZ_{71}	17.8	X	48.05418	64.40004	20.37426	3.10325	0.1549503	0.22178394	2.7030204	21	—	—
448953 2011 WE_{72}	17.2	X	153.41614	2.25417	40.14287	5.10168	0.1254526	0.24242329	2.5473375	21	3 23.1	20.9
448954 2011 WF_{73}	16.4	X	310.97289	261.75451	253.52045	8.23355	0.0509659	0.21578551	2.7528837	21	—	—
448955 2011 WU_{82}	16.6	X	256.30601	198.21285	71.08709	16.53659	0.0830495	0.23535451	2.5980910	21	1 24.1	20.6
448956 2011 WB_{84}	17.3	X	347.34156	59.81102	82.05941	10.04768	0.1050900	0.21941060	2.7224775	21	—	—
448957 2011 WL_{88}	17.3	X	54.57083	173.25019	251.55491	2.22011	0.0891154	0.21880575	2.7274925	21	—	—
448958 2011 WF_{91}	16.6	X	357.01726	105.66461	68.72043	13.63424	0.1704818	0.22232380	2.6986428	21	1 22.1	19.8
448959 2011 WN_{97}	16.9	X	180.95456	81.25642	246.33357	10.79671	0.1028093	0.23254127	2.6190032	21	1 13.5	21.0
448960 2011 WM_{102}	16.9	X	147.20870	214.86765	110.56793	5.03007	0.1001943	0.22170312	2.7036772	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
448961 2011 WD_{116}	17.0	X	173.02364	309.70922	58.66199	2.01540	0.2052354	0.24232548	2.5480229	21	3 4.8	21.2
448962 2011 WN_{120}	16.3	X	163.22017	257.13329	104.42686	15.62546	0.1671012	0.24036110	2.5618868	21	2 15.5	20.4
448963 2011 WN_{123}	17.3	X	331.42645	105.42017	42.59993	1.79553	0.0091736	0.22044204	2.7139787	21	—	—
448964 2011 WT_{123}	17.0	X	207.09243	242.52420	60.53176	6.82337	0.0794564	0.22903605	2.6456567	21	1 13.4	21.0
448965 2011 WK_{129}	17.0	X	98.65437	117.96103	255.32705	4.52500	0.0526030	0.21866456	2.7286664	21	—	—
448966 2011 WY_{129}	16.8	X	83.82307	219.99610	218.62994	14.01245	0.0716554	0.23189325	2.6238801	21	1 28.6	20.4
448967 2011 WY_{133}	17.7	X	147.63473	61.29633	297.93215	2.64479	0.2641689	0.23492742	2.6012389	21	2 4.3	21.9
448968 2011 WE_{134}	17.5	X	99.82952	342.29851	52.86270	2.80334	0.1511243	0.22557881	2.6726198	21	1 13.0	20.8
448969 2011 WS_{153}	16.6	X	99.45532	241.34550	168.28806	11.87207	0.0696325	0.22924013	2.6440863	21	1 16.5	20.1
448970 2011 XL	16.7	X	172.70456	264.26015	96.35558	12.34667	0.2127181	0.24128182	2.5553653	21	2 27.2	21.1
448971 2011 YA_{13}	17.3	X	103.47183	139.85328	275.20978	2.75061	0.1971553	0.23180720	2.6245293	21	2 17.1	20.6
448972 2011 YV_{15}	17.2	X	342.46288	162.43607	1.87690	5.96677	0.5454623	0.20557559	2.8432935	21	—	—
448973 2011 YR_{20}	15.7	X	166.89680	290.32266	283.70337	9.11685	0.0712575	0.17860867	3.1227294	21	11 1.2	20.7
448974 2011 YR_{21}	16.6	X	72.31910	6.39890	107.72351	19.79886	0.2385413	0.22887299	2.6469131	21	4 10.4	20.1
448975 2011 YT_{23}	16.2	X	215.07786	54.43762	94.46491	10.84009	0.0788615	0.17594111	3.1542141	21	10 12.8	21.1
448976 2011 YX_{26}	17.1	X	95.64118	35.69101	26.24507	6.09406	0.1816079	0.22789550	2.6544765	21	2 17.4	20.4
448977 2011 YL_{29}	16.6	X	315.14489	321.08905	118.72117	10.87326	0.0762101	0.18885006	3.0087860	21	11 23.5	20.6
448978 2011 YM_{50}	16.3	X	243.73537	231.27286	274.55477	5.95174	0.1299444	0.18305436	3.0719631	21	10 27.9	20.8
448979 2011 YU_{50}	17.3	X	102.30762	44.11948	47.13472	13.60579	0.2890011	0.23594667	2.5937423	21	4 20.4	21.0
448980 2011 YX_{53}	16.6	X	87.69554	186.68588	262.52763	11.89745	0.2496335	0.22910351	2.6451373	21	3 15.3	20.2
448981 2011 YO_{68}	16.7	X	96.52485	267.08337	144.13335	13.24201	0.1806952	0.22070045	2.7118599	21	2 2.8	20.1
448982 2011 YB_{73}	17.1	X	77.12603	90.40390	314.16421	8.28395	0.1630075	0.21547156	2.7555571	21	—	—
448983 2011 YN_{75}	16.9	X	78.82259	55.31325	75.58092	31.57518	0.2813326	0.23219975	2.6215706	21	5 18.4	20.5
448984 2011 YH_{78}	15.3	X	118.33504	141.77272	91.44188	14.74764	0.0096545	0.16988437	3.2287452	21	10 8.4	20.2
448985 2012 AN_{6}	17.3	X	123.67308	279.73132	137.53532	6.73885	0.2445565	0.23244867	2.6196987	21	3 25.2	21.3
448986 2012 AO_{9}	16.9	X	46.15024	228.34788	171.06624	5.77954	0.0816222	0.20042845	2.8917659	21	—	—
448987 2012 AP_{12}	17.3	X	28.79013	62.41609	70.26576	3.57028	0.1134323	0.22121940	2.7076171	21	1 24.7	20.4
448988 2012 AS_{14}	16.4	X	178.89873	88.09767	230.63167	10.30561	0.0826582	0.22406349	2.6846561	21	1 1.6	20.5
448989 2012 BK_{21}	15.9	X	249.94761	343.34570	129.68960	27.31423	0.0943776	0.17556308	3.1587403	21	10 10.0	20.9
448990 2012 BD_{23}	15.9	X	242.02597	65.43048	88.47815	9.44012	0.1976094	0.17818568	3.1276694	21	11 1.3	20.7
448991 2012 BO_{23}	17.3	X	116.83649	257.51098	165.24761	12.95896	0.2710831	0.22913938	2.6448613	21	3 28.1	21.2
448992 2012 BL_{26}	16.5	X	278.45796	106.98291	12.02058	8.40013	0.0403704	0.18609134	3.0384490	21	11 19.9	20.8
448993 2012 BP_{28}	16.7	X	1.87591	10.30518	107.87127	6.46653	0.0708785	0.21050786	2.7987053	21	—	—
448994 2012 BT_{28}	16.0	X	73.31117	103.63082	288.65838	7.82989	0.0469754	0.20865674	2.8152336	21	—	—
448995 2012 BB_{29}	17.0	X	68.53803	274.86061	123.26666	1.58449	0.0776745	0.20844469	2.8171425	21	—	—
448996 2012 BN_{30}	17.0	X	102.73343	228.92571	147.85703	4.08818	0.2046098	0.21663453	2.7456864	21	1 3.2	20.5
448997 2012 BE_{36}	16.4	X	89.11385	253.13156	130.64616	5.58883	0.0651555	0.21010089	2.8023183	21	—	—
448998 2012 BH_{47}	16.5	X	310.91322	180.90965	306.36014	5.60928	0.1409071	0.19152663	2.9806886	21	—	—
448999 2012 BV_{49}	17.0	X	110.56871	95.76307	260.95445	1.40721	0.1841025	0.21034863	2.8001175	21	—	—
449000 2012 BY_{53}	15.9	X	279.41021	321.73861	140.58838	18.58530	0.1620956	0.17726181	3.1385275	21	10 21.9	20.4
449001 2012 BO_{54}	16.6	X	353.36985	120.96789	358.50532	4.96448	0.0741157	0.20020971	2.8938719	21	—	—
449002 2012 BT_{54}	17.4	X	313.21157	146.01605	343.12914	9.82565	0.2018282	0.19237980	2.9718695	21	—	—
449003 2012 BX_{54}	16.0	X	244.46024	64.15765	133.03875	8.95412	0.1427909	0.18601001	3.0393346	21	12 30.2	20.4
449004 2012 BY_{59}	16.8	X	276.93708	178.74690	314.35895	9.47796	0.0461901	0.18821859	3.0155118	21	12 6.2	21.0
449005 2012 BX_{75}	16.3	X	145.69448	126.84306	115.93413	16.98265	0.1138853	0.17950821	3.1122885	21	11 22.3	21.5
449006 2012 BE_{78}	17.4	X	339.11039	100.48718	357.11442	2.83648	0.1351321	0.19571093	2.9380510	21	—	—
449007 2012 BX_{80}	16.2	X	86.66436	164.29938	111.52383	10.29741	0.0892700	0.17107429	3.2137559	21	10 29.1	21.0
449008 2012 BG_{81}	16.1	X	308.31953	102.76365	315.50023	7.70372	0.0471027	0.17556311	3.1587400	21	10 10.8	20.5
449009 2012 BW_{89}	16.0	X	319.73418	106.56487	321.37751	9.05649	0.0679659	0.18029861	3.1031859	21	11 7.4	20.2
449010 2012 BD_{95}	16.0	X	38.46068	129.44226	195.48380	8.77672	0.0969313	0.17415417	3.1757536	21	10 27.7	20.2
449011 2012 BU_{95}	17.1	X	79.98343	49.60180	27.43565	11.22560	0.2461682	0.22335303	2.6903461	21	2 27.7	20.3
449012 2012 BV_{104}	15.7	X	205.56149	179.45944	357.81261	11.50381	0.1580413	0.17233190	3.1981016	21	10 21.0	21.0
449013 2012 BG_{107}	16.5	X	106.64934	151.43130	139.79161	11.95938	0.0577125	0.17882860	3.1201686	21	12 3.8	21.3
449014 2012 BJ_{109}	16.3	X	55.72248	243.50069	123.42669	10.21120	0.0590016	0.18992539	2.9974184	21	—	—
449015 2012 BR_{110}	15.9	X	301.56164	314.40053	135.73768	11.22226	0.0673183	0.17921811	3.1156461	21	11 16.6	20.2
449016 2012 BF_{112}	17.3	X	286.61213	251.65450	200.71233	0.92601	0.1591757	0.17738019	3.1371309	21	10 13.5	21.1
449017 2012 BR_{112}	17.1	X	76.48726	295.76273	147.84745	7.24205	0.1937673	0.21879321	2.7275967	21	2 17.8	20.0
449018 2012 BN_{127}	15.9	X	191.91488	244.36012	307.59348	10.62499	0.0434494	0.17811480	3.1284991	21	11 1.5	20.8
449019 2012 BB_{133}	17.0	X	75.76114	159.03239	306.24709	14.09178	0.2331722	0.22699302	2.6615076	21	3 14.9	20.3
449020 2012 BC_{134}	16.7	X	52.05857	89.21873	1.41950	12.41763	0.1917752	0.21477165	2.7615404	21	1 17.1	19.7
449021 2012 BJ_{136}	16.6	X	269.33772	122.52723	347.01926	6.81540	0.0722953	0.17981221	3.1087796	21	10 21.9	21.0
449022 2012 BA_{138}	16.1	X	39.67431	43.02645	291.16501	8.95940	0.1375945	0.17910552	3.1169517	21	11 13.1	20.3
449023 2012 BT_{138}	16.6	X	44.21020	96.11819	299.46677	9.99486	0.1036074	0.19769230	2.9183870	21	—	—
449024 2012 BX_{139}	16.2	X	215.35788	26.06353	166.49805	12.01534	0.0776681	0.17984347	3.1084193	21	12 1.2	21.0
449025 2012 BD_{140}	16.4	X	254.35668	154.49366	22.54637	2.57791	0.2216933	0.18289198	3.0737811	21	12 6.0	20.7
449026 2012 BR_{144}	16.4	X	7.38098	65.58709	318.47525	10.72658	0.0215983	0.17947863	3.1126304	21	11 16.9	20.9
449027 2012 BQ_{148}	16.5	X	22.87634	123.55495	276.70201	3.96326	0.1086721	0.19096497	2.9865302	21	—	—
449028 2012 BS_{151}	16.6	X	103.89602	107.07845	307.32626	11.76963	0.1684465	0.22538198	2.6741756	21	2 12.6	20.1
449029 2012 CX_{2}	15.9	X	349.03080	70.99290	318.39034	10.13564	0.0212907	0.17366385	3.1817284	21	10 28.7	20.5
449030 2012 CF_{7}	15.7	X	239.43487	216.76226	312.27991	13.10430	0.0628639	0.18269916	3.0759434	21	11 29.1	20.3
449031 2012 CB_{10}	16.1	X	157.61205	91.32981	154.15335	11.75151	0.0946109	0.17766853	3.1337358	21	12 3.3	21.1
449032 2012 CF_{16}	16.0	X	114.68520	310.72953	327.56869	10.46464	0.1037049	0.17490207	3.1666939	21	11 25.5	21.0
449033 2012 CU_{18}	15.7	X	271.81961	259.44769	240.40158	9.55658	0.1221301	0.18380333	3.0636123	21	11 27.7	19.7
449034 2012 CO_{28}	16.2	X	304.20400	107.47489	315.15171	20.02358	0.2328057	0.17575242	3.1564712	21	9 11.7	20.3
449035 2012 CT_{36}	16.9	X	323.89794	322.82331	145.32302	10.48677	0.0648393	0.19098673	2.9863033	21	—	—
449036 2012 CX_{37}	16.6	X	48.94209	322.35893	134.12726	8.07301	0.0544790	0.21266034	2.7797882	21	1 9.2	20.1
449037 2012 CX_{42}	16.6	X	256.49242	34.10817	132.04763	10.14506	0.0907878	0.18430640	3.0580349	21	12 15.4	20.9
449038 2012 CB_{46}	16.1	X	322.09972	283.53519	147.92474	8.00409	0.0884825	0.17824162	3.1270150	21	11 19.8	20.2
449039 2012 CF_{47}	16.1	X	7.57178	279.10898	136.90946	11.78222	0.0521152	0.18451742	3.0557029	21	—	—
449040 2012 CL_{50}	15.8	X	39.27398	74.32221	319.01464	11.05084	0.0852622	0.19002391	2.9963822	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
449041 2012 CA_{57}	16.8	X	103.53530	127.51383	287.58186	9.80771	0.2906113	0.22537590	2.6742237	21	2 28.5	20.6
449042 2012 DO_{5}	16.3	X	37.93790	22.42684	8.04591	9.14329	0.0256903	0.18632610	3.0358962	21	—	—
449043 2012 DE_{7}	17.0	X	72.48046	294.79305	138.03036	9.84937	0.1429532	0.21307307	2.7761974	21	1 21.5	20.2
449044 2012 DL_{13}	16.8	X	291.10509	353.63957	170.37442	14.28297	0.1847542	0.18938361	3.0031322	21	—	—
449045 2012 DQ_{21}	16.2	X	326.34949	287.50087	163.78294	12.61796	0.0889690	0.18224662	3.0810333	21	12 20.2	20.3
449046 2012 DZ_{23}	16.4	X	272.80742	178.14605	3.35629	6.12380	0.2061911	0.18683503	3.0303806	21	—	—
449047 2012 DU_{27}	16.4	X	259.46232	151.75293	13.31381	9.74577	0.2534801	0.18149024	3.0895877	21	11 20.9	21.0
449048 2012 DJ_{53}	16.0	X	281.38124	299.59419	166.80899	13.69142	0.1608837	0.17171769	3.2057233	21	10 25.9	20.3
449049 2012 DX_{56}	16.7	X	45.95874	252.63473	173.16949	12.12415	0.0387094	0.19780624	2.9172661	21	—	—
449050 2012 DH_{58}	16.5	X	323.80440	322.34643	144.28438	11.44813	0.0719897	0.18035664	3.1025203	21	—	—
449051 2012 DP_{67}	16.1	X	317.36974	345.14007	161.25255	14.46633	0.0621866	0.18827969	3.0148595	21	—	—
449052 2012 DO_{69}	16.1	X	54.50272	204.44688	152.48371	11.58540	0.0918996	0.18424822	3.0586786	21	12 26.1	20.6
449053 2012 DK_{78}	15.8	X	257.70371	137.86429	23.84067	18.19517	0.1353162	0.18004114	3.1061437	21	11 28.9	20.4
449054 2012 DL_{79}	15.5	X	250.87500	169.06554	351.36613	27.71987	0.1051256	0.18073460	3.0981933	21	11 16.7	20.5
449055 2012 DR_{89}	15.6	X	316.29030	119.39938	339.57680	22.76828	0.1223192	0.18070524	3.0985289	21	12 10.6	19.9
449056 2012 DB_{93}	16.7	X	299.69034	104.38008	341.85979	11.37911	0.0634751	0.17324892	3.1868065	21	10 31.0	21.2
449057 2012 DS_{94}	16.5	X	344.37494	94.82944	339.94967	10.02991	0.1697221	0.18804474	3.0173701	21	—	—
449058 2012 EM_{2}	16.1	X	260.65155	22.94567	165.32929	10.86565	0.0542518	0.18941095	3.0028432	21	—	—
449059 2012 EZ_{4}	15.9	X	312.64450	49.96429	20.97763	10.13713	0.0324633	0.17079542	3.2172532	21	11 3.6	20.3
449060 2012 EE_{16}	15.8	X	263.80371	92.84388	38.84493	12.13413	0.0555973	0.17058313	3.2199219	21	11 13.1	20.2
449061 2012 FN_{4}	16.6	X	278.04433	273.51529	232.36895	2.43643	0.1485443	0.18336011	3.0685472	21	12 10.0	20.6
449062 2012 FO_{6}	16.5	X	349.34013	234.51109	200.39639	8.47546	0.1335285	0.18870189	3.0103608	21	—	—
449063 2012 FN_{8}	16.3	X	334.85609	258.02396	172.72863	11.97325	0.0913758	0.17906334	3.1174412	21	12 7.3	20.4
449064 2012 FL_{16}	16.7	X	349.67746	24.29636	33.15264	3.90072	0.1406771	0.17843538	3.1247510	21	12 14.0	20.3
449065 2012 FH_{17}	16.4	X	296.44903	282.17881	152.89148	4.99383	0.0892495	0.16699016	3.2659445	21	10 15.4	20.7
449066 2012 FD_{24}	16.3	X	291.04278	95.93236	29.88210	16.64245	0.2285958	0.17870904	3.1215602	21	11 18.2	20.2
449067 2012 FN_{31}	15.8	X	262.19834	95.45481	25.93480	25.88839	0.2605744	0.17579142	3.1560044	21	10 8.3	20.5
449068 2012 FG_{37}	16.3	X	356.11912	292.77347	127.62386	9.03748	0.0882565	0.17604362	3.1529895	21	12 23.9	20.3
449069 2012 FS_{43}	15.8	X	302.71023	103.92785	349.28165	16.42372	0.0768141	0.17409162	3.1765142	21	11 9.8	20.3
449070 2012 FP_{46}	16.8	X	320.00969	300.56820	146.11610	1.71686	0.1570729	0.17850334	3.1239578	21	11 30.6	20.4
449071 2012 FO_{51}	15.8	X	345.11694	71.97511	15.95329	14.96027	0.0760701	0.18354880	3.0664439	21	—	—
449072 2012 FS_{56}	16.6	X	315.64724	304.49463	176.23956	16.43711	0.0819794	0.18408529	3.0604831	21	—	—
449073 2012 FL_{59}	16.5	X	328.18800	35.95183	73.58805	3.48280	0.1408057	0.18797105	3.0181587	21	—	—
449074 2012 FR_{62}	19.2	X	175.97670	274.37744	206.79264	39.52047	0.2624939	0.45996280	1.6620889	21	7 17.9	22.9
449075 2012 FX_{68}	17.0	X	1.96013	259.99206	147.11402	12.62439	0.0768902	0.17471338	3.1689735	21	12 15.7	21.3
449076 2012 GN_{9}	15.9	X	304.11621	101.23620	7.64525	16.91916	0.1697794	0.17677517	3.1442848	21	11 24.4	19.9
449077 2012 HV_{7}	16.0	X	322.00674	57.22635	66.86999	27.21760	0.1815243	0.17932190	3.1144438	21	—	—
449078 2012 HT_{40}	15.7	X	302.96911	249.18246	226.35204	14.93987	0.1969757	0.17871372	3.1215056	21	12 3.9	19.2
449079 2012 HG_{55}	15.7	X	332.05380	280.80042	203.89277	16.35334	0.1543061	0.18225709	3.0809153	21	—	—
449080 2012 HF_{75}	15.5	X	287.75494	60.79912	49.53342	18.65959	0.2345663	0.17194876	3.2028506	21	10 29.2	19.5
449081 2012 JS_{25}	16.1	X	315.06192	257.89284	231.09416	20.74630	0.3157815	0.18155374	3.0888673	21	—	—
449082 2012 KX_{1}	16.0	X	290.85553	267.90531	201.87056	16.16129	0.2757947	0.17237713	3.1975423	21	10 24.3	19.7
449083 2012 PY_{17}	17.6	X	13.88374	118.91048	330.62242	16.71804	0.0648894	0.37523119	1.9037216	21	—	—
449084 2012 QX_{14}	17.8	X	63.41470	143.30448	175.17921	26.18540	0.1644421	0.34966869	1.9954073	21	12 29.1	21.2
449085 2012 QV_{29}	18.3	X	332.15888	55.56991	339.16701	17.06786	0.0170156	0.34126916	2.0280159	21	11 6.3	20.9
449086 2012 RY_{16}	18.9	X	320.04338	300.68964	3.91066	4.51664	0.3033819	0.31545392	2.1372013	21	4 12.5	21.1
449087 2012 RU_{34}	17.9	X	195.32957	214.79927	208.64014	4.94895	0.1257326	0.29814998	2.2191135	21	5 28.5	21.0
449088 2012 SN	18.1	X	152.96033	111.51188	204.79595	20.93827	0.1053844	0.37275421	1.9121458	21	—	—
449089 2012 SC_{22}	20.1	X	189.72913	167.48613	344.35063	12.60990	0.6320234	0.65081200	1.3187597	21	9 10.5	22.2
449090 2012 TX_{102}	18.0	X	357.44867	355.15967	256.69232	2.43030	0.1074611	0.30063543	2.2068659	21	5 6.9	19.7
449091 2012 TK_{143}	17.8	X	189.65044	51.25615	196.10575	21.79058	0.0473704	0.35693587	1.9682303	21	—	—
449092 2012 TT_{143}	17.9	X	227.95841	179.32087	16.08806	19.76368	0.0419065	0.35367807	1.9802984	21	—	—
449093 2012 TM_{193}	18.7	X	277.76299	304.70339	40.84805	5.59278	0.2281506	0.30389428	2.1910605	21	4 30.4	21.6
449094 2012 TY_{226}	17.4	X	339.13220	147.82741	59.59973	6.80951	0.0677271	0.27843359	2.3226742	21	2 10.2	20.1
449095 2012 TL_{247}	18.1	X	119.11275	249.03617	278.41544	6.08539	0.0626460	0.30512811	2.1851499	21	7 18.8	20.7
449096 2012 UB_{28}	17.4	X	243.08771	249.67353	53.96379	5.62304	0.1421488	0.27933558	2.3176715	21	2 12.0	21.0
449097 2012 UT_{68}	9.5	X	30.80105	5.52650	43.81382	15.41648	0.3762164	0.01086729	20.1862341	21	1 13.0	21.2
449098 2012 UN_{89}	18.1	X	175.10939	40.34768	51.28374	9.31367	0.1507270	0.29219465	2.2491645	21	6 13.9	21.6
449099 2012 UU_{91}	17.8	X	344.86025	320.44926	326.63223	6.73380	0.0998605	0.30372651	2.1918672	21	6 9.9	19.8
449100 2012 UH_{147}	18.7	X	318.82734	88.59763	242.69228	2.93626	0.1622228	0.31078090	2.1585718	21	6 22.6	20.5
449101 2012 UO_{162}	17.8	X	269.68898	336.78183	38.85848	8.15568	0.1241941	0.30415781	2.1897947	21	6 16.7	20.5
449102 2012 UQ_{167}	17.0	X	148.80905	77.17697	343.64936	22.56828	0.2323041	0.27827574	2.3235525	21	4 4.6	21.0
449103 2012 VJ_{10}	18.0	X	136.15097	235.54920	248.90767	5.04063	0.1539811	0.28921574	2.2645823	21	6 18.9	21.1
449104 2012 VH_{35}	17.8	X	177.67434	38.50986	58.43887	8.53001	0.0900653	0.29689065	2.2253844	21	6 23.4	20.9
449105 2012 VQ_{35}	18.1	X	166.48864	301.18221	198.22017	4.33899	0.0849475	0.30561298	2.1828381	21	8 8.4	21.0
449106 2012 VR_{70}	18.1	X	244.32699	252.19393	73.71627	6.83431	0.1798383	0.28481559	2.2878465	21	3 12.1	21.7
449107 2012 VJ_{82}	19.7	X	88.79801	271.78662	257.45341	15.72029	0.3899528	0.62212953	1.3589876	21	7 27.9	20.9
449108 2012 WS_{1}	18.6	X	277.60702	3.68287	49.24283	3.83332	0.1110812	0.31451805	2.1414388	21	8 31.5	20.7
449109 2012 WR_{13}	18.6	X	206.22165	274.44560	185.80720	2.99508	0.0444992	0.30555639	2.1831076	21	8 4.9	21.1
449110 2012 WP_{32}	17.9	X	117.79972	23.63412	130.75895	2.68071	0.1652640	0.28468578	2.2885419	21	7 10.9	21.1
449111 2012 XJ_{45}	17.6	X	122.83107	272.73119	264.73170	4.40683	0.0957688	0.29787043	2.2205018	21	8 9.8	20.6
449112 2012 XN_{53}	16.5	X	287.08827	123.45507	105.15760	17.54316	0.0961275	0.24183266	2.5514834	21	1 2.7	20.1
449113 2012 XQ_{60}	18.0	X	70.47923	140.49753	72.35131	4.57046	0.0834717	0.29992263	2.2103611	21	7 20.9	20.4
449114 2012 XO_{83}	17.2	X	141.93519	90.94770	308.44350	6.19313	0.1060580	0.25963484	2.4334779	21	2 26.1	20.4
449115 2012 XY_{93}	17.5	X	231.33122	284.90995	40.36481	6.37878	0.1612653	0.27973972	2.3154387	21	2 28.0	21.1
449116 2012 XF_{96}	17.7	X	109.40965	270.08706	231.32005	5.18392	0.1449238	0.28063462	2.3105137	21	6 10.4	20.7
449117 2012 XE_{118}	18.2	X	194.22742	355.10664	56.62466	6.39917	0.0866724	0.28037695	2.3119291	21	5 11.9	21.4
449118 2012 XJ_{141}	18.3	X	248.19073	168.14673	242.84917	5.07707	0.1065403	0.30492965	2.1860979	21	7 12.2	21.1
449119 2012 YJ_{1}	17.5	X	313.67179	265.42367	283.72649	5.72666	0.1654978	0.23127690	2.6285397	21	—	—
449120 2012 YP_{1}	16.8	X	172.26232	308.00783	141.01189	24.95522	0.3167728	0.28386756	2.2929374	21	6 16.4	21.4

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
449121 2013 AZ_{4}	17.3	X	311.92713	273.74871	280.99149	3.72066	0.1751374	0.23823024	2.5771407	21	—	—
449122 2013 AG_{6}	17.6	X	75.56752	279.39041	252.88805	1.80572	0.1679715	0.27827462	2.3235587	21	6 11.3	20.1
449123 2013 AL_{8}	17.1	X	41.55093	217.05606	294.58684	5.44461	0.1010753	0.25320917	2.4744752	21	3 2.9	19.8
449124 2013 AE_{12}	17.8	X	160.65257	86.67047	47.43052	7.00695	0.1675632	0.28869224	2.2673191	21	7 30.3	21.4
449125 2013 AZ_{13}	17.8	X	99.42993	37.84209	115.49598	3.25106	0.1546171	0.27164863	2.3611905	21	6 16.1	20.7
449126 2013 AA_{14}	18.1	X	236.00350	298.46612	114.35798	3.72382	0.1484219	0.29079110	2.2563959	21	6 25.6	21.1
449127 2013 AS_{15}	17.9	X	233.88263	276.04698	168.51026	4.63541	0.1263548	0.29974714	2.2112237	21	8 8.7	20.8
449128 2013 AK_{16}	17.9	X	116.78675	109.57119	342.14791	2.79676	0.1502422	0.26699522	2.3885466	21	4 11.9	21.0
449129 2013 AQ_{18}	17.0	X	318.87740	217.15149	307.31353	8.13734	0.0246473	0.23315114	2.6144340	21	—	—
449130 2013 AL_{24}	17.4	X	144.79520	240.41488	278.71800	4.22011	0.0798088	0.29742409	2.2227227	21	8 9.8	20.4
449131 2013 AV_{29}	16.3	X	316.55417	213.62545	349.72102	9.19581	0.1695128	0.24289713	2.5440236	21	—	—
449132 2013 AR_{31}	18.0	X	182.19426	223.26701	182.71990	5.85948	0.2057878	0.28151258	2.3057073	21	4 25.2	21.8
449133 2013 AG_{36}	17.8	X	148.35365	42.75659	77.42769	6.01877	0.0859158	0.28142630	2.3061785	21	6 21.3	20.9
449134 2013 AD_{40}	16.4	X	207.70846	357.82705	308.56463	14.86377	0.2039841	0.24032590	2.5621369	21	1 19.1	20.7
449135 2013 AS_{47}	17.6	X	100.39610	70.75952	51.67266	2.78503	0.1648483	0.26311485	2.4119732	21	5 6.8	20.4
449136 2013 AQ_{53}	17.5	X	87.96660	79.45993	84.13549	6.64162	0.1598747	0.27059659	2.3673066	21	6 15.9	20.2
449137 2013 AP_{54}	18.0	X	53.10672	173.34530	348.90578	1.04294	0.1257961	0.26001000	2.4311365	21	4 11.8	20.4
449138 2013 AV_{56}	16.8	X	276.84966	129.38296	108.05776	10.53585	0.1638015	0.23768281	2.5810962	21	—	—
449139 2013 AX_{56}	18.5	X	117.58510	114.33329	359.92522	2.42158	0.1471291	0.26957929	2.3732585	21	5 13.5	21.7
449140 2013 AE_{57}	17.5	X	334.94520	191.59758	75.69058	3.45125	0.0839092	0.27009792	2.3702194	21	4 27.8	19.9
449141 2013 AK_{58}	16.9	X	264.12319	141.94704	95.97493	4.71385	0.1509575	0.23216303	2.6218470	21	—	—
449142 2013 AC_{62}	17.6	X	253.67971	326.45538	51.60299	7.03401	0.1227207	0.28957934	2.2626862	21	5 30.9	20.6
449143 2013 AH_{68}	16.8	X	191.89614	308.45359	290.43113	7.66600	0.0800793	0.21001259	2.8031037	21	—	—
449144 2013 AG_{71}	17.6	X	81.26216	49.87923	125.34473	7.62494	0.0434636	0.27411514	2.3470051	21	6 4.7	20.5
449145 2013 AZ_{77}	17.7	X	128.58759	6.24848	57.81290	5.29896	0.0970052	0.25986532	2.4320388	21	3 17.7	20.9
449146 2013 AL_{80}	17.4	X	341.19055	98.96332	117.74339	6.97848	0.0846793	0.25439308	2.4667919	21	2 27.7	20.2
449147 2013 AZ_{87}	18.8	X	148.76228	144.02186	314.10011	5.35873	0.1909769	0.27768390	2.3268529	21	5 29.7	22.4
449148 2013 AZ_{91}	17.5	X	159.29684	32.22193	81.51496	6.65548	0.0489713	0.29165330	2.2519468	21	6 23.3	20.4
449149 2013 AX_{93}	16.3	X	200.33338	298.03411	291.51354	8.27234	0.0616635	0.21258171	2.7804736	21	—	—
449150 2013 AM_{94}	17.7	X	116.74588	200.13212	293.32823	4.47533	0.2014288	0.27867852	2.3213131	21	6 15.2	20.9
449151 2013 AD_{95}	17.3	X	75.62360	184.81524	321.88355	4.53380	0.0864887	0.26521523	2.3992218	21	4 18.9	20.0
449152 2013 AT_{95}	17.5	X	42.14961	121.44215	50.20206	2.84031	0.1476042	0.25669167	2.4520437	21	4 8.9	19.6
449153 2013 AK_{98}	18.1	X	244.07747	66.16718	336.28164	7.88085	0.1180369	0.29218757	2.2492008	21	6 24.4	21.3
449154 2013 AT_{116}	17.8	X	90.93356	69.08077	106.45541	9.30778	0.1624185	0.27348648	2.3506004	21	7 7.5	20.6
449155 2013 AP_{120}	17.0	X	337.52064	60.66847	111.57012	5.31432	0.0644812	0.23872874	2.5735518	21	—	—
449156 2013 AZ_{121}	17.3	X	7.91337	5.71897	113.55989	9.80265	0.0225266	0.23342410	2.6123954	21	—	—
449157 2013 AP_{122}	17.6	X	148.01667	3.66902	100.82755	6.50264	0.0961901	0.27571522	2.3379159	21	6 1.0	20.8
449158 2013 AH_{123}	18.3	X	175.80937	230.86989	217.68096	2.05690	0.1284810	0.28033235	2.3121743	21	6 11.1	21.7
449159 2013 AW_{123}	17.9	X	257.08366	299.40019	92.28603	6.06928	0.1888160	0.29282986	2.2459107	21	6 15.6	20.7
449160 2013 AH_{126}	17.0	X	149.58452	327.96246	164.86212	23.40325	0.1596750	0.28384432	2.2930626	21	7 14.1	21.0
449161 2013 AK_{130}	17.3	X	91.96899	41.59123	96.32504	7.77098	0.0531359	0.26686917	2.3892987	21	5 1.5	20.3
449162 2013 AB_{131}	18.0	X	167.32080	341.41508	129.31359	7.13150	0.1035941	0.28042889	2.3116436	21	7 1.4	21.3
449163 2013 AB_{132}	15.4	X	103.59226	294.76524	324.84060	25.30535	0.2897297	0.17609026	3.1524327	21	10 29.1	21.3
449164 2013 AE_{156}	17.1	X	221.13461	63.75792	189.61086	9.16993	0.0860990	0.22938796	2.6429502	21	—	—
449165 2013 AY_{156}	17.6	X	131.48036	222.83952	231.23511	7.59789	0.0659515	0.26865628	2.3786911	21	4 21.9	20.7
449166 2013 AS_{174}	16.9	X	43.34056	167.85440	231.64707	12.71283	0.0192177	0.22142114	2.7059722	21	—	—
449167 2013 BD_{8}	18.0	X	188.12700	342.86410	71.41420	5.82795	0.1481990	0.27844162	2.3226295	21	5 10.2	21.5
449168 2013 BA_{23}	16.9	X	176.90764	197.15783	263.02329	11.24676	0.0409431	0.28271671	2.2991558	21	6 26.5	19.7
449169 2013 BA_{26}	17.8	X	192.62412	298.89225	104.14263	2.90063	0.1940761	0.27227987	2.3575398	21	4 30.8	21.6
449170 2013 BV_{29}	16.9	X	251.43779	211.56262	31.96381	4.18287	0.1053076	0.23427568	2.6060610	21	—	—
449171 2013 BB_{35}	17.3	X	139.09101	152.17169	288.76664	5.88113	0.0792500	0.26765161	2.3846399	21	4 13.3	20.6
449172 2013 BC_{41}	16.8	X	221.06486	313.20206	315.31883	10.95009	0.1422235	0.22793162	2.6541961	21	—	—
449173 2013 BK_{56}	18.2	X	182.63864	158.59566	278.97871	4.83225	0.1210699	0.28125423	2.3071191	21	6 2.9	21.6
449174 2013 BM_{61}	18.1	X	92.94409	97.65827	46.00667	2.44651	0.1375435	0.26575086	2.3959970	21	5 21.6	21.0
449175 2013 BL_{63}	17.4	X	7.20900	175.20345	316.51198	3.67865	0.2066589	0.23487761	2.6016066	21	—	—
449176 2013 BU_{63}	18.1	X	202.67517	79.05698	331.38899	4.03999	0.1553031	0.27656665	2.3331152	21	5 17.2	21.7
449177 2013 BM_{65}	18.7	X	235.79494	256.82194	157.69947	2.01392	0.2264090	0.29283290	2.2458951	21	6 20.5	22.1
449178 2013 BG_{66}	16.4	X	220.99312	131.08690	132.98483	12.56087	0.1615386	0.22251594	2.6970891	21	—	—
449179 2013 BA_{68}	17.2	X	291.56838	191.05498	51.94517	3.39964	0.1529674	0.24587287	2.5234554	21	1 18.9	20.8
449180 2013 BH_{75}	17.6	X	112.72058	7.96105	100.84728	7.25336	0.0926632	0.26446613	2.4037502	21	4 26.4	20.8
449181 2013 BA_{80}	18.2	X	227.14553	283.21636	137.64402	6.47031	0.1482337	0.29190698	2.2506419	21	6 26.8	21.4
449182 2013 CV_{1}	18.2	X	129.24989	243.92967	233.41516	3.71946	0.1773910	0.27244771	2.3565714	21	6 4.6	21.7
449183 2013 CW_{1}	17.3	X	66.85235	22.38694	171.45162	6.71899	0.0543498	0.27360070	2.3499461	21	6 11.3	20.1
449184 2013 CY_{8}	18.1	X	240.95155	286.71489	157.40211	7.10906	0.0515678	0.29733440	2.2231697	21	8 29.1	20.7
449185 2013 CT_{11}	17.0	X	280.74559	134.43499	113.17230	8.64518	0.1670701	0.23736587	2.5833934	21	1 12.7	21.0
449186 2013 CN_{12}	16.8	X	338.79237	6.50211	125.77159	15.43832	0.0398071	0.22464020	2.6800593	21	—	—
449187 2013 CX_{12}	17.8	X	26.48031	158.62338	336.87246	5.01260	0.0373525	0.24221926	2.5487678	21	1 22.1	20.9
449188 2013 CW_{14}	18.1	X	155.40259	112.66981	358.91543	4.20594	0.1683944	0.27764570	2.3270663	21	6 22.8	21.7
449189 2013 CV_{18}	17.4	X	74.22251	31.82048	122.37294	6.52395	0.0729447	0.25772575	2.4454803	21	5 1.9	20.4
449190 2013 CM_{23}	16.6	X	339.29255	213.08033	309.48215	9.85791	0.0685182	0.23455041	2.6040256	21	—	—
449191 2013 CO_{23}	17.8	X	78.60495	308.68524	188.74616	2.02358	0.1321482	0.25980900	2.4323902	21	4 21.1	20.4
449192 2013 CQ_{23}	17.7	X	123.05007	293.13998	176.46276	2.13502	0.1443134	0.26738188	2.3862434	21	5 14.9	21.0
449193 2013 CN_{24}	16.0	X	155.79181	232.38656	339.29004	13.09627	0.1262547	0.18396005	3.0618721	21	10 16.4	21.1
449194 2013 CM_{27}	17.5	X	161.78431	182.83638	270.20873	6.24178	0.0908753	0.27892726	2.3199328	21	5 30.7	20.7
449195 2013 CY_{28}	17.7	X	10.15793	312.05902	241.30062	1.47852	0.1238293	0.25235163	2.4800778	21	3 7.9	20.0
449196 2013 CN_{34}	16.8	X	339.22837	294.68332	155.85358	9.45868	0.1749455	0.21310017	2.7759620	21	—	—
449197 2013 CV_{36}	16.6	X	344.45083	4.06222	152.85241	12.42544	0.1273237	0.23278997	2.6171375	21	—	—
449198 2013 CV_{44}	17.3	X	174.03466	13.15008	356.84391	5.46088	0.0238952	0.24765304	2.5113482	21	2 22.6	20.7
449199 2013 CE_{50}	17.7	X	139.37419	72.25959	29.15024	5.16737	0.1497446	0.26653259	2.3913097	21	5 21.5	21.2
449200 2013 CU_{51}	17.8	X	107.11133	118.70991	328.19086	5.74218	0.1153284	0.25487074	2.4637089	21	3 18.9	20.8

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
449201 2013 CG_{53}	17.9	X	173.59308	130.94658	287.18423	8.83409	0.1901342	0.27116390	2.3640036	21	4 28.8	21.8
449202 2013 CR_{55}	16.8	X	302.64068	184.70653	345.65834	10.71755	0.0618251	0.22217170	2.6998743	21	—	—
449203 2013 CX_{55}	17.5	X	142.44194	214.27680	266.22220	4.19141	0.0896590	0.27493814	2.3423191	21	6 15.1	20.4
449204 2013 CS_{56}	17.2	X	47.67312	57.69349	326.81707	3.19518	0.1102591	0.21489984	2.7604422	21	—	—
449205 2013 CT_{57}	16.4	X	250.19336	261.67315	280.46825	9.72488	0.0824784	0.20999971	2.8032183	21	—	—
449206 2013 CQ_{58}	16.5	X	190.35986	302.67640	340.50796	9.53021	0.0768539	0.22161418	2.7044006	21	—	—
449207 2013 CZ_{64}	17.6	X	131.42335	128.51589	305.67441	5.45153	0.1187097	0.25905775	2.4370905	21	3 31.9	21.0
449208 2013 CD_{69}	16.9	X	207.51380	340.39788	257.45281	2.36841	0.1316059	0.21058570	2.7980156	21	—	—
449209 2013 CW_{69}	17.7	X	39.97899	150.18870	18.66574	6.62420	0.0678692	0.26267567	2.4146609	21	3 25.7	20.4
449210 2013 CX_{70}	17.0	X	275.92668	13.49617	216.19472	4.89912	0.1006936	0.23437826	2.6053006	21	—	—
449211 2013 CB_{74}	18.1	X	132.71741	345.70216	126.02922	7.80877	0.1364064	0.26968532	2.3726364	21	5 29.3	21.5
449212 2013 CT_{74}	16.8	X	270.02417	197.30409	79.84631	5.92646	0.1389307	0.24529630	2.5274082	21	2 10.5	20.6
449213 2013 CB_{75}	17.9	X	124.33935	285.78730	189.06603	2.41660	0.1596307	0.26821384	2.3813063	21	5 25.3	21.3
449214 2013 CM_{76}	17.1	X	174.95832	333.35076	132.09719	7.42044	0.0618012	0.27841483	2.3227786	21	7 2.1	20.3
449215 2013 CO_{81}	16.8	X	142.65962	58.48626	304.99366	14.11907	0.1266087	0.23705429	2.5856565	21	1 21.0	20.4
449216 2013 CB_{83}	16.8	X	340.33005	201.27026	301.25139	11.04697	0.1104229	0.23245313	2.6196652	21	—	—
449217 2013 CZ_{83}	17.6	X	339.07882	77.17126	108.78479	3.48419	0.1338529	0.23594210	2.5937757	21	1 9.0	20.6
449218 2013 CY_{86}	16.9	X	349.47242	125.48376	18.40688	2.35104	0.1396124	0.22918173	2.6445354	21	—	—
449219 2013 CQ_{92}	18.3	X	196.75378	124.57812	303.33686	1.59078	0.0574645	0.27630712	2.3345759	21	6 6.5	21.2
449220 2013 CK_{97}	18.2	X	135.59768	268.92047	186.24250	0.78304	0.1591788	0.26695283	2.3887995	21	5 11.0	21.6
449221 2013 CS_{98}	17.1	X	248.01384	35.45566	176.41915	2.72082	0.1877000	0.21369859	2.7707773	21	—	—
449222 2013 CO_{106}	18.0	X	184.24043	303.78160	141.48962	7.16119	0.0767686	0.27790259	2.3256319	21	6 16.0	21.2
449223 2013 CN_{107}	17.4	X	187.30358	264.29347	134.74077	4.85933	0.1270918	0.26574091	2.3960568	21	4 21.0	21.0
449224 2013 CR_{107}	16.2	X	348.47915	208.75272	141.50903	11.31451	0.0240211	0.17914166	3.1165324	21	9 17.0	20.5
449225 2013 CE_{109}	16.2	X	100.12611	175.62407	114.77128	14.34641	0.1931728	0.19195238	2.9762795	21	12 9.1	21.2
449226 2013 CT_{109}	17.4	X	177.06575	49.58797	8.48287	5.55981	0.0876270	0.26745888	2.3857853	21	4 29.9	20.8
449227 2013 CF_{117}	17.4	X	142.12824	6.19414	122.64212	7.27836	0.2144853	0.27572721	2.3378481	21	7 5.4	21.0
449228 2013 CJ_{119}	18.0	X	104.06731	82.24742	58.20215	3.29532	0.1662153	0.26448736	2.4036216	21	6 5.5	21.0
449229 2013 CX_{120}	17.7	X	128.78239	323.18658	112.76137	2.56676	0.1495665	0.25516104	2.4618399	21	4 8.9	21.0
449230 2013 CO_{130}	17.9	X	118.61804	136.16296	334.45473	1.86560	0.1600488	0.26296632	2.4128813	21	5 12.0	21.2
449231 2013 CR_{130}	16.5	X	50.23728	134.73844	338.31146	17.14065	0.1038898	0.23894149	2.5720239	21	2 2.5	19.5
449232 2013 CN_{134}	15.8	X	326.00553	131.74597	357.11824	24.70781	0.1618163	0.22094125	2.7098891	21	—	—
449233 2013 CJ_{136}	16.3	X	254.02203	117.15108	68.44461	8.70539	0.1503008	0.20905704	2.8116387	21	—	—
449234 2013 CS_{137}	17.0	X	174.13986	262.20281	155.58530	6.62684	0.1244335	0.26330236	2.4108279	21	5 2.2	20.7
449235 2013 CR_{142}	17.3	X	165.68922	50.60214	34.93130	3.63477	0.1165249	0.27488533	2.3426191	21	5 26.2	20.5
449236 2013 CR_{160}	16.8	X	299.78324	148.21178	359.87418	3.65583	0.0410317	0.21208208	2.7848389	21	—	—
449237 2013 CP_{163}	16.4	X	196.42989	135.71071	159.43846	9.20352	0.1353241	0.21958829	2.7210087	21	—	—
449238 2013 CR_{164}	17.9	X	99.69943	340.57733	174.01926	2.47327	0.1230642	0.26603121	2.3943134	21	6 13.6	21.0
449239 2013 CW_{166}	16.7	X	131.22890	194.55736	137.00274	8.99074	0.0797985	0.21724145	2.7405702	21	—	—
449240 2013 CL_{169}	16.6	X	202.37817	169.67265	69.81852	4.30790	0.0971329	0.20914707	2.8108318	21	—	—
449241 2013 CB_{174}	17.0	X	295.78547	63.79197	158.55035	12.88566	0.0443677	0.23326009	2.6136199	21	1 12.3	20.8
449242 2013 CR_{174}	16.7	X	26.69861	78.79944	328.83586	6.00462	0.0421811	0.20844810	2.8171118	21	—	—
449243 2013 CS_{175}	17.3	X	174.62519	263.60077	171.55373	4.58725	0.1148871	0.26975878	2.3722056	21	5 23.7	20.8
449244 2013 CS_{177}	17.5	X	121.25952	204.05224	260.65941	1.79416	0.1421896	0.26407197	2.4061416	21	5 4.9	20.8
449245 2013 CQ_{180}	17.2	X	298.43524	267.57753	284.13846	4.54124	0.0281383	0.22791450	2.6543290	21	—	—
449246 2013 CR_{183}	17.3	X	359.64944	344.68235	188.23774	13.40072	0.2049129	0.23495214	2.6010565	21	1 11.4	20.4
449247 2013 CU_{183}	17.5	X	314.37744	205.72748	359.63776	8.74968	0.1056352	0.23860739	2.5744243	21	1 6.4	21.1
449248 2013 CT_{187}	17.2	X	292.94334	143.27761	104.34913	6.62827	0.1032861	0.24287273	2.5441939	21	2 2.1	20.7
449249 2013 CO_{195}	17.7	X	93.05466	193.22898	320.60900	2.34349	0.0262871	0.26735397	2.3864095	21	5 17.3	20.5
449250 2013 CH_{202}	16.9	X	217.27257	107.06677	135.77656	7.92437	0.1778316	0.21263223	2.7800333	21	—	—
449251 2013 CV_{212}	16.3	X	209.57545	203.17920	137.62180	15.78199	0.1343812	0.24383069	2.5375258	21	3 2.6	20.3
449252 2013 DP_{3}	18.3	X	159.13652	20.01416	29.92902	4.26976	0.2189820	0.26339376	2.4102702	21	4 11.2	22.1
449253 2013 DP_{5}	18.2	X	103.99028	146.16582	310.37434	5.66288	0.1042398	0.25432310	2.4672445	21	3 25.1	21.4
449254 2013 DE_{12}	16.8	X	230.34572	71.04175	192.73961	11.67183	0.1443814	0.22397696	2.6853475	21	—	—
449255 2013 DF_{12}	17.5	X	112.80999	259.74637	208.17447	7.52513	0.0926584	0.26031378	2.4292447	21	4 22.4	20.6
449256 2013 DL_{15}	17.6	X	107.20323	202.53663	249.05126	5.41149	0.1028871	0.25391500	2.4698874	21	3 22.8	20.8
449257 2013 DP_{15}	17.6	X	337.11777	344.98286	190.45508	9.09146	0.0383598	0.23490120	2.6014325	21	1 5.6	21.2
449258 2013 DR_{16}	16.1	X	348.67884	215.72264	293.88443	11.64377	0.1014826	0.23053911	2.6341448	21	—	—
449259 2013 EF	16.9	X	222.11450	7.59888	59.68385	26.40836	0.2300385	0.28726952	2.2747989	21	6 20.7	20.9
449260 2013 EJ_{1}	16.7	X	319.84287	5.64892	176.81092	13.35128	0.1366292	0.22860181	2.6490059	21	—	—
449261 2013 ED_{2}	17.1	X	329.50936	171.13086	341.49877	3.44479	0.0575475	0.22445226	2.6815551	21	—	—
449262 2013 EO_{10}	17.2	X	161.09655	72.89500	3.86848	6.49343	0.1038137	0.26800489	2.3825439	21	5 7.3	20.6
449263 2013 EC_{12}	17.1	X	358.36809	348.68323	105.61617	4.63638	0.1638178	0.21802106	2.7340330	21	—	—
449264 2013 EZ_{13}	17.5	X	307.68557	67.79589	161.51879	10.67982	0.0912777	0.23848238	2.5753239	21	1 27.8	21.0
449265 2013 EF_{15}	17.3	X	294.85899	209.07614	344.78267	2.64766	0.0363601	0.22462631	2.6801698	21	—	—
449266 2013 ER_{17}	17.7	X	129.62380	19.53387	87.23479	5.96758	0.1945673	0.26166777	2.4208575	21	5 24.6	21.4
449267 2013 ED_{18}	16.8	X	106.52026	225.98753	71.80270	2.04487	0.0941932	0.19072229	2.9890631	21	12 13.9	21.2
449268 2013 EL_{24}	17.0	X	9.81143	130.42160	20.38613	13.29187	0.1436491	0.23504270	2.6003883	21	1 12.3	20.1
449269 2013 EV_{24}	17.5	X	144.08014	291.12745	166.57484	4.11999	0.1887398	0.26631353	2.3926209	21	5 26.7	21.1
449270 2013 EC_{26}	17.3	X	62.12407	300.39726	149.50563	3.56008	0.0728082	0.23173548	2.6250708	21	1 16.1	20.3
449271 2013 EP_{30}	17.1	X	248.55963	95.57507	168.67544	8.28373	0.0280022	0.22826242	2.6516311	21	1 10.9	20.9
449272 2013 EL_{31}	16.3	X	107.19669	27.15762	16.90362	18.18142	0.1933009	0.23238451	2.6201808	21	2 17.3	20.1
449273 2013 EA_{33}	16.8	X	42.01367	201.94186	291.42242	11.65624	0.1901435	0.24294732	2.5436732	21	2 9.6	19.1
449274 2013 EM_{38}	16.8	X	144.25432	225.00802	37.09043	8.04812	0.1404978	0.18945296	3.0023993	21	12 8.9	21.7
449275 2013 EM_{45}	18.4	X	114.09475	255.39468	202.30625	1.48251	0.1602597	0.25608116	2.4559393	21	4 20.4	21.6
449276 2013 EJ_{46}	18.1	X	142.73698	212.50363	208.87663	1.96694	0.1810447	0.25452379	2.4659473	21	4 7.1	21.6
449277 2013 ET_{46}	17.9	X	202.46829	143.47971	285.74000	1.50424	0.1904785	0.27716279	2.3297685	21	6 11.2	21.6
449278 2013 EH_{48}	18.6	X	116.98304	205.16559	255.98777	0.42561	0.1500322	0.25741962	2.4474187	21	4 26.8	21.7
449279 2013 ED_{49}	17.3	X	264.85429	227.71931	333.42341	3.42850	0.0404665	0.21415415	2.7668464	21	—	—
449280 2013 EF_{59}	17.3	X	93.67019	18.69055	357.48933	5.64688	0.0388989	0.21704854	2.7421938	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
449281 2013 EN_{62}	17.7	X	71.71912	79.01280	9.40094	2.64574	0.0708648	0.23525143	2.5988500	21	1 28.8	20.7
449282 2013 EQ_{67}	15.9	X	124.92146	205.72344	36.17264	10.65473	0.0251772	0.17714387	3.1399203	21	10 21.9	20.5
449283 2013 EO_{68}	17.0	X	221.41645	210.97991	30.55587	4.17269	0.0460690	0.21152028	2.7897677	21	—	—
449284 2013 EH_{72}	16.9	X	145.40997	288.41914	58.27339	3.71218	0.1116396	0.22502922	2.6769696	21	1 3.6	20.7
449285 2013 EM_{80}	17.0	X	270.28323	158.08239	30.77851	5.57084	0.0902051	0.21231618	2.7827914	21	—	—
449286 2013 EW_{80}	17.3	X	73.29069	293.36571	153.87949	14.97073	0.1492404	0.23874827	2.5734115	21	2 4.9	20.2
449287 2013 EE_{83}	17.1	X	24.75420	107.95453	29.45606	8.72380	0.0356851	0.23411191	2.6072762	21	1 26.1	20.5
449288 2013 EO_{85}	16.7	X	112.87447	217.06801	52.62498	1.61897	0.1405044	0.18066915	3.0989416	21	11 19.3	21.6
449289 2013 ER_{85}	16.1	X	133.21347	148.65532	102.91129	8.33724	0.1120342	0.18378344	3.0638333	21	11 18.3	21.0
449290 2013 EP_{86}	16.4	X	2.02297	124.55477	16.98874	13.13726	0.0987216	0.22960278	2.6413014	21	—	—
449291 2013 ER_{90}	17.0	X	334.67157	167.09919	22.54854	13.86728	0.1986168	0.23370942	2.6102688	21	—	—
449292 2013 EU_{92}	16.8	X	312.55054	286.33895	276.77605	11.45008	0.2057839	0.22624137	2.6673993	21	—	—
449293 2013 EC_{94}	15.7	X	134.42930	279.23566	331.42456	16.34748	0.2451371	0.18064746	3.0991895	21	11 14.9	21.4
449294 2013 EK_{94}	15.8	X	37.30695	276.76694	67.39099	12.69279	0.0145143	0.18632304	3.0359295	21	11 11.2	20.1
449295 2013 EQ_{98}	16.9	X	221.40236	51.89391	162.35891	2.23468	0.0373723	0.20245788	2.8724088	21	—	—
449296 2013 EU_{105}	16.1	X	178.25415	330.66647	332.65032	14.09763	0.0929382	0.22272380	2.6954108	21	—	—
449297 2013 ET_{110}	17.2	X	5.18968	305.49291	192.94550	6.43994	0.1179375	0.23107909	2.6300396	21	—	—
449298 2013 EX_{111}	16.0	X	82.74682	198.78545	97.92676	6.43838	0.1923368	0.17327735	3.1864579	21	11 26.9	20.9
449299 2013 EY_{111}	17.0	X	81.54447	284.54183	129.16530	7.28217	0.0427909	0.21991693	2.7182972	21	—	—
449300 2013 EZ_{111}	16.4	X	146.16782	197.15615	43.82321	10.91562	0.1194030	0.18025370	3.1037013	21	11 14.9	21.3
449301 2013 EC_{114}	16.4	X	354.17736	38.16352	53.77565	15.23925	0.1480388	0.21291389	2.7775809	21	—	—
449302 2013 EF_{114}	15.7	X	182.83384	138.57121	44.25677	16.68948	0.1658537	0.18046355	3.1012948	21	10 15.7	20.8
449303 2013 EC_{115}	17.5	X	318.43524	141.59592	37.58138	2.79792	0.1329008	0.22458587	2.6804915	21	—	—
449304 2013 EL_{120}	17.0	X	210.57462	337.27509	231.02363	0.89072	0.0505479	0.19457296	2.9494955	21	12 18.3	21.2
449305 2013 EQ_{120}	16.6	X	196.01443	356.39490	196.84958	13.29682	0.0647514	0.18542889	3.0456813	21	11 12.7	21.2
449306 2013 EV_{123}	17.2	X	300.03247	113.87533	54.21877	5.14964	0.1355415	0.21248093	2.7813527	21	—	—
449307 2013 EH_{127}	16.3	X	91.67159	284.07681	171.38770	21.85815	0.0940063	0.24007536	2.5639191	21	3 9.5	19.3
449308 2013 EL_{147}	17.5	X	34.37430	42.03494	357.41820	4.19130	0.1157241	0.21089402	2.7952879	21	—	—
449309 2013 FZ	17.4	X	161.03788	83.07001	75.93954	22.25916	0.2265922	0.28931774	2.2640500	21	9 11.9	21.7
449310 2013 FJ_{2}	16.5	X	131.98945	322.50017	64.17900	13.31028	0.1274299	0.23277093	2.6172802	21	2 12.4	20.4
449311 2013 FK_{5}	17.2	X	73.81460	93.89973	10.21233	14.65875	0.1579423	0.24102027	2.5572136	21	3 8.1	20.1
449312 2013 FT_{5}	16.5	X	202.49831	129.15838	131.08951	14.41773	0.0401706	0.21140706	2.7907637	21	—	—
449313 2013 FA_{6}	16.9	X	350.16726	18.02978	98.82154	10.47162	0.1583560	0.21988961	2.7185224	21	—	—
449314 2013 FQ_{6}	16.4	X	313.87078	306.15496	123.16001	10.07964	0.0694791	0.18844595	3.0130859	21	11 9.6	20.4
449315 2013 FY_{6}	15.3	X	355.13478	53.19780	168.75768	7.83098	0.1582365	0.12575659	3.9456227	21	4 11.9	20.0
449316 2013 FB_{7}	15.9	X	320.95881	336.09817	46.65750	16.36582	0.0750779	0.17524866	3.1625173	21	9 23.9	20.3
449317 2013 FD_{7}	16.9	X	69.46758	311.53741	141.11094	3.25357	0.0490259	0.23091967	2.6312499	21	1 28.9	20.1
449318 2013 FP_{9}	17.0	X	120.72358	132.02408	183.68374	8.99724	0.0821371	0.19939598	2.9017397	21	—	—
449319 2013 FV_{9}	17.6	X	153.09597	257.92595	165.81155	2.25261	0.1780625	0.25485877	2.4637860	21	4 21.1	21.3
449320 2013 FP_{10}	16.3	X	82.14059	68.55810	212.86902	5.37621	0.0320124	0.17256436	3.1952289	21	10 18.6	20.8
449321 2013 FW_{11}	17.2	X	183.06879	307.59719	106.04221	6.41622	0.1769407	0.26145811	2.4221515	21	5 7.4	21.1
449322 2013 FD_{12}	16.7	X	8.21463	9.64156	171.09062	27.36715	0.0512600	0.23982643	2.5656930	21	2 22.1	20.1
449323 2013 FJ_{12}	15.9	X	1.99608	345.03622	49.38444	11.46520	0.0894096	0.19131458	2.9828907	21	12 2.2	19.6
449324 2013 FL_{14}	16.3	X	127.75196	273.00758	93.25451	7.27841	0.0483588	0.22090701	2.7101691	21	—	—
449325 2013 FS_{14}	15.9	X	189.14304	139.17102	31.13960	22.73031	0.0790431	0.17826325	3.1267620	21	10 10.7	20.7
449326 2013 FF_{15}	16.9	X	53.45960	318.74509	171.95615	7.84237	0.1084033	0.24087796	2.5582207	21	2 26.8	19.6
449327 2013 FJ_{16}	15.6	X	134.81476	220.88574	13.72878	17.55383	0.1947729	0.17387308	3.1791754	21	10 27.1	21.0
449328 2013 FF_{21}	17.0	X	290.59371	183.81870	323.62119	1.38418	0.0176408	0.20141356	2.8823292	21	—	—
449329 2013 FG_{21}	17.1	X	97.54397	227.08466	200.83425	6.91168	0.1385092	0.23480470	2.6021452	21	2 14.8	20.5
449330 2013 FQ_{21}	16.9	X	204.69001	195.13136	18.59114	13.94310	0.0915470	0.19261202	2.9694804	21	12 11.5	21.6
449331 2013 FE_{22}	16.5	X	86.48530	301.31321	8.86595	8.29300	0.0495522	0.18714669	3.0270153	21	11 30.3	21.0
449332 2013 FJ_{23}	17.8	X	87.32767	312.18093	191.09161	2.10139	0.1434982	0.25500192	2.4628639	21	5 15.3	20.8
449333 2013 FU_{24}	16.3	X	85.75233	285.99134	5.38368	8.41963	0.1254121	0.17638591	3.1489091	21	11 13.6	21.0
449334 2013 FW_{24}	16.4	X	126.97273	56.75289	183.20406	5.22788	0.1019111	0.17397121	3.1779797	21	10 26.8	21.2
449335 2013 FX_{25}	16.0	X	158.91702	148.36527	128.35431	9.88329	0.1947989	0.19866796	2.9088244	21	—	—
449336 2013 FG_{26}	16.4	X	88.96592	277.65504	137.87640	14.00826	0.0826539	0.22807041	2.6531192	21	1 12.6	19.8
449337 2013 GC_{1}	15.8	X	152.06358	190.17790	40.06925	16.80940	0.0714744	0.18063953	3.0992803	21	11 7.4	20.5
449338 2013 GZ_{3}	16.9	X	290.19284	332.67325	183.50577	1.86344	0.0244308	0.20683794	2.8317131	21	—	—
449339 2013 GP_{5}	17.0	X	195.90587	191.99777	44.83470	6.83890	0.0285888	0.19961780	2.8995896	21	—	—
449340 2013 GP_{6}	16.6	X	182.75979	176.68631	51.57233	12.97538	0.1501476	0.18902878	3.0068892	21	12 3.0	21.4
449341 2013 GU_{6}	15.5	X	246.86160	107.67942	12.18813	16.18478	0.0561628	0.17629322	3.1500128	21	10 10.1	20.0
449342 2013 GM_{10}	17.2	X	339.46583	326.22494	160.51415	4.60319	0.0575685	0.21184606	2.7869068	21	—	—
449343 2013 GR_{12}	17.0	X	9.08260	45.47457	115.54863	19.37390	0.1414863	0.23485651	2.6017625	21	1 22.7	19.8
449344 2013 GJ_{15}	16.6	X	129.82204	228.29121	188.01169	12.47994	0.0835754	0.24045764	2.5612010	21	3 5.2	20.2
449345 2013 GZ_{16}	15.6	X	49.00830	137.91160	179.94236	20.68712	0.0963540	0.17706757	3.1408223	21	11 4.2	20.1
449346 2013 GT_{18}	16.5	X	107.26607	273.39323	103.73098	10.15866	0.1305264	0.22058729	2.7127872	21	—	—
449347 2013 GW_{18}	16.5	X	124.30077	119.78419	112.37261	11.00276	0.0508926	0.17468203	3.1693526	21	10 15.6	21.3
449348 2013 GM_{20}	16.3	X	215.05756	26.36007	176.32281	10.43942	0.0421308	0.19307556	2.9647257	21	12 17.8	20.7
449349 2013 GE_{21}	15.9	X	159.72702	121.34078	140.48779	26.48773	0.2915183	0.18108049	3.0942468	21	12 22.9	21.8
449350 2013 GX_{26}	16.3	X	298.87872	318.81125	155.28751	13.17261	0.0393055	0.19502428	2.9449432	21	12 15.7	20.5
449351 2013 GW_{34}	17.3	X	59.88084	101.13941	13.37079	12.56610	0.2014286	0.23826129	2.5769168	21	3 4.1	19.8
449352 2013 GT_{40}	16.8	X	329.21984	140.12606	29.57850	13.99896	0.1321741	0.22109411	2.7086399	21	—	—
449353 2013 GW_{41}	17.5	X	64.28679	106.40687	26.61635	13.93206	0.1057545	0.24198216	2.5504324	21	3 25.2	20.5
449354 2013 GH_{42}	17.1	X	17.54302	316.65217	190.63817	11.40499	0.0903294	0.22935497	2.6432035	21	1 21.2	20.4
449355 2013 GX_{45}	15.7	X	40.67819	137.24172	201.13188	8.25437	0.0848032	0.17481456	3.1677505	21	11 14.7	20.0
449356 2013 GL_{52}	16.4	X	168.05346	167.68546	97.59915	11.78388	0.0710026	0.19063783	2.9899458	21	—	—
449357 2013 GY_{52}	16.4	X	72.44202	205.23829	129.98456	4.39311	0.0821527	0.18427162	3.0584197	21	12 19.6	20.9
449358 2013 GW_{55}	16.5	X	344.77460	22.49361	75.97808	3.18876	0.0232825	0.20384883	2.8593275	21	—	—
449359 2013 GH_{56}	16.8	X	349.53971	319.87705	151.31844	4.59747	0.0584722	0.20957618	2.8069937	21	—	—
449360 2013 GL_{57}	16.1	X	162.01474	265.81103	102.56452	13.93298	0.1151853	0.23609495	2.5926561	21	2 19.1	20.1

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
449361 2013 GK_{58}	17.1	X	88.33125	294.89293	138.12237	2.54208	0.0857484	0.23100030	2.6306376	21	2 3.6	20.4
449362 2013 GX_{72}	16.9	X	18.57272	249.47698	165.75978	2.26372	0.0579987	0.20324171	2.8650189	21	—	—
449363 2013 GL_{74}	17.3	X	350.56085	6.28595	144.41105	8.93193	0.0635084	0.22303024	2.6929413	21	—	—
449364 2013 GW_{74}	15.6	X	136.07764	230.11093	125.18694	26.12067	0.1841256	0.21711280	2.7416526	21	1 14.4	19.7
449365 2013 GG_{76}	17.1	X	181.83545	249.16932	330.35000	0.61535	0.1354111	0.19056683	2.9906884	21	11 24.2	21.7
449366 2013 GG_{77}	16.4	X	18.60882	130.73281	47.87135	10.16982	0.1464245	0.23716258	2.5848694	21	3 11.6	19.1
449367 2013 GU_{85}	17.0	X	74.48686	272.24815	180.66793	11.19044	0.0415328	0.22425647	2.6831157	21	2 3.8	20.7
449368 2013 GF_{86}	15.4	X	300.18239	20.32980	68.06019	17.09706	0.0574343	0.17942290	3.1132749	21	11 12.8	19.6
449369 2013 GY_{87}	16.5	X	297.98869	140.18859	55.54828	21.63361	0.1865093	0.21649059	2.7469033	21	—	—
449370 2013 GM_{90}	16.3	X	115.57407	143.67830	112.59727	11.82617	0.1781431	0.17284394	3.1917824	21	11 11.9	21.6
449371 2013 GR_{90}	15.8	X	59.88074	155.67536	152.52140	10.67063	0.0529634	0.17247092	3.1963828	21	10 30.8	20.4
449372 2013 GA_{93}	16.3	X	224.96204	97.53528	38.16767	16.51138	0.0533071	0.17412355	3.1761259	21	10 9.6	21.0
449373 2013 GN_{93}	17.4	X	58.56621	283.33567	199.72952	10.69173	0.1863455	0.24139371	2.5545756	21	3 2.9	20.0
449374 2013 GQ_{93}	16.5	X	133.33460	77.77400	190.45236	15.95907	0.1874475	0.18000781	3.1065271	21	12 8.1	21.9
449375 2013 GG_{94}	16.4	X	189.43004	355.75208	208.03123	8.58313	0.1208342	0.18482401	3.0523228	21	11 13.9	21.1
449376 2013 GV_{95}	16.0	X	141.53627	31.32158	192.15453	9.36504	0.0432764	0.17467210	3.1694728	21	10 19.3	20.6
449377 2013 GM_{96}	16.3	X	148.44277	51.37437	186.14733	10.29321	0.1820123	0.17770497	3.1333074	21	11 15.9	21.6
449378 2013 GP_{97}	16.4	X	218.24951	154.50258	33.43126	9.03433	0.2076522	0.18685719	3.0301411	21	11 13.7	21.2
449379 2013 GK_{98}	16.6	X	237.84278	197.69560	48.35437	13.49032	0.1028672	0.21065216	2.7974270	21	—	—
449380 2013 GU_{98}	15.9	X	235.37938	306.14822	191.66053	15.50884	0.0324613	0.17562190	3.1580350	21	10 23.7	20.4
449381 2013 GD_{101}	15.9	X	193.79730	7.42647	191.41242	15.53511	0.0660493	0.18023991	3.1038596	21	11 16.5	20.7
449382 2013 GP_{102}	16.8	X	291.05046	95.23221	61.97945	3.05387	0.0511742	0.20488925	2.8496396	21	—	—
449383 2013 GA_{103}	16.4	X	292.34336	122.04451	96.86671	9.99524	0.1325909	0.22255279	2.6967914	21	—	—
449384 2013 GJ_{105}	15.7	X	257.40986	285.60978	235.37021	9.80121	0.0344282	0.19272794	2.9682896	21	12 18.5	19.9
449385 2013 GQ_{105}	16.2	X	203.24591	203.89256	354.74219	16.48144	0.1391786	0.19158012	2.9801337	21	11 13.9	21.1
449386 2013 GE_{106}	16.7	X	28.53810	54.58054	40.77958	0.90425	0.0289230	0.21487417	2.7606620	21	—	—
449387 2013 GG_{106}	17.7	X	48.82880	128.79381	17.41620	12.53893	0.1881484	0.24334556	2.5408972	21	3 23.4	20.0
449388 2013 GT_{106}	16.2	X	126.15474	241.79759	14.79949	11.47426	0.0722096	0.17824231	3.1270069	21	11 9.5	21.1
449389 2013 GL_{107}	16.0	X	120.24043	233.17848	43.85338	18.85664	0.0409478	0.18179845	3.0860949	21	11 25.8	20.6
449390 2013 GV_{108}	16.0	X	108.33464	69.11659	206.41221	10.84887	0.0657438	0.17770038	3.1333613	21	11 16.3	20.6
449391 2013 GW_{109}	17.3	X	55.11697	311.52885	192.45346	7.62320	0.1644250	0.24365702	2.5387314	21	3 26.7	19.9
449392 2013 GO_{110}	15.9	X	203.03422	343.14980	213.46135	16.51501	0.1417350	0.18236398	3.0797113	21	11 16.7	20.8
449393 2013 GF_{112}	15.4	X	139.80275	218.07257	29.52057	22.75332	0.0827942	0.17603357	3.1531095	21	11 11.0	20.4
449394 2013 GZ_{114}	15.8	X	169.87746	304.35345	57.49431	14.44255	0.1912035	0.23835191	2.5762636	21	2 28.2	20.2
449395 2013 GT_{116}	16.3	X	218.49783	216.21092	313.53919	7.39157	0.0607749	0.18742979	3.0239665	21	11 5.7	20.8
449396 2013 GP_{123}	17.2	X	336.76308	100.20031	48.73563	5.83116	0.0647685	0.21767262	2.7369499	21	—	—
449397 2013 GB_{124}	17.1	X	118.19928	340.46704	16.73591	4.47301	0.0798049	0.20921939	2.8101840	21	—	—
449398 2013 GH_{125}	17.1	X	74.00828	16.44338	81.94433	13.43261	0.1565854	0.23035513	2.6355471	21	3 4.9	20.4
449399 2013 GS_{127}	16.3	X	88.61355	228.57524	91.74774	11.50769	0.0958614	0.18060206	3.0997089	21	12 20.5	21.0
449400 2013 GL_{131}	15.6	X	104.63634	215.64475	66.95422	15.89786	0.0954041	0.17780747	3.1321031	21	11 23.2	20.2
449401 2013 GW_{132}	16.4	X	152.63714	216.17681	23.76226	14.36038	0.0170288	0.18357390	3.0661643	21	11 17.1	20.9
449402 2013 GH_{134}	17.2	X	341.37108	112.51312	25.50182	7.81774	0.1624366	0.21674626	2.7447427	21	—	—
449403 2013 GF_{135}	16.5	X	183.72588	25.03460	202.14296	11.06065	0.0950403	0.18483411	3.0522116	21	12 6.9	21.3
449404 2013 HL_{1}	16.8	X	84.90612	242.44139	196.08491	13.47591	0.1371641	0.23275554	2.6173955	21	2 8.9	20.1
449405 2013 HL_{3}	16.1	X	332.14672	269.52355	157.50973	10.16649	0.1044536	0.18162623	3.0880454	21	11 29.8	20.1
449406 2013 HP_{8}	16.2	X	280.30885	168.34534	61.44918	13.63195	0.1381477	0.22296944	2.6934308	21	—	—
449407 2013 HQ_{8}	17.0	X	19.33290	15.84097	145.94017	13.55029	0.1036149	0.23766364	2.5812351	21	2 12.5	19.9
449408 2013 HS_{8}	15.7	X	78.05731	147.09800	145.81932	11.53356	0.0839721	0.17245130	3.1966253	21	11 7.6	20.5
449409 2013 HP_{16}	17.5	X	106.53846	329.59533	179.52183	7.73558	0.1610993	0.26142192	2.4223750	21	6 20.3	21.0
449410 2013 HV_{17}	16.6	X	61.96159	287.58446	187.13997	29.05210	0.2635076	0.23869211	2.5738151	21	3 10.9	19.0
449411 2013 HL_{21}	17.3	X	352.80987	313.97236	199.55545	7.75719	0.1328001	0.22156372	2.7048111	21	—	—
449412 2013 HH_{25}	16.7	X	238.16543	110.81216	123.32237	12.70270	0.1612237	0.20446540	2.8535763	21	—	—
449413 2013 HZ_{25}	16.0	X	189.31812	194.05866	84.86924	16.44125	0.1134247	0.20461909	2.8521473	21	—	—
449414 2013 HV_{28}	15.8	X	189.48947	138.08517	101.03074	10.35702	0.0529136	0.18628006	3.0363964	21	12 29.6	20.3
449415 2013 HE_{32}	16.3	X	91.55859	61.65540	281.98545	6.86748	0.0938550	0.19461386	2.9490822	21	—	—
449416 2013 HP_{32}	17.5	X	88.94881	133.36159	310.73615	4.99541	0.2138707	0.23745759	2.5827280	21	3 7.8	20.5
449417 2013 HG_{35}	16.3	X	157.96678	358.53738	230.67508	8.31396	0.0290863	0.18024272	3.1038274	21	11 13.2	20.6
449418 2013 HM_{41}	17.1	X	197.98496	199.73414	338.62244	3.97229	0.1042702	0.17831691	3.1261347	21	10 21.4	22.0
449419 2013 HZ_{43}	16.7	X	142.93911	35.69843	270.35394	4.95464	0.0931532	0.19648221	2.9303572	21	—	—
449420 2013 HF_{45}	16.1	X	340.21477	175.06384	262.94195	6.51504	0.0500277	0.19102924	2.9858603	21	12 24.4	19.9
449421 2013 HZ_{48}	16.0	X	79.00656	103.77726	216.84092	17.36333	0.1302572	0.17834487	3.1258080	21	12 13.4	20.9
449422 2013 HK_{53}	16.7	X	86.64613	129.93795	314.10862	4.47603	0.0725006	0.23133953	2.6280653	21	2 13.5	20.0
449423 2013 HA_{59}	16.8	X	223.91500	302.42787	253.12980	4.88993	0.0667883	0.19208059	2.9749550	21	12 15.8	21.0
449424 2013 HB_{63}	16.1	X	124.47347	53.15740	217.92321	8.78848	0.0511882	0.18179627	3.0861195	21	11 27.5	20.7
449425 2013 HG_{68}	16.1	X	87.98998	85.07200	223.65283	10.05507	0.0348537	0.18208321	3.0828764	21	11 29.8	20.6
449426 2013 HM_{74}	16.6	X	17.01278	207.55212	228.76387	4.67867	0.0539595	0.20396708	2.8582223	21	—	—
449427 2013 HW_{74}	16.5	X	61.37763	102.57590	215.55396	8.39375	0.0924940	0.17437676	3.1730505	21	11 16.5	20.9
449428 2013 HP_{83}	16.6	X	4.36156	11.01649	351.30936	2.20936	0.0672487	0.17164742	3.2065981	21	10 21.5	20.9
449429 2013 HZ_{96}	17.5	X	63.10754	206.22204	180.93605	1.84407	0.0740060	0.20190635	2.8776374	21	—	—
449430 2013 HJ_{100}	16.6	X	71.72868	292.80991	42.26261	3.12486	0.1794349	0.18184009	3.0856237	21	12 29.6	21.3
449431 2013 HV_{103}	16.5	X	218.14832	293.11548	213.19033	4.05451	0.0716329	0.17535003	3.1612984	21	10 7.5	21.1
449432 2013 HP_{108}	16.7	X	29.41526	203.54321	177.50949	3.35087	0.0684966	0.18779871	3.0200049	21	12 21.4	20.9
449433 2013 HL_{109}	16.6	X	109.04360	53.76301	205.64888	5.19084	0.1029472	0.17130774	3.2108355	21	10 30.9	21.5
449434 2013 HX_{109}	17.3	X	162.54165	243.09611	46.14483	0.86859	0.0546400	0.19954166	2.9003272	21	—	—
449435 2013 HB_{116}	17.6	X	147.70676	274.08882	40.02305	2.52182	0.0524197	0.20271746	2.8699563	21	—	—
449436 2013 HN_{118}	16.9	X	55.93622	283.06638	62.03483	3.58277	0.0131653	0.18406016	3.0607617	21	12 2.4	21.0
449437 2013 HS_{122}	16.9	X	51.44347	283.64712	74.48384	2.01045	0.1637998	0.18369308	3.0648380	21	—	—
449438 2013 HZ_{122}	16.9	X	353.73205	307.35007	91.42126	2.49562	0.1604039	0.18267441	3.0762213	21	11 30.0	20.4
449439 2013 HL_{134}	16.9	X	67.41543	70.14556	17.99943	6.96946	0.1193165	0.22645285	2.6657383	21	1 30.6	20.0
449440 2013 HE_{139}	17.1	X	16.66599	52.43974	32.46892	4.99914	0.0905525	0.20880152	2.8139321	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
449441 2013 HK_{140}	17.1	X	114.27091	301.67505	34.97224	5.45349	0.0589005	0.19974249	2.8983828	21	—	—
449442 2013 HU_{145}	17.3	X	88.81761	40.46470	8.27151	2.97616	0.2085252	0.22286718	2.6942546	21	1 24.3	20.4
449443 2013 HG_{146}	17.5	X	30.73088	274.19310	211.26506	3.46713	0.0941558	0.22745746	2.6578834	21	1 15.2	20.7
449444 2013 JH	15.2	X	168.78331	103.76118	75.31568	16.79616	0.0104369	0.16952021	3.2333674	21	10 4.3	20.1
449445 2013 JM	16.9	X	321.39375	73.09332	116.80564	11.78830	0.1486855	0.22234495	2.6984717	21	—	—
449446 2013 JH_{21}	16.6	X	186.03208	91.48810	166.94666	11.22671	0.0400024	0.18988420	2.9978518	21	—	—
449447 2013 JM_{21}	15.6	X	81.85438	219.79508	79.91206	18.26732	0.1168188	0.17119764	3.2122120	21	11 22.8	20.4
449448 2013 JX_{22}	15.6	X	111.40677	223.62156	42.23196	17.00510	0.0614758	0.17246283	3.1964829	21	11 5.9	20.3
449449 2013 JY_{30}	16.2	X	138.59195	155.87496	112.36227	10.63378	0.0583456	0.17546230	3.1599497	21	12 9.2	21.0
449450 2013 JA_{32}	15.9	X	184.86395	29.64158	168.89157	13.71549	0.0850997	0.17062941	3.2193396	21	11 5.7	21.0
449451 2013 JW_{33}	15.6	X	87.30646	239.07230	84.73515	12.06341	0.0349938	0.17942003	3.1133081	21	12 16.2	20.0
449452 2013 JA_{37}	16.3	X	219.37518	155.06887	50.64774	18.04981	0.1790520	0.18981357	2.9985954	21	12 7.3	21.1
449453 2013 JJ_{40}	15.9	X	89.71320	190.45683	124.82537	10.20238	0.0824871	0.17437856	3.1730286	21	12 14.2	20.7
449454 2013 JM_{42}	16.3	X	117.97633	244.35452	210.24606	27.72771	0.2212457	0.23960147	2.5672987	21	4 30.5	20.1
449455 2013 JS_{49}	16.7	X	287.93117	282.04525	200.01851	7.95891	0.0519625	0.18544960	3.0454545	21	12 7.2	20.8
449456 2013 JE_{54}	15.7	X	120.62221	217.81595	35.96929	14.01741	0.0823283	0.17264189	3.1942723	21	11 2.7	20.4
449457 2013 KU_{8}	16.0	X	150.50880	210.32702	47.60544	17.48448	0.0378781	0.18264061	3.0766008	21	12 6.9	20.6
449458 2013 KC_{17}	15.9	X	117.80672	192.92952	147.69925	14.65839	0.0669461	0.19027760	2.9937184	21	—	—
449459 2013 LB_{3}	15.5	X	121.89832	221.15280	71.41898	17.85315	0.0759128	0.17726525	3.1384868	21	12 19.1	20.3
449460 2013 LJ_{4}	16.2	X	25.06907	24.97888	70.54081	16.20376	0.1105786	0.20475428	2.8508917	21	—	—
449461 2013 LX_{7}	16.2	X	155.74610	25.68779	234.03194	8.37267	0.0497219	0.17845465	3.1245260	21	12 16.3	20.8
449462 2013 LE_{8}	16.0	X	211.77292	122.40477	74.64722	18.56776	0.1451144	0.18097420	3.0954581	21	11 25.9	20.8
449463 2013 LR_{11}	15.3	X	305.93702	250.47603	142.88348	16.92350	0.0561485	0.15086805	3.4946568	21	9 9.1	20.1
449464 2013 LH_{24}	16.0	X	208.86937	338.30734	230.80472	15.94721	0.0378231	0.17847656	3.1242703	21	12 15.0	20.6
449465 2013 LT_{33}	17.9	X	57.04145	79.41322	236.45857	3.89827	0.2915708	0.27646824	2.3336688	21	12 20.0	21.5
449466 2013 ME_{2}	16.4	X	246.48936	35.51122	165.80036	10.42857	0.0409732	0.18901364	3.0070498	21	—	—
449467 2014 BZ_{28}	17.7	X	112.17496	311.74859	304.19592	15.44169	0.0862585	0.34822976	2.0009004	21	11 18.6	20.6
449468 2014 BN_{60}	17.8	X	115.64988	148.42921	168.23841	22.92678	0.0981178	0.37208179	1.9144489	21	—	—
449469 2014 CL_{14}	18.7	X	328.02913	141.40963	9.33349	20.50266	0.0772975	0.39082650	1.8527353	21	—	—
449470 2014 CP_{21}	16.7	X	180.90912	242.44563	327.46048	12.55461	0.2471861	0.21250757	2.7811203	21	11 5.2	21.8
449471 2014 DR_{25}	18.4	X	50.80618	200.09698	70.00986	4.32481	0.1641717	0.31929893	2.1200092	21	10 3.7	20.6
449472 2014 DK_{36}	17.8	X	274.58619	157.71741	120.57261	2.02542	0.1662395	0.27309698	2.3528349	21	2 8.1	21.2
449473 2014 DY_{50}	17.7	X	322.91892	205.89026	69.00824	3.63383	0.1693045	0.28617192	2.2806118	21	4 3.8	20.2
449474 2014 DX_{74}	17.8	X	297.26524	103.93189	9.65030	19.98933	0.0640361	0.35894864	1.9608656	21	—	—
449475 2014 DZ_{79}	17.6	X	351.94612	181.66302	57.68514	7.42369	0.0719109	0.28604203	2.2813022	21	4 15.6	20.0
449476 2014 DN_{87}	17.7	X	319.52210	283.01119	267.56323	0.47733	0.1252269	0.26144365	2.4222408	21	—	—
449477 2014 DN_{90}	17.9	X	3.25963	101.97884	146.91356	6.87443	0.1313023	0.28874093	2.2670642	21	5 17.4	19.9
449478 2014 DW_{96}	17.9	X	317.32792	227.54417	54.99146	4.42532	0.2038100	0.28579657	2.2826082	21	3 31.4	20.4
449479 2014 DV_{119}	18.0	X	270.47248	265.24677	359.54775	2.33758	0.1651135	0.26248115	2.4158537	21	1 20.4	21.6
449480 2014 DG_{140}	17.3	X	31.20719	126.19658	4.85525	6.81299	0.0605482	0.26737617	2.3862773	21	1 16.8	20.0
449481 2014 EZ_{3}	18.1	X	13.37584	271.91873	161.71243	23.08258	0.0943099	0.37472875	1.9054229	21	—	—
449482 2014 EQ_{43}	16.7	X	205.52159	290.93319	325.62687	10.66465	0.2725634	0.22929920	2.6436321	21	—	—
449483 2014 EW_{48}	17.8	X	213.20682	333.36417	196.29526	24.07302	0.1344176	0.34915414	1.9973672	21	11 19.8	20.4
449484 2014 FP_{2}	17.6	X	337.95655	140.76743	100.67669	8.95166	0.1016540	0.28226228	2.3016228	21	3 25.4	20.2
449485 2014 FX_{3}	17.1	X	165.00657	266.37586	31.47687	14.62417	0.2001007	0.23512806	2.5997589	21	—	—
449486 2014 FG_{7}	17.6	X	301.09831	359.83231	260.88069	5.57338	0.2726434	0.27632811	2.3344577	21	1 29.9	21.1
449487 2014 FP_{11}	17.4	X	285.79468	335.50492	258.93410	4.63653	0.1104328	0.26730065	2.3867268	21	1 1.4	20.7
449488 2014 FB_{33}	18.4	X	283.41504	148.79100	37.37724	20.10014	0.0534568	0.38238519	1.8799026	21	—	—
449489 2014 FP_{46}	16.4	X	257.36924	205.57270	35.32582	13.55887	0.1067572	0.24195799	2.5506022	21	—	—
449490 2014 FD_{47}	16.5	X	126.14225	245.60815	31.61036	9.07962	0.1000998	0.21306712	2.7762491	21	12 12.2	20.8
449491 2014 FL_{47}	17.6	X	306.57496	59.48358	169.27986	8.67527	0.1577485	0.25483218	2.4639575	21	1 13.5	21.2
449492 2014 FN_{51}	16.9	X	181.49184	39.61107	195.55476	6.03819	0.0237218	0.21596857	2.7513279	21	12 23.9	20.8
449493 2014 FT_{52}	17.9	X	203.64231	235.67623	28.97694	20.95071	0.0421073	0.37538414	1.9032044	21	—	—
449494 2014 FZ_{53}	17.3	X	269.88410	17.59264	204.67682	4.44735	0.2219248	0.23988675	2.5652629	21	—	—
449495 2014 FK_{55}	16.6	X	269.18543	218.07257	43.64584	14.17732	0.1561596	0.24733574	2.5134956	21	1 21.2	20.7
449496 2014 FS_{57}	15.8	X	58.45372	276.61318	349.49347	15.48160	0.2097478	0.17847787	3.1242550	21	9 24.3	20.1
449497 2014 FT_{65}	17.0	X	248.82327	210.33005	75.82953	6.37990	0.1795961	0.25807349	2.4432831	21	1 27.1	20.9
449498 2014 FF_{66}	18.0	X	341.47073	108.74782	153.73747	3.50788	0.1330797	0.28480591	2.2878983	21	4 23.7	20.2
449499 2014 GJ_{3}	16.7	X	134.39454	25.49034	203.18750	8.26220	0.1826167	0.19697774	2.9254406	21	10 26.1	21.5
449500 2014 GD_{14}	17.8	X	306.76785	146.95888	111.25427	2.20904	0.1549398	0.26763775	2.3847223	21	2 20.8	20.9
449501 2014 GO_{15}	16.5	X	135.87407	270.11064	22.03103	13.08467	0.0751755	0.22157049	2.7047561	21	—	—
449502 2014 GZ_{15}	17.3	X	221.30377	218.20392	45.45493	6.01536	0.2842959	0.23565995	2.5958456	21	—	—
449503 2014 GW_{17}	18.2	X	92.09258	254.96916	307.24948	2.46766	0.1544798	0.30920472	2.1659012	21	8 16.1	20.7
449504 2014 GQ_{26}	17.1	X	314.25453	266.72360	5.04568	6.54424	0.1447551	0.27380444	2.3487803	21	3 21.5	19.8
449505 2014 GP_{30}	18.2	X	339.39791	68.29487	163.01979	1.34414	0.1401510	0.27206590	2.3587757	21	3 3.4	20.7
449506 2014 GC_{31}	18.4	X	34.91531	245.42641	63.02621	1.06731	0.1035205	0.31999463	2.1169353	21	10 24.3	20.3
449507 2014 GW_{33}	17.6	X	263.66431	188.17746	85.04283	4.16215	0.1445822	0.25469406	2.4648482	21	1 27.1	21.2
449508 2014 GY_{36}	17.4	X	171.78344	145.73738	102.54443	4.68023	0.1470992	0.21769851	2.7367329	21	12 22.1	21.6
449509 2014 GV_{38}	16.7	X	356.71045	87.89117	9.86449	9.90832	0.0622901	0.23122770	2.6289126	21	—	—
449510 2014 GW_{39}	18.2	X	325.56279	65.57741	179.65813	1.09615	0.1504879	0.27368472	2.3494652	21	2 27.4	20.7
449511 2014 GA_{40}	17.5	X	343.97047	188.04253	53.60372	8.89622	0.1715752	0.27670958	2.3323116	21	3 25.8	19.9
449512 2014 GL_{44}	17.6	X	77.51939	21.77057	125.61212	6.19796	0.1000935	0.28567705	2.2832448	21	4 28.5	20.1
449513 2014 GM_{45}	17.2	X	228.32331	46.40016	194.66243	4.16151	0.2743217	0.23251934	2.6191678	21	—	—
449514 2014 GS_{48}	16.7	X	106.23958	100.21049	144.68499	15.41720	0.2797671	0.18523748	3.0477790	21	10 31.2	22.1
449515 2014 GE_{49}	16.3	X	262.23294	40.34338	175.52239	32.72708	0.1824993	0.23258799	2.6186524	21	—	—
449516 2014 HF	18.1	X	241.86543	270.77723	135.53450	5.54492	0.1009841	0.30383049	2.1913671	21	6 28.6	20.8
449517 2014 HT_{2}	18.1	X	329.98522	281.80158	192.15171	22.95759	0.1262994	0.36906836	1.9248557	21	—	—
449518 2014 HB_{5}	17.5	X	295.79336	43.75296	75.07913	23.29362	0.0861895	0.35611916	1.9712384	21	—	—
449519 2014 HU_{9}	16.9	X	173.40927	86.06812	195.17336	8.75365	0.2852287	0.21859989	2.7292046	21	—	—
449520 2014 HA_{10}	17.8	X	302.79822	105.01009	132.29201	2.26497	0.1511751	0.25920744	2.4361521	21	1 21.1	21.1

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
449521 2014 HL_{11}	17.4	X	235.12974	218.00051	98.78246	2.98460	0.2090622	0.26207092	2.4183742	21	2 19.5	21.4
449522 2014 HP_{13}	17.2	X	289.84143	70.21512	85.21535	3.32920	0.0266629	0.22445755	2.6815130	21	—	—
449523 2014 HX_{14}	17.7	X	246.61745	292.38584	38.95641	4.25049	0.2077305	0.26839251	2.3802494	21	3 19.0	21.4
449524 2014 HT_{18}	17.5	X	194.50202	308.14049	29.94080	6.67847	0.1402370	0.25362631	2.4717612	21	2 12.7	21.4
449525 2014 HX_{20}	18.0	X	31.84151	323.33651	268.75468	1.61766	0.1075977	0.29191993	2.2505753	21	6 15.6	19.7
449526 2014 HL_{21}	17.2	X	266.70481	342.32731	279.01251	1.78662	0.1617484	0.25232637	2.4802434	21	1 13.8	21.1
449527 2014 HK_{26}	15.9	X	82.90713	164.13750	112.21855	17.02734	0.1479726	0.18175284	3.0866111	21	11 5.6	20.8
449528 2014 HW_{32}	16.5	X	256.07914	162.30594	46.25140	14.49561	0.1546175	0.23238759	2.6201577	21	—	—
449529 2014 HD_{36}	17.1	X	224.60349	212.17823	68.92514	11.48993	0.0537218	0.24510182	2.5287449	21	—	—
449530 2014 HL_{38}	16.8	X	146.87381	209.15709	76.74985	9.38021	0.1179463	0.21431826	2.7654338	21	—	—
449531 2014 HN_{39}	16.8	X	176.63913	277.20798	59.72933	17.28869	0.2889804	0.23791525	2.5794149	21	2 8.2	21.7
449532 2014 HW_{40}	17.7	X	282.12909	272.83230	79.59709	7.28734	0.1499018	0.29080788	2.2563091	21	5 28.4	20.3
449533 2014 HK_{42}	17.8	X	304.06522	246.92615	29.10639	3.73435	0.1427285	0.26840418	2.3801804	21	3 15.5	20.9
449534 2014 HY_{42}	16.9	X	196.04343	83.94006	166.49779	15.05032	0.3187429	0.21567345	2.7538372	21	—	—
449535 2014 HN_{56}	17.9	X	297.48260	116.51886	186.82028	6.36404	0.1220221	0.28072456	2.3100202	21	4 14.7	20.8
449536 2014 HQ_{72}	17.6	X	221.37676	182.92456	185.27284	6.68749	0.2807261	0.27483031	2.3429317	21	4 8.9	21.6
449537 2014 HR_{91}	16.6	X	177.13201	194.00749	49.71704	15.34408	0.1323245	0.21339592	2.7733966	21	12 20.4	21.2
449538 2014 HL_{100}	17.1	X	175.37446	263.69143	47.72514	15.01219	0.1814411	0.23281083	2.6169811	21	—	—
449539 2014 HW_{109}	17.1	X	334.81945	332.28396	178.17911	9.07906	0.0567710	0.24137927	2.5546774	21	—	—
449540 2014 HK_{114}	16.8	X	80.45822	110.77851	180.32135	9.68948	0.3122394	0.18370736	3.0646791	21	12 1.5	22.0
449541 2014 HE_{123}	17.1	X	207.97399	279.48954	345.62715	4.10379	0.1920026	0.22928437	2.6437462	21	—	—
449542 2014 HT_{124}	17.6	X	283.33941	157.78841	128.76821	3.54722	0.1791137	0.26963485	2.3729324	21	2 27.4	20.9
449543 2014 HN_{128}	18.2	X	313.05356	243.40350	58.80862	3.34351	0.1629041	0.28381246	2.2932342	21	4 28.7	20.5
449544 2014 HE_{146}	15.9	X	36.94102	247.40057	41.64993	14.88158	0.2502786	0.17463049	3.1699762	21	10 7.1	19.9
449545 2014 HZ_{146}	17.0	X	36.14300	288.37850	163.94745	5.77152	0.0821197	0.24217259	2.5490952	21	—	—
449546 2014 HN_{148}	17.8	X	337.15605	204.90100	78.61082	2.96347	0.1420318	0.29021867	2.2593620	21	5 16.0	19.5
449547 2014 HY_{158}	17.2	X	349.30752	238.50153	29.62950	7.16398	0.0877684	0.29077044	2.2565028	21	5 19.3	19.3
449548 2014 HU_{160}	16.8	X	56.53919	180.75259	167.15259	10.97651	0.1193795	0.20401781	2.8577484	21	12 25.2	21.0
449549 2014 HD_{163}	16.9	X	172.09299	235.99371	64.77426	14.40088	0.2670254	0.22481428	2.6786756	21	—	—
449550 2014 HG_{164}	17.5	X	307.30218	206.46141	57.66241	6.89866	0.1649891	0.27096591	2.3651550	21	3 2.4	20.6
449551 2014 HF_{167}	17.4	X	296.71641	138.51581	140.76867	6.53809	0.1178226	0.26804613	2.3822995	21	3 14.6	20.5
449552 2014 HT_{171}	17.9	X	81.07471	76.88185	141.77687	2.11455	0.0319503	0.30191608	2.2006208	21	8 5.2	20.1
449553 2014 HN_{172}	16.5	X	267.74838	16.12121	193.77854	13.02251	0.1051231	0.23528607	2.5985948	21	—	—
449554 2014 HO_{175}	16.2	X	0.97942	325.31934	32.94338	14.18036	0.1458317	0.18263456	3.0766687	21	10 20.2	19.8
449555 2014 HE_{180}	17.6	X	318.40131	176.44895	80.71832	6.46112	0.1043502	0.27583824	2.3372208	21	3 16.9	20.5
449556 2014 HB_{183}	17.9	X	346.46666	40.71702	173.81396	4.69931	0.1716403	0.26505112	2.4002121	21	2 14.5	20.6
449557 2014 HX_{183}	17.3	X	206.73741	134.84700	172.22261	13.38310	0.1620644	0.23928436	2.5695664	21	1 15.7	21.7
449558 2014 HY_{186}	17.2	X	244.22352	168.90186	79.12477	9.07350	0.1762142	0.23622056	2.5917369	21	—	—
449559 2014 HZ_{186}	17.6	X	345.96554	88.02670	182.53173	6.95006	0.1135455	0.28305046	2.2973481	21	5 18.3	19.8
449560 2014 HN_{188}	18.1	X	233.78430	131.99871	182.10439	1.79499	0.1049865	0.25973222	2.4328696	21	2 17.2	21.6
449561 2014 JJ	18.2	X	66.93469	157.60573	80.82151	4.69898	0.0423117	0.30587758	2.1815790	21	8 18.1	20.6
449562 2014 JK	17.8	X	350.14970	96.49510	154.73662	5.58589	0.1968394	0.27788058	2.3257548	21	4 15.7	19.7
449563 2014 JM	16.1	X	89.97056	42.83771	234.03987	15.63569	0.2144002	0.18345700	3.0674667	21	11 13.1	20.8
449564 2014 JX	16.5	X	168.37317	30.33924	266.64567	13.16303	0.1077759	0.22399417	2.6852099	21	—	—
449565 2014 JR_{1}	17.4	X	235.56904	103.81050	172.18069	4.07863	0.1103196	0.24440368	2.5335582	21	1 5.2	21.4
449566 2014 JC_{2}	17.6	X	21.26901	134.60427	99.21732	4.27238	0.1301836	0.28423339	2.2909696	21	5 30.2	19.4
449567 2014 JD_{4}	18.1	X	286.70080	102.86969	214.41163	5.92633	0.1354931	0.27831554	2.3233309	21	4 16.7	20.8
449568 2014 JL_{6}	17.2	X	197.74215	82.69228	203.12351	7.20615	0.1800215	0.22791727	2.6543075	21	—	—
449569 2014 JG_{9}	17.2	X	206.72874	32.43504	215.69222	15.40751	0.0912757	0.22293757	2.6936875	21	—	—
449570 2014 JS_{9}	17.4	X	260.49706	179.85470	114.91856	3.01824	0.1859976	0.25607239	2.4559954	21	2 16.2	21.1
449571 2014 JT_{10}	16.2	X	47.68443	88.33388	216.07063	13.99416	0.2624866	0.17344048	3.1844595	21	11 6.9	20.5
449572 2014 JK_{11}	17.8	X	303.19438	237.94366	73.40717	7.68649	0.1306271	0.27921715	2.3183268	21	5 4.5	20.6
449573 2014 JZ_{15}	17.9	X	339.49065	65.80139	218.07779	3.97473	0.1527310	0.28926826	2.2643081	21	5 19.9	19.7
449574 2014 JS_{17}	17.7	X	324.07700	94.44322	136.03105	3.13453	0.2154873	0.26623615	2.3930845	21	1 27.5	20.5
449575 2014 JM_{18}	17.5	X	270.34457	141.40397	130.78315	2.91670	0.1866540	0.25836998	2.4414135	21	1 27.6	21.1
449576 2014 JJ_{21}	17.1	X	235.27878	215.56577	47.70740	9.43048	0.0939402	0.23980233	2.5658649	21	—	—
449577 2014 JA_{22}	16.9	X	218.66637	152.63759	75.19712	13.25873	0.1184555	0.21852201	2.7298529	21	—	—
449578 2014 JV_{22}	17.0	X	196.93663	83.62232	217.99333	12.06878	0.1854661	0.22994488	2.6386810	21	1 2.8	21.6
449579 2014 JD_{24}	16.6	X	57.57512	83.26170	213.12704	14.83697	0.2248382	0.17535089	3.1612881	21	11 4.1	21.0
449580 2014 JP_{27}	15.7	X	67.61244	130.28178	149.23349	17.34261	0.0864485	0.17982639	3.1086162	21	10 12.1	20.3
449581 2014 JB_{29}	15.7	X	90.77000	145.74814	100.39377	16.24076	0.1734640	0.17235647	3.1977977	21	10 11.7	20.9
449582 2014 JO_{31}	17.5	X	64.51404	78.41829	145.81088	7.26552	0.0737243	0.29649691	2.2273541	21	7 25.6	19.8
449583 2014 JQ_{31}	17.7	X	55.13593	14.52637	208.86996	8.00640	0.0981189	0.29947022	2.2125867	21	7 11.8	20.1
449584 2014 JP_{33}	17.6	X	103.14109	49.55612	44.85318	6.83333	0.0923752	0.27008509	2.3702945	21	3 22.9	20.4
449585 2014 JF_{34}	17.3	X	150.25069	133.56567	202.02728	6.23508	0.1001703	0.22768337	2.6561250	21	—	—
449586 2014 JV_{35}	17.2	X	124.75060	258.50343	66.84038	9.14514	0.2888870	0.21026875	2.8008266	21	—	—
449587 2014 JR_{37}	17.8	X	253.31464	240.06491	125.56527	4.45670	0.1651054	0.28128123	2.3069714	21	5 11.3	21.1
449588 2014 JD_{39}	17.8	X	84.54225	38.34918	192.55920	4.79231	0.1195299	0.30694624	2.1765125	21	9 10.9	20.5
449589 2014 JA_{41}	17.4	X	116.30371	36.59061	63.50813	7.43439	0.0846620	0.27222565	2.3578528	21	4 16.4	20.4
449590 2014 JJ_{42}	17.2	X	265.03993	110.83076	149.07127	8.93685	0.1695095	0.24388494	2.5371495	21	1 10.8	21.3
449591 2014 JU_{42}	17.1	X	275.98624	29.96994	193.61838	8.92356	0.1112062	0.23909245	2.5709412	21	—	—
449592 2014 JZ_{42}	15.9	X	42.06420	240.83447	73.28081	27.77204	0.2616688	0.17278403	3.1925201	21	11 17.3	20.3
449593 2014 JX_{43}	16.0	X	87.30893	207.58010	95.05961	11.87938	0.0814320	0.19135442	2.9824767	21	11 30.1	20.4
449594 2014 JK_{44}	17.8	X	331.17332	244.42146	55.91037	5.48848	0.1513009	0.28730524	2.2746104	21	5 29.5	19.7
449595 2014 JB_{45}	18.3	X	80.14016	203.81479	55.35294	1.66676	0.0825164	0.31741809	2.1283756	21	10 13.4	20.6
449596 2014 JP_{45}	17.7	X	247.10234	247.76217	44.37126	3.33113	0.1805473	0.25167351	2.4845307	21	2 2.5	21.7
449597 2014 JK_{46}	15.9	X	18.20959	249.84288	84.15821	16.08671	0.0652241	0.17919612	3.1159010	21	10 15.8	20.3
449598 2014 JN_{46}	17.8	X	339.19286	140.66296	137.31988	6.48458	0.0892585	0.28109649	2.3079821	21	5 20.8	20.2
449599 2014 JH_{47}	17.7	X	182.16594	13.19795	322.44113	3.76500	0.1066996	0.24214444	2.5492928	21	1 25.9	21.6
449600 2014 JG_{48}	16.8	X	101.09429	254.75627	108.17007	7.18558	0.0410790	0.21965560	2.7204528	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
449601 2014 JM_{48}	17.2	X	202.59768	228.73930	70.30319	9.06938	0.1366766	0.23861381	2.5743781	21	1 3.5	21.3
449602 2014 JV_{51}	17.5	X	352.88830	174.92970	69.39983	7.42017	0.0840343	0.27755953	2.3275478	21	4 24.7	20.0
449603 2014 JC_{59}	17.7	X	117.49086	111.46670	53.52401	8.29197	0.0307482	0.29760360	2.2218288	21	7 9.8	20.4
449604 2014 JK_{62}	17.6	X	238.96976	199.09884	112.36601	5.83790	0.1255930	0.25313302	2.4749714	21	2 21.2	21.4
449605 2014 JN_{62}	16.5	X	20.26774	185.35711	156.56160	6.13242	0.2423411	0.17479243	3.1680180	21	11 12.6	20.2
449606 2014 JX_{63}	17.5	X	289.34427	36.22329	224.59231	6.35150	0.0916620	0.25885308	2.4383750	21	2 9.7	20.9
449607 2014 JA_{69}	17.4	X	215.58972	324.69643	314.63928	1.88648	0.1703514	0.23382033	2.6094433	21	—	—
449608 2014 JK_{70}	17.9	X	333.56583	38.30233	210.08143	1.40764	0.1225418	0.27079632	2.3661424	21	3 21.2	20.4
449609 2014 JL_{70}	18.3	X	291.08362	218.89149	34.39883	1.88194	0.1550676	0.25537089	2.4604910	21	1 29.2	21.7
449610 2014 JU_{70}	18.1	X	6.13987	205.46131	15.79871	2.77394	0.1362827	0.27506081	2.3416226	21	4 6.9	19.9
449611 2014 JV_{70}	17.8	X	334.17988	246.72089	26.57105	2.91200	0.1507527	0.27773619	2.3265608	21	4 23.2	20.1
449612 2014 JE_{71}	17.1	X	333.98268	208.39468	28.52792	7.37694	0.1914892	0.26722492	2.3871777	21	2 26.8	19.8
449613 2014 JA_{73}	16.1	X	34.67895	122.17578	224.95060	9.97953	0.1175929	0.18837702	3.0138209	21	11 23.9	20.0
449614 2014 JB_{73}	17.9	X	77.00147	15.87334	218.10013	5.98417	0.1279347	0.30484754	2.1864905	21	9 4.8	20.5
449615 2014 JO_{73}	17.7	X	346.47303	354.71478	209.04685	5.79151	0.0771312	0.26044777	2.4284115	21	2 13.1	20.7
449616 2014 JP_{75}	17.2	X	226.93465	248.03943	38.54089	13.69323	0.1684597	0.23957184	2.5675104	21	1 12.4	21.6
449617 2014 JJ_{76}	17.3	X	146.54465	63.12134	241.54015	4.14917	0.1375440	0.21590476	2.7518700	21	—	—
449618 2014 JT_{78}	17.1	X	255.57814	185.95147	63.68731	3.44475	0.2404005	0.24023327	2.5627954	21	—	—
449619 2014 JC_{79}	16.8	X	258.03551	165.83815	93.37808	14.40507	0.2170826	0.24081381	2.5586750	21	1 2.2	21.1
449620 2014 JJ_{79}	16.1	X	79.87131	221.02449	39.42769	10.84861	0.1925389	0.17563601	3.1578658	21	10 14.1	20.8
449621 2014 JN_{79}	16.1	X	116.56412	136.39217	84.69040	20.41493	0.3062231	0.17921856	3.1156409	21	10 18.0	21.9
449622 2014 KQ	16.9	X	181.51818	150.04173	90.16599	9.19883	0.1665697	0.21215685	2.7841845	21	12 19.5	21.4
449623 2014 KS	16.8	X	153.54090	233.22126	58.56629	15.28788	0.1887529	0.21575060	2.7531807	21	—	—
449624 2014 KC_{3}	16.8	X	252.12888	143.55885	71.40998	12.51214	0.1318507	0.23276258	2.6173428	21	—	—
449625 2014 KP_{3}	16.1	X	89.93292	67.67333	230.52914	14.56800	0.1327499	0.18999188	2.9967190	21	12 1.3	20.7
449626 2014 KN_{5}	17.9	X	344.85864	191.08740	59.22405	3.20799	0.1560354	0.27799208	2.3251328	21	4 8.4	19.9
449627 2014 KQ_{6}	16.3	X	287.46714	66.82104	43.39293	4.85840	0.0645349	0.20924142	2.8099868	21	11 24.1	19.8
449628 2014 KN_{12}	17.3	X	185.64105	253.26757	88.87326	3.63999	0.1908921	0.23998541	2.5645598	21	2 11.8	21.5
449629 2014 KU_{16}	17.6	X	217.17857	88.52803	220.97577	8.30034	0.1929135	0.24132492	2.5550610	21	1 26.4	22.0
449630 2014 KC_{17}	16.3	X	60.65579	226.90650	83.08194	10.21825	0.1299032	0.18379737	3.0636785	21	11 14.2	20.6
449631 2014 KL_{17}	16.3	X	64.02165	77.50646	212.09815	10.27072	0.0932611	0.17882045	3.1202635	21	10 15.6	20.6
449632 2014 KR_{17}	17.6	X	200.70739	147.26553	182.76373	5.88385	0.1915487	0.24154380	2.5535172	21	2 7.4	21.8
449633 2014 KE_{18}	17.2	X	178.42127	72.19118	212.25592	12.15912	0.1507530	0.21974787	2.7196912	21	—	—
449634 2014 KS_{20}	16.8	X	201.25561	53.20298	202.19628	15.32754	0.1162294	0.21922724	2.7239954	21	—	—
449635 2014 KW_{20}	16.7	X	59.21865	194.36068	178.50917	12.78038	0.1656579	0.20437255	2.8544405	21	—	—
449636 2014 KZ_{23}	17.0	X	188.85320	192.61316	111.81094	14.57415	0.1728289	0.23333681	2.6130470	21	—	—
449637 2014 KY_{24}	17.2	X	237.67629	243.50731	87.99346	4.22605	0.0816321	0.26282381	2.4137535	21	3 19.1	20.6
449638 2014 KW_{26}	16.6	X	196.77197	273.41547	71.25902	15.03393	0.1709924	0.25532004	2.4608177	21	2 27.9	20.9
449639 2014 KJ_{27}	16.3	X	97.19550	194.07093	138.20233	18.69309	0.1318807	0.20353653	2.8622516	21	—	—
449640 2014 KM_{27}	16.3	X	92.21314	256.19463	40.49003	13.67745	0.2479658	0.18044024	3.1015619	21	12 8.4	21.5
449641 2014 KY_{28}	17.7	X	247.07244	208.84545	161.39048	4.53241	0.1566317	0.27700134	2.3306736	21	5 11.6	21.1
449642 2014 KE_{29}	16.3	X	76.89200	79.87295	220.41474	15.24303	0.2435469	0.18198366	3.0840006	21	12 1.4	21.3
449643 2014 KF_{29}	17.3	X	179.53379	115.39008	193.87704	8.55798	0.0267743	0.23055930	2.6339910	21	—	—
449644 2014 KK_{31}	17.1	X	208.87924	242.64113	70.76716	25.60090	0.2021979	0.24013990	2.5634598	21	1 31.4	21.9
449645 2014 KX_{34}	16.7	X	90.32212	194.26504	128.83173	10.32493	0.1292716	0.20514837	2.8472395	21	—	—
449646 2014 KN_{41}	16.5	X	241.45855	347.05484	255.64715	6.82285	0.1670771	0.23203804	2.6227884	21	—	—
449647 2014 KK_{42}	16.0	X	64.62658	198.46635	100.35811	18.31378	0.1211164	0.18246692	3.0785529	21	11 9.1	20.7
449648 2014 KC_{43}	16.6	X	63.52452	130.20952	179.38409	22.67252	0.2043788	0.18055599	3.1002362	21	11 26.4	21.5
449649 2014 KX_{50}	18.0	X	22.31154	161.76824	98.77552	2.56617	0.0915899	0.29104435	2.2550868	21	7 12.3	20.1
449650 2014 KT_{51}	16.9	X	141.61867	163.19127	142.81888	13.87975	0.1749236	0.21014452	2.8019303	21	—	—
449651 2014 KV_{51}	16.8	X	96.54689	82.08730	188.90837	16.32920	0.2354037	0.18156308	3.0887613	21	11 15.7	22.0
449652 2014 KK_{52}	17.3	X	234.44749	161.72558	121.87231	6.18050	0.1198707	0.24088321	2.5581835	21	1 14.1	21.3
449653 2014 KU_{55}	17.0	X	174.43115	122.91530	215.24286	14.28066	0.1699392	0.23392527	2.6086629	21	1 22.7	21.5
449654 2014 KS_{57}	17.8	X	312.11482	154.68839	157.81467	6.54882	0.1133805	0.27926917	2.3180389	21	5 23.1	20.4
449655 2014 KP_{58}	16.8	X	197.50145	74.84103	207.32856	12.14969	0.0670802	0.22572348	2.6714777	21	—	—
449656 2014 KG_{62}	17.3	X	17.11336	217.30455	48.70204	7.48450	0.1455528	0.29114010	2.2545924	21	7 17.6	19.2
449657 2014 KS_{70}	16.1	X	3.47486	237.52929	112.94845	11.71205	0.1292750	0.17430176	3.1739606	21	10 16.4	20.1
449658 2014 KP_{71}	16.3	X	53.40845	226.90172	102.68696	12.07416	0.0959894	0.18578546	3.0417830	21	11 25.2	20.6
449659 2014 KR_{73}	17.4	X	204.98424	75.47409	211.56490	11.85550	0.0755227	0.23165697	2.6256639	21	—	—
449660 2014 KP_{74}	17.7	X	53.54405	15.24396	163.07804	6.31795	0.0622607	0.27319093	2.3522954	21	4 30.3	20.3
449661 2014 KS_{77}	17.3	X	193.78831	134.58887	160.31093	11.68554	0.1815539	0.22463016	2.6801392	21	—	—
449662 2014 KB_{79}	17.4	X	270.04178	354.02008	253.50361	6.42524	0.0925977	0.24513490	2.5285174	21	1 6.3	21.0
449663 2014 KA_{80}	17.3	X	284.14768	329.78383	57.49595	5.98465	0.0178361	0.30381688	2.1914326	21	8 18.1	19.8
449664 2014 KT_{80}	17.4	X	342.40399	303.98108	244.88880	5.19070	0.0760363	0.25385835	2.4702548	21	1 20.5	20.4
449665 2014 KW_{80}	17.2	X	305.43063	214.97536	56.21456	7.89891	0.0923707	0.27018139	2.3697313	21	3 21.4	20.2
449666 2014 KH_{81}	16.3	X	188.39155	124.02385	223.72385	2.51763	0.2701913	0.24095430	2.5576803	21	2 21.2	20.9
449667 2014 KH_{83}	17.0	X	159.60753	251.60376	70.67070	10.72816	0.1393377	0.22283656	2.6945014	21	—	—
449668 2014 KS_{83}	16.5	X	225.56559	322.81680	289.21386	6.18992	0.1852015	0.22890467	2.6466689	21	—	—
449669 2014 KS_{84}	18.0	X	283.54570	73.72605	85.64452	23.59161	0.0419475	0.35494187	1.9755949	21	—	—
449670 2014 KO_{85}	16.5	X	162.80151	101.29147	164.05218	20.31494	0.2158359	0.21075373	2.7965282	21	12 30.9	21.7
449671 2014 KR_{85}	16.6	X	266.29918	109.19446	105.25092	9.66641	0.1143192	0.23381563	2.6094783	21	—	—
449672 2014 KW_{85}	17.5	X	26.30282	126.05063	96.02409	3.55250	0.1109194	0.27992603	2.3144112	21	5 20.8	19.5
449673 2014 KX_{85}	17.6	X	38.82768	4.48533	201.17141	4.75023	0.1973866	0.28087183	2.3092126	21	5 29.9	19.2
449674 2014 KV_{90}	17.0	X	269.10109	2.96294	216.05220	7.20037	0.1440760	0.23401264	2.6080135	21	—	—
449675 2014 KW_{92}	16.3	X	92.59421	261.08427	67.40956	12.45873	0.2156275	0.19643140	2.9308625	21	—	—
449676 2014 KW_{93}	15.8	X	106.47211	164.47517	80.00746	12.21418	0.0201964	0.17728236	3.1382849	21	10 8.4	20.5
449677 2014 KX_{94}	15.7	X	33.50032	214.25868	97.31648	20.10457	0.1359422	0.17173197	3.2055455	21	10 18.9	20.3
449678 2014 KQ_{97}	16.9	X	149.94703	62.59804	236.33073	5.38439	0.1504592	0.21499118	2.7596603	21	—	—
449679 2014 KK_{100}	17.2	X	198.54265	254.09470	76.71316	8.08962	0.0884369	0.24374657	2.5381096	21	2 6.9	21.0
449680 2014 KC_{101}	17.8	X	43.93051	331.78264	267.44197	3.37026	0.1337470	0.29196075	2.2503655	21	7 24.2	20.0

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
449681 2014 LC_3	18.0	X	165.21389	344.86790	112.87892	5.54563	0.0613081	0.28822596	2.2697637	21	6 9.4	20.9
449682 2014 LF_3	17.6	X	209.86643	211.56229	107.50787	5.42038	0.1583229	0.24342443	2.5403484	21	2 3.4	21.7
449683 2014 LZ_6	17.7	X	356.51674	75.70775	177.36060	5.33815	0.1314959	0.28024477	2.3126560	21	5 9.7	19.7
449684 2014 LE_7	18.0	X	53.47207	102.67546	116.95760	4.30243	0.1649602	0.29295385	2.2452769	21	7 16.7	19.9
449685 2014 LP_{12}	16.9	X	221.24229	35.46829	250.82297	14.00641	0.0907065	0.23529082	2.5985599	21	1 3.8	21.0
449686 2014 LK_{14}	18.1	X	4.54749	307.18825	278.71836	0.76573	0.1357763	0.27685524	2.3314936	21	4 10.3	20.0
449687 2014 LK_{16}	15.8	X	47.89122	96.32920	213.46291	18.64040	0.1934700	0.17592894	3.1543595	21	11 4.2	20.0
449688 2014 LS_{18}	17.7	X	280.44639	209.27029	52.04488	2.77873	0.1545714	0.25470762	2.4647607	21	1 28.4	21.2
449689 2014 LA_{19}	16.8	X	274.77410	257.11620	59.96388	7.78055	0.1397799	0.27220857	2.3579514	21	4 5.7	20.2
449690 2014 LD_{19}	17.6	X	20.59066	351.84162	186.08724	5.44293	0.0457059	0.26077100	2.4264044	21	3 5.8	20.5
449691 2014 LK_{19}	17.4	X	251.69302	59.65167	208.44103	5.70422	0.1202763	0.24219043	2.5489700	21	1 10.8	21.4
449692 2014 LS_{20}	16.6	X	138.21207	166.55896	168.17536	7.21145	0.1309761	0.21775341	2.7362729	21	—	—
449693 2014 LE_{22}	16.0	X	55.52787	242.88819	63.08309	14.48057	0.2913861	0.17530047	3.1618942	21	11 21.9	20.7
449694 2014 LJ_{22}	17.4	X	279.06884	183.81606	64.98599	5.05906	0.1242713	0.24600801	2.5225312	21	1 15.9	21.2
449695 2014 LX_{22}	16.3	X	49.18736	93.65658	246.40746	25.04957	0.2165528	0.18187018	3.0852833	21	12 14.7	20.7
449696 2014 LD_{23}	15.7	X	79.64645	197.65940	67.52915	17.99431	0.1756598	0.17613312	3.1519213	21	10 22.8	20.6
449697 2014 LU_{23}	16.5	X	250.91818	10.81997	220.36787	13.57831	0.1993252	0.23002622	2.6380589	21	—	—
449698 2014 LK_{24}	16.3	X	276.28617	217.92689	59.35824	15.94602	0.1580330	0.24417383	2.5351479	21	2 20.9	20.4
449699 2014 MJ	17.5	X	278.14824	176.98235	119.04913	9.54428	0.1047061	0.26323190	2.4112581	21	3 18.7	20.9
449700 2014 MH_1	17.3	X	342.94069	169.13309	99.10465	7.48900	0.1272950	0.27625176	2.3348878	21	5 9.0	19.6
449701 2014 MM_1	16.5	X	124.23644	134.89183	181.64847	15.42965	0.1067438	0.20937269	2.8088122	21	—	—
449702 2014 MF_2	17.9	X	330.89731	341.48231	271.94496	0.98357	0.1379872	0.26648673	2.3915841	21	3 22.2	20.5
449703 2014 MT_6	17.4	X	237.23998	105.05932	164.63836	12.18294	0.2369388	0.23396295	2.6083828	21	—	—
449704 2014 MC_9	16.4	X	116.98252	30.19474	259.59185	3.59653	0.1159062	0.18426756	3.0584646	21	12 15.4	21.1
449705 2014 MB_{11}	15.9	X	75.82054	171.55609	278.14812	21.30923	0.0526801	0.22950828	2.6420263	21	1 28.2	19.5
449706 2014 MR_{14}	16.6	X	228.31510	31.28507	211.26323	13.32251	0.2069759	0.22443470	2.6816950	21	—	—
449707 2014 MQ_{24}	16.5	X	129.60685	229.21027	112.96549	8.09330	0.0123146	0.20900421	2.8121125	21	—	—
449708 2014 MT_{31}	15.8	X	322.91935	300.42536	123.01272	11.06604	0.0651543	0.16977523	3.2301287	21	11 12.1	20.2
449709 2014 MH_{35}	16.2	X	71.45702	237.75163	93.20542	10.37444	0.1401395	0.18975165	2.9992478	21	12 21.4	20.7
449710 2014 MS_{35}	17.0	X	238.25822	332.20744	277.25583	3.31321	0.1034926	0.22977145	2.6400086	21	—	—
449711 2014 MD_{36}	15.8	X	104.70968	189.67885	124.85859	17.11187	0.2377910	0.18312210	3.0712055	21	—	—
449712 2014 MJ_{38}	15.5	X	357.75740	287.57154	138.69579	16.45222	0.0609952	0.17756226	3.1349860	21	12 31.8	19.9
449713 2014 MQ_{38}	16.4	X	135.89544	202.71120	127.87615	12.85392	0.0607905	0.19867133	2.9087914	21	—	—
449714 2014 MV_{43}	16.4	X	332.31885	244.43648	278.28391	15.12030	0.0867295	0.22318318	2.6917108	21	—	—
449715 2014 ME_{46}	16.2	X	88.72322	349.22342	325.78802	8.60900	0.1005974	0.18347011	3.0673206	21	12 15.1	20.9
449716 2014 MS_{48}	15.3	X	152.74282	334.77166	264.55196	16.86554	0.1156923	0.17987598	3.1080448	21	11 18.8	20.4
449717 2014 MG_{51}	16.4	X	13.06319	204.15929	256.40792	21.20864	0.0227876	0.23064805	2.6333153	21	—	—
449718 2014 MP_{54}	15.6	X	335.50011	288.01983	51.81696	10.14408	0.0754758	0.14538127	3.5820399	21	8 14.5	20.5
449719 2014 MS_{65}	16.5	X	48.42262	254.78244	142.31148	10.39576	0.1023805	0.19200007	2.9757866	21	—	—
449720 2014 ML_{66}	15.8	X	340.88558	142.49306	284.62311	12.62837	0.0905421	0.17285658	3.1916269	21	12 8.9	19.9
449721 2014 NU	16.5	X	135.74504	72.06686	229.35718	10.43694	0.1734492	0.20341397	2.8634011	21	—	—
449722 2014 NY_1	16.0	X	199.07947	158.14436	202.77251	11.19507	0.1956116	0.24643867	2.5195915	21	3 13.7	20.3
449723 2014 NQ_2	15.8	X	163.29364	132.01427	250.21070	24.14218	0.3353818	0.23755528	2.5820199	21	3 9.9	21.0
449724 2014 NO_{16}	16.1	X	116.27163	75.29920	242.79736	13.81212	0.1556448	0.20451942	2.8530738	21	—	—
449725 2014 NX_{16}	16.5	X	36.78612	241.59278	102.44354	17.72334	0.2434173	0.17986110	3.1082162	21	12 11.1	20.8
449726 2014 NP_{19}	15.8	X	282.65610	265.07658	211.87844	12.36367	0.0924522	0.17327558	3.1864796	21	11 16.9	20.0
449727 2014 NR_{19}	16.4	X	22.71808	298.68032	197.31254	12.32821	0.1026110	0.22195599	2.7016234	21	1 15.6	19.9
449728 2014 NQ_{21}	15.5	X	314.93920	192.22920	243.72625	18.33661	0.1028509	0.16989558	3.2286031	21	11 8.9	19.7
449729 2014 NN_{23}	16.4	X	199.18407	118.66985	133.89269	11.08182	0.1110199	0.20559119	2.8431496	21	—	—
449730 2014 NR_{25}	16.5	X	110.28926	159.53145	138.07934	8.28750	0.1376658	0.18468057	3.0539031	21	12 19.9	21.4
449731 2014 NB_{30}	16.6	X	321.31736	309.47436	276.45072	13.71488	0.0482825	0.23953073	2.5678041	21	2 11.8	20.2
449732 2014 NC_{30}	16.4	X	37.56373	241.05665	146.99569	11.03904	0.1221624	0.18410594	3.0602543	21	—	—
449733 2014 NN_{30}	15.9	X	85.64069	173.60839	133.19164	17.74655	0.1940735	0.17589171	3.1548046	21	12 13.4	21.1
449734 2014 NQ_{31}	16.9	X	157.88790	160.41791	126.20105	10.18502	0.1166120	0.19769860	2.9183250	21	—	—
449735 2014 NE_{33}	16.5	X	61.91045	220.15549	145.94107	5.70457	0.1084186	0.18691189	3.0295498	21	—	—
449736 2014 NF_{38}	15.5	X	57.58597	109.71430	248.92053	10.10666	0.0826700	0.18237345	3.0796047	21	12 29.1	19.9
449737 2014 NG_{39}	15.9	X	101.53380	105.50876	225.82698	10.08792	0.0556348	0.18704223	3.0281422	21	—	—
449738 2014 NC_{46}	16.2	X	325.74942	228.74186	233.65201	8.47264	0.0576297	0.18294250	3.0732152	21	12 31.9	20.4
449739 2014 NG_{48}	16.0	X	309.38787	236.63063	207.43746	15.10634	0.0729221	0.17187434	3.2037751	21	11 15.5	20.2
449740 2014 NR_{52}	15.7	X	59.89475	224.93449	98.00612	10.23359	0.0902737	0.17413886	3.1759397	21	11 21.9	20.3
449741 2014 NM_{54}	16.1	X	151.81329	223.47090	41.67633	5.56151	0.1074355	0.18439453	3.0570604	21	12 19.1	21.0
449742 2014 NG_{58}	15.9	X	293.26456	64.21822	58.23091	7.84105	0.0666138	0.17719035	3.1393712	21	12 10.4	20.1
449743 2014 NM_{60}	15.8	X	97.15890	196.02604	126.81767	18.72165	0.1660530	0.17878914	3.1206277	21	—	—
449744 2014 NL_{61}	16.3	X	231.16235	347.26675	295.34161	13.66688	0.1017728	0.22981783	2.6396534	21	1 12.4	20.3
449745 2014 OU_4	15.8	X	228.03368	241.97682	317.71975	8.81749	0.0210524	0.18561980	3.0435925	21	12 31.1	20.2
449746 2014 OG_6	15.4	X	4.39317	291.55460	106.96614	11.52589	0.0243040	0.18113423	3.0936347	21	12 5.9	19.7
449747 2014 OJ_6	16.3	X	172.71366	119.20281	127.52273	10.56517	0.0959847	0.18371417	3.0646035	21	12 18.8	21.1
449748 2014 ON_8	16.9	X	94.85048	243.50201	146.29048	6.14866	0.0830116	0.21087242	2.7954787	21	—	—
449749 2014 OF_{16}	17.8	X	33.61109	283.53661	224.30028	0.71228	0.0298092	0.23649958	2.5896981	21	2 17.5	20.9
449750 2014 OO_{17}	16.6	X	39.24441	140.83788	290.64912	8.11771	0.1144117	0.20449130	2.8533354	21	—	—
449751 2014 OK_{22}	16.6	X	49.45021	314.59495	135.87499	7.32382	0.1043903	0.21629455	2.7485628	21	1 2.9	19.8
449752 2014 OH_{32}	16.7	X	91.14960	294.79368	16.41985	2.65471	0.0553004	0.18040266	3.1019926	21	12 7.7	21.2
449753 2014 OO_{32}	16.4	X	149.60568	150.10529	111.55505	11.98205	0.0984765	0.18692186	3.0294421	21	12 14.6	21.2
449754 2014 ON_{33}	17.2	X	0.34674	59.20338	108.69880	12.76602	0.1164831	0.23363853	2.6107968	21	1 20.8	20.1
449755 2014 OV_{33}	16.7	X	9.42710	347.13431	69.26078	2.95934	0.0775136	0.18603759	3.0390342	21	—	—
449756 2014 OP_{37}	17.3	X	40.36718	15.97232	119.85188	5.41006	0.0814815	0.23268760	2.6179050	21	2 14.3	20.4
449757 2014 OT_{38}	17.2	X	266.10387	281.99245	314.00558	4.24935	0.0945818	0.22226819	2.6990930	21	—	—
449758 2014 OD_{39}	16.7	X	226.94630	165.10371	39.85302	2.33075	0.0069151	0.19109083	2.9852187	21	—	—
449759 2014 OQ_{40}	16.8	X	84.82027	17.46282	49.45575	2.15478	0.0544812	0.21958222	2.7210589	21	1 20.9	20.2
449760 2014 OG_{49}	16.1	X	27.15742	280.04443	94.42847	6.49130	0.0556894	0.17839997	3.1251644	21	12 7.3	20.3

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
449761 2014 OD_{53}	16.6	X	136.08652	164.34200	103.67667	1.30254	0.1850147	0.18423025	3.0588776	21	12 9.8	21.8
449762 2014 OT_{65}	16.2	X	297.16263	175.62579	342.53653	6.29464	0.1542585	0.20418299	2.8562069	21	—	—
449763 2014 OC_{67}	16.9	X	285.71987	131.02900	16.13143	3.42370	0.0254999	0.18926606	3.0043756	21	—	—
449764 2014 OM_{67}	16.4	X	305.91555	83.96240	18.77556	4.85642	0.1048721	0.17841093	3.1250364	21	11 30.5	20.4
449765 2014 OO_{70}	15.9	X	343.63478	294.52000	145.28785	18.77193	0.1580595	0.17603239	3.1531236	21	—	—
449766 2014 OG_{71}	16.5	X	173.05584	118.50680	118.37183	6.99839	0.0543346	0.17970829	3.1099780	21	12 8.9	21.2
449767 2014 OX_{79}	17.1	X	100.27817	82.36198	323.40395	11.44794	0.0995531	0.21949986	2.7217395	21	1 22.5	20.6
449768 2014 OJ_{80}	16.1	X	321.09254	5.32993	87.90496	10.42869	0.1024147	0.18544993	3.0454508	21	12 14.7	19.7
449769 2014 OD_{85}	16.5	X	108.76792	199.07648	85.69534	10.17151	0.1231204	0.18050206	3.1008537	21	12 2.4	21.2
449770 2014 OE_{88}	16.2	X	60.43710	183.98244	142.39020	10.15896	0.0737754	0.17466181	3.1695972	21	11 24.7	20.8
449771 2014 OC_{91}	15.6	X	342.54867	121.67740	280.81202	14.00951	0.0097017	0.17303230	3.1894657	21	11 6.4	20.3
449772 2014 OV_{92}	16.9	X	172.04538	84.63467	194.36653	6.00153	0.0448598	0.19999920	2.8959021	21	—	—
449773 2014 OP_{105}	16.6	X	30.21741	261.52790	115.88505	9.98020	0.0769833	0.17786431	3.1314357	21	12 17.7	20.9
449774 2014 OA_{107}	15.8	X	183.95449	258.89466	315.20038	10.03038	0.0699528	0.18404322	3.0609495	21	11 20.2	20.6
449775 2014 OK_{107}	16.2	X	33.55643	252.47826	127.37971	12.15333	0.1645902	0.17621967	3.1508892	21	—	—
449776 2014 OL_{113}	16.7	X	106.95256	186.26294	112.87674	12.17529	0.1313555	0.18374455	3.0642655	21	12 18.4	21.6
449777 2014 OW_{122}	16.9	X	246.91375	173.23555	84.92991	3.06180	0.0419911	0.22113126	2.7083365	21	1 3.1	20.8
449778 2014 OX_{122}	15.2	X	268.20211	263.49763	118.95945	12.05127	0.2121821	0.12585042	3.9436613	21	6 17.3	21.1
449779 2014 OT_{134}	15.9	X	8.32887	110.11631	309.17300	14.27495	0.0847260	0.18802025	3.0176322	21	—	—
449780 2014 OM_{136}	16.4	X	351.01774	117.90554	315.27147	10.02072	0.1151219	0.18534341	3.0466176	21	—	—
449781 2014 OG_{155}	17.1	X	151.51209	258.18947	68.99725	6.51163	0.0386212	0.21117361	2.7928201	21	—	—
449782 2014 OU_{155}	17.1	X	179.50956	309.45759	3.19256	5.43193	0.0201643	0.21700028	2.7426003	21	—	—
449783 2014 OQ_{158}	17.2	X	107.16672	347.79557	31.87808	7.04987	0.0545105	0.21278319	2.7787182	21	—	—
449784 2014 OG_{159}	15.6	X	156.76624	142.30495	96.11409	15.38705	0.0299241	0.17959645	3.1112689	21	11 25.9	20.2
449785 2014 OK_{161}	17.3	X	106.50650	321.33203	67.76414	7.20130	0.0230840	0.21632066	2.7483417	21	—	—
449786 2014 OT_{162}	16.3	X	99.44508	195.77237	101.43432	10.74104	0.0567639	0.17898960	3.1182973	21	12 2.2	20.9
449787 2014 OL_{176}	16.1	X	138.53073	164.01488	80.92308	10.59230	0.0449715	0.17667735	3.1454453	21	11 12.6	20.8
449788 2014 OU_{181}	15.6	X	315.74092	3.35241	94.28585	11.94053	0.0983598	0.17571594	3.1569082	21	12 10.4	19.6
449789 2014 OZ_{205}	16.3	X	1.00733	325.79570	106.81550	7.36509	0.1369471	0.18554265	3.0444362	21	—	—
449790 2014 OB_{209}	16.6	X	58.39979	64.03056	312.30407	3.60096	0.1111011	0.18910390	3.0060928	21	—	—
449791 2014 OQ_{216}	18.0	X	39.19225	166.91740	49.45654	5.27927	0.0702889	0.26908118	2.3761864	21	5 31.9	20.5
449792 2014 OK_{222}	15.8	X	25.95852	321.25928	77.21705	10.14020	0.0701735	0.18496261	3.0507978	21	—	—
449793 2014 OR_{224}	16.8	X	51.22832	21.91228	8.60580	5.00934	0.0593729	0.19342815	2.9611217	21	—	—
449794 2014 OG_{233}	16.0	X	28.68534	302.01773	66.35324	6.63642	0.1242455	0.17563425	3.1578870	21	12 9.6	20.2
449795 2014 ON_{235}	16.6	X	159.97304	116.16119	204.74516	13.37494	0.1464704	0.22443629	2.6816823	21	—	—
449796 2014 OQ_{236}	16.6	X	76.66912	89.57110	200.04046	12.12509	0.1489982	0.17853740	3.1235605	21	11 8.6	21.2
449797 2014 OH_{254}	16.6	X	233.23507	184.77940	4.75552	5.43684	0.1137606	0.19250653	2.9705651	21	12 12.7	20.9
449798 2014 OY_{258}	15.9	X	359.85387	1.66873	62.54319	8.43225	0.1211160	0.18238907	3.0794289	21	—	—
449799 2014 OL_{259}	16.4	X	126.12512	176.42966	94.35519	9.59408	0.0400348	0.17754812	3.1351525	21	11 28.5	21.0
449800 2014 OJ_{272}	16.6	X	234.67030	225.92469	77.15676	9.80005	0.1241748	0.23177669	2.6247597	21	2 11.4	20.8
449801 2014 OC_{285}	16.0	X	74.82351	228.90619	103.81960	11.66713	0.1225764	0.17470970	3.1690180	21	12 22.5	20.6
449802 2014 OH_{301}	16.6	X	350.68194	286.03781	124.21863	7.84596	0.1594009	0.17394937	3.1782457	21	12 8.0	20.3
449803 2014 OA_{305}	16.5	X	121.85312	181.38661	109.44634	12.45907	0.1290844	0.18456058	3.0552265	21	12 22.3	21.3
449804 2014 OO_{306}	16.8	X	8.64704	280.99092	126.75139	11.86147	0.0975925	0.17967763	3.1103318	21	12 28.1	20.9
449805 2014 OE_{310}	16.9	X	338.63271	334.82779	106.12263	2.71255	0.0428583	0.18600167	3.0394254	21	12 24.6	20.8
449806 2014 OX_{310}	17.2	X	73.43254	287.11388	124.35746	6.65379	0.0478611	0.20999126	2.8032935	21	—	—
449807 2014 OH_{324}	16.8	X	38.63453	68.24557	327.38577	1.70913	0.1042427	0.18853851	3.0120996	21	—	—
449808 2014 OJ_{327}	16.8	X	259.24921	110.82270	119.40620	5.47256	0.0459718	0.21562659	2.7542361	21	—	—
449809 2014 OJ_{331}	17.1	X	25.38016	96.93061	333.88385	1.26988	0.0324787	0.19917446	2.9038908	21	—	—
449810 2014 OO_{337}	16.0	X	105.83689	253.20656	55.55912	8.97444	0.1890622	0.18268498	3.0761026	21	12 31.3	21.2
449811 2014 OH_{344}	16.2	X	174.06709	169.15560	129.61612	15.57114	0.1451506	0.20477408	2.8507080	21	—	—
449812 2014 OL_{346}	16.6	X	156.02757	13.52911	225.74224	7.43921	0.0270236	0.17917209	3.1161796	21	11 23.2	21.0
449813 2014 OW_{348}	16.4	X	154.08480	113.42482	226.13408	5.48976	0.0591651	0.21479437	2.7613457	21	—	—
449814 2014 OO_{353}	16.4	X	35.57577	219.52172	159.27174	8.42350	0.0924477	0.17985602	3.1082748	21	12 27.9	20.7
449815 2014 OF_{357}	16.5	X	77.42958	175.14070	143.82541	10.25255	0.0839117	0.17501492	3.1653324	21	12 6.1	21.2
449816 2014 OT_{362}	16.5	X	33.47895	313.71591	90.51591	2.94703	0.1152468	0.18834676	3.0141436	21	—	—
449817 2014 OS_{372}	15.7	X	345.38036	118.33386	313.15689	10.52128	0.0842280	0.17723814	3.1388068	21	12 22.4	19.8
449818 2014 OL_{379}	17.5	X	346.80065	220.31362	7.54769	3.60768	0.1010127	0.25581337	2.4576530	21	3 19.9	20.0
449819 2014 OJ_{384}	15.9	X	118.39201	192.18243	123.31249	18.50887	0.1176333	0.18507725	3.0495378	21	—	—
449820 2014 PG	15.5	X	7.81163	344.14496	59.61495	12.24462	0.0932534	0.18068024	3.0988148	21	12 20.7	19.6
449821 2014 PX_{1}	17.0	X	207.14115	203.20175	132.09604	15.29413	0.1022546	0.23454016	2.6041015	21	2 22.0	21.0
449822 2014 PG_{7}	15.6	X	176.70931	306.03818	288.92675	8.31946	0.0181870	0.18239025	3.0794156	21	12 12.1	20.0
449823 2014 PK_{14}	16.8	X	131.06885	86.17831	245.93338	0.92802	0.0366943	0.19752672	2.9200177	21	—	—
449824 2014 PZ_{18}	15.9	X	2.65714	301.86186	135.63069	18.68117	0.1316709	0.18240522	3.0792471	21	—	—
449825 2014 PA_{36}	16.8	X	340.51517	4.81241	123.48041	6.84900	0.0425580	0.19884782	2.9070701	21	—	—
449826 2014 PT_{44}	16.0	X	99.54484	161.12162	135.43406	12.14267	0.1025919	0.17944072	3.1130687	21	12 6.5	20.9
449827 2014 PD_{53}	16.0	X	129.98821	293.88916	339.63644	14.26599	0.1356386	0.17366657	3.1816951	21	12 6.3	21.3
449828 2014 PZ_{56}	15.4	X	143.88069	183.16309	98.87149	18.15574	0.0621264	0.17830946	3.1262219	21	12 29.9	20.2
449829 2014 QR_{1}	16.3	X	108.13719	124.64103	187.48357	15.93569	0.2151683	0.17921857	3.1156407	21	—	—
449830 2014 QY_{34}	16.7	X	80.58638	250.46313	157.32698	6.09766	0.0324929	0.21252690	2.7809517	21	—	—
449831 2014 QN_{36}	16.7	X	19.23035	142.28655	282.43251	3.99997	0.1169719	0.18889993	3.0082564	21	—	—
449832 2014 QH_{97}	16.0	X	126.16938	14.75283	298.29257	8.63804	0.0805241	0.18857517	3.0117092	21	—	—
449833 2014 QS_{101}	16.9	X	330.38423	298.97110	193.20304	5.50703	0.0233322	0.19749347	2.9203454	21	—	—
449834 2014 QR_{241}	16.0	X	153.25718	119.54972	145.16635	15.94239	0.0792942	0.17476401	3.1683614	21	12 20.2	21.1
449835 2014 QL_{271}	16.6	X	256.09118	193.16393	21.78734	13.10228	0.0891092	0.21377963	2.7700769	21	—	—
449836 2014 QS_{277}	16.7	X	100.98593	352.31653	7.40697	1.72133	0.1070104	0.19619122	2.9332540	21	—	—
449837 2014 QG_{310}	15.9	X	56.70555	294.37034	69.02962	12.97289	0.0793993	0.18561492	3.0436460	21	—	—
449838 2014 QR_{337}	16.3	X	48.48547	194.08880	163.40834	10.18782	0.0731680	0.17590343	3.1546645	21	12 15.8	20.8
449839 2014 QC_{341}	16.6	X	326.69072	152.18620	284.01882	3.43276	0.1125470	0.16852352	3.2461035	21	11 27.0	20.6
449840 2014 QP_{341}	16.3	X	142.77958	127.00940	154.41701	11.12088	0.1193432	0.18551878	3.0446974	21	12 29.8	21.3

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
449841 2014 QR_{378}	16.1	X	200.48850	28.66753	187.94208	12.81428	0.0950081	0.17034832	3.2228801	21	12 9.4	21.2
449842 2014 QS_{405}	15.8	X	341.73326	279.27630	180.34588	18.06543	0.0350453	0.18112980	3.0936851	21	—	—
449843 2014 QK_{418}	16.0	X	264.35564	338.49409	194.53420	18.83153	0.1252987	0.17202219	3.2019391	21	12 24.1	20.7
449844 2014 QZ_{421}	16.4	X	132.75027	106.82713	183.79609	10.33537	0.0979826	0.17866759	3.1220429	21	12 29.0	21.4
449845 2014 SJ_{86}	15.6	X	202.04038	35.51522	196.75594	15.19833	0.0394282	0.17648226	3.1477629	21	—	—
449846 2014 SX_{126}	16.1	X	311.09143	315.00290	190.92016	10.99871	0.1854942	0.17939241	3.1136276	21	—	—
449847 2014 SW_{198}	15.9	X	131.94807	133.11928	159.59153	17.71625	0.1328738	0.17453876	3.1710867	21	12 31.6	21.3
449848 2014 SL_{227}	16.1	X	66.51999	202.35944	157.09034	16.61906	0.1701923	0.17917428	3.1161541	21	—	—
449849 2014 SF_{289}	16.0	X	130.76593	158.96854	306.97743	12.47460	0.1213618	0.23420204	2.6066072	21	5 14.0	20.1
449850 2014 UB_{213}	15.7	X	41.58630	341.70555	114.48393	10.17814	0.1124676	0.18840803	3.0134901	21	1 6.3	19.1
449851 2014 UU_{213}	15.8	X	173.89091	240.57013	102.10655	17.86994	0.1200184	0.20350559	2.8625417	21	2 3.6	20.4
449852 2015 KV_{36}	17.3	X	118.19804	219.14419	102.19712	4.42459	0.1876312	0.22786898	2.6546825	21	—	—
449853 2015 KF_{37}	17.0	X	143.55334	22.02470	268.57006	3.03726	0.1771553	0.23001488	2.6381456	21	—	—
449854 2015 LV_{28}	15.3	X	294.66569	104.37159	289.42067	21.33735	0.1210244	0.17451986	3.1713157	21	8 9.0	19.7
449855 2015 LP_{32}	16.7	X	151.79335	155.83352	92.98276	10.03793	0.1079302	0.21650139	2.7468119	21	12 5.9	20.9
449856 2015 LO_{33}	18.0	X	214.98161	252.71578	82.55873	3.08352	0.2291768	0.27363384	2.3497564	21	2 24.7	22.1
449857 2015 MS_{6}	18.0	X	220.05927	29.67661	257.52510	4.91207	0.1827249	0.26322400	2.4113064	21	1 1.5	21.9
449858 2015 MM_{8}	17.4	X	265.78326	52.59996	236.16848	6.39522	0.1232800	0.28264760	2.2995305	21	2 11.6	20.8
449859 2015 ME_{9}	16.2	X	241.87272	289.95515	278.51252	12.35078	0.1053482	0.23783617	2.5799866	21	—	—
449860 2015 ML_{45}	16.7	X	128.68993	243.02795	101.94965	16.12303	0.1484537	0.23454999	2.6040287	21	—	—
449861 2015 MM_{45}	17.5	X	179.18402	312.98411	67.93870	8.00102	0.1265629	0.27266415	2.3553242	21	3 21.9	21.1
449862 2015 ML_{47}	16.4	X	89.79310	240.87062	111.36098	14.27362	0.2342014	0.21659667	2.7460063	21	—	—
449863 2015 ME_{49}	17.5	X	180.40782	262.78157	23.28514	8.88687	0.1568716	0.23753572	2.5821617	21	—	—
449864 2015 MT_{50}	16.9	X	115.99888	276.55893	103.06914	15.58949	0.1431015	0.23865260	2.5740991	21	1 10.4	20.1
449865 2015 MO_{52}	15.1	X	23.93093	175.10118	127.38374	28.99830	0.1711275	0.17527092	3.1622495	21	9 23.8	19.4
449866 2015 MQ_{57}	16.5	X	65.01216	221.37380	120.44343	5.71022	0.1309510	0.21049128	2.7988523	21	12 30.1	20.6
449867 2015 MS_{57}	17.2	X	164.72377	177.02239	110.50754	6.05696	0.1670427	0.23705197	2.5856734	21	—	—
449868 2015 MN_{58}	16.6	X	188.31165	309.18964	314.08224	3.43953	0.1203668	0.23810773	2.5780246	21	—	—
449869 2015 MR_{58}	17.2	X	140.87936	85.66478	300.83659	10.46964	0.1777193	0.25988203	2.4319346	21	2 16.1	20.7
449870 2015 MS_{58}	16.0	X	3.11532	222.73632	117.51229	11.45934	0.2354574	0.17747165	3.1360530	21	10 11.6	19.4
449871 2015 MY_{58}	15.7	X	23.34231	200.33296	114.44606	11.97515	0.1057415	0.17946937	3.1127375	21	9 29.8	19.8
449872 2015 MZ_{58}	16.7	X	118.17927	232.71566	110.43374	13.01704	0.2090295	0.23119817	2.6291364	21	—	—
449873 2015 MG_{66}	16.5	X	174.77247	143.67535	134.67056	16.08765	0.1260661	0.23731394	2.5837702	21	—	—
449874 2015 MK_{66}	16.3	X	26.43699	76.45310	237.32437	4.31221	0.1851518	0.18119702	3.0929199	21	10 6.6	20.0
449875 2015 ML_{66}	16.8	X	153.30787	142.35799	141.02069	5.56100	0.1466271	0.22976717	2.6400414	21	—	—
449876 2015 MP_{67}	17.5	X	237.85083	4.91406	280.35690	1.87826	0.2125936	0.27072388	2.3665644	21	1 12.8	21.5
449877 2015 MQ_{67}	17.0	X	236.72650	211.24387	89.92799	7.47601	0.1158262	0.27425020	2.3462345	21	2 3.5	20.5
449878 2015 MA_{73}	17.3	X	197.80836	166.86728	140.46383	7.41901	0.1344161	0.25959391	2.4337337	21	1 4.8	21.1
449879 2015 MT_{80}	18.1	X	252.60698	74.03629	280.38055	5.61957	0.0894546	0.30274429	2.1966055	21	4 27.5	20.9
449880 2015 MH_{81}	16.8	X	95.33145	96.29901	152.54847	3.80666	0.1052815	0.18876036	3.0097391	21	10 6.7	21.2
449881 2015 MG_{82}	17.4	X	272.30251	332.31053	251.37505	7.57389	0.1277812	0.26084682	2.4259342	21	—	—
449882 2015 MC_{84}	16.4	X	22.75575	99.16422	269.93729	10.16134	0.1431126	0.19871215	2.9083931	21	12 10.1	20.1
449883 2015 MW_{84}	16.2	X	321.79673	85.59239	282.74656	7.79616	0.0793530	0.17310017	3.1886319	21	8 24.7	20.4
449884 2015 MC_{85}	16.5	X	37.43922	63.30115	264.36173	2.89931	0.1300156	0.19080470	2.9882023	21	11 4.3	20.3
449885 2015 MY_{88}	17.9	X	246.90454	45.90164	230.70142	2.30872	0.1626008	0.27040452	2.3684274	21	1 10.9	21.6
449886 2015 MC_{90}	17.2	X	201.74343	64.28649	223.30492	12.70703	0.1783868	0.24339187	2.5405749	21	—	—
449887 2015 MH_{90}	16.9	X	113.58413	172.77475	217.67409	13.73347	0.2618867	0.23236157	2.6203533	21	2 3.9	20.8
449888 2015 MW_{90}	17.3	X	181.77370	115.82503	190.25317	14.39902	0.1449088	0.23851319	2.5751021	21	—	—
449889 2015 MX_{97}	16.6	X	116.98267	356.95500	281.63017	6.24277	0.2485166	0.21308557	2.7760888	21	12 12.6	21.3
449890 2015 MT_{98}	17.6	X	190.06047	138.71019	240.13173	4.40223	0.1755669	0.27864378	2.3215060	21	3 24.9	21.4
449891 2015 MM_{103}	16.2	X	355.13011	249.93389	84.87810	5.45482	0.2050084	0.17222818	3.1993856	21	9 10.2	19.5
449892 2015 MQ_{103}	17.4	X	245.48609	175.73762	83.39868	5.47905	0.1553474	0.26341303	2.4101527	21	—	—
449893 2015 MR_{103}	17.8	X	202.12209	276.80541	99.43851	7.47714	0.1153476	0.28642581	2.2792639	21	4 6.5	21.2
449894 2015 MU_{103}	16.6	X	73.27538	252.24461	109.26776	14.33258	0.1320188	0.22000996	2.7175309	21	—	—
449895 2015 ML_{106}	18.3	X	230.29051	334.74478	309.42488	2.13644	0.2311217	0.26700091	2.3885127	21	1 6.2	22.2
449896 2015 MO_{106}	17.8	X	225.27108	141.19480	140.96218	2.13984	0.1589342	0.26331453	2.4107537	21	—	—
449897 2015 MC_{109}	16.8	X	64.88211	271.11283	84.40435	2.99426	0.1219065	0.21623992	2.7490257	21	—	—
449898 2015 MP_{109}	16.6	X	37.21061	256.55269	104.50099	12.98800	0.0748487	0.20644226	2.8353302	21	12 12.8	20.4
449899 2015 MN_{110}	16.6	X	109.26325	293.22288	310.22580	7.79245	0.2341844	0.19853979	2.9100761	21	10 21.5	21.6
449900 2015 MQ_{111}	16.8	X	167.81096	169.64036	111.50812	11.06005	0.0917982	0.23347331	2.6120283	21	—	—
449901 2015 MX_{112}	16.9	X	249.81016	228.08083	319.60723	2.07826	0.0305139	0.22794376	2.6541018	21	—	—
449902 2015 MZ_{112}	17.4	X	312.51091	182.26063	339.42656	3.61299	0.0049757	0.24409903	2.5356658	21	—	—
449903 2015 MH_{113}	17.0	X	89.39155	96.19717	185.22545	10.40637	0.2295300	0.19936343	2.9020555	21	11 22.8	21.8
449904 2015 MN_{115}	16.9	X	67.13376	277.49035	10.11309	3.56103	0.1505362	0.19091193	2.9870833	21	10 26.4	21.1
449905 2015 MT_{117}	17.5	X	259.56343	242.79390	22.68278	1.48908	0.1624894	0.27149374	2.3620885	21	1 9.3	21.1
449906 2015 MY_{125}	16.5	X	48.86577	180.90865	95.54337	2.45166	0.2167804	0.17992990	3.1074239	21	9 29.8	20.6
449907 2015 MK_{127}	16.9	X	53.41004	25.25606	326.54955	5.54558	0.0605710	0.20843299	2.8172479	21	12 18.9	20.8
449908 2015 MQ_{127}	15.4	X	21.86666	217.87758	106.10085	11.51892	0.0739185	0.18154240	3.0889959	21	10 6.6	19.6
449909 2015 MF_{128}	16.5	X	118.44878	302.35839	103.57188	6.95197	0.1059782	0.25883809	2.4384691	21	2 8.6	19.5
449910 2015 MZ_{128}	16.7	X	121.53228	236.46715	103.91590	15.76853	0.1447863	0.23152819	2.6266374	21	—	—
449911 2015 NB_{3}	15.1	X	65.72421	27.71243	266.07734	27.28384	0.1730879	0.17609158	3.1524169	21	10 29.5	20.1
449912 2015 NB_{4}	17.5	X	234.44868	194.90432	117.06003	7.74198	0.1463932	0.27922490	2.3182839	21	2 12.9	21.1
449913 2015 NO_{4}	16.5	X	312.81710	250.52441	279.38770	11.57304	0.0647234	0.24655525	2.5187973	21	—	—
449914 2015 NS_{8}	18.3	X	212.01276	77.84132	284.61230	4.29090	0.2555725	0.27969480	2.3156866	21	3 23.1	22.4
449915 2015 NP_{9}	18.5	X	284.80199	103.95875	176.96676	1.72826	0.2058593	0.28996878	2.2606598	21	2 14.8	21.9
449916 2015 NQ_{15}	17.1	X	205.07475	309.99388	312.99079	4.21958	0.1903682	0.24286213	2.5442680	21	—	—
449917 2015 NH_{17}	16.3	X	106.35126	102.56960	133.15413	12.91976	0.1986835	0.18409102	3.0604197	21	10 14.4	21.4
449918 2015 NB_{24}	17.3	X	173.13249	309.59626	354.54851	4.04893	0.1279076	0.24472831	2.5313173	21	—	—
449919 2015 NR_{24}	17.5	X	223.77332	186.21799	118.86477	6.43251	0.1156909	0.26974808	2.3722683	21	1 25.7	21.1
449920 2015 NT_{24}	17.6	X	222.33409	139.35071	154.56056	4.19025	0.2021207	0.26322037	2.4113286	21	1 11.4	21.6

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
449921 2015 OD_2	16.8	X	169.72344	113.16530	227.43487	1.94204	0.2194324	0.25353010	2.4723865	21	1 25.6	20.9
449922 Bailey	15.8	X	351.69261	218.20749	140.83204	24.36453	0.1344334	0.18185480	3.0854573	21	10 10.2	19.8
449923 2015 OH_{13}	16.7	X	356.93691	317.62827	44.73339	4.25720	0.1854716	0.18124246	3.0924030	21	10 20.5	20.0
449924 2015 OJ_{13}	16.7	X	111.04542	210.85756	94.88090	7.09995	0.0415354	0.21529227	2.7570867	21	12 29.1	20.7
449925 2015 OY_{14}	18.0	X	331.65972	175.49280	110.54004	5.10771	0.1840809	0.31135863	2.1559008	21	5 1.4	19.8
449926 2015 OL_{15}	16.5	X	334.75416	290.82364	107.79373	9.99362	0.1404646	0.18597544	3.0397111	21	10 31.4	20.1
449927 2015 OX_{18}	17.8	X	245.86538	310.71321	340.30162	0.73940	0.1788068	0.27363402	2.3497554	21	1 27.1	21.3
449928 2015 OJ_{23}	17.4	X	267.60689	165.93915	145.64493	4.85828	0.1685346	0.28839603	2.2688713	21	3 14.2	20.7
449929 2015 OT_{23}	17.6	X	237.68808	127.62214	151.39785	2.69470	0.1857194	0.26776743	2.3839523	21	1 5.9	21.6
449930 2015 OB_{24}	16.6	X	215.06335	92.55253	189.24961	6.39063	0.0884097	0.25464139	2.4651880	21	—	—
449931 2015 OK_{24}	17.3	X	143.07826	126.15210	185.53587	6.88697	0.2044532	0.23195407	2.6234214	21	—	—
449932 2015 OM_{24}	17.0	X	117.13280	83.73111	198.39549	2.27412	0.1577980	0.21134197	2.7913366	21	12 12.9	21.4
449933 2015 OU_{24}	17.6	X	270.23302	326.04095	291.72411	1.37508	0.1987446	0.27309741	2.3528324	21	1 6.9	21.1
449934 2015 OX_{25}	16.5	X	246.21450	278.22689	294.66554	11.46296	0.1223852	0.23587671	2.5942551	21	—	—
449935 2015 ON_{33}	16.4	X	36.38445	220.33732	60.45027	6.40034	0.1508312	0.17435616	3.1733004	21	9 8.5	20.4
449936 2015 OW_{35}	18.0	X	307.12009	340.88269	297.33486	2.93036	0.1576250	0.29258939	2.2471411	21	3 13.8	20.8
449937 2015 OJ_{36}	17.2	X	153.93025	156.28406	166.75045	3.59634	0.1683590	0.23555109	2.5966453	21	—	—
449938 2015 OB_{41}	17.3	X	191.27292	153.25685	185.22911	2.21538	0.1277801	0.25506004	2.4624897	21	2 5.9	20.9
449939 2015 OB_{43}	16.6	X	84.52234	354.36020	320.92550	8.74150	0.1452285	0.20986174	2.8044468	21	12 20.5	21.0
449940 2015 OK_{44}	16.6	X	153.06749	199.41925	51.03896	5.48551	0.0177934	0.21348296	2.7726427	21	12 8.6	20.5
449941 2015 OX_{44}	16.6	X	11.90360	69.06511	320.54056	13.95114	0.1565916	0.20312034	2.8661600	21	12 24.4	20.2
449942 2015 OE_{45}	16.6	X	75.08154	294.20616	62.67389	7.17649	0.0308918	0.22431268	2.6826674	21	—	—
449943 2015 OF_{45}	16.9	X	53.65862	335.65730	21.72589	5.47147	0.1296293	0.21054975	2.7983341	21	—	—
449944 2015 OT_{45}	16.8	X	127.47182	287.39030	65.10297	6.12749	0.0460717	0.24507713	2.5289148	21	—	—
449945 2015 OD_{46}	16.0	X	111.19618	269.16966	327.08336	11.69738	0.1241976	0.19177224	2.9781431	21	10 3.9	20.7
449946 2015 OY_{52}	17.1	X	103.46753	326.34566	33.74345	7.73152	0.0543189	0.23143143	2.6273695	21	—	—
449947 2015 OC_{67}	17.4	X	161.97419	107.47396	235.57790	3.74070	0.0960550	0.25555918	2.4592823	21	1 8.9	20.8
449948 2015 OJ_{68}	17.5	X	140.69951	61.88384	282.83034	6.02442	0.1741992	0.24335750	2.5408141	21	—	—
449949 2015 OT_{73}	17.4	X	130.35877	215.33717	161.67992	9.15097	0.1635532	0.24032382	2.5621517	21	1 26.3	20.9
449950 2015 OB_{75}	16.4	X	32.33966	11.10104	336.20278	10.88690	0.1526529	0.18228265	3.0806272	21	11 21.1	20.7
449951 2015 OW_{75}	17.2	X	99.70794	67.29366	319.16445	10.51921	0.1961221	0.22536911	2.6742774	21	1 9.6	20.4
449952 2015 OL_{76}	15.9	X	88.15613	288.76972	342.44363	10.78411	0.1225797	0.17737649	3.1371745	21	10 21.1	20.8
449953 2015 OS_{76}	17.5	X	210.45532	212.87371	132.14112	1.84322	0.1877651	0.26565586	2.3965681	21	3 4.6	21.4
449954 2015 OW_{76}	16.1	X	6.63452	204.40335	193.78052	4.08984	0.1316655	0.18619204	3.0373533	21	12 18.4	19.9
449955 2015 OX_{76}	17.3	X	163.07416	55.38353	319.13249	1.32089	0.1730392	0.25204371	2.4820974	21	2 26.8	21.0
449956 2015 OA_{78}	17.7	X	231.78903	260.50987	76.83061	0.35789	0.2620974	0.27373995	2.3491492	21	3 10.2	21.7
449957 2015 PD_1	16.4	X	136.94832	308.18207	326.19658	12.33425	0.1909315	0.21946621	2.7220177	21	12 23.3	21.1
449958 2015 PG_2	16.8	X	135.22900	130.29918	153.84280	13.43434	0.1699542	0.21731528	2.7399494	21	12 31.7	21.6
449959 2015 PS_2	16.8	X	124.93527	233.72201	121.10268	13.95973	0.1789271	0.23449525	2.6044339	21	—	—
449960 2015 PU_2	17.3	X	228.18822	170.85889	159.03304	6.85079	0.1414133	0.27516479	2.3410327	21	2 28.9	20.8
449961 2015 PX_2	17.2	X	119.82998	187.27548	166.44463	13.42126	0.2556267	0.22976629	2.6400481	21	—	—
449962 2015 PF_3	16.3	X	2.76511	8.46744	331.83810	5.50668	0.1898034	0.17199892	3.2022279	21	9 27.7	19.8
449963 2015 PT_3	17.0	X	192.51532	319.87588	357.77708	4.71509	0.2576237	0.25389045	2.4700465	21	1 20.5	21.3
449964 2015 PW_4	16.5	X	296.22995	255.84779	273.70543	10.26144	0.1351603	0.24266937	2.5456151	21	—	—
449965 2015 PZ_4	16.6	X	349.36101	211.31272	158.84196	14.32870	0.1198219	0.18335664	3.0685859	21	10 17.4	20.4
449966 2015 PW_7	17.5	X	173.46208	109.18734	188.43436	11.84143	0.2997378	0.24028943	2.5623961	21	—	—
449967 2015 PA_8	16.6	X	61.64826	85.35259	304.07814	13.96830	0.2766345	0.21139318	2.7908858	21	—	—
449968 2015 PU_{12}	18.0	X	261.00744	71.92928	236.81374	9.25924	0.2820557	0.28349372	2.2949528	21	2 19.6	22.1
449969 2015 PN_{30}	17.7	X	260.34852	102.29993	191.98290	5.24134	0.2005684	0.27780987	2.3261494	21	2 9.5	21.4
449970 2015 PV_{30}	15.8	X	34.24973	328.72689	328.26629	26.24738	0.1763137	0.17185143	3.2040598	21	9 14.7	20.1
449971 2015 PV_{35}	16.4	X	349.05367	42.93429	351.10326	9.43441	0.0877684	0.19075193	2.9887534	21	11 9.9	20.3
449972 2015 PX_{35}	16.2	X	108.07325	255.37555	354.18614	9.55762	0.0638417	0.18651526	3.0338433	21	10 13.2	20.6
449973 2015 PM_{37}	17.0	X	89.72517	49.48276	12.64981	6.49742	0.1990653	0.24377497	2.5379124	21	2 7.8	19.8
449974 2015 PW_{37}	16.9	X	127.28053	321.42624	334.03105	12.35269	0.1045450	0.21591150	2.7518127	21	—	—
449975 2015 PY_{37}	17.9	X	257.62335	317.80888	337.60442	6.85232	0.1183601	0.27681159	2.3317386	21	2 16.3	21.1
449976 2015 PG_{39}	16.3	X	92.19407	301.74846	336.81027	13.79807	0.2339458	0.19662151	2.9289730	21	11 15.9	21.3
449977 2015 PU_{44}	16.6	X	21.28902	343.23883	14.40381	10.84350	0.1197031	0.18753401	3.0228460	21	11 14.9	20.5
449978 2015 PA_{47}	16.8	X	169.38150	168.49173	96.48956	5.69703	0.0561966	0.21911011	2.7249661	21	—	—
449979 2015 PX_{47}	16.4	X	9.19461	38.58327	5.89739	8.65093	0.1408791	0.19972717	2.8985310	21	—	—
449980 2015 PB_{48}	17.2	X	146.10775	271.61909	78.10986	6.01485	0.1631310	0.24239224	2.5475550	21	1 11.2	20.8
449981 2015 PQ_{75}	16.2	X	54.89895	327.48472	309.61013	9.09542	0.0548388	0.17881754	3.1202973	21	9 9.8	20.6
449982 2015 PH_{77}	15.9	X	334.30882	249.29560	134.81439	15.77755	0.1493803	0.18211296	3.0825407	21	10 11.6	19.7
449983 2015 PJ_{97}	17.7	X	157.53690	278.12838	101.67273	2.30699	0.2074967	0.26127401	2.4232892	21	3 3.1	21.4
449984 2015 PN_{116}	17.2	X	155.66728	316.22988	327.80285	12.48209	0.2606342	0.23067234	2.6331304	21	—	—
449985 2015 PS_{122}	16.7	X	82.08088	336.50118	346.85479	5.23325	0.0510742	0.20823800	2.8190064	21	12 16.7	20.7
449986 2015 PX_{127}	16.2	X	20.15493	183.32917	133.34254	19.41603	0.0870195	0.17636237	3.1491893	21	9 24.8	20.5
449987 2015 PE_{132}	17.6	X	139.06379	306.53180	131.41292	5.85920	0.1852592	0.27852732	2.3221531	21	4 26.2	21.0
449988 2015 PK_{132}	18.4	X	308.40646	295.42389	328.98635	1.99310	0.1438580	0.29116804	2.2544481	21	2 28.0	21.0
449989 2015 PU_{143}	16.6	X	155.45546	217.01234	116.91127	12.79438	0.0706565	0.24540409	2.5266680	21	—	—
449990 2015 PS_{153}	16.8	X	106.75234	314.17172	3.05181	3.94528	0.0922299	0.21541364	2.7560510	21	—	—
449991 2015 PB_{165}	18.5	X	117.13409	23.80357	350.26218	5.58272	0.2440185	0.23883743	2.5727710	21	1 21.1	21.9
449992 2015 PF_{171}	18.6	X	257.24389	270.21200	24.95293	2.43622	0.2366536	0.27925194	2.3181342	21	2 8.2	22.3
449993 2015 PV_{202}	15.5	X	103.22314	117.52925	123.04610	12.58701	0.0330173	0.17620165	3.1511040	21	9 29.7	20.2
449994 2015 PG_{221}	16.2	X	345.43180	165.70399	220.35621	9.78830	0.1050754	0.17878799	3.1206411	21	10 26.3	19.9
449995 2015 PR_{229}	16.5	X	53.53534	73.79976	244.76930	14.92948	0.2132689	0.18652787	3.0337065	21	11 25.7	20.7
449996 2015 PB_{230}	17.4	X	179.16732	177.75841	167.06439	1.56008	0.1946709	0.25341908	2.4731085	21	2 6.6	21.2
449997 2015 PD_{230}	17.2	X	178.64880	337.45123	333.97016	7.53706	0.2539048	0.24247594	2.5469688	21	1 3.9	21.6
449998 2015 PD_{237}	16.1	X	306.21410	272.07538	115.36578	10.30799	0.0810695	0.17353672	3.1832822	21	9 1.8	20.4
449999 2015 PN_{257}	16.1	X	334.03686	69.38678	297.16227	9.80046	0.0891779	0.17806185	3.1291194	21	9 8.5	20.2
450000 2015 PB_{278}	18.0	X	226.96526	339.03352	16.78090	3.97391	0.1148783	0.28330644	2.2959641	21	4 2.1	21.3

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
450001 2015 PA_{281}	17.3	X	175.66371	200.80315	151.17061	4.33672	0.2094475	0.25812072	2.4429850	21	2 12.5	21.3
450002 2015 PT_{286}	16.1	X	46.46194	288.94783	75.98789	8.77404	0.1059949	0.19935796	2.9021086	21	12 31.0	20.2
450003 2015 PT_{291}	19.7	X	337.36335	156.91420	176.84199	4.83055	0.3185333	0.32449379	2.0973220	21	7 21.7	19.8
450004 2015 PJ_{293}	17.2	X	218.43764	176.50036	167.45160	6.42969	0.1410517	0.27191204	2.3596654	21	3 9.6	20.7
450005 2015 PM_{293}	17.7	X	189.67214	100.96054	183.66890	7.84513	0.2342024	0.24009244	2.5637976	21	—	—
450006 2015 PW_{293}	15.3	X	7.21872	3.40849	343.57062	17.75885	0.1183668	0.17198375	3.2024162	21	10 3.9	19.4
450007 2015 PZ_{293}	17.3	X	230.25680	331.59560	331.07935	5.66165	0.1372403	0.26084239	2.4259617	21	1 30.8	21.0
450008 2015 PK_{300}	17.6	X	196.73279	242.50081	128.97490	11.34852	0.2105256	0.27082987	2.3659470	21	3 29.3	21.7
450009 2015 PQ_{307}	17.1	X	153.76723	130.32088	186.57130	13.87296	0.1939824	0.23610102	2.5926117	21	—	—
450010 2015 PR_{307}	17.6	X	191.59040	65.26991	276.11709	4.77327	0.2300868	0.25769207	2.4456934	21	2 12.5	21.8
450011 2015 PB_{308}	16.9	X	114.93058	219.76288	175.74111	13.52512	0.2579091	0.23325930	2.6136258	21	2 13.9	20.7
450012 2015 PH_{308}	15.9	X	12.27933	126.85733	281.69718	15.75627	0.1057837	0.20354914	2.8621333	21	—	—
450013 2015 PY_{308}	16.1	X	37.56119	149.14495	182.85977	16.47147	0.1778310	0.18316670	3.0707069	21	11 18.8	20.3
450014 2015 PU_{309}	17.8	X	231.15725	107.72689	203.50420	2.70183	0.2319412	0.26730890	2.3866777	21	2 6.7	21.8
450015 2015 PY_{309}	17.6	X	260.28680	216.16340	103.02588	7.57656	0.1510598	0.28363497	2.2941908	21	3 21.5	21.0
450016 2015 PA_{310}	17.1	X	198.92421	331.14627	1.23858	5.32696	0.1775640	0.25909953	2.4368285	21	2 9.1	21.0
450017 2015 PF_{310}	15.7	X	54.06406	168.55973	130.51635	15.35092	0.1035264	0.17557680	3.1585757	21	10 22.8	20.3
450018 2015 PN_{310}	17.5	X	243.19157	283.27399	68.35929	6.38169	0.2158685	0.28466219	2.2886683	21	4 9.8	21.1
450019 2015 QN	17.7	X	167.15565	152.34983	260.13241	3.91244	0.2315621	0.26766091	2.3845846	21	4 19.9	21.6
450020 2015 QR	15.7	X	41.97462	337.25851	344.76271	12.13801	0.1160758	0.17716592	3.1396598	21	10 25.8	20.1
450021 2015 QG_{2}	16.2	X	19.16336	16.55279	298.62760	14.59729	0.0721087	0.17895625	3.1186847	21	9 7.4	20.5
450022 2015 QG_{3}	17.9	X	265.92634	340.87297	326.72748	4.44935	0.2135002	0.28595487	2.2817657	21	3 2.1	21.4
450023 2015 QY_{3}	17.7	X	218.27986	64.72990	236.60860	3.96993	0.2310125	0.26033603	2.4291064	21	1 17.1	21.8
450024 2015 QF_{4}	17.5	X	238.78853	58.99997	271.42918	6.82862	0.1976680	0.27692989	2.3310746	21	3 5.5	21.5
450025 2015 QM_{8}	18.0	X	190.91142	223.32268	161.67320	6.75388	0.2465006	0.27304063	2.3531586	21	4 8.1	22.0
450026 2015 QL_{10}	18.4	X	276.64982	322.57293	15.21604	1.96367	0.1654732	0.29610709	2.2293085	21	4 26.7	21.1
450027 2015 QS_{10}	16.0	X	346.32844	206.79884	181.93516	10.12940	0.1296351	0.17875030	3.1210797	21	11 3.3	19.7
450028 2015 QT_{10}	17.0	X	41.14284	66.23653	304.74419	4.94690	0.2451805	0.19559757	2.9391861	21	—	—
450029 2015 QE_{11}	18.1	X	196.80896	114.19961	270.34970	2.82040	0.2951131	0.27134443	2.3629550	21	4 9.7	22.4
450030 2015 RK	16.4	X	58.35836	150.34397	166.19832	12.15024	0.1227504	0.18665962	3.0322789	21	11 19.3	20.8
450031 2015 RN	17.0	X	157.03116	345.79641	344.77912	5.85065	0.0761533	0.23778607	2.5803490	21	—	—
450032 2015 RZ	16.8	X	355.08578	210.31311	154.91994	1.10890	0.2117551	0.17285670	3.1916254	21	10 20.3	20.1
450033 2015 RA_{1}	15.4	X	279.61688	94.70753	346.45887	14.87728	0.0725646	0.17315711	3.1879328	21	9 27.9	19.9
450034 2015 RD_{1}	15.8	X	3.00054	198.90003	166.79521	9.84158	0.0974137	0.17483822	3.1674648	21	10 29.7	19.9
450035 2015 RM_{1}	16.9	X	152.96415	101.00792	211.23202	12.19984	0.1871678	0.22571366	2.6715552	21	—	—
450036 2015 RN_{1}	15.7	X	72.91529	10.87264	290.91278	8.39754	0.0911949	0.17922149	3.1156069	21	11 7.9	20.3
450037 2015 RZ_{2}	16.7	X	167.87208	278.59030	316.40050	7.17246	0.1473169	0.21431807	2.7654355	21	12 1.4	21.3
450038 2015 RF_{3}	16.8	X	127.83897	187.30016	183.20900	13.50135	0.1548227	0.23665324	2.5885770	21	1 13.8	20.6
450039 2015 RT_{18}	16.9	X	80.98183	68.54060	324.81906	12.24421	0.1902680	0.22191252	2.7019761	21	—	—
450040 2015 RS_{19}	16.6	X	35.92882	23.20541	327.62568	4.25856	0.1727138	0.18313720	3.0710367	21	12 6.0	20.7
450041 2015 RK_{20}	17.4	X	226.05009	318.97851	354.07322	2.28831	0.1920577	0.26549323	2.3975467	21	2 7.1	21.2
450042 2015 RY_{22}	17.3	X	113.65944	97.57887	246.31013	1.38403	0.0893344	0.22262870	2.6961783	21	—	—
450043 2015 RG_{24}	16.6	X	46.88361	149.43306	184.40483	9.90128	0.0662766	0.18750019	3.0232095	21	11 17.4	20.8
450044 2015 RK_{24}	15.8	X	21.30903	33.70849	306.80601	6.90638	0.0511263	0.17862659	3.1225206	21	10 14.5	20.1
450045 2015 RL_{24}	17.8	X	123.31617	56.18904	323.17074	6.36542	0.2039667	0.23869879	2.5737670	21	1 28.8	21.2
450046 2015 RN_{25}	16.0	X	30.64815	85.85453	277.54126	8.43491	0.0892940	0.18478259	3.0527788	21	12 3.2	20.0
450047 2015 RR_{25}	15.8	X	17.28680	166.39100	163.51287	27.54343	0.1447964	0.17460784	3.1702504	21	10 11.8	19.9
450048 2015 RH_{26}	16.0	X	63.79544	356.95710	295.83000	5.83273	0.2047999	0.18060028	3.0997293	21	11 2.2	20.5
450049 2015 RX_{26}	18.0	X	225.55310	214.47004	152.22019	5.36426	0.2427234	0.27669323	2.3324035	21	4 12.3	22.0
450050 2015 RB_{27}	17.1	X	174.83762	299.95869	10.86730	13.50696	0.2043969	0.23301652	2.6154408	21	—	—
450051 2015 RC_{27}	17.9	X	302.28543	161.90113	170.64829	6.54860	0.2093421	0.30213409	2.1995621	21	5 18.8	20.3
450052 2015 RF_{27}	18.0	X	206.54075	187.99531	160.62762	0.80854	0.2117359	0.26213663	2.4179700	21	3 5.8	22.1
450053 2015 RH_{27}	16.9	X	122.21494	219.52251	189.89974	17.74880	0.1068861	0.24196068	2.5505834	21	2 16.2	20.5
450054 2015 RO_{27}	17.0	X	137.14991	137.95481	200.74923	12.67496	0.1708126	0.22472387	2.6793940	21	—	—
450055 2015 RC_{29}	17.4	X	338.12466	296.22267	307.70379	5.57977	0.1446123	0.28462997	2.2888410	21	3 13.7	19.9
450056 2015 RY_{29}	16.6	X	206.05266	273.76387	6.50606	12.10067	0.1557329	0.23650138	2.5896849	21	—	—
450057 2015 RA_{30}	17.8	X	278.74248	142.88673	154.06220	3.55958	0.2031721	0.28085204	2.3093211	21	3 3.3	21.2
450058 2015 RQ_{30}	16.9	X	101.78627	46.12254	356.38442	14.26220	0.2257661	0.22639686	2.6661779	21	2 10.2	20.4
450059 2015 RT_{30}	16.5	X	173.46749	324.17550	350.79555	15.18826	0.2234334	0.23325852	2.6136316	21	1 4.9	21.1
450060 2015 RY_{40}	17.3	X	295.78279	310.00219	233.83148	2.49217	0.1278471	0.22859402	2.6490661	21	—	—
450061 2015 RQ_{43}	17.5	X	165.77528	26.71810	266.44311	0.93945	0.1871036	0.22623018	2.6674872	21	—	—
450062 2015 RX_{44}	18.2	X	332.83592	101.97374	176.08828	3.44844	0.1815143	0.29906519	2.2145839	21	4 21.1	20.1
450063 2015 RQ_{45}	16.9	X	208.45504	289.51046	332.28685	2.10453	0.0610107	0.22558058	2.6726058	21	—	—
450064 2015 RF_{46}	17.5	X	36.70058	223.10374	326.10680	4.59701	0.1665619	0.27896113	2.3197450	21	4 19.3	19.3
450065 2015 RP_{46}	16.8	X	208.13688	1.66352	194.49670	9.04176	0.0466791	0.19199800	2.9758080	21	12 1.8	21.2
450066 2015 RQ_{46}	17.5	X	193.09657	80.62569	224.77209	3.43344	0.0845360	0.23928949	2.5695297	21	—	—
450067 2015 RC_{47}	17.3	X	124.89089	84.28811	237.31612	3.25491	0.0670124	0.21304456	2.7764450	21	—	—
450068 2015 RK_{47}	17.6	X	85.52302	172.88452	329.95317	5.66279	0.0969064	0.27454026	2.3445816	21	4 29.2	20.3
450069 2015 RM_{47}	17.0	X	151.52905	141.71207	183.11334	15.21549	0.2069552	0.23085303	2.6317563	21	—	—
450070 2015 RV_{48}	18.0	X	29.41166	242.46116	330.89018	6.51459	0.0447959	0.28704387	2.2759910	21	5 4.8	20.7
450071 2015 RZ_{48}	17.3	X	196.99197	91.22782	195.68595	6.74922	0.1640156	0.23747133	2.5826284	21	—	—
450072 2015 RT_{50}	17.9	X	260.57873	58.21230	270.50445	3.84534	0.0479420	0.28004629	2.3137486	21	4 8.9	20.8
450073 2015 RY_{50}	16.3	X	247.69317	238.93897	345.08344	13.78241	0.0616343	0.22493528	2.6777149	21	—	—
450074 2015 RL_{52}	18.1	X	299.61779	25.50344	239.32191	2.02256	0.1405427	0.27410206	2.3470797	21	2 19.9	21.2
450075 2015 RB_{53}	17.3	X	284.15952	314.32397	329.06905	4.31610	0.1484497	0.27518861	2.3408976	21	2 25.7	20.3
450076 2015 RP_{58}	17.0	X	112.54767	135.64547	175.66280	5.56943	0.0551262	0.20145690	2.8819158	21	—	—
450077 2015 RL_{62}	17.6	X	27.13089	320.45065	169.60189	5.00022	0.0816764	0.24087355	2.5582519	21	1 12.5	20.6
450078 2015 RM_{73}	17.5	X	239.46715	119.90320	172.86406	3.27090	0.1481856	0.25607308	2.4559910	21	1 26.2	21.2
450079 2015 RZ_{73}	18.3	X	164.63210	280.65281	157.98055	3.82114	0.1676421	0.27426811	2.3461324	21	5 20.2	21.9
450080 2015 RX_{75}	16.1	X	93.56306	340.07950	359.85784	4.02640	0.1149565	0.20442395	2.8539621	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
450081 2015 RH_{76}	17.6	X	243.35724	299.68681	4.09505	1.86859	0.2142399	0.26563006	2.3967233	21	2 9.6	21.5
450082 2015 RL_{78}	17.6	X	278.15633	311.41647	336.89779	5.21897	0.2030123	0.27675115	2.3320781	21	2 20.3	21.1
450083 2015 RU_{81}	16.0	X	26.81001	173.90546	177.95731	9.75297	0.0784979	0.17840614	3.1250924	21	11 13.7	20.2
450084 2015 RL_{84}	16.3	X	113.63955	75.43239	247.71676	11.89577	0.1458381	0.21594813	2.7515015	21	—	—
450085 2015 RT_{85}	16.7	X	83.11952	72.81366	305.99170	13.53047	0.2696914	0.21505554	2.7591096	21	—	—
450086 2015 RG_{88}	17.4	X	329.57941	321.44004	314.30332	6.53735	0.1254782	0.29414637	2.2392043	21	4 16.9	19.7
450087 2015 RD_{90}	15.8	X	60.54246	307.24712	0.91535	9.95461	0.2199958	0.17865184	3.1222264	21	11 17.9	20.5
450088 2015 RY_{90}	16.3	X	26.85905	217.85162	189.38216	18.53241	0.2442029	0.19140572	2.9819437	21	—	—
450089 2015 RD_{91}	15.4	X	116.79377	260.13358	343.71772	8.57682	0.0400784	0.17463141	3.1699651	21	10 12.1	20.2
450090 2015 RE_{91}	16.2	X	8.90022	121.31955	228.23745	11.11545	0.1500592	0.17744990	3.1363093	21	10 19.1	20.0
450091 2015 RR_{91}	16.7	X	79.94847	108.65714	196.15603	12.99847	0.2412941	0.19658675	2.9293183	21	12 11.2	21.6
450092 2015 RB_{92}	17.8	X	267.87009	134.67076	171.93932	2.97572	0.2073169	0.28573686	2.2829262	21	3 3.6	21.3
450093 2015 RS_{92}	17.6	X	230.52602	0.09247	292.88358	2.59421	0.1677998	0.26119046	2.4238059	21	1 17.9	21.3
450094 2015 RU_{92}	17.9	X	101.20840	85.91714	306.32592	10.15277	0.3121612	0.22908359	2.6452906	21	2 3.2	21.3
450095 2015 RW_{92}	15.9	X	7.69273	60.45080	309.51666	9.83683	0.0877411	0.18354029	3.0665386	21	11 5.4	20.0
450096 2015 RB_{93}	18.4	X	293.58188	122.30116	176.12464	23.19130	0.2810828	0.29537442	2.2329935	21	3 8.7	21.6
450097 2015 RA_{94}	16.1	X	60.20831	136.98968	165.63066	15.35070	0.1775870	0.18302178	3.0723277	21	11 12.4	20.7
450098 2015 RD_{94}	16.2	X	53.42880	128.08145	167.79979	12.83358	0.1612442	0.17705131	3.1410146	21	10 23.1	20.6
450099 2015 RZ_{94}	18.3	X	262.53062	95.96551	282.98898	4.80896	0.2039958	0.30295338	2.1955947	21	6 1.3	21.3
450100 2015 RY_{95}	16.6	X	119.39281	61.20444	257.87728	4.93015	0.0567249	0.21262832	2.7800673	21	—	—
450101 2015 RN_{97}	17.3	X	133.80401	281.74084	149.11600	4.44447	0.1835293	0.26131343	2.4230455	21	4 11.6	20.8
450102 2015 RJ_{100}	16.3	X	351.90498	283.88408	97.34764	3.16110	0.1897816	0.17480911	3.1678164	21	11 4.4	19.6
450103 2015 RS_{101}	17.1	X	97.65253	194.88124	174.51891	15.45171	0.1602377	0.21832210	2.7315192	21	—	—
450104 2015 RZ_{102}	17.0	X	68.71068	102.63539	289.40886	5.47586	0.2305676	0.21814674	2.7329828	21	—	—
450105 2015 RA_{104}	16.6	X	15.86833	115.23118	305.62890	8.13412	0.1242525	0.20449017	2.8533459	21	—	—
450106 2015 RP_{104}	17.8	X	231.25381	161.36872	170.95201	6.63859	0.1659828	0.27294648	2.3536997	21	3 6.0	21.6
450107 2015 RW_{104}	18.4	X	278.00523	99.45122	202.37903	4.42042	0.1796538	0.28442880	2.2899202	21	3 9.4	21.6
450108 2015 RH_{105}	17.4	X	4.85038	130.02286	255.49618	2.11666	0.2398387	0.18085526	3.0968151	21	12 11.1	20.8
450109 2015 RK_{105}	17.2	X	26.25970	216.96750	176.58751	19.85188	0.1535897	0.19620086	2.9331580	21	—	—
450110 2015 RO_{105}	16.2	X	297.01883	261.47914	175.74085	11.18103	0.0622983	0.17641334	3.1485826	21	10 23.9	20.4
450111 2015 RZ_{105}	18.0	X	164.91412	318.13965	66.46722	1.92195	0.2441993	0.25737719	2.4476877	21	3 18.5	21.9
450112 2015 RG_{106}	17.9	X	147.63472	211.76260	186.45789	3.23936	0.2270372	0.25293711	2.4762492	21	3 18.1	21.6
450113 2015 RR_{106}	16.1	X	23.49260	52.81402	331.84575	9.61759	0.0724563	0.19235808	2.9720933	21	12 19.8	20.2
450114 2015 RL_{107}	17.9	X	173.05469	230.69921	144.52093	3.78258	0.1849000	0.25658528	2.4527214	21	3 10.3	21.7
450115 2015 RU_{107}	17.8	X	193.08974	59.89575	311.52050	1.96507	0.1959470	0.26299099	2.4127305	21	3 21.3	21.7
450116 2015 RP_{108}	17.0	X	136.23713	200.98095	170.47511	12.63867	0.2094468	0.23433550	2.6056175	21	2 1.1	21.0
450117 2015 RB_{109}	15.7	X	58.36076	116.58552	197.20297	15.32059	0.1917798	0.17558372	3.1584928	21	11 22.3	20.4
450118 2015 RD_{110}	17.2	X	105.42344	173.98308	175.42775	9.16201	0.1417012	0.22009800	2.7168062	21	—	—
450119 2015 RS_{114}	16.1	X	269.89064	346.31674	130.07585	9.56929	0.0418741	0.18473501	3.0533031	21	11 10.9	20.5
450120 2015 RE_{117}	17.0	X	86.92720	313.20519	72.61313	8.87841	0.2052639	0.21547605	2.7555188	21	—	—
450121 2015 RF_{121}	18.0	X	276.45011	346.72037	299.45409	3.52297	0.2275694	0.27853683	2.3221002	21	2 12.7	21.7
450122 2015 RW_{124}	16.1	X	97.80863	290.21373	342.12878	10.15785	0.0267384	0.18260270	3.0770267	21	10 22.9	20.7
450123 2015 RK_{131}	17.5	X	82.39861	142.38396	354.70245	4.74984	0.0432410	0.27662110	2.3328090	21	4 8.7	20.1
450124 2015 RB_{139}	16.2	X	316.71112	353.80645	48.89913	0.51808	0.0667017	0.16953021	3.2332403	21	10 4.5	20.3
450125 2015 RV_{198}	16.1	X	45.62399	164.48534	162.79971	11.01042	0.2184392	0.17847978	3.1242326	21	11 28.3	20.5
450126 2015 RJ_{213}	17.4	X	144.31171	101.57443	193.06985	5.26992	0.2193498	0.22287930	2.6941570	21	—	—
450127 2015 RS_{213}	15.8	X	67.41732	344.68065	314.08314	8.97499	0.0701830	0.17774799	3.1328018	21	10 23.9	20.3
450128 2015 RT_{243}	16.8	X	232.78705	270.57548	356.42094	30.79334	0.1215541	0.24421421	2.5348684	21	—	—
450129 2015 RD_{245}	16.0	X	221.51926	326.25188	278.22255	27.67002	0.1386203	0.23643526	2.5901677	21	—	—
450130 2015 SP_{3}	16.5	X	191.28155	14.47354	277.35919	15.47165	0.2422002	0.23642155	2.5902679	21	—	—
450131 2015 SE_{5}	16.0	X	68.22969	3.82688	337.49859	9.90010	0.0767928	0.19273429	2.9682243	21	12 23.4	20.4
450132 2015 SO_{5}	17.7	X	269.15017	38.40879	313.30306	6.31395	0.1411029	0.29226668	2.2487949	21	5 8.4	20.7
450133 2015 SW_{5}	16.6	X	116.29659	157.44358	206.26904	5.89011	0.0969432	0.22325110	2.6911649	21	—	—
450134 1994 WH_{4}	17.0	X	101.34422	305.85129	141.04818	5.24113	0.2322471	0.23454757	2.6040467	21	4 4.9	20.5
450135 1995 SW_{20}	15.5	X	264.55693	270.28391	284.89655	13.84028	0.0950746	0.20532428	2.8456130	21	—	—
450136 1995 SZ_{57}	17.4	X	94.90791	345.30164	0.16366	5.86074	0.0705146	0.20024599	2.8935223	21	—	—
450137 1996 AF_{6}	17.8	X	117.71481	155.86072	319.74535	6.52856	0.0570814	0.28318480	2.2966215	21	4 28.8	20.7
450138 1998 BO_{26}	17.2	X	128.71540	198.76364	326.58742	4.39562	0.3890897	0.26751519	2.3854505	21	8 19.3	21.7
450139 1998 SR_{148}	17.1	X	195.50861	109.63775	259.62959	3.75521	0.3059738	0.24040855	2.5615496	21	3 23.1	21.9
450140 1998 TL_{27}	17.8	X	171.53525	314.68403	17.41673	4.26669	0.2666009	0.23467961	2.6030697	21	1 24.5	22.3
450141 1998 VH_{43}	17.7	X	93.27974	201.64418	224.82281	5.25277	0.1784845	0.23105229	2.6302430	21	2 13.7	21.0
450142 1998 XN_{2}	19.7	X	7.67236	126.90557	255.24768	1.78872	0.5418423	0.34883423	1.9985882	21	—	—
450143 1999 ED_{5}	19.6	X	199.61546	274.04286	5.53110	18.18108	0.4660786	0.42725059	1.7458795	21	—	—
450144 1999 RJ_{30}	16.0	X	50.29771	49.62272	325.25741	21.01277	0.2942261	0.18758810	3.0222649	21	—	—
450145 1999 RU_{140}	16.1	X	70.97511	13.37888	332.29519	8.85453	0.3170370	0.18949217	3.0019851	21	—	—
450146 1999 TZ_{70}	17.5	X	230.88690	293.62633	25.41234	14.45313	0.0401750	0.24789161	2.5097367	21	3 3.9	21.2
450147 1999 TT_{84}	17.1	X	20.89320	19.81291	21.96510	3.35450	0.1873359	0.18506799	3.0496396	21	—	—
450148 1999 TJ_{170}	16.7	X	52.69311	163.30317	205.94343	12.72212	0.2881924	0.18632497	3.0359085	21	—	—
450149 1999 VZ_{109}	16.4	X	21.77857	164.45968	235.99358	10.89852	0.1814497	0.18337505	3.0683806	21	—	—
450150 1999 VA_{119}	16.7	X	63.59184	321.50574	0.55017	5.09809	0.1884370	0.18351617	3.0668074	21	12 6.5	21.2
450151 1999 VK_{129}	16.6	X	56.44680	120.78112	225.96723	14.14462	0.2255110	0.18497903	3.0506173	21	12 31.6	21.3
450152 1999 VA_{147}	17.3	X	167.59261	163.74192	227.04627	6.40297	0.1255473	0.24661371	2.5183992	21	3 18.5	21.1
450153 2000 AL_{48}	16.8	X	151.95388	102.43159	303.17128	3.33019	0.2531383	0.24324586	2.5415914	21	4 1.5	21.1
450154 2000 AM_{49}	17.9	X	68.34431	113.15827	283.08898	19.00720	0.3201583	0.36989684	1.9219805	21	—	—
450155 2000 AK_{126}	15.6	X	325.02839	240.57669	286.07496	14.11198	0.3247097	0.18159845	3.0883602	21	—	—
450156 2000 AT_{210}	17.1	X	162.33511	79.12678	309.98311	4.21581	0.1695947	0.24189725	2.5510292	21	3 15.5	21.2
450157 2000 DE_{65}	17.6	X	82.27790	321.23397	165.90311	5.23996	0.2654611	0.23862059	2.5743293	21	5 8.1	20.8
450158 2000 DW_{98}	15.8	X	173.29893	53.16889	356.55853	12.36710	0.3477297	0.24527776	2.5275355	21	4 23.7	20.7
450159 2000 JJ_{5}	18.9	X	30.90803	50.89850	59.86398	9.44439	0.7023546	0.37357452	1.9093456	21	—	—
450160 2000 RM_{12}	16.7	X	154.49040	101.99782	354.43480	57.26472	0.6675835	0.25995192	2.4314986	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
450161 2000 YE_{29}	17.0	X	348.48043	48.60749	109.15061	14.39374	0.5213630	0.19267719	2.9688107	21	—	—
450162 2001 KJ_{33}	16.0	X	186.93883	48.70830	250.27237	31.72586	0.3688469	0.22476212	2.6790900	21	—	—
450163 2001 ML_{31}	17.7	X	330.15594	5.41194	292.99604	5.74117	0.2442963	0.29152028	2.2526317	21	5 4.4	19.8
450164 2001 OP_{2}	17.2	X	277.54034	109.42665	243.58062	9.16680	0.1960416	0.28911423	2.2651123	21	5 15.4	20.3
450165 2001 QL_{189}	16.8	X	159.82645	114.30480	193.40836	22.86903	0.3180761	0.21846517	2.7303264	21	—	—
450166 2001 RP_{122}	16.5	X	140.47574	2.75608	0.30862	11.49663	0.1587375	0.21932434	2.7231914	21	1 28.5	20.7
450167 2001 RW_{149}	17.0	X	115.59360	223.44194	156.03381	8.69286	0.2356227	0.21747973	2.7385680	21	1 26.6	20.8
450168 2001 SS_{140}	16.9	X	160.41898	325.34370	2.04777	7.33174	0.2264453	0.21777978	2.7360520	21	1 9.7	21.4
450169 2001 SB_{198}	17.1	X	113.62606	6.00246	15.53646	3.48739	0.2046501	0.21708159	2.7419155	21	1 24.6	20.9
450170 2001 SV_{201}	19.0	X	264.45642	353.98147	1.82713	5.81798	0.2383424	0.28551246	2.2841222	21	4 28.5	22.4
450171 2001 SW_{317}	16.7	X	137.99461	289.55321	16.04511	13.16435	0.2115588	0.21272699	2.7792076	21	—	—
450172 2001 SV_{332}	17.2	X	146.43309	297.35606	49.66797	3.11821	0.2021558	0.21768939	2.7368093	21	1 17.1	21.3
450173 2001 TZ_{9}	16.8	X	142.39178	116.21178	200.76538	31.14022	0.3549066	0.21487127	2.7606869	21	—	—
450174 2001 TD_{19}	17.8	X	281.55771	98.70927	243.52698	4.60173	0.2654920	0.28514472	2.2860856	21	4 25.8	21.2
450175 2001 TZ_{96}	18.0	X	251.90031	43.54887	336.21966	2.29837	0.2624972	0.28437056	2.2902328	21	5 16.9	21.5
450176 2001 TV_{99}	16.8	X	85.22740	184.39836	236.16740	7.99762	0.1686524	0.21518092	2.7580378	21	1 26.4	20.2
450177 2001 TQ_{161}	18.2	X	272.02034	348.92031	359.14280	6.00839	0.1868538	0.28522121	2.2856769	21	5 1.8	21.4
450178 2001 TV_{251}	18.7	X	218.82419	352.01272	76.26215	3.22279	0.1958239	0.28520834	2.2857456	21	6 24.9	22.4
450179 2001 TW_{259}	16.9	X	128.02937	204.36739	152.61022	10.50020	0.1884648	0.21690659	2.7433900	21	1 7.3	20.9
450180 2001 TR_{260}	17.0	X	188.64425	229.78447	56.32002	7.87378	0.1173754	0.21519986	2.7578759	21	—	—
450181 2001 VH_{63}	17.0	X	80.38725	197.65688	251.85713	8.19914	0.2791373	0.21470442	2.7621169	21	3 14.3	20.5
450182 2001 VY_{73}	15.9	X	126.25554	40.06312	292.36227	12.36492	0.2177889	0.21127252	2.7919484	21	—	—
450183 2001 VX_{83}	16.9	X	103.57937	95.45371	277.13100	12.00942	0.3257060	0.21252802	2.7809419	21	1 16.9	20.6
450184 2001 VY_{88}	16.5	X	38.63367	202.73010	256.01789	13.74961	0.1560256	0.21102146	2.7941623	21	—	—
450185 2001 WJ_{2}	19.9	X	136.88971	297.97513	57.18090	27.33079	0.2440542	0.56680587	1.4460384	21	—	—
450186 2001 WA_{21}	16.2	X	23.85046	40.98824	50.59210	14.96791	0.0804272	0.20928668	2.8095816	21	—	—
450187 2001 WC_{56}	18.0	X	187.37610	346.90794	41.55271	3.06092	0.1928717	0.27512866	2.3412376	21	4 7.1	21.6
450188 2001 XB_{33}	17.1	X	53.19726	226.02166	233.13342	8.54292	0.1837015	0.21214819	2.7842603	21	1 24.7	20.2
450189 2001 XY_{72}	17.0	X	70.74282	198.16708	234.60648	8.66196	0.2690876	0.21182363	2.7871036	21	2 2.5	20.0
450190 2001 XJ_{104}	17.5	X	73.35179	85.92552	262.07416	17.27719	0.0668776	0.35190683	1.9869377	21	—	—
450191 2001 XA_{223}	17.5	X	234.97092	330.24938	62.06059	7.60850	0.1067333	0.28067022	2.3103183	21	5 30.8	20.6
450192 2001 XQ_{228}	18.0	X	218.69953	357.40802	61.29530	7.50310	0.1584576	0.28093932	2.3088428	21	6 13.9	21.6
450193 2001 XD_{229}	18.2	X	207.68223	16.47673	55.10047	3.44223	0.1823233	0.28068643	2.3102294	21	6 19.3	21.8
450194 2002 CN_{38}	17.2	X	47.73088	166.84316	332.09408	9.29184	0.1476876	0.26000235	2.4311842	21	2 26.5	19.2
450195 2002 CZ_{195}	18.3	X	110.49050	11.21098	134.77436	3.26549	0.1561150	0.26993940	2.3711473	21	6 19.9	21.5
450196 2002 CZ_{288}	17.0	X	220.60292	99.64149	328.50829	21.77950	0.3297841	0.28106078	2.3081776	21	6 21.5	21.6
450197 2002 EG_{24}	17.4	X	300.68340	273.07687	350.00113	5.10161	0.1363872	0.25757130	2.4464579	21	2 24.0	20.7
450198 2002 EW_{119}	18.0	X	103.64389	171.06935	327.38505	3.47477	0.1655064	0.26621435	2.3932151	21	6 1.6	21.2
450199 2002 GN_{120}	15.8	X	96.54670	260.70587	23.49740	15.78005	0.2222485	0.17593119	3.1543326	21	11 23.4	21.1
450200 2002 GW_{189}	16.2	X	150.84588	241.68720	33.97709	8.75003	0.0610294	0.18528140	3.0472974	21	12 31.4	20.9
450201 2002 JC_{116}	17.1	X	230.44126	358.62437	250.56159	11.91558	0.2685033	0.24028494	2.5624281	21	—	—
450202 2002 JH_{128}	16.5	X	355.82852	189.58020	58.64112	26.37369	0.0705891	0.25981290	2.4323659	21	5 10.1	19.2
450203 2002 NA_{31}	19.8	X	269.41400	219.91715	125.50302	19.97387	0.2886966	0.45838651	1.6658971	21	4 12.8	22.5
450204 2002 ND_{36}	17.2	X	202.70327	119.60832	203.86272	3.75638	0.2917874	0.23879445	2.5730797	21	2 3.6	22.0
450205 2002 OP_{2}	16.7	X	161.32810	93.51150	285.27400	10.45582	0.3847644	0.23495091	2.6010655	21	3 12.2	21.8
450206 2002 ON_{15}	17.4	X	121.75593	63.43930	268.88403	11.70943	0.2774285	0.22740802	2.6582686	21	—	—
450207 2002 OC_{30}	17.0	X	198.28654	58.69978	274.20393	12.22730	0.1677674	0.23787356	2.5797163	21	2 5.8	21.3
450208 2002 PS_{31}	18.3	X	355.60317	68.91331	260.85068	1.96485	0.1873646	0.31307314	2.1480226	21	9 21.7	19.5
450209 2002 PZ_{34}	17.4	X	135.98687	199.08987	188.73755	3.32572	0.1567441	0.23549301	2.5970723	21	2 15.5	21.0
450210 2002 PR_{175}	17.4	X	188.75641	335.63264	357.07706	4.48392	0.2496332	0.23696390	2.5863140	21	2 5.9	21.8
450211 2002 PW_{180}	17.5	X	259.13866	253.77921	32.58927	3.17220	0.1056657	0.24252951	2.5465937	21	2 13.2	21.3
450212 2002 QE_{71}	17.8	X	136.06481	35.03225	351.26510	3.78455	0.3068786	0.23391404	2.6087464	21	3 3.3	22.0
450213 2002 QB_{83}	17.2	X	135.54639	96.19733	300.79360	6.84242	0.2207594	0.23549260	2.5970753	21	3 3.9	21.3
450214 2002 RQ_{109}	17.4	X	143.97772	159.78280	218.11391	4.90395	0.2660879	0.23243292	2.6198170	21	2 22.2	21.7
450215 2002 RY_{136}	17.3	X	135.35317	74.98250	305.47756	9.90791	0.3230415	0.23136506	2.6278719	21	2 22.4	21.7
450216 2002 RG_{182}	16.5	X	156.56123	163.89044	219.44334	14.77933	0.1949800	0.23556438	2.5965477	21	3 2.5	20.9
450217 2002 RE_{268}	18.4	X	19.48767	133.66158	161.42049	7.60396	0.1998171	0.31253535	2.1504860	21	9 22.3	19.9
450218 2002 SW_{1}	17.5	X	131.41456	351.94093	34.99527	2.88206	0.2208657	0.23137804	2.6277737	21	2 19.9	21.3
450219 2002 SV_{34}	17.2	X	183.02435	333.26828	11.20078	5.08283	0.1798265	0.23481955	2.6020355	21	2 13.1	21.5
450220 2002 TC_{2}	18.2	X	34.77764	206.03597	197.35402	21.43392	0.1258461	0.37615379	1.9006074	21	—	—
450221 2002 TP_{4}	17.0	X	114.22398	30.31310	33.37697	14.10776	0.2403248	0.23117021	2.6293484	21	3 25.7	20.9
450222 2002 TF_{60}	17.3	X	183.61632	128.59719	205.78489	30.67624	0.2755443	0.23458375	2.6037789	21	1 28.6	22.5
450223 2002 TG_{154}	16.3	X	179.38254	17.61156	328.44324	14.89556	0.1463991	0.23538695	2.5978523	21	2 9.4	20.3
450224 2002 TW_{189}	18.2	X	320.63908	75.82370	270.08082	4.08671	0.2005716	0.30713544	2.1756186	21	7 15.2	19.4
450225 2002 TR_{199}	16.8	X	149.83259	155.28381	231.34006	12.94690	0.1945257	0.23333581	2.6130544	21	2 28.0	21.1
450226 2002 TA_{220}	18.0	X	327.28825	12.07135	315.65815	3.90622	0.2335121	0.30578283	2.1820297	21	6 22.5	19.4
450227 2002 TS_{303}	18.0	X	88.98080	279.51389	149.68053	5.97610	0.1741686	0.22899600	2.6459651	21	2 12.8	21.1
450228 2002 TD_{332}	17.6	X	190.37741	159.88351	153.81235	3.70325	0.0707641	0.23063754	2.6333952	21	1 6.7	21.3
450229 2002 TX_{367}	17.2	X	142.50463	294.26033	87.80651	8.50101	0.0887161	0.23096572	2.6309002	21	2 11.5	21.0
450230 2002 TQ_{368}	17.4	X	116.63153	269.82221	135.73962	8.78259	0.0793809	0.22979090	2.6398596	21	2 5.9	20.7
450231 2002 TQ_{376}	17.3	X	121.85736	106.71987	292.13166	10.28046	0.3072932	0.22924416	2.6440552	21	3 1.4	21.5
450232 2002 UJ_{46}	18.3	X	324.13035	124.18838	222.28865	4.74144	0.2113032	0.30598033	2.1810906	21	7 21.9	19.8
450233 2002 UH_{79}	17.1	X	97.37687	336.42845	73.89932	6.27544	0.1598262	0.22503898	2.6768922	21	1 31.9	20.4
450234 2002 VN_{117}	17.3	X	161.38283	142.56539	206.20973	2.35695	0.2338408	0.22875383	2.6478323	21	2 1.4	21.7
450235 2002 VW_{140}	16.5	X	55.07321	328.26417	88.27447	15.36770	0.0453565	0.21939940	2.7225702	21	—	—
450236 2002 WO_{24}	17.9	X	86.60681	201.02859	226.51175	1.37122	0.1946812	0.22516967	2.6758563	21	2 10.6	21.0
450237 2002 XY_{38}	22.9	X	280.84802	119.49987	159.35986	2.10160	0.2172722	1.13373477	0.9108812	21	—	—
450238 2002 XN_{40}	18.3	X	264.99734	216.53003	270.96869	25.61073	0.4261717	0.30812705	2.1709484	21	9 18.8	22.0
450239 2002 XA_{119}	17.9	X	89.62204	230.83554	220.13408	3.68624	0.2339784	0.22788955	2.6545227	21	3 23.6	21.2
450240 2003 AO_{53}	16.3	X	29.41127	196.09840	308.69890	11.68029	0.2461126	0.22034860	2.7147459	21	2 7.4	18.3

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
450241 2003 AQ_{85}	17.3	X	111.27438	209.91974	210.99749	8.03893	0.2893326	0.22755247	2.6571436	21	3 18.7	21.2
450242 2003 DG	16.6	X	333.55285	224.37629	320.90260	17.47330	0.2330032	0.21419518	2.7664931	21	—	—
450243 2003 EF_{46}	17.3	X	31.06851	94.56469	140.39789	5.17901	0.1689645	0.28057261	2.3108541	21	6 26.7	19.1
450244 2003 FA_{68}	16.2	X	192.57223	90.91043	142.31774	9.37067	0.0585034	0.19711312	2.9241010	21	12 27.7	20.6
450245 2003 GX_{21}	18.1	X	202.16116	175.94453	24.43816	20.95965	0.0492750	0.35482425	1.9760315	21	—	—
450246 2003 HP_{46}	17.3	X	7.61243	175.71060	65.77922	5.84287	0.1609944	0.27441839	2.3452757	21	5 13.1	19.1
450247 2003 SY_{112}	16.7	X	73.08580	89.48968	210.24283	14.06655	0.2273983	0.17344304	3.1844283	21	11 24.8	21.6
450248 2003 SF_{338}	17.8	X	302.05214	328.05321	307.25745	2.90367	0.0751691	0.25704233	2.4498131	21	3 21.2	20.9
450249 2003 SQ_{360}	16.5	X	356.88576	256.69620	172.35927	11.59685	0.0630424	0.17434119	3.1734821	21	—	—
450250 2003 SL_{379}	17.2	X	337.72486	264.07028	171.32841	5.63548	0.1676683	0.17216169	3.2002092	21	12 16.3	20.8
450251 2003 TO_{3}	15.6	X	8.85616	23.26078	36.79914	15.19385	0.2548529	0.17294727	3.1905110	21	—	—
450252 2003 UC_{310}	17.0	X	52.55314	301.84763	214.17492	13.37094	0.0137881	0.24775043	2.5106901	21	3 21.6	20.3
450253 2003 UO_{335}	16.6	X	321.81820	262.81910	182.33659	3.27220	0.1449631	0.17163857	3.2067083	21	11 30.9	20.4
450254 2003 UU_{348}	16.3	X	353.40033	24.10872	26.02594	18.27372	0.0887421	0.17073880	3.2179644	21	12 1.5	20.7
450255 2003 UX_{370}	16.2	X	35.12442	119.76720	228.33179	14.81888	0.1054753	0.17408374	3.1766101	21	11 21.2	20.5
450256 2003 UO_{373}	16.7	X	79.93538	98.16966	208.93732	10.02386	0.1408475	0.17376652	3.1804750	21	11 30.4	21.5
450257 2003 WA	19.9	X	145.19126	190.55139	232.53558	11.83199	0.4219397	0.24737885	2.5132036	21	4 28.8	24.6
450258 2003 WD_{5}	18.0	X	132.91731	337.25905	28.36852	7.84633	0.2279614	0.23952760	2.5678265	21	1 27.3	21.8
450259 2003 WQ_{7}	19.6	X	69.53001	100.08479	38.63631	17.79121	0.4539045	0.40815496	1.7999178	21	5 21.9	20.2
450260 2003 WC_{21}	16.6	X	159.42531	117.54978	251.25180	28.77973	0.2227890	0.24351741	2.5397017	21	2 7.8	21.4
450261 2003 WP_{39}	15.3	X	5.23450	166.13226	242.40978	21.35715	0.0620972	0.16881747	3.2423342	21	12 16.7	19.7
450262 2003 WF_{140}	16.6	X	112.18142	195.84660	242.65243	12.62976	0.1201006	0.24281658	2.5445861	21	3 12.9	20.3
450263 2003 WD_{158}	18.8	X	42.88385	102.28023	92.25827	16.72586	0.4091236	0.57854812	1.4264057	21	6 30.7	14.4
450264 2003 WM_{167}	17.2	X	149.75148	274.23505	137.50015	7.58854	0.1632388	0.24667965	2.5179503	21	4 4.2	21.1
450265 2003 WU_{172}	6.1	X	359.96475	100.32244	10.23903	4.14793	0.2515581	0.00405144	38.9699426	21	1 10.2	20.7
450266 2003 YJ_{14}	16.3	X	150.10482	67.50213	325.82912	13.83862	0.1259966	0.23998809	2.5645407	21	3 3.5	20.1
450267 2003 YF_{83}	16.9	X	151.56896	47.78761	352.71701	3.28219	0.1520049	0.24107999	2.5567912	21	3 19.3	20.6
450268 2003 YX_{114}	17.5	X	113.97247	348.48252	112.90664	5.83111	0.2414749	0.24223949	2.5486258	21	5 8.9	21.3
450269 2003 YV_{130}	16.7	X	168.00857	51.46459	320.25345	6.54321	0.3133155	0.24325037	2.5415600	21	3 7.8	21.2
450270 2004 AE	20.6	X	60.19286	193.14918	307.58695	18.73014	0.3328739	0.57541362	1.4315811	21	—	—
450271 2004 BA_{12}	17.1	X	94.14638	352.11087	124.19315	6.68916	0.1861101	0.23979118	2.5659444	21	4 28.3	20.5
450272 2004 BG_{15}	17.4	X	56.10509	26.15894	114.08105	5.15468	0.1466328	0.23684702	2.5871649	21	3 25.5	20.1
450273 2004 BL_{68}	16.2	X	16.87518	241.03681	275.97340	25.85642	0.3072184	0.23005187	2.6378628	21	1 10.1	18.2
450274 2004 BQ_{102}	16.6	X	76.61217	53.05768	96.97641	26.89934	0.4023737	0.23683374	2.5872616	21	6 21.7	20.2
450275 2004 BR_{137}	17.6	X	79.11907	121.59615	338.73122	2.48753	0.1107965	0.23523812	2.5989479	21	2 28.9	20.6
450276 2004 BL_{146}	16.7	X	95.48259	121.83025	318.84634	13.91150	0.0559187	0.23377573	2.6097752	21	2 17.3	20.0
450277 2004 CY_{103}	17.0	X	18.44659	244.19942	250.67775	10.55988	0.2427468	0.22899269	2.6459907	21	—	—
450278 2004 CY_{112}	16.9	X	93.03156	108.97215	2.08516	7.57795	0.1522954	0.23855805	2.5747792	21	4 9.7	20.1
450279 2004 DR_{13}	16.3	X	19.89098	159.56666	336.59730	14.44108	0.0428670	0.22834079	2.6510243	21	1 19.5	19.8
450280 2004 DW_{29}	16.8	X	143.38018	68.49594	348.85645	3.02415	0.2833690	0.24038253	2.5617345	21	4 11.9	21.1
450281 2004 ER_{35}	16.6	X	39.82585	252.41274	275.02628	11.43577	0.1529668	0.23497657	2.6008761	21	3 24.9	19.6
450282 2004 EM_{47}	17.9	X	33.19773	102.12663	43.17434	2.92641	0.2271849	0.22993497	2.6387568	21	2 17.8	19.9
450283 2004 EM_{64}	17.8	X	4.20319	6.36385	161.96882	13.10355	0.2077261	0.22831862	2.6511959	21	1 16.1	20.6
450284 2004 FF_{30}	15.8	X	359.68483	96.50555	97.87255	16.65387	0.2201656	0.22841454	2.6504537	21	2 17.9	18.7
450285 2004 FG_{57}	18.1	X	19.55433	330.52380	332.55166	2.96889	0.1006910	0.30596511	2.1811629	21	9 15.8	19.9
450286 2004 HQ_{5}	16.6	X	240.10577	345.59232	226.15498	8.87649	0.2486883	0.21120153	2.7925739	21	—	—
450287 2004 HB_{46}	17.0	X	74.77912	264.59559	269.33529	11.05319	0.2611569	0.23762721	2.5814989	21	6 29.0	20.2
450288 2004 HR_{78}	17.1	X	12.91302	59.30174	121.52881	13.72328	0.2053268	0.22589609	2.6701166	21	2 27.6	19.6
450289 2004 JV_{13}	16.8	X	2.86679	318.06932	223.29430	12.70755	0.2002005	0.22572517	2.6714644	21	1 30.1	19.9
450290 2004 JR_{20}	17.7	X	193.00307	40.79452	222.92834	21.98321	0.1068104	0.37772829	1.8953222	21	—	—
450291 2004 JT_{20}	17.8	X	157.69254	254.81852	64.42717	23.50361	0.0903074	0.38227677	1.8802580	21	—	—
450292 2004 KU	16.2	X	71.23274	101.49660	93.85144	29.16727	0.3735276	0.23560236	2.5962686	21	8 13.4	20.4
450293 2004 LV_{3}	18.8	X	91.78550	121.32645	273.48364	35.34171	0.2755783	0.72141874	1.2312449	21	—	—
450294 2004 LW_{24}	15.7	X	74.57986	64.68875	284.39184	20.22027	0.2698200	0.19043238	2.9920960	21	—	—
450295 2004 MB	18.1	X	338.88895	80.50263	199.15326	4.89929	0.2361241	0.28555232	2.2839097	21	4 27.9	19.6
450296 2004 PE_{40}	17.8	X	257.65506	177.04663	159.93061	7.06753	0.2598154	0.27523741	2.3406209	21	3 31.4	21.6
450297 2004 PN_{42}	18.0	X	265.83734	132.21433	223.60710	5.63295	0.1692633	0.28011555	2.3133672	21	5 10.1	21.1
450298 2004 PG_{55}	17.8	X	290.48716	330.27546	347.89480	5.92081	0.2523574	0.27984198	2.3148746	21	4 4.7	21.2
450299 2004 PN_{110}	18.3	X	262.14579	257.02611	80.31291	1.53887	0.2490562	0.27648057	2.3335994	21	4 4.7	22.1
450300 2004 QD_{14}	20.5	X	270.88464	109.31548	75.26176	6.24801	0.3378947	1.07852015	0.9417101	21	—	—
450301 2004 QZ_{17}	15.8	X	34.81461	112.95654	268.47482	10.81859	0.3309323	0.18032259	3.1029108	21	—	—
450302 2004 QF_{24}	17.0	X	227.71941	99.79240	260.20674	20.67824	0.3240863	0.27179761	2.3603277	21	3 23.9	21.9
450303 2004 RA_{3}	17.6	X	44.83284	160.85516	249.20224	17.75478	0.0597661	0.36674499	1.9329766	21	—	—
450304 2004 RA_{60}	18.1	X	237.35161	195.52576	183.81334	2.92949	0.2021134	0.27650922	2.3334382	21	5 9.5	21.7
450305 2004 RK_{135}	16.9	X	54.08789	300.84209	72.44496	1.88634	0.1853652	0.18718139	3.0266412	21	—	—
450306 2004 RS_{141}	18.0	X	219.31174	220.39943	152.21990	2.82098	0.2269222	0.27284945	2.3542577	21	4 14.6	22.0
450307 2004 RX_{157}	17.5	X	276.74209	29.53131	276.05084	4.70291	0.2049731	0.27446039	2.3450365	21	3 10.1	21.0
450308 2004 RG_{160}	15.7	X	60.79888	290.38815	349.92345	8.71728	0.1055874	0.17636259	3.1491866	21	9 30.4	20.1
450309 2004 RF_{165}	17.8	X	110.48386	107.41258	202.87119	21.01125	0.0923043	0.36388922	1.9430766	21	—	—
450310 2004 RP_{175}	17.9	X	249.93534	146.97328	213.74773	6.82515	0.2033716	0.27690788	2.3311981	21	4 26.5	21.2
450311 2004 RW_{189}	15.7	X	79.56658	22.44605	310.84298	7.28274	0.2582742	0.18538647	3.0461459	21	—	—
450312 2004 RJ_{209}	16.0	X	77.75986	94.14421	247.62419	10.90072	0.2570508	0.18783922	3.0195707	21	—	—
450313 2004 RG_{248}	15.9	X	19.22749	150.21619	243.34185	15.86184	0.3193958	0.18099642	3.0952049	21	—	—
450314 2004 RE_{250}	17.9	X	238.38144	113.16072	242.71595	1.64967	0.1930213	0.27368121	2.3494853	21	4 9.7	21.5
450315 2004 RM_{252}	16.4	X	227.20956	83.37110	278.67243	21.81997	0.2348679	0.26953159	2.3735384	21	3 26.2	21.1
450316 2004 RN_{253}	16.0	X	113.23854	161.04723	149.84013	15.58119	0.1943091	0.19026915	2.9938070	21	—	—
450317 2004 RH_{334}	17.7	X	245.09539	314.85733	42.83721	7.24437	0.2617707	0.27514280	2.3411574	21	4 15.5	21.7
450318 2004 ST_{1}	16.6	X	65.37154	311.16685	53.47984	2.50726	0.1818391	0.18765224	3.0215762	21	—	—
450319 2004 SG_{18}	16.7	X	43.40291	266.40108	115.97237	12.92056	0.2452956	0.18449996	3.0558957	21	—	—
450320 2004 SN_{19}	16.0	X	2.13932	185.89488	202.87797	17.74536	0.1935149	0.17727578	3.1383626	21	12 4.1	19.8

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
450321 2004 SR_{28}	18.1	X	254.59221	190.84606	138.76484	4.14188	0.2526615	0.27376741	2.3489921	21	3 20.1	21.9
450322 2004 SB_{51}	17.8	X	242.49926	77.62806	202.75162	4.44455	0.1814105	0.26242989	2.4161683	21	1 11.8	21.8
450323 2004 TJ_{2}	16.2	X	0.64009	46.03834	16.46546	11.56957	0.1804521	0.18287466	3.0739752	21	—	—
450324 2004 TK_{26}	16.2	X	294.57155	297.93678	197.58909	18.55840	0.0777920	0.18496372	3.0507855	21	12 27.8	20.6
450325 2004 TK_{28}	16.7	X	82.32490	156.14595	165.80268	2.47935	0.1784982	0.18395493	3.0619289	21	12 24.8	21.4
450326 2004 TW_{34}	16.6	X	23.89816	161.65761	192.71836	17.62223	0.2303522	0.17806682	3.1290612	21	12 2.4	20.7
450327 2004 TQ_{45}	17.9	X	232.22021	159.96493	208.14933	6.90036	0.1360480	0.27137804	2.3627598	21	4 23.9	21.4
450328 2004 TS_{49}	17.5	X	139.50864	56.75267	38.01805	6.87164	0.1002493	0.26763303	2.3847503	21	5 7.8	20.6
450329 2004 TL_{56}	17.2	X	275.22727	293.76424	0.84858	7.60583	0.1146380	0.26963208	2.3729487	21	3 8.5	20.3
450330 2004 TA_{72}	17.5	X	341.35256	19.11732	33.22226	2.61068	0.1472283	0.17773314	3.1329762	21	11 23.2	20.9
450331 2004 TE_{92}	16.4	X	51.40095	104.09370	211.89694	9.06302	0.1078407	0.17547381	3.1598116	21	11 3.8	20.6
450332 2004 TA_{94}	17.0	X	345.00086	239.58624	209.41334	5.18252	0.1188266	0.18329653	3.0692567	21	—	—
450333 2004 TL_{107}	17.9	X	203.07331	43.71749	26.74919	2.78283	0.1438994	0.27576852	2.3376146	21	6 14.7	21.5
450334 2004 TM_{107}	17.0	X	14.51578	40.93515	20.58523	9.29752	0.0624627	0.18587272	3.0408309	21	—	—
450335 2004 TY_{142}	16.6	X	46.12465	184.27512	21.80402	23.92195	0.1683839	0.27360468	2.3499234	21	6 2.7	19.4
450336 2004 TW_{151}	18.2	X	248.48172	308.52906	1.11268	2.56066	0.1789747	0.26770638	2.3843147	21	2 22.5	22.0
450337 2004 TX_{155}	18.5	X	207.23422	251.14202	154.66532	1.58860	0.1797962	0.27279662	2.3545616	21	5 16.9	22.1
450338 2004 TO_{165}	18.5	X	248.46430	147.72641	201.82395	5.78683	0.1285285	0.27367681	2.3495105	21	4 17.0	21.6
450339 2004 TO_{176}	16.2	X	11.37129	345.58288	20.07107	18.02332	0.2017217	0.17674405	3.1446539	21	11 15.2	20.0
450340 2004 TA_{191}	18.1	X	170.77273	271.55636	165.34677	1.20421	0.1580081	0.27115545	2.3640527	21	5 22.8	21.7
450341 2004 TB_{202}	16.4	X	358.74295	358.58386	21.52089	5.29020	0.1732616	0.17305358	3.1892042	21	11 11.9	20.1
450342 2004 TV_{207}	16.8	X	77.02973	123.70116	212.13459	5.66391	0.2093463	0.18244781	3.0787679	21	—	—
450343 2004 TV_{225}	16.7	X	101.15362	283.72658	55.43560	1.68432	0.0334460	0.18786880	3.0192537	21	—	—
450344 2004 TN_{273}	16.2	X	7.44002	174.15745	238.58815	7.06204	0.0298117	0.17989778	3.1077936	21	12 25.1	20.4
450345 2004 TO_{276}	16.4	X	20.51052	311.84536	49.45688	1.81556	0.1833785	0.17534383	3.1613729	21	11 27.2	20.2
450346 2004 TD_{307}	15.9	X	61.24026	98.16383	215.05203	25.49036	0.1750055	0.17851893	3.1237758	21	11 21.9	20.5
450347 2004 TK_{323}	16.5	X	69.55056	101.96802	230.64053	5.97875	0.1919857	0.17881335	3.1203461	21	12 25.0	21.2
450348 2004 TA_{326}	16.1	X	47.50500	54.54247	309.87100	14.79514	0.2451119	0.18279328	3.0748875	21	—	—
450349 2004 VG_{4}	15.5	X	27.99461	316.46379	49.58900	14.69041	0.1514640	0.17737565	3.1371844	21	12 8.3	19.7
450350 2004 VT_{5}	16.1	X	9.00747	190.02857	215.22441	9.95305	0.1379160	0.17883763	3.1200636	21	12 28.6	20.1
450351 2004 VQ_{11}	17.7	X	277.38239	266.18867	96.50221	2.60206	0.1828526	0.27752386	2.3277473	21	6 1.1	20.7
450352 2004 VM_{37}	18.4	X	147.16371	246.83000	221.09350	0.76621	0.1488240	0.26826286	2.3810162	21	6 8.4	21.8
450353 2004 VU_{38}	16.0	X	64.90125	284.97279	57.10899	11.98915	0.0748852	0.17790939	3.1309068	21	12 15.9	20.5
450354 2004 VN_{41}	15.8	X	113.71529	234.94912	55.71628	10.66973	0.1250906	0.17861738	3.1226279	21	12 12.2	20.7
450355 2004 VU_{41}	17.8	X	104.28241	14.16018	67.14420	2.21513	0.1567681	0.25776181	2.4452522	21	3 16.8	20.8
450356 2004 VB_{80}	18.1	X	143.30240	189.80319	269.20199	6.21933	0.3275364	0.26466760	2.4025303	21	6 4.9	22.4
450357 2004 WV_{12}	17.4	X	179.68469	353.04753	94.84733	5.92135	0.1981111	0.27026049	2.3692689	21	6 15.3	21.1
450358 2004 XM_{25}	16.4	X	36.53314	345.03840	91.66550	17.02621	0.2874924	0.18373436	3.0643789	21	—	—
450359 2004 XN_{71}	15.2	X	265.83233	272.34368	245.21301	10.24826	0.1423483	0.17588801	3.1548489	21	12 6.9	19.4
450360 2004 XE_{90}	17.8	X	168.75093	0.15292	63.92526	3.64298	0.1672352	0.26403512	2.4063654	21	5 5.1	21.6
450361 2004 XV_{101}	17.0	X	137.34811	19.96983	89.58962	23.45737	0.2983977	0.26163619	2.4210523	21	6 13.2	21.2
450362 2004 XP_{124}	15.6	X	313.36100	69.20485	67.39491	26.51409	0.2488360	0.17293503	3.1906615	21	—	—
450363 2004 YL_{15}	17.6	X	175.09615	324.74910	93.08078	4.78970	0.1516209	0.26108386	2.4244656	21	5 3.8	21.4
450364 2005 AP_{24}	16.1	X	18.66407	128.35981	293.54186	15.20751	0.4160386	0.17923566	3.1154427	21	—	—
450365 2005 AV_{39}	16.0	X	68.67050	288.79322	119.85625	10.66658	0.1692191	0.18408347	3.0605033	21	—	—
450366 2005 AG_{43}	17.8	X	175.52959	338.33589	108.71465	2.07900	0.3042520	0.26557710	2.3970419	21	6 12.3	22.2
450367 2005 CX_{5}	16.4	X	5.03436	130.46417	330.17167	26.97963	0.3265048	0.17700539	3.1415578	21	—	—
450368 2005 CK_{62}	17.9	X	140.46617	134.96929	348.14777	5.42284	0.3221712	0.26236575	2.4165621	21	7 3.5	22.3
450369 2005 EA_{116}	17.7	X	197.95508	49.32270	170.30080	18.70621	0.1283957	0.34124083	2.0281281	21	—	—
450370 2005 EG_{137}	17.7	X	1.57884	359.23098	180.29913	6.24297	0.1668712	0.24066593	2.5597230	21	1 28.6	20.4
450371 2005 EF_{286}	15.1	X	308.92069	257.87924	307.92533	23.71831	0.2741674	0.17531874	3.1616745	21	—	—
450372 2005 GD_{37}	16.6	X	259.93958	164.16940	96.35695	15.47805	0.2259948	0.23208437	2.6224394	21	1 6.1	20.9
450373 2005 GL_{60}	16.6	X	257.82440	189.94489	43.89971	14.44327	0.1973380	0.22966205	2.6408469	21	—	—
450374 2005 GB_{107}	17.4	X	177.04575	100.27117	189.37953	9.82798	0.1255626	0.22502357	2.6770144	21	—	—
450375 2005 GU_{131}	17.3	X	230.76621	221.08243	62.12832	3.79712	0.0842988	0.23287921	2.6164689	21	1 12.7	21.2
450376 2005 GN_{144}	17.2	X	292.95908	50.49613	156.30955	5.81129	0.1499611	0.23087428	2.6315948	21	—	—
450377 2005 GB_{201}	17.0	X	188.85489	286.78523	5.69294	6.24937	0.2536402	0.22782772	2.6550030	21	—	—
450378 2005 JG_{21}	16.8	X	207.48433	259.72303	41.59713	12.91915	0.2388313	0.22685433	2.6625922	21	1 16.6	21.7
450379 2005 JQ_{97}	17.0	X	281.31287	181.40479	76.42894	8.05207	0.1674464	0.23413772	2.6070846	21	1 27.8	21.0
450380 2005 JK_{118}	16.2	X	232.37061	44.44662	235.46060	18.40986	0.1172222	0.22882820	2.6472585	21	1 6.0	20.6
450381 2005 JB_{151}	17.1	X	294.67064	132.11304	100.83091	12.35184	0.1604589	0.23251507	2.6191999	21	1 10.8	20.9
450382 2005 JD_{185}	16.3	X	249.30299	35.34781	220.01107	14.50915	0.0708742	0.22790359	2.6544137	21	—	—
450383 2005 LH_{4}	16.5	X	66.76049	231.07080	217.10516	20.86456	0.0995130	0.23165993	2.6256416	21	1 17.3	20.1
450384 2005 LV_{18}	17.5	X	184.91546	69.35137	224.64744	12.86712	0.2069472	0.22002478	2.7174088	21	—	—
450385 2005 MH_{48}	17.0	X	156.59509	177.98017	147.83400	10.91756	0.1242446	0.21496980	2.7598433	21	—	—
450386 2005 NA_{23}	16.5	X	209.82485	50.03140	245.05196	13.10801	0.1031076	0.22586313	2.6703764	21	1 4.8	20.8
450387 2005 NE_{31}	17.0	X	207.05770	229.69245	127.30652	5.44923	0.1071738	0.22893234	2.6464556	21	3 21.9	21.0
450388 2005 NA_{41}	17.4	X	113.12312	136.69582	219.60608	1.33084	0.2849080	0.20983033	2.8047267	21	1 4.5	21.3
450389 2005 OY_{21}	16.6	X	159.14538	161.10390	142.39014	10.44271	0.2085843	0.21061566	2.7977503	21	—	—
450390 Pitchcomment	18.7	X	322.86262	148.35548	186.45480	3.77852	0.2152575	0.30555580	2.1831104	21	6 27.7	20.2
450391 2005 QC_{81}	17.0	X	171.84580	5.52358	311.28067	5.81160	0.0914834	0.21286578	2.7779994	21	—	—
450392 2005 QE_{109}	16.7	X	66.44359	63.59498	328.97353	7.91333	0.0881883	0.20457793	2.8525298	21	—	—
450393 2005 QW_{138}	17.0	X	259.37931	235.45656	2.99825	7.51360	0.1703566	0.21508933	2.7588207	21	—	—
450394 2005 QR_{180}	18.2	X	297.42214	355.20640	15.70111	3.65243	0.1761409	0.30262558	2.1971799	21	7 15.5	20.2
450395 2005 SA_{18}	16.9	X	118.00838	167.87403	188.81430	12.20821	0.1226194	0.20624879	2.8371031	21	—	—
450396 2005 SY_{63}	16.2	X	65.58313	40.28437	15.73036	17.07405	0.0435488	0.20541737	2.8447532	21	—	—
450397 2005 SG_{80}	16.9	X	100.33050	321.97968	30.46441	2.36308	0.0782627	0.20266695	2.8704331	21	—	—
450398 2005 SC_{141}	16.9	X	80.81090	324.46805	72.29599	3.07711	0.0750601	0.20521192	2.8466517	21	—	—
450399 2005 SK_{166}	16.7	X	76.28672	281.24999	131.36702	8.43171	0.3232305	0.20497528	2.8488422	21	1 31.2	19.6
450400 2005 SU_{172}	18.1	X	218.59173	189.67115	232.13240	4.12117	0.1123813	0.29579783	2.2308621	21	6 21.2	21.2

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
450401 2005 SE_{207}	17.8	X	34.65760	84.85435	355.59588	2.04832	0.1590055	0.20254078	2.8716250	21	—	—
450402 2005 SY_{209}	17.7	X	350.95560	68.91554	255.10452	4.26197	0.1226306	0.30540442	2.1838317	21	8 23.4	19.5
450403 2005 SJ_{227}	16.9	X	43.36986	243.60446	185.27497	10.06877	0.0918629	0.20322419	2.8651835	21	—	—
450404 2005 SB_{232}	17.8	X	34.14274	41.79091	23.69394	8.70252	0.2727012	0.19762315	2.9190677	21	—	—
450405 2005 SW_{265}	18.3	X	263.96054	218.31589	152.85892	6.39063	0.2682773	0.29633266	2.2281771	21	5 18.4	21.7
450406 2005 SO_{278}	16.2	X	96.19349	126.74614	245.98511	13.90814	0.1547764	0.20244401	2.8725401	21	—	—
450407 2005 TP_{22}	17.6	X	93.22126	315.56075	43.89838	1.43262	0.1735731	0.20188130	2.8778754	21	—	—
450408 2005 TM_{46}	18.1	X	322.58170	173.69227	161.27373	3.75258	0.1107194	0.30034322	2.2082971	21	7 14.4	20.2
450409 2005 TT_{51}	18.2	X	293.14909	127.21558	225.81694	4.13346	0.2118335	0.29776389	2.2210314	21	6 3.1	20.8
450410 2005 TX_{102}	17.0	X	127.38096	73.44701	272.24410	1.00299	0.0735483	0.20348109	2.8627714	21	—	—
450411 2005 TC_{106}	16.4	X	100.48928	185.42671	135.52715	6.04327	0.1102769	0.19833305	2.9120981	21	—	—
450412 2005 TX_{117}	17.5	X	130.67642	23.94638	304.25979	1.09665	0.0673646	0.20281096	2.8690741	21	—	—
450413 2005 TN_{120}	18.7	X	195.99215	264.24612	190.06638	2.31104	0.1731640	0.29437578	2.2380408	21	7 8.5	22.1
450414 2005 TU_{121}	17.8	X	94.61706	198.14582	22.43357	4.90732	0.0962366	0.30256708	2.1974631	21	9 8.7	20.5
450415 2005 TR_{142}	18.4	X	226.73955	303.39254	147.49140	3.09542	0.1313409	0.29945464	2.2126634	21	8 9.1	21.3
450416 2005 TK_{146}	17.8	X	155.48209	80.32882	51.53289	6.51809	0.0660803	0.29554012	2.2321588	21	7 16.9	20.7
450417 2005 TM_{154}	17.1	X	293.04765	269.65619	271.12859	4.56033	0.0192273	0.20509088	2.8477716	21	—	—
450418 2005 TR_{184}	17.3	X	195.61479	342.76635	286.80510	0.93483	0.0279338	0.20362753	2.8613988	21	—	—
450419 2005 TP_{188}	17.3	X	45.87642	186.46008	79.74609	4.76688	0.1343902	0.30546945	2.1835218	21	9 13.6	19.5
450420 2005 UF_{12}	17.9	X	324.65369	271.61769	57.65195	8.86107	0.0761125	0.29602320	2.2297297	21	7 15.4	20.2
450421 2005 UZ_{12}	17.8	X	168.05046	264.87272	224.75143	6.64893	0.0425005	0.29709215	2.2243780	21	7 25.7	20.7
450422 2005 UM_{13}	17.4	X	119.72397	124.09482	220.60625	1.08024	0.0789637	0.20245292	2.8724557	21	—	—
450423 2005 UX_{13}	16.8	X	350.40697	202.06227	206.26902	4.45045	0.1645275	0.18900419	3.0071501	21	12 8.8	20.2
450424 2005 UC_{26}	17.4	X	58.30029	357.94162	41.31167	3.32583	0.1699798	0.19869890	2.9085224	21	—	—
450425 2005 UM_{31}	16.2	X	120.38497	236.88676	41.64771	10.79147	0.0751801	0.18967629	3.0000421	21	12 2.7	20.7
450426 2005 UA_{73}	17.8	X	323.72787	229.24352	222.58936	20.53632	0.1215374	0.37756162	1.8958799	21	—	—
450427 2005 UE_{95}	16.7	X	1.43570	143.27524	272.27872	4.36530	0.1006544	0.19082819	2.9879572	21	12 30.2	20.5
450428 2005 UN_{101}	16.6	X	311.23079	250.07295	195.48845	8.75274	0.0148727	0.18736838	3.0246272	21	11 26.5	20.8
450429 2005 UD_{105}	17.3	X	32.17662	347.57231	71.35618	7.77299	0.2251666	0.19551425	2.9400210	21	—	—
450430 2005 UB_{182}	16.6	X	17.24419	42.80457	52.50051	11.73225	0.1096263	0.19767397	2.9185674	21	—	—
450431 2005 UH_{200}	18.3	X	303.48450	156.57525	191.64484	1.64179	0.1900079	0.29755851	2.2220533	21	6 16.3	20.3
450432 2005 UF_{202}	18.0	X	278.48034	317.34994	50.73793	8.50129	0.1538144	0.29524137	2.2336643	21	6 13.2	20.8
450433 2005 UP_{208}	18.4	X	98.39607	10.00252	193.64742	4.02852	0.0572113	0.29748444	2.2224221	21	8 10.7	21.1
450434 2005 UM_{213}	16.8	X	84.18472	201.03880	167.27421	9.61678	0.2147504	0.20068167	2.8893329	21	—	—
450435 2005 UN_{231}	18.0	X	197.65916	265.21909	219.91792	3.09499	0.1094664	0.29775738	2.2210638	21	8 23.8	21.2
450436 2005 UC_{253}	17.5	X	302.13673	324.83513	9.60353	3.24226	0.2163038	0.29627675	2.2284574	21	5 17.8	19.8
450437 2005 UV_{308}	17.8	X	284.62537	170.32019	209.44198	4.89894	0.1841620	0.29861098	2.2168290	21	7 4.7	20.5
450438 2005 US_{325}	17.1	X	26.20445	9.19182	66.79177	3.16062	0.0885051	0.19995771	2.8963027	21	—	—
450439 2005 UZ_{328}	17.4	X	133.03490	105.10985	210.87309	12.64941	0.0930089	0.19909426	2.9046706	21	—	—
450440 2005 UC_{355}	18.4	X	240.77957	86.90889	329.07255	3.86756	0.2127170	0.29518289	2.2339594	21	6 28.9	21.7
450441 2005 UD_{360}	17.1	X	63.82541	99.63063	290.19166	0.71513	0.1247925	0.19632151	2.9319561	21	—	—
450442 2005 UH_{368}	18.1	X	212.73036	267.33304	145.59990	1.98141	0.0697788	0.28936397	2.2638088	21	6 4.9	21.2
450443 2005 UY_{387}	17.2	X	318.55348	31.72684	112.57615	2.85500	0.0446230	0.19958175	2.8999388	21	—	—
450444 2005 UY_{399}	19.3	X	41.36499	243.12158	225.89407	19.79060	0.1367166	0.39226209	1.8482122	21	—	—
450445 2005 UT_{417}	16.7	X	112.51964	292.79623	49.28876	18.78694	0.2121960	0.20094788	2.8867805	21	—	—
450446 2005 UN_{418}	18.5	X	308.74808	245.88671	67.25554	4.37264	0.1403897	0.29303887	2.2448426	21	5 11.3	20.8
450447 2005 UP_{438}	18.0	X	253.74239	219.14523	208.10363	4.94995	0.1454053	0.29903383	2.2147387	21	8 5.6	20.7
450448 2005 UP_{443}	17.8	X	261.20325	118.25272	284.88165	4.15199	0.1029363	0.29785578	2.2205746	21	7 19.7	20.4
450449 2005 UQ_{445}	16.9	X	312.24379	207.69924	221.57977	8.42827	0.1507951	0.18188394	3.0851277	21	10 25.7	20.4
450450 2005 UE_{453}	18.8	X	190.72310	163.10328	266.61307	2.30368	0.1654596	0.28889531	2.2662564	21	5 31.8	22.3
450451 2005 UF_{454}	16.3	X	114.47244	98.22659	258.64703	13.64375	0.1720304	0.20499487	2.8486607	21	—	—
450452 2005 UX_{470}	17.0	X	33.36600	53.36230	7.25903	4.55344	0.0700313	0.19668247	2.9283677	21	—	—
450453 2005 UO_{477}	18.2	X	218.76925	29.07568	358.67317	3.99469	0.1855319	0.28786555	2.2716579	21	5 1.4	21.8
450454 2005 UW_{478}	18.4	X	292.21135	116.61943	245.14406	4.82845	0.1501259	0.29616222	2.2290319	21	6 25.7	20.6
450455 2005 UC_{510}	17.7	X	327.56204	0.61866	236.94000	6.43039	0.0791933	0.27975536	2.3153524	21	2 26.8	20.5
450456 2005 UR_{525}	18.2	X	248.29403	335.79836	56.94065	7.02366	0.1463391	0.29216985	2.2492917	21	6 11.3	21.3
450457 2005 UG_{529}	17.3	X	31.95434	137.21956	273.61558	2.55582	0.1443797	0.19434261	2.9518256	21	—	—
450458 2005 VE_{46}	18.2	X	146.47475	290.54017	229.00306	2.80093	0.0735890	0.29607462	2.2294715	21	8 12.1	21.2
450459 2005 VT_{67}	17.3	X	300.33542	83.65918	24.84132	2.40477	0.0337620	0.18809637	3.0168180	21	12 8.2	21.4
450460 2005 WY_{9}	17.8	X	213.49871	185.87228	253.19298	4.39744	0.1227802	0.29118929	2.2543385	21	7 8.4	20.9
450461 2005 WS_{15}	18.2	X	286.02874	112.32700	247.89236	4.33616	0.1813633	0.29436962	2.2380720	21	6 8.6	20.7
450462 2005 WS_{25}	16.4	X	329.80789	302.96451	258.11481	14.00178	0.0929488	0.20589415	2.8403599	21	1 24.2	20.4
450463 2005 WC_{28}	16.5	X	78.85843	92.10401	256.17737	11.01211	0.1061408	0.19130492	2.9829911	21	—	—
450464 2005 WN_{28}	18.3	X	281.83303	99.49639	265.47546	3.60119	0.1753662	0.29409269	2.2394768	21	6 10.6	20.9
450465 2005 WM_{100}	18.1	X	159.32879	164.15819	259.68912	4.68147	0.1424996	0.27704315	2.3304392	21	4 20.8	21.5
450466 2005 WK_{110}	18.3	X	268.84665	299.85229	80.06672	3.78244	0.1890478	0.29408150	2.2395336	21	6 12.9	21.3
450467 2005 WF_{125}	18.4	X	127.67209	106.94812	57.75391	6.75555	0.0642224	0.29325328	2.2437483	21	7 28.9	21.3
450468 2005 WW_{134}	16.2	X	350.43532	163.74523	278.18726	9.34500	0.0824563	0.18590837	3.0404422	21	—	—
450469 2005 WA_{135}	16.5	X	349.35503	350.20481	99.38858	10.78380	0.0478012	0.18631372	3.0360307	21	—	—
450470 2005 WN_{135}	16.2	X	60.51589	254.60409	108.26705	17.13047	0.1898636	0.18534877	3.0465589	21	—	—
450471 2005 WS_{139}	16.9	X	324.22853	54.44594	66.60685	5.09403	0.1872359	0.18962963	3.0005342	21	—	—
450472 2005 WB_{145}	17.1	X	37.00052	355.52671	262.64167	6.71767	0.1119488	0.29212253	2.2495346	21	8 5.2	19.3
450473 2005 WZ_{154}	16.9	X	321.59517	70.04763	74.68499	12.24837	0.1334714	0.19232865	2.9723964	21	—	—
450474 2005 WO_{195}	15.1	X	318.64389	50.95958	116.45968	20.93573	0.3850520	0.18331801	3.0690170	21	—	—
450475 2005 WG_{196}	17.9	X	164.78199	12.25186	91.93728	6.82888	0.0705485	0.28397097	2.2923807	21	6 18.1	20.8
450476 2005 XD_{10}	18.1	X	276.04119	59.68694	290.50478	4.47104	0.1455165	0.29006110	2.2601802	21	5 15.9	21.2
450477 2005 XJ_{18}	17.7	X	277.72626	241.34334	111.85024	3.95717	0.1934446	0.28855645	2.2680304	21	5 17.9	20.6
450478 2005 XO_{23}	16.1	X	39.68854	129.57818	256.90195	8.89454	0.1111152	0.18998969	2.9967420	21	—	—
450479 2005 XP_{26}	16.2	X	351.23556	355.37578	103.49922	15.00770	0.0786135	0.18780295	3.0199594	21	—	—
450480 2005 XO_{52}	16.2	X	108.15222	255.61634	71.90152	11.54301	0.1698389	0.18947068	3.0022121	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
450481 2005 XT_{60}	18.2	X	303.51094	63.03851	265.70819	2.02052	0.2173467	0.29254337	2.2473767	21	5 11.9	20.7
450482 2005 XR_{74}	15.8	X	345.86952	106.38509	302.34748	9.05889	0.0119097	0.17959139	3.1113273	21	11 20.6	20.3
450483 2005 YN_{7}	17.9	X	251.22083	258.30455	97.12680	7.33459	0.1292225	0.28097533	2.3086455	21	4 30.2	21.2
450484 2005 YO_{28}	18.5	X	205.65011	67.43718	8.81940	0.58474	0.1914044	0.28657540	2.2784707	21	6 23.3	22.1
450485 2005 YK_{58}	16.5	X	33.49850	129.26086	281.80068	10.39221	0.1429625	0.18820680	3.0156378	21	—	—
450486 2005 YL_{62}	17.1	X	292.67689	50.42777	73.00392	1.76743	0.1318795	0.18233289	3.0800613	21	12 5.4	20.8
450487 2005 YD_{64}	16.2	X	258.29976	238.64291	297.74875	9.29841	0.1403105	0.18246633	3.0785596	21	12 22.1	20.3
450488 2005 YJ_{67}	18.0	X	200.82865	23.44319	73.02158	3.38790	0.1317909	0.28797571	2.2710785	21	7 18.9	21.2
450489 2005 YC_{93}	18.0	X	224.44160	259.12537	147.62726	3.34180	0.2546596	0.28687360	2.2768914	21	5 30.1	21.8
450490 2005 YB_{105}	16.2	X	47.04811	300.34250	103.44638	10.67086	0.0895369	0.18993472	2.9973202	21	—	—
450491 2005 YT_{106}	17.1	X	0.81591	196.40780	270.91951	5.47957	0.1132811	0.19166866	2.9792159	21	—	—
450492 2005 YG_{110}	18.3	X	131.53005	319.75368	201.29685	1.91020	0.1199485	0.28476201	2.2881335	21	7 30.8	21.5
450493 2005 YL_{125}	18.7	X	151.00173	89.26751	19.03405	1.78104	0.1785706	0.28132998	2.3067049	21	6 14.3	22.3
450494 2005 YC_{132}	16.3	X	46.96120	255.82619	121.39925	10.07822	0.1469828	0.18353640	3.0665820	21	—	—
450495 2005 YB_{142}	17.0	X	347.11020	48.30001	71.46469	2.97172	0.2057097	0.19030336	2.9934481	21	—	—
450496 2005 YE_{142}	15.5	X	203.11881	286.34808	304.47335	8.69858	0.0562095	0.18344138	3.0676409	21	—	—
450497 2005 YP_{168}	16.2	X	289.73926	236.59702	269.10815	7.73815	0.0917879	0.18392565	3.0622538	21	—	—
450498 2005 YE_{176}	17.4	X	306.16511	359.39150	299.29010	6.67431	0.1228275	0.27812612	2.3243857	21	4 15.9	20.4
450499 2005 YO_{188}	17.2	X	354.90493	152.17565	89.43204	3.09380	0.1519955	0.27188358	2.3598300	21	4 16.8	19.2
450500 2005 YM_{192}	15.9	X	339.52758	122.24084	307.20788	9.49307	0.0933252	0.17948173	3.1125945	21	12 11.2	20.0
450501 2005 YG_{204}	13.3	X	308.86838	165.99398	126.59477	29.06736	0.0640228	0.08383003	5.1705448	21	5 21.2	20.4
450502 2005 YP_{238}	17.8	X	241.61449	112.50782	280.39727	3.67353	0.0490067	0.28575517	2.2828287	21	6 15.7	20.4
450503 2005 YE_{272}	18.6	X	219.46025	121.72081	307.55011	5.34488	0.1910050	0.28767370	2.2726677	21	6 27.5	22.0
450504 2005 YF_{277}	16.7	X	92.08342	240.98119	84.74349	10.67369	0.0780396	0.18949362	3.0019698	21	12 30.1	21.2
450505 2005 YD_{279}	15.9	X	200.36853	238.39051	284.00820	14.76826	0.0784166	0.17203705	3.2017547	21	9 29.5	21.1
450506 2005 YJ_{291}	16.8	X	8.35555	129.01262	269.23542	3.46195	0.1249832	0.18066786	3.0989562	21	12 18.9	20.7
450507 2006 AE_{13}	16.6	X	322.14660	30.16278	90.84961	15.46779	0.0582717	0.18914519	3.0056554	21	—	—
450508 2006 AS_{19}	17.8	X	299.88510	302.59752	87.47825	4.51414	0.2097599	0.29803808	2.2196690	21	8 15.2	19.6
450509 2006 AX_{23}	17.7	X	91.26524	229.95982	143.21089	24.14542	0.1013411	0.37631852	1.9000527	21	—	—
450510 2006 AC_{28}	17.4	X	235.37048	60.19387	150.30401	22.95808	0.0713014	0.36878649	1.9258364	21	—	—
450511 2006 AD_{35}	16.5	X	18.80334	98.72998	318.84854	3.78784	0.1502449	0.18621926	3.0370573	21	—	—
450512 2006 AJ_{59}	16.4	X	315.05110	174.68944	297.52422	10.54367	0.0731294	0.18267287	3.0762386	21	12 30.2	20.4
450513 2006 AC_{65}	17.4	X	346.98755	321.58704	109.62151	2.32627	0.1610408	0.18386050	3.0629772	21	12 30.5	20.9
450514 2006 AL_{76}	18.9	X	208.65021	287.63123	158.12469	1.20748	0.1582394	0.28807398	2.2705620	21	7 10.4	22.3
450515 2006 AW_{88}	16.3	X	268.01149	234.75545	285.09133	8.85328	0.0508046	0.18231623	3.0802490	21	12 26.5	20.5
450516 2006 AB_{101}	16.8	X	357.57604	104.48800	310.88308	5.79723	0.2124350	0.18106213	3.0944559	21	—	—
450517 2006 AG_{101}	18.0	X	168.29621	150.70731	311.91993	5.23149	0.1751998	0.28123715	2.3072125	21	6 23.7	21.7
450518 2006 BD_{7}	16.6	X	17.25100	312.00961	130.98109	12.03464	0.1380537	0.18840794	3.0134911	21	—	—
450519 2006 BC_{21}	16.8	X	356.18065	111.53933	311.35448	7.19581	0.1111307	0.18100982	3.0950521	21	12 30.6	20.7
450520 2006 BB_{23}	16.1	X	136.21136	352.97919	306.91357	9.53883	0.0510116	0.18354475	3.0664889	21	—	—
450521 2006 BQ_{57}	17.2	X	81.28438	71.65659	116.53646	7.46986	0.0384601	0.27924959	2.3181473	21	6 21.8	20.0
450522 2006 BJ_{66}	16.4	X	41.27139	293.34146	78.96158	2.65710	0.1594869	0.18067243	3.0989040	21	—	—
450523 2006 BB_{67}	19.0	X	186.09950	68.11030	7.89308	1.66393	0.1354630	0.28091641	2.3089683	21	6 4.7	22.5
450524 2006 BP_{67}	15.8	X	148.49094	129.29188	123.63335	16.62625	0.0386964	0.17503920	3.1650397	21	12 3.7	20.7
450525 2006 BV_{71}	17.8	X	187.45150	349.71675	97.36870	6.65853	0.1266445	0.28178834	2.3042028	21	6 21.4	21.2
450526 2006 BK_{76}	16.3	X	39.66744	278.72748	113.77049	10.16021	0.1431837	0.18324777	3.0698012	21	—	—
450527 2006 BX_{81}	18.1	X	153.46956	6.45781	113.65764	4.31772	0.1025659	0.27840317	2.3228434	21	6 28.6	21.3
450528 2006 BD_{107}	16.9	X	318.72225	141.97316	320.16540	3.93903	0.1032476	0.18106197	3.0944578	21	12 20.9	20.8
450529 2006 BK_{108}	16.6	X	22.68518	83.17674	321.98771	14.60554	0.0675108	0.18144509	3.0901002	21	—	—
450530 2006 BY_{109}	17.9	X	31.20620	186.00609	25.59071	1.90047	0.1228036	0.27218395	2.3580936	21	5 14.1	20.1
450531 2006 BW_{111}	18.9	X	195.59039	93.22146	350.75165	2.09648	0.1862964	0.28382265	2.2931793	21	6 24.4	22.6
450532 2006 BX_{120}	16.5	X	273.45674	351.77444	164.45632	9.91320	0.0343596	0.17802059	3.1296028	21	12 29.6	21.0
450533 2006 BR_{129}	18.3	X	113.08298	164.77887	323.06341	0.83125	0.1207957	0.27390656	2.3481964	21	5 23.3	21.3
450534 2006 BD_{135}	16.1	X	10.80572	288.48516	128.04244	11.90438	0.0535667	0.18099440	3.0952278	21	—	—
450535 2006 BW_{154}	16.1	X	248.61411	39.72243	141.17338	17.37862	0.1696747	0.17601214	3.1533655	21	12 12.7	20.9
450536 2006 BM_{162}	18.0	X	250.18767	245.41943	130.57709	7.19568	0.2530274	0.28285533	2.2984046	21	5 14.5	21.8
450537 2006 BW_{168}	16.9	X	291.66677	118.38632	338.67941	11.87867	0.1297685	0.17224217	3.1992122	21	10 24.7	21.2
450538 2006 BE_{200}	16.1	X	3.65169	84.88862	340.68248	15.15032	0.1890413	0.18043813	3.1015861	21	—	—
450539 2006 BT_{202}	16.6	X	357.94997	98.29875	335.44117	7.78048	0.0367764	0.18017935	3.1045550	21	—	—
450540 2006 BP_{228}	18.3	X	107.29917	81.93842	88.88320	3.09686	0.1399825	0.27977752	2.3152301	21	7 18.9	21.3
450541 2006 BF_{265}	18.3	X	90.27516	169.43664	332.45030	1.88497	0.1333823	0.27054302	2.3676191	21	5 13.6	21.1
450542 2006 BT_{276}	16.0	X	224.97558	228.94365	337.20797	16.30111	0.1964891	0.17581179	3.1557606	21	12 10.6	21.2
450543 2006 BH_{277}	17.9	X	149.36599	328.93268	160.42313	5.70774	0.0494019	0.27815166	2.3242434	21	7 2.5	21.0
450544 2006 BJ_{280}	16.7	X	42.68598	70.00485	312.83696	14.45011	0.2603975	0.18514529	3.0487906	21	—	—
450545 2006 CA_{63}	15.9	X	309.31686	62.98868	81.17838	23.45830	0.1975382	0.18114411	3.0935222	21	—	—
450546 2006 DT_{20}	16.7	X	333.60242	280.65992	167.50114	4.24136	0.1364457	0.17858750	3.1229762	21	12 26.2	20.3
450547 2006 DM_{68}	17.4	X	74.00996	69.18766	355.69526	24.72086	0.1284336	0.38211734	1.8807810	21	—	—
450548 2006 DP_{68}	15.6	X	241.19201	109.69380	92.29398	14.94890	0.2403959	0.17520563	3.1630351	21	12 17.9	20.4
450549 2006 DK_{104}	18.5	X	182.95366	150.30331	306.37197	1.75946	0.1731517	0.27969361	2.3156932	21	6 29.6	22.1
450550 2006 DR_{109}	18.0	X	118.46489	298.80255	206.98361	2.67319	0.0913902	0.27425981	2.3461797	21	6 20.8	21.1
450551 2006 DY_{110}	16.0	X	301.48395	120.48345	25.76615	27.72993	0.2491724	0.17937077	3.1138780	21	—	—
450552 2006 DD_{136}	17.5	X	338.46611	125.44179	120.78520	3.87984	0.0829904	0.26605739	2.3941563	21	4 4.3	20.2
450553 2006 DN_{136}	17.7	X	6.47082	107.86728	127.53166	5.03237	0.0815091	0.26923711	2.3752688	21	5 6.2	20.2
450554 2006 DT_{138}	18.1	X	194.82171	17.30134	59.87962	3.79371	0.1389166	0.27865927	2.3214200	21	6 15.4	21.4
450555 2006 DN_{171}	16.2	X	270.38006	144.37885	15.07998	9.05275	0.0607619	0.17457150	3.1706903	21	12 26.0	20.7
450556 2006 EX_{15}	16.4	X	331.88100	260.30619	174.10498	15.97448	0.0877209	0.17100963	3.2145659	21	12 5.9	20.8
450557 2006 EG_{22}	16.5	X	249.85669	36.65766	128.03835	2.19202	0.1274266	0.17404133	3.1771261	21	11 28.1	21.0
450558 2006 EM_{49}	17.8	X	199.57822	304.14234	116.43861	3.70129	0.1648400	0.27729481	2.3290290	21	5 29.4	21.4
450559 2006 EB_{73}	16.2	X	305.05020	98.70165	357.99975	9.27627	0.1142758	0.17058632	3.2198817	21	11 17.0	20.4
450560 2006 FK_{5}	17.1	X	126.72132	128.94589	18.55255	23.30526	0.2728638	0.27570651	2.3379652	21	7 29.3	21.5

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
450561 2006 FS_{10}	17.9	X	275.29319	302.84180	16.35810	4.26533	0.0076025	0.26737678	2.3862737	21	4 24.2	20.9
450562 2006 FQ_{28}	18.1	X	87.83932	139.41894	39.97103	4.04817	0.1726308	0.27084696	2.3658474	21	7 11.2	21.1
450563 2006 FN_{36}	17.2	X	157.22977	267.95465	226.14653	20.63214	0.3170590	0.28226320	2.3016178	21	7 21.9	21.9
450564 2006 FX_{43}	16.2	X	339.31933	80.82636	94.24167	6.29228	0.1608037	0.18916302	3.0054665	21	1 3.5	20.1
450565 2006 FM_{46}	16.3	X	275.49348	306.63353	226.85028	25.95587	0.3673699	0.17741876	3.1366762	21	12 4.9	20.5
450566 2006 FJ_{50}	15.8	X	284.43728	85.16958	67.02089	25.44842	0.2827968	0.17669584	3.1452259	21	12 4.8	19.5
450567 2006 GB_{8}	17.7	X	97.99278	104.91868	54.86310	4.65889	0.1120577	0.27116610	2.3639908	21	6 16.4	20.6
450568 2006 GK_{20}	17.5	X	107.24412	352.06314	125.56318	3.09465	0.0445623	0.26309444	2.4120979	21	4 21.8	20.5
450569 2006 HL_{1}	17.6	X	1.47172	189.72634	31.07660	8.64229	0.0911812	0.26335633	2.4104986	21	4 4.9	20.2
450570 2006 HE_{53}	15.5	X	296.03896	66.38253	104.21041	24.13667	0.2417567	0.17862846	3.1224988	21	—	—
450571 2006 JH_{35}	17.4	X	211.86066	180.37779	105.20694	4.31823	0.1833635	0.24022227	2.5628737	21	—	—
450572 2006 KA_{28}	17.1	X	313.50252	215.69241	56.84014	6.95474	0.0531740	0.25861781	2.4398535	21	4 9.9	20.1
450573 2006 MG_{9}	17.1	X	121.12107	229.59294	126.04352	14.10713	0.2737829	0.22476922	2.6790336	21	1 8.2	20.9
450574 2006 OU_{14}	17.2	X	185.31035	71.49701	269.72812	9.48305	0.1698913	0.23586055	2.5943736	21	2 5.7	21.5
450575 2006 PD_{3}	17.3	X	160.56535	348.87495	350.19232	5.97247	0.2318099	0.23061565	2.6335619	21	1 22.1	21.6
450576 2006 PF_{3}	17.0	X	156.29769	4.71813	320.39063	11.38327	0.1931444	0.22846830	2.6500379	21	—	—
450577 2006 PY_{8}	17.1	X	178.97748	35.33958	313.37315	2.79044	0.1909019	0.23461147	2.6035738	21	2 13.2	21.4
450578 2006 QE_{15}	17.2	X	183.14412	16.99679	303.63415	3.14463	0.1872417	0.23184224	2.6242649	21	1 15.2	21.5
450579 2006 QA_{39}	17.1	X	216.38683	72.76730	226.21143	5.92929	0.2134840	0.23546036	2.5973123	21	1 15.6	21.7
450580 2006 QU_{54}	16.8	X	170.24046	141.71246	177.04963	12.28138	0.2994821	0.22676748	2.6632721	21	1 8.8	21.6
450581 2006 QK_{61}	17.1	X	151.93018	136.47985	230.03394	7.61115	0.1889044	0.23102512	2.6304492	21	2 7.8	21.3
450582 2006 QD_{93}	17.3	X	133.02627	54.17542	312.57274	12.82009	0.2444804	0.22782478	2.6550258	21	1 30.3	21.2
450583 2006 QC_{101}	17.4	X	196.12346	256.91695	39.92262	5.47284	0.3581071	0.23264776	2.6182039	21	1 4.3	22.5
450584 2006 QX_{108}	17.6	X	120.47175	232.56483	182.06709	6.89787	0.2820837	0.22961366	2.6412179	21	3 20.9	21.5
450585 2006 QT_{110}	17.4	X	100.04655	140.65102	245.84962	1.22411	0.2106481	0.22377588	2.6869559	21	1 11.1	20.6
450586 2006 QP_{116}	17.2	X	127.50474	124.81904	240.22367	3.35061	0.2518951	0.22476313	2.6790820	21	1 22.9	21.2
450587 2006 QH_{153}	16.9	X	124.71451	53.78826	335.29672	7.23512	0.1003437	0.23018955	2.6368109	21	1 30.5	20.4
450588 2006 RX_{15}	16.7	X	106.26016	91.28696	310.16737	14.58834	0.2202018	0.22541043	2.6739506	21	2 7.6	20.1
450589 2006 RB_{32}	17.0	X	181.14514	119.06393	194.80859	12.12321	0.1908299	0.22624216	2.6673931	21	1 4.9	21.6
450590 2006 RH_{33}	17.1	X	198.79334	36.49447	269.62968	1.68306	0.2194073	0.23112673	2.6296782	21	1 12.2	21.6
450591 2006 RL_{43}	17.5	X	111.58737	24.17317	19.54816	6.29530	0.0519283	0.22610235	2.6684926	21	1 26.9	21.1
450592 2006 RU_{48}	17.4	X	119.03797	167.96241	202.39290	3.36867	0.1053330	0.22151811	2.7051825	21	—	—
450593 2006 RJ_{55}	17.0	X	139.44468	336.46865	20.92588	7.53369	0.1074036	0.22310427	2.6923455	21	1 10.9	20.9
450594 2006 RG_{74}	16.8	X	26.87616	74.89918	4.92843	13.22291	0.2019052	0.21495144	2.7600004	21	—	—
450595 2006 RA_{78}	17.1	X	122.54674	322.33070	21.55324	5.46072	0.1234322	0.21950462	2.7217001	21	—	—
450596 2006 RE_{91}	17.2	X	169.77355	271.12147	10.13491	4.47446	0.1511031	0.21776682	2.7361605	21	—	—
450597 2006 RK_{91}	17.2	X	149.06377	336.42528	9.44934	1.97609	0.0816511	0.22337615	2.6901604	21	1 3.4	21.0
450598 2006 RZ_{96}	17.6	X	102.32875	16.18863	9.65559	9.69440	0.2687502	0.22001304	2.7175055	21	1 26.8	21.2
450599 2006 SF	16.9	X	152.91714	97.38151	236.77124	8.76418	0.3415773	0.22583643	2.6705869	21	1 16.2	21.6
450600 2006 SX_{2}	15.9	X	199.00861	32.65923	268.77449	15.94725	0.1335927	0.22840118	2.6505570	21	1 3.3	20.1
450601 2006 SV_{31}	17.0	X	150.48367	78.03164	274.83357	1.07676	0.0798172	0.22559858	2.6724636	21	1 12.7	20.8
450602 2006 SA_{76}	16.8	X	179.80004	283.56624	37.20757	5.83611	0.0619007	0.22371907	2.6874107	21	1 5.5	20.8
450603 2006 SH_{94}	17.1	X	112.71292	346.59377	32.35006	6.26933	0.0256425	0.22011528	2.7166639	21	—	—
450604 2006 SO_{102}	17.1	X	27.80138	315.08454	188.68153	12.90246	0.1134966	0.22836662	2.6508244	21	2 1.1	20.3
450605 2006 SQ_{106}	17.8	X	67.98967	87.59785	11.26679	5.72791	0.2383938	0.22370858	2.6874947	21	3 3.4	20.5
450606 2006 SP_{122}	16.5	X	78.96364	75.70244	356.44633	23.60009	0.1609046	0.22060694	2.7126261	21	2 11.7	20.0
450607 2006 SF_{188}	17.4	X	100.95755	51.10023	14.32839	13.05217	0.2528626	0.22580469	2.6708371	21	3 13.4	21.0
450608 2006 SR_{241}	17.1	X	128.10703	203.94225	168.21660	6.24302	0.0190842	0.22610336	2.6684846	21	—	—
450609 2006 SS_{268}	16.9	X	96.05562	110.01580	308.34696	3.97378	0.1650880	0.22303508	2.6929023	21	2 8.6	20.1
450610 2006 SM_{269}	16.7	X	129.28637	170.83205	199.52496	6.47683	0.0493958	0.22041055	2.7142372	21	1 5.1	20.5
450611 2006 SH_{277}	17.0	X	146.91715	198.96157	159.80699	4.35824	0.1123781	0.22669010	2.6638781	21	1 19.0	20.8
450612 2006 SK_{282}	16.9	X	119.40378	341.95578	24.22572	5.63399	0.1622421	0.22320113	2.6915665	21	1 4.8	20.6
450613 2006 SV_{285}	16.9	X	119.78392	199.19842	197.36110	4.13480	0.1206835	0.22610760	2.6684513	21	2 3.8	20.6
450614 2006 SV_{318}	17.4	X	117.53749	149.97602	181.37650	13.60356	0.1994916	0.21617243	2.7495978	21	—	—
450615 2006 SW_{324}	17.3	X	228.08041	240.06038	41.18517	5.54435	0.1654065	0.22866807	2.6484942	21	1 7.4	21.6
450616 2006 SU_{365}	17.2	X	124.77896	164.23895	206.75045	11.11383	0.1884355	0.22091329	2.7101177	21	1 17.9	21.2
450617 2006 SO_{381}	17.1	X	206.90855	143.88132	171.36929	10.93756	0.0537775	0.22902746	2.6457228	21	1 24.9	21.1
450618 2006 SB_{384}	17.5	X	117.52636	231.85810	134.36901	6.98141	0.0671854	0.21988809	2.7185349	21	—	—
450619 2006 SD_{390}	16.9	X	146.83861	198.59854	151.33665	13.89009	0.1640013	0.22136698	2.7064136	21	1 14.9	21.1
450620 2006 SO_{397}	17.3	X	134.36131	61.54999	258.06628	2.51407	0.0750033	0.21425221	2.7660021	21	—	—
450621 2006 SN_{399}	16.3	X	347.37988	149.76153	37.17849	10.64569	0.0279924	0.22912244	2.6449916	21	2 11.8	19.9
450622 2006 SG_{403}	17.1	X	125.40364	342.71246	25.26639	4.76990	0.1030176	0.21920267	2.7241990	21	1 6.8	20.8
450623 2006 SN_{411}	16.9	X	129.72650	46.91760	321.57703	11.28841	0.1778152	0.22277549	2.6949938	21	1 22.9	20.8
450624 2006 SE_{412}	18.2	X	73.90919	163.43876	273.50257	3.49147	0.1663329	0.22110652	2.7085386	21	1 29.9	21.1
450625 2006 TY_{12}	16.9	X	104.98456	59.63427	304.68182	8.00714	0.1794559	0.21790594	2.7349959	21	—	—
450626 2006 TA_{24}	16.9	X	141.51569	146.80424	194.31640	5.09526	0.0463647	0.21764607	2.7371725	21	—	—
450627 2006 TP_{35}	17.5	X	47.43040	80.24916	12.94426	2.70364	0.1129632	0.21820891	2.7324637	21	1 3.5	20.6
450628 2006 TW_{55}	16.7	X	137.69254	295.62418	73.41506	12.18511	0.1697213	0.22267275	2.6958227	21	2 1.7	20.8
450629 2006 TZ_{63}	17.0	X	145.67502	205.42679	139.98736	10.63779	0.2809590	0.22326817	2.6910277	21	1 20.2	21.4
450630 2006 TJ_{86}	17.1	X	11.07825	153.52052	292.75497	3.23189	0.0362990	0.21101293	2.7942376	21	—	—
450631 2006 TM_{95}	16.3	X	136.29628	161.07601	205.50683	42.96176	0.2389101	0.22390342	2.6859354	21	1 24.7	21.4
450632 2006 TU_{98}	17.3	X	133.04459	175.04291	186.71901	1.23337	0.1967067	0.22206863	2.7007097	21	1 19.0	21.1
450633 2006 TB_{122}	16.8	X	145.83018	336.06861	21.32446	9.24261	0.1703665	0.22230906	2.6987621	21	1 27.3	21.0
450634 2006 TM_{125}	17.2	X	112.61537	109.38928	276.66837	4.65826	0.0102276	0.22039346	2.7143775	21	—	—
450635 2006 TZ_{125}	17.7	X	49.46302	63.83682	50.28193	9.96209	0.2046730	0.22046055	2.7138268	21	2 14.9	20.4
450636 2006 TQ_{127}	17.2	X	139.62318	106.98448	231.89491	11.67067	0.3295621	0.22112984	2.7083481	21	1 10.6	21.8
450637 2006 UU_{5}	17.3	X	90.37200	250.38460	122.12274	1.76501	0.0817362	0.21417910	2.7666315	21	—	—
450638 2006 UE_{7}	17.2	X	123.71386	334.66777	48.51647	12.61037	0.1852011	0.22229479	2.6988776	21	2 7.8	21.3
450639 2006 UB_{8}	16.9	X	190.73243	266.15593	41.13646	13.00339	0.2710987	0.22649319	2.6654218	21	1 11.7	21.8
450640 2006 UG_{19}	17.4	X	107.51827	62.22436	262.00796	3.44995	0.1090664	0.21106061	2.7938168	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
450641 2006 UG_{21}	17.5	X	157.27594	28.49073	308.87019	1.71572	0.0962239	0.22230562	2.6987900	21	1 4.0	21.4
450642 2006 UY_{22}	17.0	X	169.30421	150.98565	182.23548	4.32821	0.0872134	0.22745379	2.6579120	21	1 9.4	20.9
450643 2006 UT_{37}	17.3	X	103.42384	182.15395	227.11661	5.56075	0.0610011	0.22168762	2.7038033	21	1 21.7	20.9
450644 2006 UD_{44}	18.2	X	65.39124	65.75906	48.47670	4.61092	0.3329892	0.22083503	2.7107580	21	4 6.6	20.8
450645 2006 UT_{44}	17.1	X	135.15807	312.79407	52.98575	7.35496	0.0757035	0.21974149	2.7197439	21	1 12.4	20.9
450646 2006 UM_{46}	16.5	X	302.51098	170.91584	53.74527	14.13522	0.1006422	0.22323101	2.6913264	21	1 21.5	20.5
450647 2006 US_{59}	16.1	X	127.18749	157.94892	244.14738	12.85114	0.2475564	0.22601688	2.6691653	21	3 2.7	20.5
450648 2006 UC_{63}	19.6	X	297.72902	328.07027	219.64051	16.66460	0.2820071	0.55146821	1.4727275	21	—	—
450649 2006 UY_{64}	19.5	X	256.48997	210.89184	30.78711	26.21420	0.1572748	1.09610754	0.9316096	21	—	—
450650 2006 UT_{77}	17.1	X	67.44118	125.77112	301.94642	2.01539	0.0704334	0.21917233	2.7244504	21	—	—
450651 2006 UJ_{95}	17.1	X	114.41510	188.63298	181.21939	5.53161	0.0697034	0.21832942	2.7314581	21	—	—
450652 2006 UM_{99}	17.3	X	72.97195	293.84479	77.74054	5.73355	0.1658993	0.21075784	2.7964918	21	—	—
450653 2006 UY_{103}	17.3	X	48.81044	69.94004	50.59856	11.07487	0.2416237	0.21992896	2.7181981	21	2 28.5	19.9
450654 2006 UV_{129}	16.9	X	52.40851	101.60298	27.63684	13.03214	0.2102686	0.22382984	2.6865240	21	3 15.8	19.6
450655 2006 UL_{142}	16.6	X	291.64171	258.11604	274.43390	5.03058	0.0195601	0.21208892	2.7847790	21	—	—
450656 2006 UJ_{176}	16.9	X	107.99701	296.97462	111.35016	6.92539	0.1885165	0.22442066	2.6818069	21	2 17.1	20.4
450657 2006 UX_{187}	16.9	X	127.26689	50.66318	289.35621	8.12614	0.2897610	0.22004304	2.7172585	21	—	—
450658 2006 UD_{197}	17.4	X	35.49366	79.95470	38.08114	3.02393	0.0281752	0.22107009	2.7088360	21	1 16.8	20.8
450659 2006 UX_{208}	16.5	X	32.16459	19.11587	55.50614	8.37428	0.1857435	0.21173110	2.7879155	21	—	—
450660 2006 UY_{208}	17.6	X	60.29770	26.25773	68.55677	3.87033	0.1740136	0.22008482	2.7169146	21	2 2.5	20.4
450661 2006 UT_{209}	16.8	X	146.51907	9.31804	327.06481	5.00952	0.0524457	0.21661356	2.7458635	21	—	—
450662 2006 US_{213}	17.2	X	120.46318	131.09585	255.72285	5.13373	0.0876786	0.22004416	2.7172493	21	1 20.1	20.9
450663 2006 UH_{237}	17.4	X	136.54294	159.49313	198.01875	5.97480	0.2774564	0.22271559	2.6954771	21	1 25.1	21.8
450664 2006 UE_{239}	17.0	X	119.95362	347.86901	27.00745	10.09414	0.1038216	0.22024441	2.7156020	21	1 9.5	20.8
450665 2006 UO_{259}	17.4	X	93.55040	40.47740	29.89011	8.38361	0.2084300	0.22352885	2.6889351	21	3 3.7	20.8
450666 2006 UW_{263}	17.2	X	180.96008	319.36357	12.66011	6.13836	0.0748613	0.22617553	2.6679170	21	1 22.2	21.2
450667 2006 UE_{266}	17.3	X	33.93001	197.09212	235.70961	12.39612	0.1560168	0.21201481	2.7854278	21	—	—
450668 2006 US_{270}	17.3	X	111.58436	211.19887	154.23739	0.86413	0.0859173	0.21515754	2.7582375	21	—	—
450669 2006 UM_{273}	16.9	X	64.60651	52.04882	357.13560	3.97823	0.0658374	0.21272660	2.7792110	21	—	—
450670 2006 UZ_{337}	16.2	X	230.98684	220.31604	62.94594	14.00397	0.0172813	0.22166679	2.7039727	21	1 18.3	20.1
450671 2006 VZ_{4}	16.7	X	102.29280	181.23892	216.92769	13.25333	0.1929431	0.22150882	2.7052580	21	1 23.1	20.5
450672 2006 VW_{5}	16.6	X	0.69074	121.21076	57.37430	11.82702	0.1645412	0.22222500	2.6994427	21	2 6.5	19.8
450673 2006 VR_{7}	16.8	X	40.70209	79.43847	57.79925	14.58573	0.1975503	0.22049490	2.7135449	21	3 5.3	19.7
450674 2006 VD_{19}	16.7	X	178.71006	261.23713	41.58437	11.73973	0.1818410	0.21899847	2.7258921	21	—	—
450675 2006 VX_{19}	16.9	X	21.31627	110.13006	49.40338	14.97202	0.1990606	0.22117422	2.7079858	21	2 22.1	19.8
450676 2006 VB_{35}	17.3	X	114.90516	129.37245	230.72477	4.70496	0.0597593	0.21452465	2.7636598	21	—	—
450677 2006 VA_{41}	17.1	X	43.46718	22.97481	66.46551	3.87284	0.0695624	0.21598869	2.7511570	21	—	—
450678 2006 VU_{45}	17.3	X	12.84899	76.72491	57.73090	8.05764	0.2033333	0.21436117	2.7650648	21	—	—
450679 2006 VE_{53}	17.1	X	111.01880	102.46313	284.47595	4.99072	0.1185619	0.21861045	2.7291167	21	1 13.9	20.7
450680 2006 VO_{53}	16.9	X	106.96724	94.35194	258.24245	8.89251	0.1540611	0.21291276	2.7775907	21	—	—
450681 2006 VJ_{64}	16.7	X	143.52666	259.46000	69.01878	15.66036	0.2072837	0.21524997	2.7574479	21	—	—
450682 2006 VO_{67}	17.4	X	126.44171	305.56811	70.37654	5.14902	0.0847489	0.21771340	2.7366081	21	1 15.8	21.2
450683 2006 VU_{92}	17.5	X	23.13161	46.72997	86.80012	5.97486	0.0563764	0.21918998	2.7243041	21	1 19.2	20.8
450684 2006 VA_{94}	15.8	X	138.36866	190.88197	254.54630	21.23529	0.0386641	0.23065062	2.6332957	21	4 14.8	19.9
450685 2006 VH_{99}	17.3	X	118.72615	189.10676	171.01033	3.76740	0.2052241	0.21778410	2.7360158	21	1 2.7	21.1
450686 2006 VB_{123}	16.3	X	231.06079	23.87571	255.99884	13.38474	0.0769939	0.21942700	2.7223419	21	1 8.9	20.5
450687 2006 VK_{132}	17.2	X	195.59869	179.52385	89.56975	5.03260	0.0643991	0.21109172	2.7935423	21	—	—
450688 2006 VT_{173}	17.6	X	97.52950	319.44801	67.39302	1.44981	0.0836024	0.21429280	2.7656528	21	—	—
450689 2006 WO	17.5	X	125.93373	287.05420	57.46117	10.85961	0.2496383	0.21753615	2.7380944	21	—	—
450690 2006 WP	16.8	X	104.40354	264.27243	94.04312	9.77990	0.2265678	0.21450341	2.7638422	21	—	—
450691 2006 WX_{13}	17.0	X	131.09332	279.37562	85.38746	9.23261	0.1941097	0.21792253	2.7348570	21	1 22.4	21.0
450692 2006 WJ_{61}	16.6	X	78.15457	321.93474	72.05159	9.37823	0.1534023	0.21436364	2.7650435	21	—	—
450693 2006 WJ_{79}	16.9	X	125.72207	334.34879	14.38089	3.60337	0.1013360	0.21350096	2.7724869	21	—	—
450694 2006 WY_{83}	16.7	X	36.71886	35.32078	55.18482	9.96714	0.1082980	0.21398722	2.7682852	21	—	—
450695 2006 WO_{87}	16.8	X	321.95153	90.26601	86.23903	9.72506	0.0419222	0.21605531	2.7505914	21	—	—
450696 2006 WT_{94}	17.3	X	158.39866	275.65356	73.41957	7.58280	0.0665218	0.22020777	2.7159033	21	1 17.6	21.2
450697 2006 WW_{94}	17.5	X	149.54985	154.67364	177.51391	1.88830	0.1185116	0.21643176	2.7474010	21	—	—
450698 2006 WZ_{109}	17.0	X	70.71336	298.13045	99.70089	3.81872	0.0713834	0.20962030	2.8065998	21	—	—
450699 2006 WA_{130}	17.2	X	134.97345	308.70642	61.08912	6.98471	0.0345080	0.22006996	2.7170369	21	1 11.1	20.9
450700 2006 WY_{141}	16.3	X	181.54694	240.32588	78.61231	16.85656	0.1785338	0.22061879	2.7125289	21	1 13.4	20.8
450701 2006 WL_{142}	16.8	X	110.41994	167.09914	214.37200	9.15431	0.1767532	0.21778414	2.7360155	21	1 13.1	20.6
450702 2006 WK_{161}	16.5	X	176.53061	243.95409	67.49573	10.13621	0.1775011	0.21883995	2.7272083	21	—	—
450703 2006 WT_{167}	17.1	X	78.83153	337.12380	72.28324	5.58009	0.0648646	0.21458220	2.7631656	21	—	—
450704 2006 WX_{176}	17.6	X	41.13747	307.68367	174.82043	6.79731	0.2495143	0.21726367	2.7403833	21	2 4.9	19.9
450705 2006 WW_{180}	17.3	X	77.41127	336.03962	78.16999	5.15444	0.0649359	0.21485156	2.7608557	21	—	—
450706 2006 WG_{199}	16.7	X	4.24440	236.29796	260.97716	6.42274	0.1657656	0.21273065	2.7791757	21	—	—
450707 2006 WC_{204}	16.5	X	47.67766	199.59167	266.14429	8.10303	0.1256675	0.21418848	2.7665507	21	1 20.4	19.6
450708 2006 XU_{22}	17.1	X	110.16449	137.73190	252.23774	10.62742	0.2126799	0.21750831	2.7383281	21	1 27.3	20.9
450709 2006 YB_{31}	15.9	X	247.73915	297.28291	298.33298	13.74433	0.1103627	0.20474506	2.8509773	21	—	—
450710 2006 YS_{42}	17.1	X	53.21824	11.90208	82.93369	14.20802	0.2489224	0.21250211	2.7811680	21	1 30.7	19.7
450711 2007 AL_{29}	15.5	X	137.93694	294.74902	312.00076	25.19014	0.2426355	0.18167262	3.0875197	21	11 11.4	21.4
450712 2007 BL_{11}	17.1	X	44.97461	52.52855	117.56969	10.39605	0.2042735	0.21983982	2.7189328	21	4 29.4	20.0
450713 2007 BK_{73}	16.2	X	233.87689	232.45819	314.92800	9.35592	0.1532483	0.18799170	3.0179377	21	12 4.7	20.7
450714 2007 CG_{28}	16.3	X	163.45436	122.51109	145.22888	15.96239	0.0734120	0.19059986	2.9903430	21	—	—
450715 2007 CE_{31}	18.0	X	43.61768	95.94131	142.85510	2.40538	0.1127674	0.29890207	2.2153895	21	7 20.1	20.0
450716 2007 DH_{32}	18.2	X	110.42788	195.89399	4.24898	2.97768	0.1136077	0.30100496	2.2050594	21	8 31.3	21.1
450717 2007 DC_{35}	16.2	X	147.23805	106.17063	166.19317	15.68178	0.0420120	0.18450085	3.0558859	21	12 23.6	21.0
450718 2007 DE_{67}	16.9	X	353.50565	319.93433	156.99891	12.53769	0.1414106	0.19798516	2.9155084	21	—	—
450719 2007 DU_{67}	16.8	X	28.08537	255.43574	156.49774	15.24653	0.0163249	0.19030223	2.9934600	21	—	—
450720 2007 DB_{73}	17.6	X	325.62279	183.05323	160.22172	6.81256	0.0403867	0.30147605	2.2027617	21	8 9.7	19.9

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
450721 2007 EV_8	16.3	X	354.41567	270.59557	171.75695	10.44605	0.0987535	0.18983627	2.9983564	21	—	—
450722 2007 EZ_{13}	17.9	X	263.52063	247.86165	182.26221	5.09967	0.0816881	0.30637112	2.1792355	21	9 5.5	20.1
450723 2007 EE_{23}	18.1	X	343.95630	207.96676	61.21708	3.32975	0.1860942	0.28489781	2.2874063	21	4 30.6	19.8
450724 2007 EY_{68}	16.7	X	186.45341	195.66519	33.90309	4.00586	0.1554687	0.18031492	3.1029988	21	12 7.2	21.7
450725 2007 EN_{89}	16.3	X	179.21631	242.48475	325.81452	2.20389	0.1477457	0.17981025	3.1088022	21	11 6.4	21.3
450726 2007 EK_{108}	17.9	X	358.57870	251.09286	30.88648	6.77738	0.1217353	0.29087245	2.2559752	21	6 30.7	19.9
450727 2007 EL_{220}	18.2	X	338.82735	215.20839	65.13762	5.37005	0.1339266	0.28589117	2.2821046	21	5 15.8	20.4
450728 2007 EW_{221}	15.6	X	45.01362	348.38112	8.41275	10.97248	0.1061250	0.18007558	3.1057477	21	12 14.3	20.0
450729 2007 FU_{46}	17.7	X	316.81319	117.08194	197.76803	6.17742	0.1365208	0.29030617	2.2589080	21	5 29.1	19.9
450730 2007 GX_7	17.5	X	69.26855	236.70068	18.12451	6.35367	0.0639227	0.30030150	2.2085016	21	9 18.2	20.0
450731 2007 GR_{16}	16.0	X	186.61130	355.46866	219.48730	16.81915	0.1516036	0.17465482	3.1696818	21	11 21.1	21.2
450732 2007 GA_{21}	18.2	X	88.45251	12.14194	195.75140	3.12491	0.1039505	0.29274885	2.2463249	21	8 10.3	21.0
450733 2007 GS_{23}	18.4	X	25.81402	43.00820	206.61450	4.02039	0.1057303	0.28682881	2.2771285	21	7 1.9	20.5
450734 2007 GN_{46}	16.5	X	283.06934	81.00041	55.10455	4.82816	0.0749846	0.17883984	3.1200379	21	12 13.1	20.5
450735 2007 GW_{47}	15.6	X	349.78850	14.09876	54.83216	19.81689	0.0396971	0.17578065	3.1561333	21	12 20.0	20.1
450736 2007 GA_{48}	16.0	X	267.83187	128.87837	50.71088	17.15188	0.1514465	0.18376295	3.0640610	21	—	—
450737 2007 GD_{52}	16.0	X	199.10301	355.02077	203.58707	23.92089	0.2099254	0.17437575	3.1730627	21	11 10.3	21.4
450738 2007 GV_{64}	16.1	X	288.13455	125.39999	29.74575	11.81813	0.0793556	0.18348207	3.0671873	21	—	—
450739 2007 GD_{66}	16.2	X	228.23401	173.24844	43.97522	10.98112	0.0531490	0.18171878	3.0869968	21	—	—
450740 2007 GO_{66}	18.3	X	0.45776	47.09161	208.11657	3.28306	0.1357702	0.28276626	2.2988872	21	5 20.0	20.1
450741 2007 HV_{23}	17.8	X	3.86313	227.27409	49.20574	6.37730	0.1752502	0.28632821	2.2797818	21	7 3.9	19.4
450742 2007 HP_{36}	16.1	X	243.95489	134.41821	40.40307	11.11995	0.1301251	0.17873420	3.1212672	21	12 1.7	20.7
450743 2007 HP_{38}	18.5	X	180.87618	274.77090	233.03617	3.25856	0.0494129	0.30406263	2.1902516	21	9 8.1	21.2
450744 2007 HB_{39}	16.1	X	256.35553	286.98108	203.39413	15.66320	0.0662639	0.17292438	3.1907926	21	11 3.5	20.6
450745 2007 HY_{50}	16.0	X	277.02055	128.72111	66.04629	11.46079	0.1610746	0.18809164	3.0168685	21	—	—
450746 2007 HZ_{55}	16.5	X	123.55507	117.23655	182.94058	11.61616	0.0658721	0.17716706	3.1396464	21	12 29.4	21.4
450747 2007 HH_{59}	15.7	X	197.84357	150.63516	80.69495	17.34707	0.1744421	0.17832792	3.1260061	21	12 17.8	20.7
450748 2007 HM_{66}	17.3	X	340.65070	180.77974	89.59960	6.57769	0.1943412	0.27967543	2.3157936	21	4 27.4	19.3
450749 2007 HY_{74}	17.7	X	349.38801	235.04997	55.03967	7.67063	0.1194127	0.28623747	2.2802636	21	6 23.9	19.8
450750 2007 HC_{85}	17.9	X	3.24330	214.20690	50.60717	9.95891	0.1445714	0.28535385	2.2849686	21	6 9.5	19.7
450751 2007 HF_{88}	18.0	X	303.28876	235.04738	43.29012	5.15950	0.2657089	0.27531124	2.3402024	21	2 28.6	21.3
450752 2007 HR_{97}	17.4	X	277.52308	183.01208	115.90405	10.02848	0.2156230	0.27155086	2.3617573	21	3 7.7	21.0
450753 2007 JC_{17}	17.2	X	237.46254	198.88337	217.22765	6.66545	0.0617192	0.28971122	2.2619995	21	7 10.8	20.2
450754 2007 JV_{34}	16.0	X	229.85239	156.82612	54.29545	15.73137	0.2054460	0.18093863	3.0958638	21	12 20.6	20.9
450755 2007 JF_{38}	16.1	X	316.00142	262.00289	214.16619	17.37254	0.1101992	0.18192439	3.0846704	21	12 31.6	20.3
450756 2007 JW_{38}	15.5	X	155.43002	217.33358	33.69772	18.83006	0.0890305	0.17447218	3.1718934	21	12 1.2	20.7
450757 2007 JW_{41}	16.0	X	250.95765	349.71475	199.53991	19.48809	0.2020519	0.18238470	3.0794780	21	12 18.7	20.7
450758 2007 LL_8	18.2	X	281.87835	185.44721	124.21886	7.30889	0.1362976	0.27413552	2.3468888	21	4 4.5	21.4
450759 2007 LG_{33}	17.5	X	291.16938	41.70648	252.10136	6.99203	0.1280238	0.26821558	2.3812960	21	3 20.2	20.8
450760 2007 PJ_1	17.3	X	147.63300	182.97620	250.02320	7.17443	0.1306714	0.25826808	2.4420557	21	4 20.5	20.9
450761 2007 QK_{11}	18.1	X	190.69681	250.86154	117.00694	0.73964	0.2803085	0.25384537	2.4703390	21	3 18.9	22.4
450762 2007 RS_{18}	18.3	X	201.67672	170.69069	191.45660	1.98195	0.2093329	0.25576862	2.4579396	21	3 18.6	22.3
450763 2007 RX_{40}	17.3	X	276.84463	286.57714	21.58751	6.41241	0.1520507	0.26161328	2.4211937	21	3 24.8	20.8
450764 2007 RY_{102}	17.0	X	210.72060	254.28580	152.43715	2.78614	0.1860656	0.26258763	2.4152006	21	5 21.9	20.9
450765 2007 RD_{107}	17.8	X	195.85254	15.04474	352.63007	5.68849	0.2109874	0.25500612	2.4628369	21	3 20.4	21.9
450766 2007 RA_{134}	15.5	X	257.35191	265.00012	122.12019	6.08483	0.2247055	0.12619555	3.9364677	21	6 10.4	21.5
450767 2007 RD_{140}	18.0	X	228.03095	132.30925	216.87629	0.33181	0.2069412	0.25890513	2.4380482	21	3 24.3	22.1
450768 2007 RZ_{147}	17.5	X	205.91782	267.25698	87.11015	5.74130	0.2108187	0.25490067	2.4635161	21	3 15.9	21.7
450769 2007 RS_{157}	17.8	X	194.19819	296.02554	67.79126	4.72795	0.2373723	0.25384073	2.4703691	21	3 17.9	22.0
450770 2007 RJ_{159}	19.0	X	216.73642	299.16078	35.80487	3.01118	0.2204136	0.25521580	2.4614878	21	2 27.4	23.1
450771 2007 RD_{171}	17.3	X	307.86786	276.97265	10.61262	6.88116	0.1660771	0.26588157	2.3952116	21	3 31.8	20.2
450772 2007 RN_{171}	18.5	X	211.95106	269.68713	77.71323	2.25616	0.2056101	0.25559313	2.4590646	21	3 10.5	22.5
450773 2007 RJ_{178}	17.9	X	252.30253	169.62672	150.50100	6.79300	0.1188952	0.25721267	2.4487314	21	3 17.5	21.4
450774 2007 RG_{256}	18.0	X	214.39048	332.90779	17.61901	2.12004	0.1879308	0.25664740	2.4523256	21	3 15.6	22.1
450775 2007 RK_{260}	18.0	X	125.69360	3.57516	26.99375	1.85971	0.1495933	0.23874878	2.5734078	21	2 7.3	21.4
450776 2007 RR_{262}	15.4	X	218.20573	238.57156	186.72354	4.66298	0.3105718	0.12423739	3.9777226	21	6 16.9	22.1
450777 2007 SA	17.5	X	183.14322	221.36391	186.21359	11.84599	0.2528529	0.25782416	2.4448580	21	5 1.2	21.8
450778 2007 SW_5	17.9	X	229.82847	321.45203	18.51525	5.04510	0.2040204	0.25705714	2.4497190	21	3 16.1	22.0
450779 2007 SE_{11}	17.8	X	355.96924	353.25891	50.04912	48.28044	0.3563952	0.35970641	1.9581108	21	—	—
450780 2007 SU_{18}	18.1	X	173.38371	296.23014	74.57694	2.03181	0.2401407	0.24606469	2.5221438	21	3 9.5	22.3
450781 2007 TV_{50}	18.0	X	149.83931	89.52258	247.67359	1.22537	0.1344933	0.23759154	2.5817572	21	—	—
450782 2007 TW_{72}	18.2	X	96.61118	162.98044	212.09299	20.73472	0.0784269	0.37681575	1.8983809	21	—	—
450783 2007 TA_{96}	18.1	X	190.74910	192.10047	188.06942	0.90456	0.1948690	0.25441765	2.4666331	21	3 31.7	22.1
450784 2007 TL_{126}	17.7	X	107.46566	232.28349	196.92111	2.82989	0.1670147	0.24201642	2.5501917	21	3 6.9	21.1
450785 2007 TS_{158}	15.3	X	273.61434	153.87409	227.17252	7.85302	0.2257865	0.12529903	3.9552224	21	6 18.5	21.1
450786 2007 TL_{172}	18.3	X	162.69235	59.44981	310.74146	1.12881	0.2396911	0.24636145	2.5201181	21	2 26.8	22.3
450787 2007 TG_{196}	17.5	X	206.06358	187.39300	150.35707	1.69905	0.0967849	0.24631448	2.5204384	21	2 20.7	21.2
450788 2007 TM_{213}	16.6	X	303.64676	357.59711	228.27533	13.02697	0.1165821	0.24261938	2.5459648	21	1 12.3	20.4
450789 2007 TF_{232}	16.2	X	268.67450	337.76978	55.96501	4.13442	0.2451938	0.12366647	3.9899557	21	6 26.3	22.0
450790 2007 TM_{235}	16.2	X	270.51410	323.07601	57.52426	3.49064	0.2848839	0.12527865	3.9556514	21	6 7.9	22.1
450791 2007 TM_{259}	16.7	X	266.69256	41.28093	356.25087	2.53096	0.2318179	0.12670160	3.9259791	21	6 30.5	22.5
450792 2007 TV_{261}	17.6	X	97.16333	33.62044	35.66816	9.46296	0.1689908	0.23942472	2.5685621	21	2 27.3	20.9
450793 2007 TQ_{271}	18.8	X	145.91741	45.43357	334.88283	1.21805	0.2497227	0.24347379	2.5400050	21	2 25.9	22.6
450794 2007 TU_{274}	18.1	X	154.71401	352.02307	7.83833	6.87350	0.1745590	0.24640416	2.5198268	21	2 4.1	22.0
450795 2007 TE_{300}	16.3	X	276.51774	355.65799	40.26137	5.88363	0.2179099	0.12684374	3.9230456	21	7 11.5	22.0
450796 2007 TA_{301}	16.8	X	266.21847	2.25379	28.03154	7.50551	0.2919852	0.12421666	3.9781652	21	6 13.9	23.0
450797 2007 TJ_{318}	16.6	X	55.32306	208.39990	222.45989	21.37349	0.0302330	0.23120365	2.6290949	21	—	—
450798 2007 TM_{333}	17.4	X	82.99830	54.48096	20.94282	4.06479	0.2511242	0.23661499	2.5888559	21	2 24.5	20.2
450799 2007 TO_{345}	17.4	X	315.39059	177.51077	112.41797	2.35230	0.1763696	0.26730336	2.3867106	21	4 14.6	20.2
450800 2007 TB_{368}	18.7	X	134.82427	186.94318	226.21260	7.04474	0.2735617	0.24368072	2.5385668	21	3 28.4	22.7

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
450801 2007 TP_{383}	16.9	X	272.57789	332.87294	42.36888	8.19698	0.3618054	0.12431006	3.9761722	21	5 25.5	23.2
450802 2007 TH_{428}	17.3	X	195.79327	266.26392	67.52739	8.87515	0.1029995	0.24287421	2.5441836	21	2 9.1	21.2
450803 2007 TE_{432}	15.7	X	274.18557	74.19436	311.32136	1.93346	0.1877565	0.12591411	3.9423312	21	6 29.7	21.3
450804 2007 TK_{442}	17.7	X	122.66130	177.20977	196.47490	8.37902	0.1704310	0.23967173	2.5667969	21	1 13.5	21.3
450805 2007 TQ_{444}	15.3	X	293.80652	24.39296	341.65249	11.05652	0.2173483	0.12630773	3.9341366	21	6 26.3	20.8
450806 2007 TP_{451}	15.3	X	272.25368	121.99049	253.96838	14.14577	0.2862067	0.12438265	3.9746252	21	6 4.2	21.4
450807 2007 UC_{9}	15.1	X	284.99790	14.71947	25.05313	19.74655	0.3089670	0.13033384	3.8526947	21	7 16.6	20.9
450808 2007 UL_{39}	18.4	X	40.40820	173.46660	215.51633	20.35442	0.0917276	0.36704793	1.9319128	21	—	—
450809 2007 UM_{88}	17.4	X	201.02189	349.35341	2.46574	1.15387	0.1196794	0.24633251	2.5203154	21	3 5.6	21.3
450810 2007 UV_{91}	17.5	X	204.35454	265.12762	52.62613	10.35279	0.0903838	0.24064093	2.5599003	21	1 28.9	21.5
450811 2007 UJ_{100}	17.8	X	110.07238	38.91518	53.57030	16.88008	0.1627240	0.24376501	2.5379816	21	4 16.0	21.4
450812 2007 UK_{100}	18.0	X	87.19173	238.96625	233.45452	4.48194	0.2831891	0.24045139	2.5612454	21	4 25.2	21.3
450813 2007 UL_{100}	17.6	X	181.85572	322.77750	48.59991	3.39961	0.1158491	0.24549804	2.5260233	21	3 12.2	21.4
450814 2007 UC_{135}	17.7	X	142.83724	277.61927	244.37614	1.95428	0.1144119	0.26620196	2.3932894	21	8 12.5	21.3
450815 2007 VG_{4}	15.8	X	282.27274	49.32130	325.29332	7.54442	0.2424369	0.12520652	3.9571703	21	6 18.5	21.5
450816 2007 VD_{13}	17.0	X	279.58535	205.52360	21.66778	4.36499	0.1394240	0.23976922	2.5661011	21	—	—
450817 2007 VK_{21}	17.9	X	147.08070	4.89278	341.80187	2.54744	0.2101059	0.23965325	2.5669289	21	1 14.4	21.8
450818 2007 VQ_{34}	17.4	X	197.12971	230.46009	122.16792	2.18158	0.1786173	0.24626656	2.5207654	21	3 4.6	21.5
450819 2007 VF_{55}	17.3	X	173.32501	255.04290	77.21930	7.55569	0.2691498	0.24033626	2.5620633	21	1 25.7	21.8
450820 2007 VV_{55}	17.1	X	167.54297	283.72331	96.13544	5.30116	0.1524329	0.24545558	2.5263146	21	3 11.8	21.0
450821 2007 VD_{57}	17.6	X	115.79616	333.73684	98.33425	5.54459	0.1504927	0.24259063	2.5461659	21	3 22.5	21.0
450822 2007 VH_{61}	17.5	X	59.57288	206.38732	245.75939	10.71994	0.1429353	0.23379077	2.6096633	21	1 16.9	20.4
450823 2007 VN_{86}	18.3	X	163.07365	43.57063	335.05859	3.43739	0.2274240	0.24629510	2.5205706	21	3 8.3	22.3
450824 2007 VK_{89}	17.8	X	183.80602	152.94029	244.44307	5.71820	0.1125193	0.25272892	2.4776089	21	4 11.9	21.6
450825 2007 VC_{93}	17.8	X	138.10332	112.84705	291.58690	5.78395	0.2719556	0.24461017	2.5321322	21	3 19.3	21.9
450826 2007 VA_{95}	15.7	X	287.82674	71.06517	295.73825	8.26249	0.3166667	0.12503409	3.9608078	21	6 4.9	21.5
450827 2007 VZ_{113}	17.4	X	195.87931	102.82866	212.27025	4.20916	0.2118898	0.23919838	2.5701821	21	1 18.1	21.7
450828 2007 VM_{120}	17.3	X	315.16013	236.41365	10.60026	6.06026	0.0708973	0.25189622	2.4830661	21	3 5.5	20.5
450829 2007 VF_{147}	17.2	X	93.34253	232.95720	234.14480	13.16056	0.1126926	0.24196445	2.5505568	21	3 26.0	20.7
450830 2007 VZ_{164}	17.5	X	68.39584	247.01576	249.34199	2.10202	0.1670453	0.24164756	2.5527862	21	4 9.3	20.2
450831 2007 VP_{166}	17.3	X	194.57596	265.22542	72.86613	10.06888	0.1373787	0.24141945	2.5543940	21	2 15.3	21.5
450832 2007 VL_{169}	17.7	X	144.91592	160.04157	244.64099	3.25696	0.1496582	0.24180194	2.5516995	21	3 15.9	21.6
450833 2007 VN_{191}	16.9	X	79.19528	262.24389	280.85353	11.32497	0.1068028	0.24720877	2.5143562	21	6 23.3	20.1
450834 2007 VT_{191}	16.7	X	148.03708	106.26298	280.22163	9.60156	0.1414220	0.23499861	2.6007135	21	2 21.7	20.7
450835 2007 VY_{197}	17.4	X	72.64283	24.16523	95.19377	5.25519	0.1583397	0.23436060	2.6054315	21	3 27.2	20.4
450836 2007 VZ_{197}	16.7	X	44.34059	58.34551	95.87169	13.18105	0.2056985	0.23324443	2.6137368	21	4 4.8	19.4
450837 2007 VE_{213}	15.9	X	281.70095	180.68913	191.34810	5.49186	0.3216966	0.12461145	3.9697585	21	6 5.1	21.7
450838 2007 VH_{215}	17.4	X	113.40017	128.31662	290.43383	2.95976	0.0926704	0.23950025	2.5680220	21	2 17.9	20.7
450839 2007 VB_{246}	16.0	X	272.32335	293.11200	95.14549	9.93133	0.2695711	0.12403331	3.9820846	21	6 20.7	21.9
450840 2007 VL_{253}	17.8	X	157.76223	214.31903	165.74346	5.96809	0.2852272	0.24522426	2.5279032	21	3 10.3	22.0
450841 2007 VY_{264}	15.3	X	278.65708	348.90088	41.42958	3.66547	0.1880362	0.12222716	4.0212174	21	7 10.9	21.0
450842 2007 VJ_{268}	17.3	X	146.00311	292.89845	104.21863	4.19222	0.1536484	0.24472113	2.5313667	21	3 11.2	21.0
450843 2007 VY_{272}	18.2	X	15.46547	46.86295	56.77921	22.47505	0.0960896	0.37334982	1.9101116	21	—	—
450844 2007 VS_{273}	17.3	X	48.09775	19.55350	113.53569	5.50769	0.0490189	0.24107553	2.5568228	21	2 20.1	20.3
450845 2007 VX_{291}	17.6	X	243.80835	151.82260	68.16608	24.84024	0.0625490	0.36838761	1.9272263	21	—	—
450846 2007 VT_{307}	16.4	X	225.42562	215.14903	70.08322	12.58012	0.0490645	0.23583439	2.5945654	21	1 9.5	20.2
450847 2007 VF_{313}	17.5	X	110.15697	194.39139	269.43989	3.42470	0.1824866	0.24377479	2.5379137	21	4 26.7	20.9
450848 2007 WV_{16}	17.5	X	79.59725	261.22044	223.31810	6.42635	0.0981544	0.24341769	2.5403953	21	3 29.9	20.5
450849 2007 WE_{27}	17.8	X	138.34763	32.99677	27.87012	3.79114	0.1198521	0.24361331	2.5390351	21	3 28.2	21.2
450850 2007 WF_{39}	17.6	X	48.70688	27.47610	109.18627	5.32005	0.2474117	0.22980160	2.6397777	21	3 18.9	19.8
450851 2007 WT_{49}	17.7	X	160.08844	279.61132	105.72469	3.63715	0.1070383	0.24329983	2.5412156	21	3 6.5	21.5
450852 2007 WU_{53}	17.9	X	109.75488	269.71427	181.10198	6.17736	0.1771901	0.24380091	2.5377324	21	4 10.3	21.2
450853 2007 WQ_{55}	16.8	X	77.71308	214.95795	242.76326	13.12993	0.2201986	0.23732100	2.5837190	21	3 4.6	20.0
450854 2007 WJ_{63}	17.0	X	118.16656	277.34506	86.26750	15.32550	0.1451613	0.22365011	2.6879631	21	—	—
450855 2007 XF_{4}	17.9	X	143.51545	161.51726	222.39188	3.53458	0.2734777	0.24089523	2.5580984	21	3 1.2	22.0
450856 2007 XB_{15}	17.0	X	146.10655	302.35641	108.87927	11.92875	0.1942238	0.24039265	2.5616626	21	4 6.4	21.2
450857 2007 XM_{16}	16.1	X	54.22634	39.63047	105.60549	33.18179	0.2075839	0.23157807	2.6262602	21	4 25.9	19.8
450858 2007 XU_{23}	17.7	X	99.67371	296.33676	129.73192	4.57118	0.1589830	0.23679509	2.5875431	21	2 21.4	20.9
450859 2007 XJ_{24}	17.6	X	3.14628	350.84527	64.67744	22.71738	0.0765603	0.36109499	1.9530877	21	—	—
450860 2007 XB_{26}	17.7	X	110.33980	13.50814	79.56876	8.96392	0.1038355	0.24323250	2.5416845	21	4 7.2	21.2
450861 2007 XU_{33}	17.0	X	95.44436	166.65879	279.98897	6.77822	0.1609122	0.23819068	2.5774260	21	3 10.2	20.3
450862 2007 XU_{45}	17.5	X	74.70394	358.68359	123.20632	4.14300	0.1765150	0.23736939	2.5833678	21	4 4.6	20.4
450863 2007 XG_{50}	16.6	X	119.97055	266.16398	151.33571	21.94395	0.0971311	0.23793231	2.5792915	21	2 27.4	19.9
450864 2007 XX_{57}	17.0	X	119.54960	327.46759	67.06308	12.71242	0.1882885	0.23511674	2.5998423	21	2 15.6	20.8
450865 2007 XJ_{58}	17.2	X	37.40526	185.67931	261.01310	4.23999	0.0978957	0.22254208	2.6968779	21	—	—
450866 2007 YR_{18}	17.1	X	118.55119	194.53590	257.25059	6.64762	0.1713477	0.24260919	2.5460360	21	4 18.3	20.7
450867 2007 YB_{19}	17.3	X	99.94506	235.29594	232.81628	3.66730	0.1462401	0.24124826	2.5556022	21	4 14.6	20.7
450868 2007 YB_{27}	16.9	X	55.10697	93.47528	44.00998	5.79401	0.1450112	0.23333841	2.6130350	21	3 20.2	19.6
450869 2007 YS_{38}	17.0	X	239.51722	193.33909	77.51888	6.73103	0.0579645	0.22741344	2.6582264	21	1 8.7	20.8
450870 2007 YE_{50}	16.9	X	132.88152	255.78689	98.95759	7.47346	0.0326843	0.22256701	2.6966766	21	—	—
450871 2007 YH_{57}	18.0	X	151.19337	301.24452	94.99893	3.43122	0.1647143	0.24206043	2.5498826	21	3 16.6	21.9
450872 2007 YU_{62}	16.2	X	100.12049	278.62631	117.62242	15.28670	0.0529557	0.22297615	2.6933768	21	1 1.3	19.7
450873 2007 YJ_{69}	17.2	X	67.18203	11.74021	109.96785	3.63890	0.0635049	0.23468606	2.6030221	21	3 7.6	20.3
450874 2007 YD_{74}	17.5	X	141.66545	304.73526	144.24312	9.47962	0.2435328	0.24497793	2.5295974	21	5 20.1	21.8
450875 2008 AL_{9}	17.8	X	11.83810	359.16673	156.05104	2.86040	0.1310138	0.22725937	2.6594276	21	1 22.0	20.7
450876 2008 AA_{18}	17.6	X	84.06853	308.50131	130.86290	3.65265	0.1925518	0.23011005	2.6374181	21	2 22.4	20.6
450877 2008 AR_{21}	16.6	X	330.98203	225.32794	323.44238	11.74718	0.0913463	0.22284641	2.6944220	21	1 13.0	20.2
450878 2008 AF_{23}	16.6	X	3.94334	167.07100	328.79082	12.29532	0.0840054	0.22025499	2.7155150	21	—	—
450879 2008 AY_{34}	17.4	X	44.91236	104.41329	314.85474	7.50010	0.1521499	0.21869011	2.7284539	21	—	—
450880 2008 AX_{40}	17.0	X	112.04826	90.21019	331.53128	7.88296	0.1548280	0.23131132	2.6282790	21	3 2.7	20.5

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
450881 2008 AA_{52}	17.2	X	72.54700	118.18586	295.66478	11.32997	0.1582546	0.22486276	2.6782906	21	—	—
450882 2008 AL_{55}	17.1	X	101.35832	86.51346	280.24955	4.64711	0.0272350	0.21821208	2.7324372	21	—	—
450883 2008 AD_{57}	17.4	X	49.64126	190.15177	293.75725	2.76360	0.1571807	0.23030239	2.6359495	21	2 16.5	19.9
450884 2008 AU_{72}	17.7	X	148.17677	264.78485	158.62787	7.33374	0.3699928	0.24430827	2.5342178	21	5 1.4	22.4
450885 2008 AW_{81}	16.7	X	139.15219	266.79141	133.77080	14.23264	0.1305545	0.23486822	2.6016760	21	3 7.7	20.5
450886 2008 AH_{92}	17.3	X	249.13912	204.32949	43.39335	4.13827	0.0572809	0.22255972	2.6967354	21	—	—
450887 2008 AH_{93}	17.2	X	34.80632	61.00434	91.40944	7.16132	0.1333184	0.23211258	2.6222269	21	3 3.9	20.0
450888 2008 AM_{94}	17.1	X	60.64666	99.88977	317.95517	5.36257	0.0895292	0.22046312	2.7138057	21	—	—
450889 2008 AM_{96}	17.6	X	119.73191	76.37005	355.58790	4.84205	0.1864773	0.23637628	2.5905986	21	3 29.0	21.2
450890 2008 AX_{104}	17.9	X	142.91146	98.31943	299.78345	8.30831	0.2129221	0.23766367	2.5812348	21	3 10.2	22.0
450891 2008 AU_{106}	17.4	X	130.69139	116.01610	304.84233	3.40701	0.2015704	0.23815624	2.5776745	21	3 27.4	21.2
450892 2008 BT_{10}	16.5	X	114.83172	114.98029	294.04297	13.59800	0.1002426	0.23224602	2.6212223	21	2 7.2	20.0
450893 2008 BR_{17}	16.4	X	44.30514	326.70137	119.01195	15.77382	0.0750283	0.22323793	2.6912708	21	—	—
450894 2008 BT_{18}	18.1	X	341.08986	139.35635	107.62282	8.13465	0.5930648	0.29761691	2.2217626	21	1 10.3	21.4
450895 2008 BL_{21}	17.4	X	143.97455	96.21733	325.73104	3.86160	0.2885490	0.23854698	2.5748589	21	4 17.8	21.7
450896 2008 BE_{24}	16.7	X	62.59432	170.14505	304.90453	13.65484	0.1907745	0.23166625	2.6255938	21	2 27.2	19.5
450897 2008 BO_{32}	17.0	X	16.58154	127.20140	337.96245	8.63319	0.1335554	0.21544669	2.7557691	21	—	—
450898 2008 BP_{43}	16.7	X	76.45430	240.93441	243.52534	12.33655	0.2144099	0.23309893	2.6148244	21	4 12.4	19.9
450899 2008 BE_{52}	16.7	X	101.71825	333.11453	91.36948	7.00039	0.1946591	0.23099927	2.6306454	21	3 3.2	20.1
450900 2008 CX_{13}	17.0	X	82.50748	307.02562	105.02214	3.47192	0.1581908	0.22103907	2.7090895	21	1 10.6	20.0
450901 2008 CD_{21}	17.6	X	68.01791	77.49498	29.21669	6.12067	0.3384742	0.23061330	2.6335798	21	3 30.8	20.0
450902 2008 CB_{60}	17.1	X	138.10891	64.85854	316.63207	5.17661	0.0492247	0.22261076	2.6963232	21	1 30.5	20.7
450903 2008 CL_{77}	17.1	X	71.09959	17.71202	79.52564	5.08118	0.1852267	0.22844276	2.6502354	21	2 26.4	19.9
450904 2008 CT_{108}	17.4	X	149.11017	354.29530	89.78248	5.70480	0.2329973	0.24388175	2.5371717	21	5 18.1	21.5
450905 2008 CK_{118}	16.9	X	118.41666	16.77918	90.56270	8.45070	0.1550138	0.23870403	2.5737294	21	5 11.4	20.6
450906 2008 CL_{122}	17.4	X	46.54798	196.10514	228.50416	2.88630	0.0758607	0.21660727	2.7459168	21	—	—
450907 2008 CV_{128}	17.2	X	185.90364	13.37664	289.43326	2.98565	0.0311692	0.21644324	2.7473039	21	—	—
450908 2008 CX_{144}	16.9	X	173.56472	352.54290	304.24816	5.79069	0.0712164	0.21130568	2.7916562	21	—	—
450909 2008 CX_{160}	17.6	X	85.11954	212.69203	249.06629	1.90846	0.2252904	0.22996887	2.6384975	21	3 30.2	20.7
450910 2008 CB_{176}	16.7	X	149.18361	6.28137	53.87172	5.09566	0.3116989	0.24059221	2.5602459	21	4 23.6	21.2
450911 2008 CF_{180}	16.9	X	99.96098	180.30103	266.16523	12.80965	0.2201948	0.23366420	2.6106056	21	3 22.9	20.7
450912 2008 CO_{206}	17.1	X	343.47862	229.76197	301.99502	4.55809	0.1274087	0.22045836	2.7138448	21	1 2.1	20.5
450913 2008 CC_{207}	16.8	X	31.60894	116.90355	314.27905	3.42129	0.0410313	0.21207773	2.7848769	21	—	—
450914 2008 CU_{214}	17.3	X	302.82945	242.46564	310.82115	2.78044	0.0399200	0.21564583	2.7540723	21	—	—
450915 2008 DD_{3}	17.6	X	87.03053	134.61981	327.53520	3.71381	0.1701495	0.23263131	2.6183273	21	3 23.7	20.8
450916 2008 DD_{7}	17.4	X	48.28562	358.27894	116.11221	3.21610	0.0978891	0.22640721	2.6660966	21	1 30.5	20.3
450917 2008 DH_{34}	17.4	X	65.39731	140.01698	333.87474	3.09737	0.2171213	0.22677280	2.6632304	21	3 13.3	20.1
450918 2008 DZ_{40}	17.2	X	45.10311	354.95050	127.49752	5.95706	0.0363341	0.22726378	2.6593933	21	2 2.9	20.6
450919 2008 DN_{48}	16.5	X	29.36684	173.06538	324.20567	13.07596	0.1897759	0.22424826	2.6831811	21	1 30.3	18.9
450920 2008 DB_{51}	16.9	X	122.15957	138.26725	275.70445	12.23606	0.2388285	0.23161749	2.6259623	21	3 9.9	21.0
450921 2008 DH_{89}	16.4	X	86.29991	250.69491	30.09791	10.39397	0.1758103	0.18082543	3.0971557	21	11 8.8	21.2
450922 2008 ED_{1}	16.7	X	335.39053	183.74264	326.75189	7.23341	0.1611814	0.21379921	2.7699078	21	—	—
450923 2008 EK_{5}	17.0	X	137.10423	3.72814	105.77391	8.44941	0.2508259	0.24219092	2.5489666	21	6 9.7	21.2
450924 2008 EN_{8}	16.8	X	70.47958	212.56553	243.82787	10.77667	0.1406589	0.22714422	2.6603264	21	2 10.4	20.1
450925 2008 EB_{33}	16.7	X	62.50550	216.08379	271.21578	11.39843	0.2312921	0.23104632	2.6302883	21	3 22.1	19.6
450926 2008 ER_{46}	16.3	X	26.75536	73.88873	34.61320	14.86488	0.0919465	0.21196627	2.7858531	21	—	—
450927 2008 EB_{47}	17.0	X	359.01341	54.02833	62.30495	7.08325	0.0524008	0.20673893	2.8326171	21	—	—
450928 2008 EY_{76}	16.9	X	342.85463	149.11259	34.67891	5.60509	0.0975689	0.21873938	2.7280442	21	1 22.8	20.4
450929 2008 EE_{99}	16.8	X	33.29658	327.96140	184.76110	13.67252	0.1930823	0.22801515	2.6535478	21	2 25.2	19.2
450930 2008 EW_{148}	18.5	X	332.38117	282.41968	185.17972	22.06209	0.0967237	0.35123599	1.9894669	21	—	—
450931 Coculescu	17.0	X	105.77979	79.82408	294.24320	5.15024	0.0563343	0.21390484	2.7689959	21	—	—
450932 2008 EG_{165}	17.4	X	353.58996	214.38890	304.66263	2.34529	0.1260447	0.21680393	2.7442560	21	1 1.6	20.7
450933 2008 FY_{14}	17.3	X	72.09245	289.74995	253.68148	1.13631	0.2234626	0.23531739	2.5983643	21	7 2.6	20.6
450934 2008 FS_{15}	16.9	X	3.33017	88.96224	75.86323	8.46698	0.2731040	0.21918325	2.7243599	21	1 4.2	19.6
450935 2008 FX_{21}	17.4	X	11.25852	209.34905	111.79523	5.64650	0.1853134	0.32096990	2.1126449	21	10 20.4	19.0
450936 2008 FN_{23}	16.3	X	114.42762	235.42545	59.16187	8.00643	0.1998868	0.18728142	3.0255634	21	12 23.2	21.3
450937 2008 FJ_{46}	17.6	X	69.64546	308.27728	173.88363	13.13793	0.2098480	0.22934033	2.6433160	21	4 2.7	20.4
450938 2008 FE_{78}	16.6	X	50.94434	93.88435	4.02969	8.20437	0.1357064	0.21739863	2.7392490	21	1 19.3	19.7
450939 2008 FQ_{79}	16.0	X	153.70781	214.06410	9.55975	16.01094	0.0607330	0.18657999	3.0331415	21	10 29.3	20.7
450940 2008 FU_{87}	17.0	X	65.00230	79.88162	17.04339	8.31879	0.1570087	0.22001804	2.7174644	21	2 14.4	20.1
450941 2008 FD_{97}	15.9	X	95.28859	52.35706	210.46650	16.58985	0.1704302	0.17510109	3.1642939	21	10 27.9	20.8
450942 2008 FH_{109}	17.2	X	287.25694	142.00061	53.88026	5.23917	0.0085366	0.20898441	2.8122902	21	—	—
450943 2008 FC_{126}	15.9	X	112.02004	233.86881	57.16745	20.71030	0.2834515	0.18168729	3.0873534	21	12 18.7	21.5
450944 2008 FR_{127}	16.1	X	106.88620	121.80811	163.68367	10.92058	0.0994002	0.18627692	3.0364305	21	12 1.5	20.9
450945 2008 FM_{132}	17.2	X	6.25909	318.52416	163.04970	4.44828	0.0549151	0.20961840	2.8066168	21	—	—
450946 2008 FL_{135}	17.3	X	338.99399	152.32703	38.42098	9.64966	0.1225491	0.21857015	2.7294522	21	1 23.9	20.9
450947 2008 GS_{114}	16.3	X	63.35662	260.76975	84.15774	10.25544	0.0911076	0.18839566	3.0136221	21	12 22.5	20.4
450948 2008 GD_{127}	16.3	X	98.99316	208.66772	73.01284	23.57772	0.1347874	0.17894627	3.1188007	21	11 22.4	21.1
450949 2008 GG_{138}	16.4	X	40.61196	148.47036	193.15615	22.36026	0.0941421	0.17992802	3.1074454	21	11 21.3	20.9
450950 2008 GW_{141}	16.9	X	45.62653	40.01000	66.97301	8.82787	0.1876520	0.21369886	2.7707749	21	1 25.3	19.7
450951 2008 HL_{8}	16.8	X	36.53292	4.75892	149.15871	9.57999	0.2391795	0.22346296	2.6894637	21	3 15.2	18.9
450952 2008 HF_{19}	17.0	X	25.68827	291.03663	210.44813	12.95596	0.2052540	0.22015633	2.7163262	21	1 22.9	19.9
450953 2008 HC_{58}	16.4	X	336.83146	286.75390	205.79475	24.91457	0.2054903	0.20914680	2.8108342	21	—	—
450954 2008 HC_{65}	16.4	X	142.37991	76.85268	198.66151	12.45484	0.1235024	0.18840191	3.0135555	21	12 22.7	21.4
450955 2008 JX_{22}	16.5	X	115.37679	215.66036	113.22544	10.42429	0.0617992	0.19282501	2.9672933	21	—	—
450956 2008 JS_{28}	15.6	X	349.10733	305.65390	72.93609	19.44327	0.1720816	0.17392355	3.1785603	21	11 1.1	19.4
450957 2008 JT_{33}	17.0	X	355.01949	341.72833	170.59252	11.36047	0.2622100	0.21242357	2.7818535	21	—	—
450958 2008 JE_{40}	17.0	X	207.14422	50.72413	169.51621	6.17355	0.1158853	0.19165809	2.9793254	21	12 21.3	21.6
450959 2008 KF_{1}	16.4	X	122.79278	207.27649	91.87130	13.55234	0.1339856	0.18507426	3.0495706	21	—	—
450960 2008 KB_{2}	15.9	X	79.08813	240.05404	83.11031	17.49233	0.1819034	0.17924179	3.1153716	21	12 22.3	20.6

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
450961 2008 KD_4	16.2	X	94.97676	71.04714	199.54544	12.34487	0.1842545	0.17387620	3.1791374	21	11 7.8	21.2
450962 2008 KD_{24}	15.7	X	194.16953	25.49363	191.06043	16.92005	0.0913093	0.18578738	3.0417621	21	12 5.8	20.6
450963 2008 KN_{34}	15.8	X	27.62148	230.72165	118.28193	21.60393	0.2443042	0.17249267	3.1961142	21	12 6.1	20.1
450964 2008 KG_{39}	16.4	X	63.43216	237.09933	143.49684	11.08496	0.0835631	0.19052802	2.9910946	21	—	—
450965 2008 NW_3	18.5	X	346.40003	61.89622	254.66912	4.32510	0.2081776	0.30429048	2.1891582	21	7 28.9	19.5
450966 2008 PK_8	18.2	X	253.19844	104.66073	257.15834	4.40365	0.2466707	0.28830547	2.2693464	21	4 25.3	21.9
450967 2008 PW_8	18.5	X	289.50790	346.67991	329.44792	3.83893	0.2564655	0.28923374	2.2644883	21	3 30.6	21.7
450968 2008 QA_{32}	17.7	X	212.42986	131.07781	263.38442	5.41918	0.1688005	0.28359697	2.2943957	21	5 5.1	21.4
450969 2008 QS_{38}	17.9	X	275.47295	110.53421	204.51481	6.22546	0.1557109	0.28302484	2.2974868	21	3 27.2	20.9
450970 2008 QX_{45}	18.2	X	327.22551	48.95225	254.30251	4.54809	0.2319118	0.29491449	2.2353145	21	5 10.3	20.0
450971 2008 RD_{43}	18.3	X	261.97156	226.61495	154.70197	2.21238	0.0773244	0.29037705	2.2585404	21	6 22.8	21.1
450972 2008 RJ_{72}	18.7	X	221.97651	46.93903	329.40257	3.14221	0.2181021	0.28295145	2.2978840	21	4 18.7	22.4
450973 2008 RP_{75}	18.1	X	285.70920	9.36191	357.41490	2.85420	0.2000175	0.29461827	2.2368126	21	6 14.5	20.9
450974 2008 RM_{144}	17.5	X	177.28195	81.56360	331.84417	6.01104	0.1110816	0.27936356	2.3175167	21	4 22.8	21.0
450975 2008 RM_{146}	17.8	X	269.85258	44.07587	328.82049	3.10076	0.1684206	0.29185006	2.2509345	21	6 6.8	20.6
450976 2008 SN_4	17.6	X	254.06508	0.45277	45.64278	6.49182	0.1417720	0.29258026	2.2471878	21	7 9.4	20.6
450977 2008 SM_7	17.2	X	307.77308	350.76422	28.64187	7.12353	0.1056332	0.29849803	2.2173882	21	9 2.2	19.3
450978 2008 SB_9	17.7	X	303.06057	147.78150	177.03430	5.55118	0.1453475	0.29176589	2.2513674	21	5 20.0	20.2
450979 2008 SO_{28}	17.9	X	289.51874	38.90787	288.62062	1.94514	0.3212926	0.28908536	2.2652631	21	4 7.3	21.1
450980 2008 SL_{30}	17.4	X	291.17443	334.54273	335.60578	8.15303	0.1900679	0.28952180	2.2629860	21	3 31.4	20.5
450981 2008 SM_{84}	18.1	X	276.55836	130.82772	236.88880	3.88321	0.1437500	0.29039864	2.2584284	21	6 12.6	20.9
450982 2008 SX_{94}	18.1	X	278.19942	30.21555	336.44745	2.99845	0.1831787	0.28986126	2.2612188	21	6 6.6	20.8
450983 2008 SV_{122}	18.3	X	184.11360	68.75756	335.78655	1.10075	0.1819728	0.27476859	2.3432825	21	4 23.2	22.1
450984 2008 SL_{193}	18.4	X	228.77940	339.46315	72.73088	5.01484	0.1168414	0.28625519	2.2801695	21	6 19.3	21.5
450985 2008 SN_{223}	18.4	X	219.86027	219.07292	239.13045	2.97599	0.0818621	0.29601021	2.2297949	21	8 15.2	21.2
450986 2008 SB_{285}	17.9	X	199.12857	276.98938	167.95065	4.77734	0.0668032	0.28279830	2.2987135	21	7 2.9	21.1
450987 2008 SA_{293}	17.9	X	321.41510	292.04385	25.46682	8.42013	0.1734893	0.29388419	2.2405359	21	6 1.3	20.1
450988 2008 SO_{303}	18.1	X	196.32908	279.50661	175.86198	5.41901	0.1356636	0.28789231	2.2715171	21	7 11.1	21.5
450989 2008 SD_{309}	18.2	X	336.43414	292.06553	351.48733	5.75098	0.1066326	0.28634669	2.2796838	21	5 17.4	20.4
450990 2008 SO_{309}	17.7	X	276.16094	249.55564	94.13937	5.37007	0.1757712	0.28095142	2.3087765	21	5 6.4	20.7
450991 2008 TG_2	17.8	X	268.76397	352.60586	27.18455	7.25487	0.2093272	0.29217415	2.2492697	21	6 8.8	20.9
450992 2008 TJ_{21}	16.8	X	4.48061	344.06073	216.08632	24.62849	0.1893462	0.26666820	2.3904990	21	2 15.7	19.7
450993 2008 TK_{48}	17.7	X	325.52372	294.61725	7.42590	6.86681	0.2135654	0.29476681	2.2360611	21	5 6.8	19.7
450994 2008 TL_{49}	18.0	X	159.53282	239.72021	206.60387	6.17801	0.0619139	0.28150354	2.3057567	21	5 17.5	20.9
450995 2008 TW_{55}	18.0	X	297.24233	315.40607	21.83628	4.73075	0.1694637	0.28930707	2.2641056	21	5 23.1	20.6
450996 2008 TZ_{57}	18.0	X	138.65109	135.42359	25.29377	7.97014	0.0653861	0.29063442	2.2572068	21	8 8.0	21.0
450997 2008 TZ_{89}	18.8	X	258.77386	213.38565	157.00440	0.50748	0.1604095	0.28528796	2.2853203	21	5 22.7	22.0
450998 2008 TV_{91}	17.5	X	311.01320	294.80854	89.52912	4.35984	0.1183032	0.29942758	2.2127967	21	9 14.1	19.4
450999 2008 TL_{106}	19.3	X	234.80904	188.07349	203.56311	1.04523	0.1695029	0.28393548	2.2925718	21	5 24.7	22.8
451000 2008 TW_{114}	18.0	X	101.30899	51.09363	122.73448	3.65308	0.0218474	0.28422155	2.2910332	21	6 27.0	20.6
451001 2008 TK_{134}	18.4	X	304.70814	325.17515	2.59829	6.14888	0.2182413	0.28938149	2.2637174	21	5 10.6	21.0
451002 2008 TU_{188}	17.8	X	309.20353	47.50189	263.91210	6.25511	0.1868567	0.28627269	2.2800766	21	4 29.3	20.4
451003 2008 UD_1	19.4	X	142.05206	6.63941	154.20860	6.47900	0.4634894	0.43839164	1.7161736	21	8 28.4	22.5
451004 2008 US_{25}	17.9	X	226.75871	211.43889	199.69695	6.20579	0.0845573	0.28682462	2.2771507	21	6 18.5	21.0
451005 2008 UN_{27}	17.9	X	186.76780	333.89843	57.44545	2.23577	0.1954732	0.27231915	2.3573131	21	4 10.5	21.6
451006 2008 UX_{46}	17.8	X	207.14389	0.51517	29.94071	6.92503	0.2405444	0.27585514	2.3371253	21	4 25.3	21.9
451007 2008 UE_{53}	18.6	X	210.02720	15.84062	48.67853	3.13799	0.2211978	0.28020594	2.3128697	21	6 10.6	22.4
451008 2008 UX_{55}	18.5	X	237.79212	40.92329	2.76515	4.24149	0.2050891	0.28718495	2.2752455	21	6 9.2	22.0
451009 2008 UA_{61}	17.4	X	207.94241	42.32383	17.07257	6.09546	0.1220474	0.28094821	2.3087941	21	6 4.7	20.9
451010 2008 UR_{76}	18.5	X	240.13476	174.37478	261.44194	2.63985	0.1753294	0.28847882	2.2684372	21	7 28.7	21.6
451011 2008 UO_{83}	17.9	X	284.37774	333.65648	330.99956	7.00409	0.1099324	0.27966346	2.3158596	21	3 28.3	20.9
451012 2008 UK_{98}	16.7	X	226.29941	37.98014	56.65542	24.62851	0.1491144	0.28959759	2.2625911	21	8 24.9	20.6
451013 2008 UK_{131}	18.1	X	200.55864	175.83292	224.44622	5.08111	0.1637392	0.27646992	2.3336593	21	5 3.0	21.8
451014 2008 UG_{136}	17.7	X	6.70058	224.28602	43.49305	5.74546	0.1378922	0.28571048	2.2830667	21	6 24.0	19.6
451015 2008 UK_{179}	18.4	X	218.37631	66.83099	332.32196	2.31605	0.1858449	0.27880769	2.3205960	21	5 16.9	21.9
451016 2008 UN_{184}	18.1	X	262.88637	85.94482	236.58654	3.51401	0.2269888	0.27594048	2.3366434	21	3 17.2	21.7
451017 2008 UR_{228}	17.2	X	325.08384	26.54637	248.81106	7.61304	0.2040674	0.27639808	2.3340637	21	3 28.6	19.8
451018 2008 UP_{240}	17.9	X	240.31064	118.10887	271.39955	6.24503	0.1168639	0.28222840	2.3018070	21	6 1.2	21.1
451019 2008 UX_{268}	17.9	X	273.39819	144.60679	208.65496	7.47717	0.1559398	0.28436164	2.2902807	21	5 17.8	20.8
451020 2008 UY_{275}	18.7	X	190.41469	53.00728	25.19331	0.63163	0.1590395	0.28070573	2.3101235	21	6 12.1	22.3
451021 2008 UH_{365}	17.8	X	208.55200	286.68179	101.92501	13.35477	0.2025835	0.27555053	2.3388474	21	4 30.9	21.9
451022 2008 VS_{33}	18.3	X	227.43411	255.41471	144.11813	2.60723	0.2235389	0.28161842	2.3051296	21	5 25.1	22.1
451023 2008 VN_{39}	17.5	X	200.49726	140.82426	277.19027	6.39188	0.0955857	0.27688904	2.3313038	21	5 26.9	20.7
451024 2008 VF_{54}	17.5	X	68.69152	340.33878	236.99063	23.45142	0.0845555	0.28386595	2.2929461	21	7 15.3	20.8
451025 2008 WK_{20}	18.4	X	202.50034	185.24658	238.79019	6.40204	0.1822517	0.27904160	2.3192990	21	6 4.8	22.2
451026 2008 WE_{33}	18.1	X	195.56384	314.19174	100.50649	6.24962	0.1995828	0.27742910	2.3282773	21	5 18.5	21.9
451027 2008 WF_{50}	17.5	X	171.18717	37.07900	63.56619	25.01629	0.2293169	0.27653734	2.3332800	21	6 21.8	21.7
451028 2008 WY_{70}	18.1	X	189.27479	81.63221	354.64061	0.91335	0.1561655	0.27500798	2.3419225	21	6 8.5	21.6
451029 2008 WL_{76}	17.9	X	246.22815	192.47557	181.06982	2.48247	0.1462448	0.27972499	2.3155200	21	5 15.1	21.3
451030 2008 WQ_{80}	18.5	X	190.26311	318.23552	110.57547	3.23021	0.1752589	0.27617575	2.3353162	21	5 31.2	22.2
451031 2008 WH_{100}	17.3	X	314.75817	180.77770	70.45358	7.76073	0.0814980	0.26796769	2.3827644	21	3 9.1	20.3
451032 2008 WX_{104}	17.5	X	131.68792	359.08736	82.52518	2.36526	0.1527862	0.26534487	2.3984404	21	4 18.8	20.7
451033 2008 WF_{111}	17.9	X	107.50630	94.66651	54.29259	3.05269	0.1260177	0.27226869	2.3576043	21	6 15.9	20.8
451034 2008 WO_{114}	18.0	X	155.82436	159.93562	258.61325	4.97181	0.0471018	0.26672303	2.3901714	21	3 31.9	21.2
451035 2008 WT_{116}	18.1	X	173.89195	41.24325	75.57977	2.67662	0.1832731	0.27897096	2.3196905	21	7 18.1	21.7
451036 2008 WT_{133}	17.4	X	246.37228	24.89735	0.74672	5.67243	0.1694545	0.28187741	2.3037174	21	5 27.3	20.8
451037 2008 XN_3	17.8	X	225.09346	107.12167	306.62943	2.35400	0.2352054	0.28163356	2.3050470	21	6 9.0	21.5
451038 2008 XV_{29}	17.6	X	245.53422	304.74569	86.50968	4.87272	0.1501103	0.28184399	2.3038995	21	6 6.7	20.7
451039 2008 XO_{46}	17.7	X	277.31386	248.26180	95.32836	6.58240	0.2015349	0.28005175	2.3137185	21	5 4.8	21.0
451040 2008 XM_{47}	18.6	X	188.82916	17.38913	47.94471	2.96381	0.1957629	0.27303693	2.3531799	21	5 24.7	22.5

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
451041 2008 XT_{54}	16.4	X	48.38839	253.91059	281.15339	20.90525	0.2270279	0.26010530	2.4305427	21	4 29.8	19.0
451042 2008 YE	18.5	X	195.08489	305.75164	121.60897	3.81634	0.1755670	0.27813523	2.3243350	21	6 2.8	22.2
451043 2008 YB_{2}	17.3	X	171.46805	86.05271	39.46602	23.46777	0.3179367	0.27504953	2.3416866	21	8 4.9	22.1
451044 2008 YQ_{3}	17.5	X	170.23659	35.47614	79.79497	5.64253	0.1019639	0.28016800	2.3130784	21	7 11.4	20.8
451045 2008 YV_{9}	17.0	X	100.77587	203.32590	293.26193	4.68703	0.1877834	0.26297514	2.4128274	21	5 29.8	20.2
451046 2008 YR_{12}	17.9	X	106.51105	97.66099	71.04121	5.02384	0.1608523	0.27448704	2.3448847	21	7 17.9	21.1
451047 2008 YR_{83}	17.9	X	60.98414	154.02116	40.20931	1.73166	0.1272040	0.26574896	2.3960084	21	6 13.6	20.5
451048 2008 YE_{88}	18.2	X	192.31536	118.68195	282.79403	3.35508	0.1898079	0.26919503	2.3755164	21	4 26.3	22.0
451049 2008 YO_{90}	18.1	X	172.60158	323.30717	131.71646	1.88891	0.1402528	0.27274464	2.3548607	21	6 16.9	21.5
451050 2008 YL_{93}	17.6	X	199.28044	275.53341	84.18958	3.57334	0.1074160	0.25861931	2.4398442	21	3 13.8	21.2
451051 2008 YP_{102}	18.1	X	73.74720	273.86197	234.91923	1.61516	0.0689349	0.25949020	2.4343821	21	4 19.2	20.8
451052 2008 YU_{104}	18.0	X	155.82815	199.95346	285.07221	5.16301	0.1970272	0.27221998	2.3578856	21	7 12.0	21.8
451053 2008 YZ_{107}	18.2	X	142.84269	358.88023	113.87947	2.97032	0.1756231	0.26706140	2.3881520	21	6 12.6	21.9
451054 2008 YO_{108}	17.8	X	190.66188	283.07541	115.09053	5.31470	0.1470279	0.26389469	2.4072191	21	4 24.1	21.6
451055 2008 YB_{112}	18.3	X	112.99210	31.14133	98.05813	3.71402	0.1729492	0.26822615	2.3812334	21	6 2.2	21.6
451056 2008 YW_{112}	15.6	X	275.31286	290.62120	90.93124	4.20460	0.2287299	0.12239490	4.0175426	21	6 20.8	21.4
451057 2008 YY_{116}	17.4	X	197.66451	294.40475	103.36821	7.24419	0.1263796	0.26697364	2.3886754	21	4 30.8	21.1
451058 2008 YS_{123}	17.9	X	128.06032	333.73601	152.57216	2.47402	0.1349172	0.26744393	2.3858743	21	6 11.2	21.2
451059 2008 YS_{133}	17.5	X	136.92715	46.18875	89.51882	6.87176	0.1706528	0.26958581	2.3732202	21	7 6.7	21.0
451060 2008 YK_{151}	18.0	X	110.05215	26.52236	74.69521	2.58887	0.1519527	0.25894458	2.4378005	21	4 19.5	21.1
451061 2008 YM_{155}	17.5	X	95.99649	30.91507	117.87771	7.05404	0.0678244	0.26256804	2.4153207	21	5 24.2	20.6
451062 2008 YU_{157}	17.3	X	198.85045	71.96300	332.59711	6.23887	0.1728078	0.26873039	2.3782538	21	5 4.9	21.3
451063 2008 YY_{162}	17.9	X	175.16018	246.94001	145.46820	2.91155	0.2109846	0.26194067	2.4191758	21	4 3.5	21.9
451064 2008 YC_{166}	18.0	X	202.80718	247.26690	136.35073	1.82827	0.1892640	0.26676892	2.3898972	21	4 15.2	22.0
451065 2009 AJ_{3}	18.3	X	140.24884	229.11788	206.94056	7.53213	0.0917082	0.26586170	2.3953310	21	4 12.8	21.5
451066 2009 AU_{24}	17.9	X	117.16842	147.29371	299.65243	6.08958	0.1333560	0.25657316	2.4527987	21	4 2.2	21.3
451067 2009 AW_{24}	16.9	X	247.25901	298.77611	295.05621	10.31105	0.1433933	0.23267842	2.6179739	21	—	—
451068 2009 AR_{25}	17.9	X	190.02106	279.84593	126.38109	3.92141	0.1255201	0.26658901	2.3909724	21	5 2.6	21.5
451069 2009 AL_{33}	17.7	X	151.47603	330.70346	119.99702	6.18928	0.1006592	0.26349688	2.4096413	21	5 19.2	21.1
451070 2009 BZ_{17}	18.5	X	205.88093	25.03609	33.60140	1.88938	0.1746713	0.27244891	2.3565645	21	5 31.9	22.2
451071 2009 BN_{20}	17.9	X	184.49248	81.89584	310.47582	2.03184	0.0758294	0.26093117	2.4254113	21	4 4.8	21.4
451072 2009 BO_{26}	17.6	X	164.96686	88.48189	324.02884	6.50073	0.1698596	0.26211267	2.4181173	21	4 13.2	21.5
451073 2009 BG_{30}	17.7	X	192.64645	272.28410	100.35920	3.50488	0.2192917	0.26012231	2.4304367	21	3 25.9	21.8
451074 2009 BV_{31}	18.4	X	171.26435	0.20493	70.83922	2.52156	0.1646307	0.26592844	2.3949302	21	5 16.1	21.9
451075 2009 BE_{35}	18.2	X	104.00875	117.25402	19.49955	2.50375	0.1497512	0.26142277	2.4223698	21	5 28.7	21.3
451076 2009 BG_{39}	17.8	X	64.63385	167.39820	7.09254	2.33282	0.1364060	0.25855566	2.4402445	21	5 22.4	20.4
451077 2009 BC_{63}	17.4	X	206.23537	71.98175	329.41701	3.90315	0.2015853	0.26904166	2.3764190	21	5 8.2	21.3
451078 2009 BT_{63}	18.4	X	237.43619	256.45657	317.15808	15.17123	0.0690293	0.38578832	1.8688309	21	—	—
451079 2009 BF_{70}	18.2	X	190.70413	76.56172	357.75370	4.46375	0.2130921	0.27266187	2.3553373	21	6 6.6	22.1
451080 2009 BV_{84}	18.1	X	164.06267	159.14123	293.01308	0.63066	0.1446198	0.26738629	2.3862171	21	6 4.5	21.8
451081 2009 BO_{85}	18.0	X	197.88484	231.37377	170.77188	1.64368	0.1430869	0.26560108	2.3968976	21	5 4.2	21.7
451082 2009 BZ_{91}	18.0	X	182.78146	349.05754	50.46676	1.22873	0.1966423	0.26437859	2.4042808	21	4 17.4	21.7
451083 2009 BR_{100}	18.1	X	195.25088	230.05051	157.01623	2.29899	0.1705491	0.26278525	2.4139896	21	4 12.9	22.0
451084 2009 BU_{106}	17.5	X	185.99280	155.62521	270.77456	2.66734	0.1415989	0.26726466	2.3869411	21	5 23.2	21.2
451085 2009 BW_{115}	18.4	X	201.75262	60.21978	328.25696	4.20539	0.1563803	0.26519968	2.3993156	21	4 17.9	22.1
451086 2009 BP_{123}	17.9	X	220.73369	153.55085	266.26357	1.53876	0.1794486	0.27267304	2.3552730	21	6 16.7	21.4
451087 2009 BL_{126}	17.9	X	155.61185	273.65410	125.97740	2.13321	0.1788709	0.25466351	2.4650453	21	3 24.3	21.7
451088 2009 BQ_{142}	17.0	X	275.06009	267.55962	328.08397	13.16658	0.0941756	0.23819426	2.5774002	21	—	—
451089 2009 BV_{142}	17.6	X	157.11854	13.25449	24.95262	2.93863	0.1343687	0.25373749	2.4710391	21	3 20.1	21.1
451090 2009 BX_{176}	18.0	X	145.32769	143.43405	336.87100	3.61758	0.1795847	0.26679810	2.3897230	21	6 25.3	21.6
451091 2009 BH_{177}	17.0	X	321.91215	202.50771	340.81787	14.17912	0.0443467	0.23754951	2.5820617	21	—	—
451092 2009 BC_{186}	17.8	X	180.85442	72.80041	26.14759	22.00034	0.3364219	0.27252188	2.3561438	21	6 30.9	22.7
451093 2009 CA_{5}	17.3	X	269.15167	115.06742	126.76383	5.44522	0.2305764	0.24008717	2.5638351	21	—	—
451094 2009 CL_{21}	17.8	X	37.49682	17.18569	163.57937	2.55978	0.1369460	0.25406533	2.4689130	21	4 13.1	20.1
451095 2009 CS_{22}	17.8	X	140.68830	300.32922	161.97451	5.43867	0.1019722	0.26314758	2.4117732	21	5 21.9	21.2
451096 2009 CR_{27}	17.7	X	227.81183	325.81153	81.37194	3.60276	0.2142695	0.27164614	2.3612050	21	6 4.7	21.6
451097 2009 CH_{35}	17.4	X	211.28048	311.46659	74.63706	4.53742	0.1796926	0.26579670	2.3957215	21	4 26.6	21.2
451098 2009 CJ_{36}	17.3	X	311.79337	106.06657	113.57562	5.09579	0.1243266	0.24204929	2.5499608	21	1 16.5	20.5
451099 2009 CR_{47}	16.7	X	253.99654	268.62320	353.42003	16.45292	0.1109820	0.23529390	2.5985372	21	1 12.8	20.9
451100 2009 CU_{62}	18.2	X	181.55367	274.44831	196.94362	0.92920	0.1371766	0.27084020	2.3658868	21	7 17.7	21.7
451101 2009 DR_{16}	17.3	X	336.05597	213.90084	321.71587	12.59571	0.0930507	0.23839029	2.5759870	21	—	—
451102 2009 DX_{51}	17.7	X	112.47251	160.54929	315.68249	3.48137	0.0439105	0.25933880	2.4353295	21	4 24.0	20.9
451103 2009 DN_{63}	17.5	X	214.11453	182.61679	135.81311	4.09166	0.1083598	0.24235482	2.5478173	21	2 5.6	21.1
451104 2009 DJ_{132}	16.6	X	63.94682	15.39554	6.74904	6.23622	0.0443860	0.21824330	2.7321766	21	—	—
451105 2009 EH_{14}	18.3	X	110.47999	137.71699	6.59567	2.59099	0.1435838	0.26129586	2.4231541	21	6 15.8	21.5
451106 2009 EM_{15}	17.7	X	140.75831	307.29121	144.66293	4.14599	0.1299817	0.25797924	2.4438781	21	5 11.3	21.2
451107 2009 EW_{22}	16.3	X	164.56223	103.24351	185.56863	23.13945	0.2829852	0.21279931	2.7785779	21	—	—
451108 2009 EV_{23}	17.4	X	7.92451	314.17807	196.19211	4.16123	0.0526161	0.23584683	2.5944742	21	1 13.8	20.7
451109 2009 FU_{9}	17.6	X	243.04204	290.93074	352.90310	3.31953	0.1328675	0.23514445	2.5996381	21	1 23.9	21.7
451110 2009 FG_{24}	16.5	X	259.02288	193.50625	21.73179	13.67326	0.2445602	0.22471376	2.6794744	21	—	—
451111 2009 FG_{41}	18.0	X	76.48174	146.74204	16.29560	3.08033	0.1696377	0.25516957	2.4617851	21	5 30.8	20.8
451112 2009 FT_{41}	18.1	X	106.70555	42.03942	100.03100	3.49679	0.1720321	0.25694440	2.4504355	21	6 12.4	21.5
451113 2009 FA_{65}	16.6	X	254.27547	224.69787	22.98175	15.46190	0.0501482	0.22620200	2.6677088	21	—	—
451114 2009 FO_{69}	16.6	X	117.97105	54.20303	27.58065	15.35303	0.0941304	0.24089530	2.5580979	21	3 30.9	20.0
451115 2009 FL_{78}	16.2	X	335.16688	142.87832	89.71626	28.94010	0.1488750	0.24375406	2.5380576	21	3 18.8	20.0
451116 2009 GW_{5}	17.0	X	169.00908	279.03051	64.36913	5.33446	0.1052159	0.22747257	2.6577657	21	1 25.0	21.0
451117 2009 HS_{25}	17.2	X	250.33200	40.12611	205.84735	7.40955	0.1590309	0.22359632	2.6883942	21	—	—
451118 2009 HA_{45}	17.1	X	56.29061	81.88662	43.52548	22.58216	0.0903990	0.23745600	2.5827396	21	3 11.3	20.7
451119 2009 HP_{82}	18.2	X	145.46488	250.19373	28.89427	20.42308	0.1601732	0.36691747	1.9323707	21	—	—
451120 2009 HU_{93}	17.2	X	356.74734	116.49149	76.37207	19.09565	0.1917056	0.23666160	2.5885160	21	2 14.0	20.3

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
451121 2009 HW_{102}	16.8	X	297.37068	3.86335	217.07830	11.09560	0.1945414	0.22848821	2.6498839	21	—	—
451122 2009 JE_{6}	17.6	X	276.08705	111.90248	130.33294	8.48603	0.1118219	0.22628549	2.6670526	21	1 8.5	21.5
451123 2009 JZ_{10}	17.1	X	200.08802	59.55183	214.46573	7.92771	0.1229707	0.21503445	2.7592901	21	—	—
451124 2009 KC_{3}	18.0	X	25.81809	337.27759	340.07714	10.02364	0.6995000	0.17175912	3.2052076	21	12 28.5	23.0
451125 2009 KB_{7}	16.1	X	159.71095	273.48663	25.29638	11.86989	0.1219375	0.21091185	2.7951303	21	—	—
451126 2009 KU_{13}	18.1	X	202.04859	39.23744	221.64715	21.49286	0.0187899	0.37606844	1.9008950	21	—	—
451127 2009 KK_{28}	17.2	X	68.51042	340.40294	169.61777	6.61888	0.1892999	0.24325912	2.5414991	21	5 5.9	20.1
451128 2009 LN_{5}	16.6	X	97.32154	233.81948	156.93865	9.09552	0.0912625	0.21709650	2.7417899	21	—	—
451129 2009 MU_{9}	16.5	X	83.87645	28.23970	302.82752	5.33687	0.1473491	0.18671090	3.0317235	21	—	—
451130 2009 NB	15.9	X	61.24887	71.24690	260.60330	10.48870	0.2887084	0.17917728	3.1161194	21	12 26.9	20.7
451131 2009 OR_{18}	16.4	X	0.28847	118.16459	314.42275	13.70962	0.0899487	0.18824514	3.0152283	21	—	—
451132 2009 PR_{2}	15.1	X	99.70220	314.20223	334.21477	23.98479	0.1937081	0.18174445	3.0867061	21	11 28.7	20.5
451133 2009 PW_{11}	16.0	X	44.63734	51.22831	315.06960	10.87941	0.2426080	0.18034005	3.1027105	21	—	—
451134 2009 QV_{2}	16.8	X	71.15736	283.13364	68.14725	2.36227	0.1934549	0.18346546	3.0673724	21	—	—
451135 2009 QS_{28}	15.7	X	67.42686	30.35214	284.14970	23.92665	0.2239304	0.17743450	3.1364907	21	12 6.6	20.6
451136 2009 QH_{30}	16.0	X	89.72553	76.96231	244.78857	17.32680	0.2542273	0.18572654	3.0424263	21	—	—
451137 2009 QJ_{31}	16.5	X	70.38232	348.12876	349.46877	6.37839	0.1922260	0.18200612	3.0837468	21	—	—
451138 Rizvanov	16.1	X	61.90401	354.07487	6.96989	9.61616	0.0908786	0.18038430	3.1022031	21	—	—
451139 2009 QN_{37}	16.3	X	354.70423	43.87661	349.82240	10.05628	0.1301452	0.17359921	3.1825181	21	11 17.1	20.3
451140 2009 QP_{54}	16.8	X	94.71059	151.73397	167.01127	4.94767	0.0947317	0.18174034	3.0867527	21	12 24.9	21.4
451141 2009 QZ_{55}	16.5	X	43.24907	17.31250	1.24181	6.03676	0.0763354	0.18199345	3.0838900	21	—	—
451142 2009 QY_{58}	15.6	X	82.51873	227.11211	101.44193	16.09160	0.2768389	0.18235970	3.0797595	21	—	—
451143 2009 QB_{60}	15.6	X	75.02017	19.13584	284.25229	16.54943	0.2108888	0.17753581	3.1352973	21	11 28.1	20.6
451144 2009 QN_{61}	15.5	X	75.27225	69.85269	246.12957	14.85393	0.1601075	0.17832715	3.1260151	21	12 8.1	20.2
451145 2009 QA_{63}	17.1	X	41.19297	354.31532	7.79069	7.75334	0.1452793	0.17730266	3.1380453	21	12 21.8	21.5
451146 2009 QZ_{63}	16.5	X	78.13018	116.02588	192.87553	13.63611	0.2417916	0.17946853	3.1127472	21	12 11.9	21.7
451147 2009 RR_{12}	15.9	X	149.61013	235.48823	12.51765	10.77284	0.0751483	0.17494767	3.1661436	21	11 23.2	20.8
451148 2009 RJ_{16}	15.8	X	107.54471	267.20715	21.59647	11.80038	0.0720556	0.17387779	3.1791179	21	11 27.5	20.7
451149 2009 RL_{17}	16.1	X	226.88228	5.20475	183.18655	9.13002	0.0178698	0.17680664	3.1439116	21	12 14.5	20.7
451150 2009 RK_{40}	16.3	X	328.60968	254.42603	232.69897	8.78535	0.0376803	0.18587324	3.0408253	21	—	—
451151 2009 SR_{10}	16.3	X	32.40026	287.07607	73.31160	3.26638	0.1802844	0.17226661	3.1989096	21	12 12.2	20.3
451152 2009 SC_{23}	16.9	X	151.49369	69.02565	203.47869	8.84878	0.1140645	0.18985661	2.9981423	21	12 27.7	21.8
451153 2009 SC_{27}	16.7	X	64.40574	117.01354	196.64080	0.25696	0.1368665	0.17216956	3.2001117	21	11 19.8	21.3
451154 2009 SZ_{30}	16.2	X	158.84890	242.94241	26.66195	10.63881	0.0817528	0.18180323	3.0860408	21	12 31.7	21.1
451155 2009 SS_{76}	16.3	X	303.50849	50.78721	91.21123	6.03193	0.0415530	0.18041294	3.1018747	21	—	—
451156 2009 SL_{85}	16.9	X	355.20466	291.20118	166.02662	2.97910	0.0465657	0.18914701	3.0056361	21	—	—
451157 2009 SQ_{104}	20.9	X	260.20221	95.66897	56.52927	4.01781	0.2797367	0.67698512	1.2845469	21	—	—
451158 2009 SD_{111}	16.1	X	302.20582	133.03802	341.00259	10.14792	0.2420891	0.17286210	3.1915589	21	11 19.8	19.9
451159 2009 SM_{114}	16.5	X	85.29038	111.19802	208.65898	8.20172	0.1076130	0.17790533	3.1309544	21	12 17.1	21.2
451160 2009 SU_{119}	15.5	X	250.30711	159.55667	5.71685	27.53249	0.1123413	0.17626342	3.1503678	21	11 20.8	20.5
451161 2009 SM_{135}	15.5	X	65.67633	314.18116	17.48355	26.40095	0.1592164	0.17364660	3.1819390	21	12 9.8	20.6
451162 2009 SN_{138}	16.6	X	350.68340	43.85829	26.00196	4.09923	0.1915784	0.17340752	3.1848631	21	—	—
451163 2009 SX_{146}	16.0	X	10.31622	5.54437	34.87006	11.91062	0.0977917	0.17335094	3.1855560	21	12 18.6	20.3
451164 2009 SE_{154}	16.5	X	7.36845	229.10732	184.36428	4.78779	0.1322885	0.17724291	3.1387505	21	—	—
451165 2009 SX_{162}	15.8	X	18.13097	345.89830	20.55756	4.63570	0.1327058	0.17158102	3.2074253	21	11 21.8	20.0
451166 2009 SJ_{163}	16.3	X	135.31515	249.75607	21.78188	9.73859	0.2397475	0.18289824	3.0737110	21	12 13.1	21.8
451167 2009 SY_{182}	16.5	X	5.52662	60.81643	11.97564	9.92777	0.0808697	0.18254242	3.0777040	21	—	—
451168 2009 SP_{213}	16.5	X	44.21961	350.20843	20.39282	9.37257	0.1059919	0.17636437	3.1491655	21	12 30.7	21.0
451169 2009 SO_{215}	16.8	X	332.70138	56.13430	6.36143	4.41903	0.1985697	0.17039873	3.2222444	21	11 17.6	20.2
451170 2009 SD_{218}	16.7	X	96.51096	269.80298	50.57069	3.09997	0.0921683	0.17998493	3.1067904	21	12 28.2	21.4
451171 2009 SR_{235}	15.7	X	29.81374	26.39931	32.15866	18.07819	0.2079769	0.18063766	3.0993017	21	—	—
451172 2009 SY_{252}	16.3	X	324.64172	43.33132	42.73874	11.16578	0.0747985	0.17274780	3.1929665	21	12 7.1	20.5
451173 2009 SB_{258}	17.0	X	359.14758	13.22545	33.80635	5.59427	0.1187048	0.17458052	3.1705811	21	12 13.2	20.9
451174 2009 SL_{268}	16.6	X	4.33270	210.09301	195.12756	16.44836	0.0913125	0.17520169	3.1630825	21	12 16.6	21.0
451175 2009 SK_{269}	16.9	X	84.85666	271.89188	36.13572	1.31772	0.1732776	0.17593619	3.1542729	21	12 9.3	21.8
451176 2009 SK_{270}	16.4	X	78.69719	281.13375	34.29227	9.72052	0.1228079	0.17563340	3.1578971	21	12 4.9	21.1
451177 2009 SX_{277}	16.8	X	82.42060	164.01160	168.05174	7.75509	0.0910453	0.17875686	3.1210034	21	12 26.5	21.5
451178 2009 SD_{286}	17.5	X	353.38103	13.09561	38.20926	0.93497	0.1634011	0.17454935	3.1709585	21	12 13.4	21.0
451179 2009 SZ_{288}	16.3	X	97.78072	274.96470	32.62901	16.34439	0.2298883	0.17855086	3.1234035	21	12 24.6	21.7
451180 2009 ST_{290}	16.3	X	327.98603	36.54837	52.53552	10.10707	0.0690583	0.17399092	3.1777398	21	12 16.6	20.5
451181 2009 ST_{304}	16.6	X	339.29594	241.39765	180.09931	9.85241	0.1256720	0.17444305	3.1722465	21	12 1.9	20.6
451182 2009 SV_{307}	16.4	X	11.78395	80.94311	314.69259	3.17138	0.1310777	0.17780856	3.1320903	21	12 20.7	20.4
451183 2009 SB_{318}	16.3	X	310.87102	275.14928	190.09196	9.52765	0.0440706	0.17710937	3.1403281	21	12 15.5	20.6
451184 2009 SF_{322}	16.2	X	337.77242	54.92091	11.98869	11.42745	0.0706182	0.17619190	3.1512202	21	12 2.1	20.4
451185 2009 SG_{324}	16.4	X	155.16003	240.68215	38.03912	9.48252	0.0239133	0.18295889	3.0730316	21	—	—
451186 2009 SS_{327}	16.3	X	50.25394	268.07794	79.82389	4.68725	0.0935691	0.17279418	3.1923952	21	12 8.0	20.7
451187 2009 SV_{331}	16.1	X	23.77615	64.00247	308.68940	14.56387	0.2329888	0.17548947	3.1596235	21	12 25.0	20.2
451188 2009 SG_{332}	15.8	X	347.83449	179.84861	229.84657	14.43478	0.2416943	0.17122489	3.2118712	21	12 5.6	19.0
451189 2009 SU_{336}	16.0	X	66.43991	94.82319	239.48922	8.43878	0.1317350	0.17709944	3.1404455	21	12 16.5	20.6
451190 2009 SC_{345}	16.5	X	61.27166	271.42863	50.37715	5.41880	0.0623375	0.16970396	3.2310331	21	11 15.2	21.0
451191 2009 SB_{347}	16.2	X	116.35198	239.01823	38.15734	17.52308	0.1193361	0.17339106	3.1850647	21	11 25.8	21.3
451192 2009 SY_{350}	16.2	X	323.79794	54.31557	45.81995	15.07037	0.1413698	0.17455950	3.1708356	21	12 22.5	20.1
451193 2009 ST_{357}	16.6	X	21.68073	12.46921	14.06764	9.29421	0.0733958	0.17492539	3.1664124	21	12 14.9	21.0
451194 2009 TQ_{4}	15.6	X	311.36850	268.83164	179.80963	10.79568	0.1516739	0.17311354	3.1884677	21	11 19.0	19.5
451195 2009 TU_{17}	15.6	X	50.03377	272.40342	81.42020	14.72108	0.2202532	0.17410280	3.1763783	21	12 31.9	20.2
451196 2009 TS_{23}	16.2	X	326.14233	295.62079	188.87770	12.13076	0.1965971	0.18291960	3.0734717	21	—	—
451197 2009 TS_{32}	16.7	X	44.46389	331.53930	14.82529	7.52113	0.1352127	0.17355123	3.1831047	21	12 3.6	21.1
451198 2009 UA_{7}	16.9	X	108.84803	183.92796	118.22394	2.22230	0.1552720	0.18048779	3.1010172	21	12 23.9	21.7
451199 2009 UC_{8}	16.7	X	75.09532	311.29207	35.81666	10.03112	0.0834434	0.17976200	3.1093585	21	—	—
451200 2009 UB_{17}	15.1	X	63.00176	270.90428	61.15254	25.85758	0.2772216	0.17536839	3.1610777	21	12 24.5	20.2

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
451201 2009 UJ_{24}	16.3	X	344.62892	215.55208	213.13268	26.09254	0.1341598	0.17090827	3.2158367	21	12 15.3	20.6
451202 2009 UU_{108}	16.3	X	35.81043	309.63763	55.50784	9.51472	0.1349825	0.16931611	3.2359654	21	12 14.8	20.6
451203 2009 UL_{131}	15.5	X	3.50514	334.79117	71.63503	21.54042	0.1938562	0.17081674	3.2169854	21	12 25.2	19.3
451204 2009 VR_{10}	15.9	X	99.74232	84.64004	219.74523	24.41879	0.2476858	0.17546167	3.1599572	21	12 21.3	21.5
451205 2009 VZ_{10}	15.7	X	191.30103	185.34259	50.16742	13.30128	0.0788193	0.17550300	3.1594612	21	12 22.4	20.6
451206 2009 VX_{11}	16.1	X	184.64464	209.36861	35.99680	10.20632	0.0809203	0.17554416	3.1589673	21	12 27.7	21.0
451207 2009 VV_{37}	17.1	X	334.81934	70.44327	40.25758	6.92062	0.4357692	0.16892954	3.2409002	21	—	—
451208 2009 VR_{66}	16.2	X	14.40354	193.11681	263.59522	4.33572	0.1106619	0.18008464	3.1056435	21	—	—
451209 2009 VZ_{77}	15.8	X	37.63291	293.71896	64.69260	26.71934	0.1947809	0.17027993	3.2237430	21	12 15.4	20.2
451210 2009 VZ_{78}	17.7	X	288.85420	14.45103	325.20334	8.39999	0.2538323	0.31143818	2.1555337	21	4 26.7	20.6
451211 2009 VU_{79}	16.0	X	7.16972	345.84774	104.23558	28.01495	0.2556787	0.17586033	3.1551799	21	—	—
451212 2009 WB_{8}	16.4	X	22.53239	96.63168	298.57936	8.44814	0.1434421	0.17554531	3.1589535	21	—	—
451213 2009 WB_{110}	15.2	X	315.64580	32.69278	86.10003	28.22440	0.1551727	0.17172140	3.2056771	21	12 30.6	19.0
451214 2009 WJ_{145}	16.5	X	45.73321	329.73951	31.83849	11.13876	0.1173739	0.17305220	3.1892212	21	12 21.5	21.1
451215 2009 WS_{197}	16.2	X	20.83768	162.92300	194.61946	9.82833	0.0742165	0.16074668	3.3499735	21	11 8.3	20.7
451216 2009 WU_{259}	15.6	X	323.22496	23.85484	102.21347	14.72012	0.1954277	0.16602850	3.2785435	21	—	—
451217 2009 XE_{11}	17.0	X	296.36038	107.72675	99.83516	14.06252	0.6109941	0.16324128	3.3157572	21	—	—
451218 2009 XL_{23}	15.6	X	357.94395	190.53750	270.14603	16.05134	0.1358112	0.17486654	3.1671228	21	—	—
451219 2010 AB_{34}	15.7	X	51.39716	132.43634	320.42338	9.76889	0.0944106	0.17761899	3.1343184	21	1 20.6	19.6
451220 2010 AP_{88}	17.1	X	14.01815	78.59020	317.00470	8.57491	0.2210324	0.17383058	3.1796935	21	—	—
451221 2010 BT_{27}	16.7	X	326.48279	191.54189	280.14843	5.39472	0.1938029	0.17447132	3.1719039	21	—	—
451222 2010 BE_{67}	17.5	X	173.26602	41.57270	59.71191	24.20666	0.1829452	0.28573546	2.2829337	21	6 23.6	21.4
451223 2010 CT_{3}	17.0	X	8.22490	205.47126	45.72715	2.96012	0.1866267	0.28057683	2.3108310	21	5 29.4	18.4
451224 2010 CC_{42}	17.7	X	43.48632	82.63530	146.19129	5.90853	0.1174516	0.28723187	2.2749977	21	7 4.2	20.0
451225 2010 CF_{80}	18.0	X	168.13970	15.40489	145.81880	4.57948	0.1417550	0.30056206	2.2072250	21	9 11.3	21.3
451226 2010 CS_{96}	17.7	X	221.39120	105.81975	327.89126	7.16628	0.0315090	0.29636050	2.2280375	21	7 21.1	20.4
451227 2010 CG_{115}	18.3	X	179.73954	347.20637	120.44788	3.61421	0.1228918	0.29510852	2.2343346	21	7 11.2	21.5
451228 2010 CQ_{125}	18.0	X	145.94596	28.14151	146.72265	4.75265	0.0727022	0.29651389	2.2272691	21	9 4.1	20.7
451229 2010 CA_{179}	17.5	X	70.85503	10.46024	199.69524	4.51197	0.0959046	0.28489996	2.2873948	21	7 17.2	20.1
451230 2010 CT_{214}	17.1	X	296.07594	324.59989	337.03541	12.78214	0.0390299	0.26667764	2.3904426	21	4 17.7	20.3
451231 2010 CD_{249}	17.7	X	154.51903	46.73119	112.97638	3.31274	0.0353037	0.30189432	2.2007266	21	8 23.9	20.4
451232 2010 DL_{8}	17.8	X	91.66847	5.63555	180.13784	2.89198	0.1086536	0.28638491	2.2794809	21	7 14.5	20.7
451233 2010 EL_{33}	17.8	X	134.86279	162.85118	345.84888	6.00879	0.0475635	0.28835796	2.2690710	21	7 12.7	20.7
451234 2010 EW_{41}	18.0	X	209.80351	244.11603	190.32054	3.42761	0.0977010	0.29088201	2.2559258	21	6 29.5	21.1
451235 2010 EX_{75}	17.0	X	285.64622	273.05438	3.47025	15.52575	0.1727550	0.26113898	2.4241245	21	2 23.5	20.7
451236 2010 EM_{76}	17.5	X	24.85734	139.83098	101.13635	4.62495	0.0876804	0.28209096	2.3025546	21	6 15.2	19.5
451237 2010 EO_{79}	17.8	X	97.38266	46.01849	141.41400	3.23393	0.0982215	0.28747476	2.2737161	21	7 23.5	20.7
451238 2010 EV_{108}	18.0	X	92.36226	110.69774	78.70465	3.52021	0.1688286	0.28337289	2.2956051	21	7 31.2	21.0
451239 2010 FA_{13}	17.1	X	176.22333	118.23768	45.23594	23.24339	0.2324404	0.30056007	2.2072348	21	10 1.3	21.1
451240 2010 FZ_{29}	18.0	X	160.21437	124.20891	20.47761	8.22783	0.0921585	0.29044469	2.2581897	21	8 13.2	21.3
451241 2010 GL_{101}	17.3	X	271.98805	229.38860	73.11230	8.79137	0.1201513	0.26022238	2.4298136	21	3 19.6	20.8
451242 2010 GO_{102}	17.8	X	57.68196	338.18106	210.78385	4.34084	0.1631926	0.27559755	2.3385813	21	6 5.8	20.0
451243 2010 GO_{107}	17.7	X	116.44130	132.25289	8.49753	6.07681	0.1780018	0.28035813	2.3120325	21	6 22.1	21.0
451244 2010 GP_{108}	17.7	X	354.78617	30.46236	205.01420	5.59856	0.0960693	0.26582477	2.3955528	21	4 12.2	20.2
451245 2010 GU_{111}	17.7	X	11.01092	355.06741	214.10883	6.88054	0.0554731	0.26576938	2.3958857	21	4 2.7	20.4
451246 2010 GK_{158}	17.4	X	25.11113	151.34908	84.34553	8.86428	0.1304654	0.27458387	2.3443334	21	6 10.8	19.4
451247 2010 HZ_{106}	17.8	X	13.42429	21.36747	193.67327	4.94128	0.1309895	0.26580586	2.3956664	21	4 14.6	20.0
451248 2010 JK_{30}	17.4	X	175.29000	253.05725	65.89446	11.88060	0.2107807	0.23486469	2.6017021	21	1 7.9	21.7
451249 2010 JP_{36}	17.7	X	334.96725	193.53827	47.13877	2.60209	0.1387902	0.26196972	2.4189969	21	3 13.1	20.3
451250 2010 JB_{79}	17.7	X	302.42801	125.94313	150.35876	5.20081	0.1791893	0.25840700	2.4411804	21	3 9.3	20.8
451251 2010 JN_{121}	16.0	X	152.72600	286.20598	77.71169	29.40530	0.3922900	0.23426190	2.6061632	21	3 9.2	21.4
451252 2010 JP_{154}	16.8	X	152.84686	8.15002	66.42011	15.46202	0.0524532	0.26592221	2.3949676	21	4 27.5	20.1
451253 2010 KD_{31}	17.3	X	129.56578	51.21664	281.96790	6.80114	0.2333630	0.21360197	2.7716128	21	—	—
451254 2010 KM_{74}	17.2	X	125.32057	183.52140	167.68073	7.25981	0.2536022	0.21447776	2.7640625	21	1 6.1	21.3
451255 2010 KW_{82}	16.9	X	156.59927	163.07803	129.62541	4.21557	0.2593550	0.21399586	2.7682106	21	—	—
451256 2010 LE_{47}	16.9	X	71.98682	75.57174	338.08268	13.88669	0.2707904	0.21084240	2.7957441	21	1 17.5	19.8
451257 2010 LR_{55}	17.2	X	75.71048	199.87617	181.86933	8.25527	0.2941868	0.20496689	2.8489199	21	—	—
451258 2010 LA_{84}	16.5	X	174.08887	309.84049	343.59708	12.58598	0.1821068	0.21591661	2.7517693	21	—	—
451259 2010 LX_{91}	16.6	X	11.73280	81.40647	13.27312	4.14157	0.0253242	0.21136517	2.7911324	21	—	—
451260 2010 LS_{112}	16.9	X	206.27733	62.60577	253.42052	10.21268	0.1195862	0.23385060	2.6092181	21	1 24.5	21.2
451261 2010 MR_{22}	16.4	X	197.31858	284.70161	13.43281	13.02919	0.2228903	0.22246301	2.6975169	21	1 4.9	21.3
451262 2010 NA_{14}	16.8	X	81.37208	4.83161	39.08098	8.71874	0.2197659	0.20909334	2.8113133	21	1 11.8	20.1
451263 2010 NZ_{16}	16.1	X	38.64190	105.38271	201.03913	25.85421	0.2161211	0.18245013	3.0787418	21	10 23.0	20.0
451264 2010 NK_{34}	17.2	X	146.65414	177.67551	156.41761	10.61117	0.2226312	0.21354595	2.7720974	21	1 3.8	21.7
451265 2010 NS_{86}	17.3	X	186.81081	102.50303	177.54166	2.17880	0.1762368	0.21307010	2.7762232	21	—	—
451266 2010 NF_{118}	16.4	X	230.41812	33.62116	269.66488	12.47346	0.1527833	0.23615115	2.5922447	21	1 30.3	20.7
451267 2010 OP_{37}	15.8	X	237.87219	251.56545	263.53038	11.30825	0.1208252	0.18389554	3.0625880	21	11 2.5	20.4
451268 2010 OW_{102}	16.5	X	38.46668	169.23719	262.24979	9.78884	0.0821475	0.20242157	2.8727524	21	—	—
451269 2010 PS_{23}	17.4	X	116.63220	156.72211	173.10814	8.01667	0.2929800	0.21177407	2.7875384	21	—	—
451270 2010 PL_{65}	17.1	X	92.86241	16.32345	356.69859	3.82874	0.1126570	0.21065278	2.7974216	21	—	—
451271 2010 RL_{3}	17.0	X	165.63977	333.42086	354.73692	6.71420	0.1285320	0.22008050	2.7169502	21	1 6.3	21.1
451272 2010 RB_{9}	17.5	X	154.15810	87.38783	159.52398	23.02815	0.1092765	0.38330785	1.8768846	21	—	—
451273 2010 RV_{43}	17.0	X	63.19466	261.23951	150.66741	5.17888	0.1084011	0.20829998	2.8184471	21	—	—
451274 2010 RB_{47}	16.9	X	192.51879	290.29637	346.95935	6.87520	0.2220562	0.21514599	2.7583363	21	—	—
451275 2010 RK_{61}	16.4	X	37.77143	333.71207	7.42844	11.05755	0.1106360	0.18575484	3.0421173	21	11 15.4	20.6
451276 2010 RM_{69}	17.2	X	123.19548	27.06975	345.51382	5.88050	0.0446693	0.21890063	2.7267043	21	1 1.6	20.9
451277 2010 RR_{70}	16.9	X	152.67124	326.24949	3.85109	4.01820	0.0703531	0.21323253	2.7748132	21	—	—
451278 2010 RQ_{98}	17.3	X	117.31776	77.27374	282.29269	3.25565	0.0770409	0.21041026	2.7995707	21	—	—
451279 2010 RA_{101}	16.8	X	186.10667	316.97453	351.75091	8.79680	0.1383007	0.21747028	2.7386473	21	1 4.5	21.3
451280 2010 RQ_{102}	17.2	X	113.49798	143.45605	216.35303	4.31103	0.0316290	0.20915479	2.8107626	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
451281 2010 RN_{105}	16.8	X	2.45693	328.37948	198.93175	14.63542	0.1354890	0.21912196	2.7248678	21	1 21.0	20.3
451282 2010 RU_{117}	16.5	X	61.70766	39.89122	32.23915	9.57349	0.1532499	0.21023319	2.8011425	21	1 5.7	19.8
451283 2010 RO_{128}	16.6	X	90.61496	56.86431	330.40563	8.92401	0.1227022	0.21062198	2.7976943	21	—	—
451284 2010 RS_{137}	16.6	X	347.05453	224.94314	319.90921	11.29743	0.1165327	0.22572701	2.6714498	21	1 25.7	19.9
451285 2010 RZ_{141}	16.4	X	189.91384	323.61436	320.80648	5.93206	0.0121875	0.21033312	2.8002551	21	—	—
451286 2010 RL_{175}	16.2	X	168.87396	243.36400	24.95202	13.24658	0.1422044	0.20234849	2.8734440	21	—	—
451287 2010 SM_{8}	17.8	X	140.08307	167.59777	185.67608	3.63813	0.1064322	0.21816833	2.7328025	21	1 5.7	21.8
451288 2010 SN_{34}	17.2	X	210.87279	153.24744	130.91452	5.37273	0.0461143	0.21593304	2.7516297	21	—	—
451289 2010 SS_{37}	17.0	X	195.19261	110.61585	190.31486	14.48185	0.2171149	0.22087818	2.7104049	21	1 3.4	21.9
451290 2010 TG_{8}	16.9	X	38.88755	267.05331	193.36479	15.20472	0.2052613	0.21131531	2.7915714	21	—	—
451291 2010 TB_{11}	16.8	X	57.21776	27.39913	21.59236	13.05092	0.1484849	0.20423546	2.8557178	21	—	—
451292 2010 TC_{13}	17.0	X	55.64556	110.71570	342.02340	6.79579	0.1366129	0.21365857	2.7711232	21	1 20.9	20.1
451293 2010 TF_{18}	17.0	X	132.12488	49.30022	307.74409	5.11898	0.0600768	0.21579736	2.7527829	21	—	—
451294 2010 TT_{29}	17.1	X	116.34514	346.61827	356.83691	5.84246	0.0768662	0.20662530	2.8336555	21	—	—
451295 2010 TM_{33}	17.2	X	42.96906	265.10038	177.67543	4.30377	0.0405363	0.20906780	2.8115423	21	—	—
451296 2010 TO_{40}	17.3	X	98.46010	60.22956	353.07721	6.10710	0.0492487	0.21693301	2.7431672	21	1 22.9	21.0
451297 2010 TK_{54}	19.2	X	202.40535	222.97097	28.16467	30.79729	0.4950021	0.39474501	1.8404539	21	—	—
451298 2010 TD_{113}	17.0	X	130.26245	138.99091	209.10357	7.25646	0.0725279	0.20940174	2.8085524	21	—	—
451299 2010 TT_{113}	17.2	X	88.65607	131.10487	253.59320	1.02507	0.1010161	0.20676629	2.8323672	21	—	—
451300 2010 TG_{117}	17.3	X	97.72617	292.95306	59.08896	3.00648	0.0765538	0.20160882	2.8804678	21	—	—
451301 2010 TD_{120}	16.8	X	172.52503	16.88815	287.50480	4.43750	0.1218466	0.21539696	2.7561933	21	—	—
451302 2010 TT_{138}	17.1	X	307.79945	152.58072	312.82080	3.50832	0.0839764	0.18742659	3.0240009	21	12 10.9	21.0
451303 2010 TW_{141}	16.9	X	94.44700	78.75603	252.24778	7.61560	0.1058575	0.19511915	2.9439885	21	—	—
451304 2010 TL_{150}	16.8	X	139.45456	120.22147	246.66136	8.10284	0.0497663	0.22237359	2.6982400	21	1 12.3	20.6
451305 2010 TG_{154}	16.9	X	127.18547	197.94969	207.13301	21.66847	0.0426477	0.22394359	2.6856142	21	2 8.3	21.1
451306 2010 TS_{160}	16.7	X	31.27453	288.76103	207.33934	15.45308	0.2147397	0.21310408	2.7759281	21	1 29.0	19.6
451307 2010 TN_{173}	16.8	X	80.47750	38.15166	307.57930	7.90717	0.0992103	0.20044032	2.8916518	21	—	—
451308 2010 TD_{178}	17.4	X	169.47759	287.08217	33.65787	5.11483	0.1571514	0.21693247	2.7431718	21	1 3.7	21.7
451309 2010 TW_{184}	17.0	X	97.44620	211.35466	189.10877	13.33175	0.0974582	0.21281998	2.7783979	21	1 9.3	20.9
451310 2010 UU_{2}	16.3	X	38.40731	95.12512	229.04306	14.27777	0.0828062	0.17689538	3.1428602	21	10 22.8	20.7
451311 2010 UE_{11}	15.8	X	309.14993	12.09924	60.12804	13.71843	0.1218208	0.17584860	3.1553202	21	10 30.2	19.8
451312 2010 UF_{25}	16.2	X	11.91925	349.37102	61.82386	8.74058	0.2026207	0.18602046	3.0392207	21	—	—
451313 2010 UE_{50}	16.9	X	28.12483	42.31149	56.90666	11.77181	0.0295995	0.20668600	2.8331007	21	—	—
451314 2010 UW_{53}	16.8	X	13.48737	3.98826	25.30271	10.70092	0.0840947	0.18556226	3.0442217	21	12 10.1	20.9
451315 2010 UY_{53}	16.3	X	1.34561	109.26723	246.22690	8.35651	0.0986979	0.17490181	3.1666971	21	10 8.6	20.4
451316 2010 UZ_{67}	17.0	X	81.47545	316.68218	1.64598	10.12891	0.0956314	0.19035484	2.9929084	21	12 10.9	21.6
451317 2010 UD_{68}	16.3	X	66.72955	106.56382	241.06601	8.11871	0.1195266	0.19356009	2.9597759	21	—	—
451318 2010 UM_{93}	16.0	X	88.56535	273.55903	13.98558	9.41559	0.1236549	0.17930813	3.1146032	21	11 12.3	20.7
451319 2010 UN_{98}	15.9	X	51.44618	61.17630	240.69845	9.92972	0.0436740	0.17154103	3.2079237	21	10 4.3	20.4
451320 2010 VS_{48}	16.8	X	79.40740	235.16094	108.47291	1.86078	0.2608161	0.19088207	2.9873948	21	—	—
451321 2010 VW_{48}	16.6	X	140.75962	122.94496	217.01082	11.76024	0.2081957	0.21209126	2.7847585	21	1 2.5	21.0
451322 2010 VO_{51}	16.1	X	139.14544	6.95605	280.73258	8.45110	0.0816747	0.18754147	3.0227659	21	—	—
451323 2010 VC_{58}	16.1	X	5.72068	35.01611	46.72125	11.58015	0.1372676	0.19090774	2.9871271	21	—	—
451324 2010 VL_{58}	15.8	X	157.16551	302.94882	261.98130	11.30797	0.0273969	0.17516091	3.1635735	21	10 8.8	20.6
451325 2010 VY_{59}	16.1	X	317.25459	210.61291	283.83787	9.45948	0.0603271	0.19653929	2.9297898	21	—	—
451326 2010 VP_{60}	16.5	X	187.67917	24.69035	269.89988	11.45462	0.1309020	0.20963385	2.8064788	21	—	—
451327 2010 VE_{62}	15.3	X	287.34857	273.79459	257.32995	23.04817	0.0474023	0.19136116	2.9824066	21	—	—
451328 2010 VV_{81}	16.3	X	311.31908	62.89872	61.47112	8.67419	0.2379394	0.18216998	3.0818974	21	12 29.1	19.4
451329 2010 VK_{88}	16.2	X	4.57788	180.32269	251.97738	8.43106	0.0887454	0.18947259	3.0021919	21	—	—
451330 2010 VP_{92}	16.9	X	285.41493	177.79672	34.54546	14.79440	0.0968113	0.21189513	2.7864766	21	—	—
451331 2010 VH_{101}	15.9	X	236.55958	272.89892	234.06478	15.87666	0.0808754	0.17470142	3.1691181	21	10 26.9	20.6
451332 2010 VT_{101}	15.9	X	163.06144	182.17625	61.24587	18.82632	0.1525849	0.18223299	3.0811870	21	12 2.5	20.9
451333 2010 VY_{113}	16.0	X	13.61453	129.71672	272.51410	9.20697	0.0908718	0.18486752	3.0518438	21	12 28.3	20.0
451334 2010 VM_{114}	16.0	X	271.16111	77.84852	43.06376	13.80941	0.0720131	0.17606346	3.1527526	21	11 8.7	20.3
451335 2010 VQ_{116}	16.6	X	33.41672	2.08848	6.44750	5.69135	0.1370774	0.18477049	3.0529121	21	12 19.9	20.8
451336 2010 VN_{119}	16.2	X	240.63444	294.80181	231.42015	11.63100	0.0798522	0.17963700	3.1108007	21	11 26.3	20.6
451337 2010 VD_{132}	17.5	X	355.61550	302.32389	162.78362	1.22390	0.0866276	0.19762502	2.9190494	21	—	—
451338 2010 VY_{167}	16.6	X	47.16509	116.93226	221.02341	8.53453	0.1400340	0.18266279	3.0763518	21	11 30.9	20.9
451339 2010 VB_{173}	16.3	X	289.31310	282.83694	244.45497	8.38083	0.2737997	0.18444819	3.0564675	21	—	—
451340 2010 VK_{180}	16.5	X	69.51814	89.57760	237.67828	25.39801	0.2449014	0.18650496	3.0339549	21	12 22.9	21.5
451341 2010 VR_{184}	17.3	X	72.22150	35.45859	357.99770	0.77419	0.1370310	0.19870290	2.9084833	21	—	—
451342 2010 VT_{196}	15.7	X	16.68562	64.54419	283.60051	10.88092	0.0393242	0.17157995	3.2074387	21	10 14.0	20.3
451343 2010 VE_{207}	16.4	X	329.45758	234.37870	252.14062	8.43617	0.0446109	0.19753754	2.9199110	21	—	—
451344 2010 VS_{209}	16.7	X	59.30290	26.40897	7.05382	12.04546	0.0652693	0.19783963	2.9169380	21	—	—
451345 2010 VY_{210}	16.8	X	213.56452	23.44989	245.04132	5.36082	0.0183009	0.20515195	2.8472064	21	—	—
451346 2010 VM_{213}	17.5	X	16.90462	150.52485	254.53250	1.17920	0.1298575	0.18968716	2.9999275	21	—	—
451347 2010 VR_{218}	17.2	X	105.26493	116.63574	236.34570	18.15222	0.2053174	0.20146100	2.8818767	21	—	—
451348 2010 WQ_{4}	16.5	X	119.37212	79.17684	239.79149	9.43172	0.0455509	0.19295075	2.9660040	21	—	—
451349 2010 WF_{11}	17.0	X	90.15853	34.05778	342.64735	7.96365	0.0902098	0.20060331	2.8900853	21	—	—
451350 2010 WW_{20}	16.3	X	229.00539	121.61095	68.61801	10.87838	0.0286624	0.18319295	3.0704135	21	12 18.1	20.7
451351 2010 WL_{23}	16.0	X	212.12883	139.50743	64.23616	12.15511	0.0331154	0.18224395	3.0810635	21	12 13.5	20.4
451352 2010 WN_{43}	17.0	X	54.36570	47.52541	347.16048	4.32945	0.0987025	0.19359255	2.9594451	21	—	—
451353 2010 WF_{47}	16.1	X	52.71285	138.00983	257.01518	7.75460	0.0980819	0.19197531	2.9760425	21	—	—
451354 2010 WD_{48}	15.8	X	35.16272	126.43932	255.02657	9.68508	0.0520348	0.18350293	3.0669548	21	12 25.7	20.0
451355 2010 WF_{51}	15.9	X	276.11269	98.59305	37.01873	11.55934	0.0532601	0.18184909	3.0855219	21	12 5.1	20.2
451356 2010 WR_{53}	16.0	X	257.56909	277.81782	263.91913	8.09368	0.1005657	0.18609826	3.0383736	21	—	—
451357 2010 WY_{53}	17.2	X	306.84684	64.42804	42.55938	4.79032	0.2520731	0.17911447	3.1168479	21	11 22.7	20.2
451358 2010 WX_{66}	16.4	X	290.42110	90.62802	59.72965	6.51152	0.0853751	0.18601386	3.0392926	21	—	—
451359 2010 XJ_{7}	16.8	X	32.89912	164.07061	201.09284	9.66677	0.1192407	0.18124483	3.0923760	21	12 12.4	21.0
451360 2010 XP_{10}	17.2	X	95.60802	251.51052	80.56995	30.18807	0.2053258	0.37750370	1.8960738	21	—	—

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
451361 2010 XK_{12}	17.0	X	342.62850	56.72640	9.94685	2.01116	0.1778422	0.17810361	3.1286302	21	12 15.7	20.3
451362 2010 XL_{12}	15.8	X	327.86637	196.84853	280.36535	8.70555	0.2091895	0.18290714	3.0736112	21	—	—
451363 2010 XN_{22}	16.4	X	83.66175	266.80855	65.73920	9.99423	0.1442908	0.18848021	3.0127207	21	—	—
451364 2010 XX_{25}	17.1	X	307.71517	35.14173	101.33549	1.46788	0.1510630	0.18660500	3.0328705	21	—	—
451365 2010 XU_{35}	16.4	X	351.56756	11.56205	80.42132	12.03179	0.0746988	0.18858970	3.0115545	21	—	—
451366 2010 XP_{39}	15.7	X	271.87430	279.49932	227.78820	20.89425	0.2677543	0.17671711	3.1449735	21	11 14.4	19.8
451367 2010 XP_{76}	16.0	X	22.13061	272.79949	95.31441	10.31394	0.0934256	0.17758129	3.1347621	21	11 28.5	20.2
451368 2010 XA_{79}	16.4	X	42.17259	172.40356	237.64587	9.32239	0.0651779	0.19130588	2.9829811	21	—	—
451369 2010 XG_{83}	16.0	X	83.15862	266.17614	84.30099	16.52638	0.2165913	0.19150243	2.9809397	21	—	—
451370 2011 AK_{5}	21.5	X	224.14080	325.69057	316.79569	5.52306	0.2306735	0.76144384	1.1877111	21	—	—
451371 2011 AX_{19}	16.5	X	2.51187	4.54222	66.73902	4.34797	0.1940125	0.18235403	3.0798233	21	—	—
451372 2011 AQ_{21}	16.4	X	344.30405	112.99060	314.97527	9.02261	0.2076923	0.17576319	3.1563424	21	12 22.3	19.7
451373 2011 AS_{34}	15.4	X	309.18909	196.10356	278.56375	15.67994	0.1679116	0.17548184	3.1597152	21	12 16.2	19.0
451374 2011 AJ_{35}	15.9	X	337.50900	140.18251	309.84685	9.26022	0.1928155	0.17550951	3.1593831	21	—	—
451375 2011 AH_{60}	16.8	X	332.30464	135.77142	268.33120	4.13252	0.2222875	0.16728878	3.2620568	21	10 20.8	20.2
451376 2011 AS_{63}	17.0	X	336.83019	99.31272	0.57527	2.29591	0.1146700	0.17918190	3.1160658	21	—	—
451377 2011 AL_{74}	16.1	X	314.58027	173.33584	283.93832	14.18287	0.2307208	0.17361437	3.1823329	21	11 25.8	19.6
451378 2011 AM_{79}	15.6	X	347.42874	328.71577	94.22452	22.59985	0.1337966	0.17305513	3.1891851	21	12 16.9	19.4
451379 2011 BG	16.8	X	339.86654	303.48242	119.90648	11.01465	0.2000828	0.17454307	3.1710345	21	12 7.8	20.3
451380 2011 BR_{2}	16.3	X	8.39623	315.73770	80.89995	10.54475	0.0776553	0.17452393	3.1712664	21	12 10.6	20.5
451381 2011 BE_{15}	15.7	X	319.19599	285.55009	162.79179	14.80884	0.2436034	0.17167562	3.2062470	21	11 26.4	19.2
451382 2011 BJ_{15}	15.6	X	324.09335	292.82614	150.37907	26.95769	0.2297533	0.17143809	3.2092078	21	12 4.1	19.5
451383 2011 BA_{25}	15.6	X	331.20846	299.44846	120.82692	23.21514	0.1607011	0.17015554	3.2253139	21	11 22.4	19.8
451384 2011 BA_{53}	16.2	X	357.80068	108.65588	312.04875	7.91718	0.0426029	0.17174926	3.2053304	21	12 22.3	20.5
451385 2011 BY_{57}	15.9	X	240.21307	167.35411	323.26122	9.20608	0.0378090	0.15738844	3.3974585	21	10 12.1	21.0
451386 2011 BY_{63}	17.6	X	126.66182	313.82206	334.42107	17.84880	0.0511117	0.35757916	1.9658690	21	—	—
451387 2011 CQ_{8}	16.1	X	7.49150	286.82033	136.44464	15.93756	0.1875242	0.17802847	3.1295105	21	—	—
451388 2011 CG_{10}	16.7	X	351.90059	78.71756	7.99350	5.03947	0.1834945	0.17866442	3.1220798	21	—	—
451389 2011 CT_{40}	16.6	X	356.09406	299.42085	127.89573	8.12330	0.1365112	0.17493159	3.1663376	21	—	—
451390 2011 CQ_{60}	17.3	X	335.20289	151.66229	306.56520	2.38242	0.1941024	0.17542074	3.1604487	21	—	—
451391 2011 CR_{66}	16.4	X	311.46994	348.38769	142.37336	11.30302	0.2480834	0.17668661	3.1453354	21	—	—
451392 2011 CJ_{75}	16.3	X	335.92738	73.07341	21.24953	24.98973	0.3114298	0.17540969	3.1605815	21	—	—
451393 2011 DQ_{10}	16.1	X	321.44076	61.58579	95.53731	26.42337	0.3700923	0.17959679	3.1112650	21	—	—
451394 2011 DD_{11}	16.7	X	350.93479	297.77479	159.81624	8.95617	0.4103334	0.17995736	3.1071077	21	—	—
451395 2011 DF_{31}	16.6	X	342.49383	308.94946	150.17638	10.91581	0.2385394	0.17646918	3.1479184	21	—	—
451396 2011 ED_{18}	17.8	X	316.71904	295.96188	166.33726	23.57382	0.0691334	0.35402644	1.9789991	21	—	—
451397 2011 EZ_{78}	17.1	X	249.23817	179.75117	109.86521	17.92191	0.5425779	0.26593799	2.3948729	21	1 18.7	22.2
451398 2011 FV_{8}	17.2	X	2.71416	103.56736	15.86783	20.86686	0.1293320	0.36690366	1.9324192	21	—	—
451399 2011 FA_{12}	16.8	X	352.17349	258.46005	207.54803	22.38803	0.4701904	0.17715467	3.1397927	21	—	—
451400 2011 HD_{73}	18.2	X	344.53740	271.19563	32.83306	5.29476	0.1883004	0.30768322	2.1730356	21	7 2.1	19.5
451401 2011 KT_{12}	17.7	X	290.69030	168.69156	138.40604	12.84429	0.2936877	0.28346887	2.2950869	21	3 21.4	21.2
451402 2011 KL_{18}	18.1	X	10.60791	191.95202	93.76037	4.85561	0.1376857	0.30227223	2.1988919	21	8 5.7	19.6
451403 2011 MG_{3}	17.8	X	214.88122	186.59955	142.50712	6.00813	0.2461454	0.26021712	2.4298463	21	2 17.5	21.9
451404 2011 NJ_{1}	17.3	X	10.89822	13.33594	273.67999	6.58725	0.2358173	0.29844534	2.2176492	21	8 15.8	18.5
451405 2011 OA_{9}	18.0	X	290.94415	15.26042	272.49634	6.80099	0.1252257	0.27127044	2.3633846	21	3 11.5	21.3
451406 2011 OG_{13}	18.3	X	225.27532	169.65730	167.09019	2.81355	0.2366725	0.26519862	2.3993220	21	3 5.7	22.5
451407 2011 OZ_{16}	17.3	X	271.65310	195.77204	107.35665	9.42066	0.2129130	0.27142505	2.3624870	21	3 7.9	21.0
451408 2011 OF_{20}	18.0	X	321.38207	163.07797	122.47009	7.64837	0.2181681	0.28221555	2.3018769	21	4 11.3	20.6
451409 2011 OF_{24}	17.5	X	10.49187	242.39772	50.10781	8.35116	0.1602191	0.29767797	2.2214587	21	8 23.8	19.3
451410 2011 PP_{11}	17.9	X	258.17027	41.62854	275.09443	5.45060	0.2166427	0.27120767	2.3637492	21	3 5.8	21.9
451411 2011 QK_{27}	17.9	X	233.34314	345.31870	8.60932	5.13684	0.2433041	0.26720653	2.3872872	21	4 1.4	21.9
451412 2011 QS_{28}	17.3	X	42.40915	293.13118	331.03535	4.50696	0.1361679	0.29754650	2.2221130	21	8 31.5	19.5
451413 2011 QZ_{31}	18.3	X	243.66931	354.14006	348.38436	4.38289	0.2690058	0.26778738	2.3838338	21	3 24.8	22.5
451414 2011 QR_{46}	17.0	X	266.28072	103.69583	235.25973	9.49051	0.1800389	0.27291117	2.3539027	21	4 15.0	20.6
451415 2011 QY_{46}	17.8	X	261.59431	11.19292	279.32650	6.20122	0.1144188	0.26219993	2.4175808	21	2 13.8	21.5
451416 2011 QR_{53}	18.3	X	16.33663	286.02363	338.87113	3.25698	0.1266255	0.28983277	2.2613671	21	7 11.0	20.1
451417 2011 QY_{53}	17.6	X	113.03338	288.47322	260.29940	6.84139	0.0380014	0.29111880	2.2547023	21	8 5.1	20.4
451418 2011 QN_{56}	18.3	X	222.36158	140.53396	246.96826	1.17568	0.2177584	0.27160449	2.3614464	21	5 5.1	22.3
451419 2011 QU_{68}	17.8	X	222.52019	178.87152	181.13544	2.00281	0.2274675	0.26470555	2.4023006	21	4 1.3	21.8
451420 2011 QM_{73}	18.4	X	283.35559	52.77992	250.68094	1.82999	0.2434890	0.27235384	2.3571129	21	3 11.8	21.9
451421 2011 QK_{74}	17.8	X	198.85787	180.22368	157.90800	6.48174	0.1552780	0.25340913	2.4731733	21	2 13.9	21.8
451422 2011 QV_{77}	18.0	X	208.05835	181.15079	192.87912	6.17956	0.1694451	0.26486785	2.4013192	21	4 7.4	21.6
451423 2011 QL_{85}	18.2	X	169.95730	79.96248	324.22646	5.44640	0.1349645	0.26046784	2.4282868	21	4 6.1	21.8
451424 2011 RH_{4}	18.1	X	255.19290	249.13813	73.94276	2.37442	0.1966117	0.26516358	2.3995334	21	3 17.1	21.7
451425 2011 RS_{4}	17.8	X	227.04991	207.22666	117.19553	3.43660	0.1866903	0.25702650	2.4499136	21	2 23.1	21.8
451426 2011 RM_{5}	18.3	X	357.30729	38.61302	219.64776	5.78102	0.0938626	0.28066117	2.3103680	21	5 21.3	20.4
451427 2011 RN_{6}	18.1	X	55.53922	339.86909	232.90220	2.46018	0.1424856	0.28198696	2.3031207	21	7 4.9	20.5
451428 2011 RH_{9}	18.1	X	281.48646	344.99066	318.10232	2.59378	0.2537003	0.27144238	2.3623865	21	3 8.8	21.6
451429 2011 RL_{16}	17.7	X	199.17278	91.17432	309.15776	8.33480	0.2327961	0.26711931	2.3878068	21	4 28.6	21.9
451430 2011 SK_{2}	18.6	X	184.01657	115.38473	295.54670	1.64045	0.2162990	0.26353479	2.4094102	21	5 2.5	22.7
451431 2011 SA_{3}	18.1	X	177.82382	123.21774	337.09249	3.52732	0.0689075	0.27858453	2.3218352	21	6 28.9	21.2
451432 2011 SV_{3}	17.6	X	221.46469	170.79110	205.11246	5.91252	0.2275720	0.26712837	2.3877529	21	4 19.9	21.5
451433 2011 SK_{11}	17.5	X	232.45369	51.45502	292.01103	4.68026	0.2112338	0.26242290	2.4162112	21	3 18.2	21.5
451434 2011 SL_{30}	17.2	X	275.00440	345.35412	337.86488	6.36316	0.1653508	0.27012318	2.3700717	21	4 5.2	20.7
451435 2011 SW_{33}	17.8	X	186.76882	218.08926	187.68390	5.94860	0.1233926	0.26499413	2.4005562	21	4 28.2	21.3
451436 2011 SU_{39}	16.5	X	244.16158	194.29172	17.37563	14.20519	0.0616245	0.22395393	2.6855316	21	—	—
451437 2011 SD_{52}	17.6	X	335.18240	258.24912	11.84591	6.54828	0.2162894	0.27792096	2.3255295	21	4 8.3	19.6
451438 2011 SA_{80}	17.5	X	194.02858	53.33235	0.36989	6.40833	0.1243377	0.26789170	2.3832149	21	5 12.8	21.2
451439 2011 SZ_{90}	17.5	X	264.91557	120.16324	204.41884	5.96973	0.2357485	0.26679527	2.3897399	21	3 22.2	21.3
451440 2011 SY_{102}	17.4	X	168.46308	346.03512	46.23079	6.18741	0.2412405	0.25424096	2.4677758	21	3 31.9	21.5

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
451441 2011 SL_{103}	17.7	X	235.55832	330.47647	16.75008	5.21676	0.2212692	0.26461915	2.4028235	21	3 27.8	21.5
451442 2011 SM_{105}	17.3	X	85.24466	76.85276	359.13351	11.73756	0.1844440	0.23624536	2.5915556	21	2 20.2	20.3
451443 2011 SL_{128}	18.2	X	144.81053	207.84227	197.32872	8.06298	0.2131926	0.24629090	2.5205992	21	3 22.9	22.1
451444 2011 SO_{129}	17.5	X	332.84923	213.92711	46.22970	5.15470	0.1565918	0.26604678	2.3942200	21	4 3.8	20.0
451445 2011 SV_{134}	17.3	X	204.06787	16.31895	15.77140	6.93899	0.1416451	0.26337187	2.4104037	21	4 25.6	21.1
451446 2011 SO_{139}	17.9	X	164.66717	241.18680	180.31428	2.32469	0.2078011	0.25698769	2.4501603	21	4 30.6	21.8
451447 2011 SD_{169}	19.0	X	161.60858	59.34928	304.47421	0.57275	0.2727774	0.24533331	2.5271539	21	2 20.8	23.2
451448 2011 SL_{175}	17.5	X	205.54811	260.70809	132.44716	2.15586	0.1998247	0.26399464	2.4066114	21	4 29.8	21.4
451449 2011 SP_{175}	17.9	X	175.88394	282.42368	121.83085	2.22784	0.1895179	0.25788878	2.4444496	21	4 18.3	21.7
451450 2011 SF_{204}	17.1	X	69.44873	65.68035	4.96620	14.88186	0.1326918	0.23494512	2.6011083	21	1 10.0	20.3
451451 2011 SH_{205}	17.8	X	186.82557	323.65773	91.92308	3.29494	0.1963111	0.26240111	2.4163450	21	5 11.9	21.7
451452 2011 SN_{208}	17.4	X	184.84075	359.40983	46.02877	5.76290	0.2093943	0.25887794	2.4382188	21	4 27.5	21.3
451453 2011 SN_{218}	17.3	X	94.24192	256.25009	154.42497	11.85166	0.1921778	0.23545767	2.5973321	21	1 27.5	20.3
451454 2011 SO_{232}	17.2	X	157.44512	297.67027	104.19514	4.07784	0.1985239	0.25544519	2.4600139	21	3 31.5	21.0
451455 2011 SV_{242}	17.6	X	231.78939	271.32280	43.91807	0.91791	0.2170427	0.25752909	2.4467252	21	2 14.7	21.8
451456 2011 SS_{247}	17.0	X	279.73486	349.35204	17.87136	6.46510	0.2683661	0.27678673	2.3318782	21	5 27.3	20.2
451457 2011 SC_{255}	17.7	X	197.17281	324.30581	63.81612	6.97889	0.2007033	0.26334370	2.4105757	21	4 17.7	21.7
451458 2011 SD_{263}	17.7	X	334.38897	247.68749	15.72663	6.29097	0.0794251	0.27184602	2.3600475	21	4 19.4	20.2
451459 2011 TW_{7}	16.8	X	238.41111	66.92129	269.75984	6.92855	0.1371487	0.25843424	2.4410088	21	3 17.6	20.6
451460 2011 TS_{10}	17.6	X	206.04782	27.76711	4.05421	2.99404	0.1970999	0.26462152	2.4028092	21	4 26.8	21.4
451461 2011 UU_{7}	17.5	X	256.84745	243.66740	35.82592	2.54790	0.1109603	0.24367044	2.5386382	21	2 1.3	21.3
451462 2011 UE_{8}	17.7	X	157.43864	111.49077	238.34475	1.79398	0.1666871	0.23656834	2.5891963	21	1 23.5	21.7
451463 2011 UF_{8}	18.0	X	191.92846	307.69581	37.37040	6.92876	0.1559135	0.24502994	2.5292395	21	2 20.8	22.1
451464 2011 UA_{16}	18.0	X	125.44966	353.18255	56.24168	5.57277	0.1864343	0.24354048	2.5395413	21	3 9.4	21.6
451465 2011 UK_{16}	18.1	X	201.98133	216.69949	249.76608	1.33993	0.1703217	0.27309745	2.3528322	21	7 30.4	21.7
451466 2011 UM_{22}	17.5	X	186.52843	150.84897	258.33296	5.35484	0.0979571	0.26047344	2.4282520	21	4 29.7	21.0
451467 2011 UR_{24}	18.2	X	229.40105	351.56897	359.76978	2.57769	0.1894856	0.25971261	2.4329921	21	3 28.6	22.0
451468 2011 UA_{25}	17.5	X	260.32210	55.36742	256.33165	1.76188	0.2148249	0.25985425	2.4321078	21	3 4.7	21.5
451469 2011 UV_{27}	17.5	X	235.35859	308.43818	86.31853	2.42759	0.1916952	0.26905642	2.3763322	21	5 28.3	21.0
451470 2011 UB_{32}	16.6	X	352.20468	191.93239	271.40143	8.38128	0.1012285	0.21990450	2.7183997	21	—	—
451471 2011 UP_{38}	17.3	X	126.10701	296.13902	109.09596	2.37778	0.1692462	0.23887146	2.5725266	21	3 1.2	20.8
451472 2011 UB_{46}	18.3	X	174.72729	199.23014	190.00820	3.26329	0.2399691	0.25480435	2.4641369	21	3 31.1	22.4
451473 2011 UA_{49}	17.5	X	56.24663	76.43122	35.93809	3.51275	0.1564411	0.23520549	2.5991883	21	2 13.9	20.1
451474 2011 UO_{50}	18.0	X	194.78158	245.23400	89.94495	2.48937	0.1847978	0.24452661	2.5327090	21	2 10.1	22.1
451475 2011 UL_{51}	16.7	X	76.04316	14.32070	52.35839	12.71555	0.1725619	0.22945757	2.6424156	21	1 22.0	19.8
451476 2011 UU_{52}	18.0	X	103.55154	16.30199	55.62161	10.58269	0.1818926	0.23829535	2.5766712	21	3 14.9	21.5
451477 2011 UC_{56}	17.2	X	193.80108	75.81650	267.07964	1.96213	0.0666458	0.24177570	2.5518841	21	2 13.0	20.9
451478 2011 UF_{56}	17.3	X	137.64355	177.51999	232.49603	14.49936	0.1070211	0.24322872	2.5417109	21	3 5.0	21.2
451479 2011 UK_{65}	16.8	X	144.39596	177.75488	252.78220	8.37251	0.0696006	0.25685038	2.4510335	21	4 5.5	20.4
451480 2011 UX_{66}	17.8	X	150.25233	325.87308	142.30887	4.53439	0.1968949	0.26143590	2.4222887	21	6 15.4	21.6
451481 2011 UP_{77}	17.4	X	129.83872	139.36075	235.28530	11.18011	0.1099412	0.23409503	2.6074016	21	1 14.9	21.2
451482 2011 UN_{88}	17.3	X	40.13994	246.31446	235.94090	9.46199	0.1325992	0.22974753	2.6401918	21	1 23.7	20.3
451483 2011 UM_{89}	17.0	X	147.68142	84.87742	47.75529	22.75602	0.2749655	0.25913490	2.4366068	21	7 21.7	21.7
451484 2011 UP_{103}	16.1	X	203.24357	295.15021	35.00327	12.00914	0.1677215	0.24188335	2.5511269	21	2 15.9	20.5
451485 2011 UQ_{103}	16.8	X	352.99303	231.78553	298.77774	4.02008	0.1291446	0.22934529	2.6432780	21	1 11.9	19.9
451486 2011 UK_{142}	17.7	X	165.84331	64.71283	287.09410	3.79396	0.2205435	0.23932223	2.5692953	21	2 6.4	21.8
451487 2011 UA_{155}	17.8	X	232.75205	255.81139	64.42510	4.85817	0.2465353	0.25872052	2.4392078	21	2 22.4	22.1
451488 2011 UB_{176}	16.7	X	290.59149	299.35003	253.26341	5.35080	0.0532013	0.22489145	2.6780628	21	—	—
451489 2011 UJ_{178}	16.2	X	100.51670	209.84470	224.12676	29.14880	0.1074543	0.23725995	2.5841621	21	2 13.4	20.3
451490 2011 UW_{182}	16.1	X	174.50452	297.69799	38.98827	14.51370	0.0342618	0.23210875	2.6222557	21	1 17.3	20.0
451491 2011 US_{186}	17.5	X	102.79495	307.08121	115.53747	4.85635	0.1954359	0.23702479	2.5858710	21	2 27.5	20.7
451492 2011 UP_{187}	18.1	X	113.45628	90.07277	321.54724	3.59618	0.2462521	0.23790094	2.5795183	21	3 3.6	21.7
451493 2011 UC_{198}	17.7	X	187.39049	160.92086	282.93485	4.41799	0.1994612	0.26394603	2.4069069	21	6 16.9	21.5
451494 2011 UQ_{198}	16.4	X	55.52818	219.45342	228.16658	21.19989	0.0500650	0.22784914	2.6548365	21	—	—
451495 2011 UY_{198}	17.7	X	148.48918	283.50907	90.21389	3.58029	0.2791067	0.23991861	2.5650357	21	2 24.7	22.0
451496 2011 UL_{209}	18.0	X	232.74341	22.48907	312.45676	2.83591	0.1023619	0.25590851	2.4570438	21	3 14.4	21.7
451497 2011 UN_{234}	17.8	X	144.37823	265.06816	274.40282	3.68265	0.0785105	0.28109278	2.3080024	21	9 5.0	20.9
451498 2011 UL_{239}	18.0	X	177.50697	155.83686	230.89124	11.08771	0.2258945	0.25022985	2.4940776	21	3 26.7	22.4
451499 2011 UP_{242}	16.9	X	102.20283	316.81276	42.78646	5.79494	0.1900975	0.22200379	2.7012356	21	—	—
451500 2011 UA_{248}	17.3	X	292.41735	185.06777	55.40051	8.35068	0.0371636	0.23714666	2.5849850	21	2 4.4	20.9
451501 2011 UP_{252}	17.4	X	159.53151	285.00393	108.94411	3.05500	0.1949221	0.24464333	2.5319034	21	3 23.7	21.4
451502 2011 UM_{258}	18.0	X	129.29342	202.98996	224.25926	13.97685	0.1496096	0.24479962	2.5308256	21	3 25.2	21.8
451503 2011 UH_{262}	17.1	X	131.58316	160.67736	240.84993	11.12903	0.1081392	0.23837674	2.5760846	21	2 16.7	20.9
451504 2011 UZ_{262}	17.4	X	33.12900	281.92411	238.69828	7.86306	0.1069674	0.23856002	2.5747651	21	3 2.6	20.4
451505 2011 UX_{273}	18.2	X	171.19744	291.26368	142.85450	1.32067	0.1568685	0.26071565	2.4267478	21	5 20.1	21.9
451506 2011 UW_{305}	17.7	X	197.99888	209.95853	167.08937	1.65075	0.1879878	0.25649852	2.4532745	21	4 3.1	21.7
451507 2011 UM_{312}	16.7	X	281.75420	329.20856	216.97951	13.90387	0.0267757	0.22108822	2.7086880	21	—	—
451508 2011 UD_{316}	17.8	X	69.19600	174.27385	244.92575	3.26840	0.0876328	0.22533633	2.6745368	21	—	—
451509 2011 UQ_{317}	16.9	X	67.30543	49.93746	52.51327	14.13936	0.2225573	0.23188863	2.6239149	21	3 9.9	19.9
451510 2011 UE_{331}	16.8	X	34.72315	237.36263	247.44416	10.51222	0.1603580	0.22801503	2.6535487	21	1 17.7	19.6
451511 2011 UC_{339}	18.0	X	234.74019	135.69768	204.50145	4.57764	0.1301898	0.25934928	2.4352638	21	3 21.6	21.7
451512 2011 UD_{340}	18.0	X	325.26917	303.75299	358.41898	7.00197	0.1239308	0.28102011	2.3084002	21	5 23.9	20.5
451513 2011 UA_{345}	17.3	X	130.38714	348.01091	5.91074	9.72709	0.0814322	0.23641601	2.5903083	21	—	—
451514 2011 UZ_{349}	17.2	X	283.00817	0.61371	282.45938	4.07643	0.2241333	0.26162382	2.4211286	21	2 16.7	20.8
451515 2011 UY_{361}	17.2	X	196.90627	287.58201	43.05384	7.09911	0.1811559	0.24087927	2.5582114	21	2 8.9	21.5
451516 2011 UA_{367}	18.0	X	190.79304	292.03703	103.37761	2.50102	0.1831465	0.25808185	2.4432303	21	4 20.3	21.9
451517 2011 UP_{385}	17.6	X	149.03081	98.36863	265.58749	1.93529	0.1625728	0.23610562	2.5925780	21	1 31.9	21.4
451518 2011 UE_{386}	17.5	X	111.24855	348.50217	45.68185	14.12066	0.1617627	0.23027297	2.6361740	21	2 1.6	21.2
451519 2011 UK_{392}	17.1	X	56.26415	231.24949	259.81839	13.99149	0.0667530	0.24217836	2.5490548	21	2 21.3	20.5
451520 2011 UW_{396}	16.8	X	174.58335	115.13205	271.71313	11.38874	0.0701316	0.24593463	2.5230330	21	3 13.2	20.7

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
451521 2011 UZ_{398}	16.8	X	105.18485	190.69075	256.74804	11.68852	0.0675045	0.24542234	2.5265428	21	3 6.4	20.4
451522 2011 VC_{6}	17.7	X	82.82621	239.96623	199.87513	12.44304	0.1441842	0.23649379	2.5897403	21	2 7.6	20.9
451523 2011 VG_{7}	17.2	X	102.85485	355.64424	55.13071	12.54618	0.0580173	0.23660186	2.5889517	21	1 23.8	20.7
451524 2011 VA_{16}	16.9	X	108.13769	277.32675	43.24760	3.57974	0.1050712	0.21478646	2.7614136	21	—	—
451525 2011 WV_{3}	16.1	X	10.40125	288.89574	254.22422	29.42779	0.1151571	0.23574374	2.5952305	21	2 9.7	19.9
451526 2011 WH_{6}	18.1	X	216.64930	114.70209	339.06205	1.02682	0.1284409	0.27654209	2.3332533	21	8 1.3	21.4
451527 2011 WM_{11}	17.4	X	269.93306	140.73476	75.84123	4.35978	0.0295808	0.22376344	2.6870554	21	—	—
451528 2011 WN_{11}	17.1	X	253.26913	206.24885	65.71738	9.94513	0.1377431	0.23830014	2.5766367	21	1 19.3	21.2
451529 2011 WJ_{20}	16.7	X	225.41500	348.89979	244.66119	8.20428	0.0929270	0.21363921	2.7712907	21	—	—
451530 2011 WZ_{30}	17.1	X	135.81034	129.18994	251.60020	12.15773	0.2039349	0.23525369	2.5988333	21	2 7.9	21.2
451531 2011 WM_{34}	17.7	X	169.51493	262.35949	91.90683	5.07002	0.2120425	0.24202483	2.5501326	21	2 13.9	21.9
451532 2011 WU_{34}	17.8	X	180.22447	109.67886	236.37083	9.80074	0.1593695	0.24002597	2.5642708	21	2 5.2	22.0
451533 2011 WY_{34}	16.4	X	274.09606	337.19943	236.20967	11.67186	0.1048204	0.22255586	2.6967666	21	—	—
451534 2011 WO_{35}	16.3	X	150.91118	289.12737	81.11363	12.19462	0.1201043	0.23548216	2.5971520	21	2 10.2	20.2
451535 2011 WW_{40}	17.3	X	120.23438	325.39731	67.48888	12.69375	0.1799734	0.23251232	2.6192205	21	2 13.3	21.1
451536 2011 WX_{49}	18.0	X	178.15273	306.75189	142.75903	2.92856	0.1230399	0.26076157	2.4264629	21	6 15.3	21.5
451537 2011 WJ_{52}	17.1	X	199.57493	268.36437	66.95963	12.03833	0.1743396	0.24129642	2.5552622	21	2 18.8	21.5
451538 2011 WJ_{63}	17.1	X	186.84873	83.38400	259.38387	5.75511	0.2169105	0.24021851	2.5629004	21	2 11.2	21.5
451539 2011 WE_{70}	16.3	X	171.79705	166.56543	221.93398	12.78039	0.0977728	0.24417387	2.5351477	21	3 16.9	20.3
451540 2011 WP_{73}	16.8	X	161.77168	88.64152	271.20493	10.94616	0.2302778	0.23874868	2.5734085	21	2 9.9	21.2
451541 2011 WF_{84}	17.8	X	126.20412	264.86028	156.21248	2.60578	0.2446515	0.24039341	2.5616572	21	3 30.1	21.5
451542 2011 WU_{90}	16.6	X	155.68350	241.27303	76.84535	13.86617	0.2654938	0.22537967	2.6741938	21	—	—
451543 2011 WY_{96}	17.0	X	148.54664	44.85151	336.60978	6.96429	0.1635132	0.23338183	2.6127109	21	2 23.0	21.0
451544 2011 WV_{107}	17.4	X	126.18066	297.99458	119.00912	3.67113	0.0915858	0.23861394	2.5743771	21	3 6.3	20.9
451545 2011 WG_{112}	17.7	X	139.59160	31.87717	346.53514	1.62014	0.2177054	0.23591197	2.5939965	21	2 15.7	21.4
451546 2011 WJ_{112}	17.7	X	146.60436	75.54672	289.92200	1.39707	0.2314086	0.23535308	2.5981015	21	2 7.7	21.6
451547 2011 WQ_{114}	17.5	X	139.61366	304.04456	92.12050	14.56958	0.2804855	0.24081295	2.5586811	21	3 22.2	21.9
451548 2011 WE_{116}	17.5	X	132.03324	331.94477	70.44778	6.52826	0.1998037	0.23766697	2.5812109	21	3 10.7	21.4
451549 2011 WH_{118}	17.8	X	50.98004	96.07537	3.59682	3.61127	0.1767524	0.22862182	2.6488514	21	1 19.1	20.2
451550 2011 WV_{122}	17.6	X	45.10947	266.63314	242.64095	3.44354	0.1178785	0.23866141	2.5740358	21	3 10.6	20.3
451551 2011 WF_{124}	16.6	X	154.47278	251.49424	63.64465	18.00156	0.1753142	0.22686870	2.6624798	21	—	—
451552 2011 WU_{125}	18.1	X	123.23178	15.18913	65.74038	5.43204	0.1961709	0.24446236	2.5331528	21	4 16.5	21.7
451553 2011 WV_{130}	17.0	X	188.62544	221.79349	136.75725	2.67271	0.1207004	0.24229038	2.5482690	21	3 2.6	20.9
451554 2011 WJ_{135}	16.7	X	320.32575	78.80807	75.51174	5.62138	0.0194148	0.21593106	2.7516465	21	—	—
451555 2011 WK_{135}	17.8	X	112.56253	157.44391	257.36818	3.24805	0.2167198	0.23424289	2.6063042	21	3 2.1	21.4
451556 2011 WR_{135}	17.0	X	148.79844	149.39119	256.81527	3.23010	0.1754197	0.24208877	2.5496836	21	3 24.2	21.0
451557 2011 WW_{140}	17.2	X	105.99544	316.95032	136.57164	6.63698	0.1031722	0.24138249	2.5546547	21	3 31.0	20.5
451558 2011 YK_{1}	16.8	X	133.98869	128.57500	268.62835	11.75965	0.1878606	0.23599819	2.5933647	21	2 23.6	20.9
451559 2011 YW_{7}	16.7	X	111.78716	166.48746	258.17649	6.57723	0.1749123	0.23164068	2.6257870	21	3 6.4	20.5
451560 2011 YJ_{17}	17.4	X	73.82948	14.20144	102.60029	5.67061	0.1659624	0.22836942	2.6508028	21	3 27.9	20.5
451561 2011 YT_{27}	17.0	X	90.76667	112.37985	286.83807	9.46119	0.1785094	0.21721822	2.7407655	21	1 10.5	20.2
451562 2011 YM_{32}	17.9	X	96.99906	333.70711	126.50396	5.73703	0.2476872	0.23483689	2.6019074	21	4 19.9	21.4
451563 2011 YB_{45}	17.5	X	114.80784	149.02043	247.02280	5.72878	0.2166557	0.22541577	2.6739084	21	2 9.7	21.3
451564 2011 YT_{50}	16.4	X	224.09273	34.57698	284.97239	2.52069	0.1566580	0.24421962	2.5348310	21	2 14.9	20.6
451565 2011 YD_{53}	16.0	X	243.59579	219.26769	286.28128	8.55680	0.0304783	0.18343505	3.0677114	21	11 9.8	20.5
451566 2011 YJ_{68}	16.8	X	94.89764	85.56483	322.62974	8.69028	0.1384756	0.21796540	2.7344984	21	1 23.5	20.2
451567 2011 YR_{68}	16.0	X	198.55304	29.44836	257.21910	10.12998	0.0745286	0.22239610	2.6980579	21	—	—
451568 2011 YM_{69}	16.6	X	102.73324	356.32357	88.12277	13.21869	0.1634166	0.23300733	2.6155097	21	3 30.0	20.3
451569 2011 YJ_{74}	16.6	X	111.27731	52.70089	66.35371	23.03752	0.1492078	0.24261925	2.5459657	21	5 17.7	20.1
451570 2011 YZ_{76}	15.6	X	103.06256	3.46716	280.64650	12.98808	0.0607923	0.18106347	3.0944406	21	11 18.0	20.3
451571 2011 YG_{77}	16.4	X	261.39677	67.48210	224.28954	15.25642	0.0619217	0.24161849	2.5529909	21	2 19.2	20.4
451572 2011 YC_{78}	16.9	X	131.04269	284.74614	111.33271	12.46142	0.1282550	0.23571207	2.5954630	21	2 20.4	20.6
451573 2011 YS_{78}	16.9	X	103.46898	253.61184	131.40546	12.64082	0.1777192	0.21719653	2.7409480	21	1 10.4	20.4
451574 2012 AU	17.0	X	113.94510	81.63842	56.11908	29.94208	0.3567381	0.24300379	2.5432791	21	6 30.4	21.8
451575 2012 AC_{2}	16.9	X	87.29324	254.39219	131.41295	5.24861	0.0774474	0.20932814	2.8092106	21	—	—
451576 2012 AU_{5}	17.3	X	0.42249	28.84879	124.55879	9.26296	0.1460898	0.21665705	2.7454961	21	1 2.2	20.5
451577 2012 AR_{13}	17.6	X	91.43525	49.41669	14.32074	2.03179	0.1964216	0.22523558	2.6753343	21	2 14.5	20.9
451578 2012 AE_{14}	15.4	X	195.95542	249.01829	311.81793	22.37277	0.1609997	0.17610424	3.1522659	21	11 4.1	20.9
451579 2012 AV_{20}	16.7	X	113.76402	350.53668	88.29816	17.87950	0.1900008	0.23400646	2.6080594	21	4 11.6	20.8
451580 2012 AC_{21}	17.3	X	94.39943	228.40443	234.68855	6.85564	0.1553532	0.23344703	2.6122244	21	4 1.2	20.7
451581 2012 BH_{2}	17.3	X	44.57395	15.44725	74.43814	5.35443	0.0835102	0.21631340	2.7484031	21	—	—
451582 2012 BQ_{4}	17.3	X	96.36236	0.23506	73.44983	4.99130	0.1556025	0.22464999	2.6799814	21	3 2.3	20.7
451583 2012 BE_{9}	17.1	X	82.55946	135.03032	313.16864	14.21995	0.3016868	0.22449582	2.6812082	21	3 15.2	20.5
451584 2012 BW_{10}	15.5	X	209.57659	234.53983	328.47451	11.55216	0.1075792	0.17759175	3.1346390	21	11 30.1	20.5
451585 2012 BD_{29}	16.9	X	76.79560	274.61220	123.96313	5.24618	0.0713182	0.21074291	2.7966239	21	—	—
451586 2012 BM_{30}	17.1	X	282.59403	62.64131	136.47761	4.73584	0.0418499	0.20908021	2.8114310	21	—	—
451587 2012 BF_{43}	17.8	X	42.04800	112.74476	355.98383	2.16814	0.1521852	0.21795548	2.7345814	21	1 16.3	20.4
451588 2012 BO_{58}	16.7	X	112.44652	274.67107	111.20455	13.23816	0.1179448	0.21789566	2.7350819	21	1 14.7	20.4
451589 2012 BM_{59}	17.0	X	103.16890	320.97340	94.01520	6.03295	0.1621215	0.22392287	2.6857799	21	2 15.8	20.5
451590 2012 BC_{67}	16.7	X	298.99312	58.34012	144.89066	9.15418	0.0962539	0.21162164	2.7888768	21	—	—
451591 2012 BY_{71}	16.1	X	225.12675	264.43937	312.59240	9.41659	0.0689930	0.19038378	2.9926052	21	—	—
451592 2012 BJ_{78}	17.8	X	58.99009	103.27513	337.31726	3.47810	0.1862368	0.21562263	2.7542699	21	1 13.0	20.5
451593 2012 BQ_{98}	17.4	X	66.57217	92.26971	329.04896	6.55881	0.2185770	0.21475367	2.7616946	21	1 5.4	20.2
451594 2012 BV_{119}	17.8	X	13.63831	299.22008	159.52366	2.24133	0.1429225	0.20434333	2.8547127	21	—	—
451595 2012 BQ_{132}	16.2	X	359.99162	263.80361	246.34184	11.59390	0.2004579	0.21293930	2.7773599	21	—	—
451596 2012 BF_{140}	15.9	X	146.22572	261.94736	353.02155	11.95929	0.1341577	0.17592372	3.1544219	21	11 28.8	21.2
451597 2012 CP_{9}	16.6	X	176.10377	253.69114	319.39251	8.12287	0.0379945	0.17579555	3.1559550	21	11 10.6	21.4
451598 2012 CF_{21}	17.7	X	143.95906	114.07093	323.99830	0.92270	0.1894441	0.23826584	2.5768840	21	5 1.4	21.7
451599 2012 CS_{36}	16.9	X	357.17538	144.06460	349.88239	5.27570	0.1035742	0.20807038	2.8205202	21	—	—
451600 2012 CC_{37}	17.0	X	235.56711	343.36821	210.80693	0.57938	0.1473711	0.18387332	3.0628348	21	12 15.5	21.4

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
451601 2012 CD_{47}	16.2	X	219.03554	205.03448	1.25709	10.04232	0.0631163	0.18200265	3.0837861	21	12 21.5	20.9
451602 2012 CC_{57}	16.9	X	338.62883	230.12919	301.46836	4.85386	0.1582430	0.21015450	2.8018417	21	—	—
451603 2012 DQ_{2}	16.4	X	212.13387	167.06719	56.09449	5.03162	0.0794591	0.18358197	3.0660745	21	—	—
451604 2012 DM_{10}	16.5	X	73.32452	240.76522	138.20012	11.93116	0.0593684	0.19148930	2.9810760	21	—	—
451605 2012 DN_{12}	16.5	X	326.47141	344.44485	140.98788	11.94912	0.0886464	0.19192076	2.9766064	21	—	—
451606 2012 DR_{13}	16.1	X	226.91637	214.20544	358.06997	8.61095	0.1062674	0.17857418	3.1231315	21	—	—
451607 2012 DY_{14}	15.8	X	221.38680	109.23274	77.18129	16.82548	0.1876550	0.17653421	3.1471453	21	11 19.3	20.8
451608 2012 DH_{17}	16.6	X	53.70113	344.55846	141.66512	11.29150	0.2013152	0.21853614	2.7297353	21	3 10.8	19.3
451609 2012 DG_{18}	16.4	X	274.38797	168.95399	312.59479	10.93584	0.0761641	0.18179237	3.0861636	21	11 10.8	20.9
451610 2012 DW_{24}	15.9	X	220.42981	151.31146	29.39183	10.86825	0.0856055	0.17034002	3.2229848	21	11 16.5	20.7
451611 2012 DV_{39}	16.6	X	255.63088	338.82528	203.10382	8.02669	0.1357788	0.18668763	3.0319755	21	12 26.1	20.8
451612 2012 DJ_{51}	17.0	X	240.20607	81.72637	110.66634	2.22213	0.1232502	0.18198854	3.0839455	21	12 21.4	21.5
451613 2012 DM_{57}	16.7	X	337.37550	145.66104	326.76147	9.26699	0.0617521	0.19138241	2.9821858	21	—	—
451614 2012 DH_{77}	16.7	X	303.34677	57.42290	81.39016	5.10318	0.2247783	0.18673716	3.0314393	21	—	—
451615 2012 DX_{84}	16.6	X	5.33213	84.37381	7.54109	4.20479	0.1142299	0.19069892	2.9893072	21	—	—
451616 2012 DR_{88}	16.0	X	178.35673	77.67014	165.43537	15.78028	0.1014867	0.17742827	3.1365642	21	12 18.9	21.2
451617 2012 DK_{96}	16.9	X	30.03238	237.55566	169.66293	10.78554	0.1651975	0.19109209	2.9852056	21	—	—
451618 2012 EQ_{5}	16.3	X	328.57632	294.01090	169.18348	17.56197	0.0369388	0.18204703	3.0832849	21	—	—
451619 2012 FQ_{14}	15.8	X	211.08886	179.47539	38.31834	16.81447	0.0882664	0.17577118	3.1562467	21	12 20.9	20.8
451620 2012 FR_{21}	16.6	X	314.26673	333.17256	137.26560	4.27470	0.0800076	0.18123885	3.0924441	21	12 25.5	20.5
451621 2012 FA_{33}	16.1	X	209.23912	158.64448	43.87226	15.82750	0.2165215	0.17457203	3.1706838	21	11 19.9	21.4
451622 2012 FJ_{45}	16.7	X	15.17417	19.27425	12.61078	8.63668	0.0682643	0.17460901	3.1702362	21	12 11.9	21.1
451623 2012 FW_{58}	16.1	X	162.18109	115.01033	131.05449	10.50319	0.0303804	0.17193941	3.2029667	21	12 8.1	20.9
451624 2012 FY_{67}	16.3	X	343.91365	67.80941	30.79748	12.38731	0.1130045	0.17982979	3.1085769	21	—	—
451625 2012 FR_{68}	15.6	X	260.98232	122.27261	39.11985	11.82107	0.0797820	0.17815459	3.1280334	21	12 13.2	20.0
451626 2012 FN_{69}	16.5	X	351.65374	81.91299	22.94651	9.58822	0.1595504	0.19078610	2.9883966	21	—	—
451627 2012 FV_{78}	16.1	X	297.96815	31.50766	141.33918	16.71253	0.2053635	0.18915474	3.0055542	21	—	—
451628 2012 FX_{79}	16.8	X	357.95866	47.37939	34.43190	2.05985	0.0773201	0.18579299	3.0417008	21	—	—
451629 2012 GH_{8}	16.6	X	286.20149	305.91170	204.99876	4.47225	0.1011713	0.18099502	3.0952208	21	—	—
451630 2012 GR_{12}	15.5	X	320.17565	59.93809	69.70734	22.77911	0.1226387	0.18019487	3.1043769	21	—	—
451631 2012 GL_{13}	16.2	X	272.85360	332.43944	190.68968	15.50079	0.1387265	0.17766339	3.1337962	21	12 23.3	20.6
451632 2012 GB_{21}	15.8	X	265.41712	298.80376	212.44841	13.44204	0.1686049	0.17325256	3.1867618	21	11 25.3	20.2
451633 2012 GR_{26}	15.8	X	245.02821	171.00466	20.26762	10.73231	0.1658302	0.17573576	3.1566708	21	12 17.9	20.5
451634 2012 GR_{27}	16.5	X	310.75591	0.67474	144.47932	7.61200	0.2365898	0.18729851	3.0253793	21	—	—
451635 2012 GD_{29}	16.4	X	281.09381	149.53637	24.92693	10.75518	0.1004897	0.18369542	3.0648120	21	—	—
451636 2012 HP_{18}	16.3	X	297.82591	348.24163	161.13447	11.13283	0.1653787	0.17833109	3.1259690	21	—	—
451637 2012 HW_{34}	16.2	X	279.14887	328.47562	180.72802	17.72451	0.1550166	0.17648343	3.1477490	21	12 13.9	20.6
451638 2012 HF_{56}	16.6	X	259.22200	277.43180	255.21237	0.72523	0.1546541	0.17629941	3.1499390	21	12 15.1	20.8
451639 2012 HR_{63}	15.5	X	339.10036	28.33453	69.18994	15.36233	0.1330632	0.17850783	3.1239053	21	—	—
451640 2012 HT_{64}	16.4	X	295.91881	78.87594	57.98612	10.72304	0.1965656	0.17753429	3.1353152	21	12 17.9	20.1
451641 2012 HX_{71}	16.6	X	263.25933	3.61782	174.99790	6.75647	0.2006798	0.17498957	3.1656382	21	12 20.6	21.0
451642 2012 HO_{82}	16.5	X	28.61432	94.88298	56.33008	26.51410	0.1620651	0.21236612	2.7823551	21	3 10.6	20.2
451643 2012 HA_{83}	15.6	X	266.42797	79.83831	69.30467	25.48410	0.1630649	0.17427358	3.1743027	21	11 25.8	19.9
451644 2012 JJ_{16}	15.5	X	310.63355	25.01489	86.18004	28.27126	0.1445570	0.17173315	3.2055308	21	12 15.2	19.2
451645 2012 JE_{25}	16.2	X	284.88777	323.64518	218.39667	12.89790	0.2574857	0.18343819	3.0676764	21	—	—
451646 2012 JX_{60}	16.3	X	305.57321	54.40916	63.02876	10.82112	0.1977316	0.17631359	3.1497701	21	12 9.6	19.9
451647 2012 JA_{66}	15.5	X	269.61325	324.59387	225.73245	15.06480	0.0364130	0.17587765	3.1549728	21	—	—
451648 2012 KA_{37}	16.4	X	329.81550	72.01633	78.53172	11.34440	0.2548478	0.19174713	2.9784030	21	—	—
451649 2012 PW_{18}	17.7	X	317.69305	314.11446	154.84600	23.33392	0.0761171	0.36799327	1.9286028	21	—	—
451650 2012 SE_{16}	18.3	X	195.32717	191.45311	253.26395	4.63491	0.1291228	0.30330952	2.1938757	21	6 26.1	21.3
451651 2012 SU_{30}	17.7	X	87.99415	130.72483	200.70925	21.67822	0.0763306	0.35541546	1.9738395	21	—	—
451652 2012 TG_{129}	18.0	X	218.33720	37.25047	194.07921	21.69860	0.0408116	0.36081652	1.9540924	21	—	—
451653 2012 UO_{57}	18.6	X	340.28271	94.52903	227.67506	2.78771	0.1386291	0.31425060	2.1426536	21	7 28.1	20.0
451654 2012 UN_{151}	18.2	X	230.40066	213.42117	196.20355	3.10475	0.1623432	0.30051355	2.2074626	21	6 13.6	21.5
451655 2012 VY_{75}	18.1	X	281.02981	282.03142	90.30828	6.53091	0.1602460	0.30506242	2.1854636	21	6 22.8	20.6
451656 2012 WF_{29}	18.0	X	321.20132	290.92458	48.94308	6.09091	0.1616044	0.30797107	2.1716813	21	7 14.3	19.8
451657 2012 WD_{36}	6.8	X	339.84517	293.39500	177.20341	23.64967	0.5088080	0.00147314	76.4962113	21	11 13.7	23.4
451658 2012 XT_{67}	17.2	X	163.41533	81.76140	16.47685	6.96398	0.2227796	0.28390007	2.2927624	21	6 14.1	21.1
451659 2012 XG_{105}	16.9	X	335.54965	317.79987	293.48542	6.35207	0.0971695	0.26642151	2.3919744	21	3 29.7	19.7
451660 2012 XS_{151}	17.4	X	144.61273	136.31108	330.86669	6.46967	0.0508129	0.27821153	2.3239100	21	5 24.2	20.6
451661 2012 XM_{152}	17.5	X	96.81712	341.86267	230.69184	5.33147	0.0316056	0.29426840	2.2385852	21	8 16.3	20.2
451662 2013 AH_{9}	17.2	X	70.79590	139.62699	3.91379	6.61046	0.0516816	0.26013734	2.4303431	21	4 4.2	20.1
451663 2013 AU_{12}	17.6	X	87.15079	273.86077	263.39247	3.86096	0.0781527	0.27826502	2.3236122	21	6 20.8	20.3
451664 2013 AV_{31}	18.1	X	59.47078	311.50422	234.96458	1.73071	0.0400643	0.27481200	2.3430358	21	5 16.8	20.5
451665 2013 AV_{38}	18.1	X	187.97461	192.06094	289.69221	4.14796	0.0781286	0.29383775	2.2407719	21	8 9.6	21.1
451666 2013 AS_{58}	17.3	X	165.61083	184.42423	307.07458	8.30569	0.0860129	0.28787543	2.2716059	21	7 28.2	20.3
451667 2013 AA_{59}	17.6	X	78.73948	242.34686	293.88264	4.97625	0.0609051	0.27203213	2.3589709	21	6 3.5	20.5
451668 2013 AW_{70}	17.8	X	166.22035	349.86363	131.32816	4.56436	0.1302882	0.28580027	2.2825885	21	7 15.1	21.0
451669 2013 AR_{80}	17.9	X	225.06351	352.59759	103.13363	5.42978	0.1036153	0.30007519	2.2096118	21	8 19.1	20.7
451670 2013 AE_{89}	17.9	X	241.85802	69.81777	335.79776	6.16004	0.1302556	0.29117453	2.2544146	21	6 24.6	21.1
451671 2013 AT_{89}	18.0	X	141.64648	159.82192	345.69501	5.32356	0.1344216	0.28382043	2.2931913	21	7 23.7	21.4
451672 2013 AG_{99}	16.6	X	312.17408	137.53927	74.63611	7.42723	0.0873370	0.24337736	2.5406759	21	1 13.1	20.0
451673 2013 AE_{100}	17.4	X	343.12180	262.26622	317.98610	5.52782	0.0747336	0.25858376	2.4400678	21	3 4.3	20.3
451674 2013 AQ_{104}	17.4	X	83.61301	261.59789	284.26347	6.06752	0.0876163	0.28148825	2.3058402	21	6 30.1	20.0
451675 2013 AZ_{106}	18.0	X	119.76099	225.90571	282.29472	5.48506	0.0341499	0.27906953	2.3191443	21	6 18.0	20.7
451676 2013 AC_{116}	18.2	X	211.61391	88.12167	6.02005	3.26965	0.0865371	0.29250310	2.2475830	21	7 31.9	21.2
451677 2013 AO_{126}	17.5	X	53.09717	265.79435	319.61529	4.11546	0.0946605	0.28448914	2.2895963	21	7 13.2	19.9
451678 2013 AT_{136}	17.6	X	319.64986	43.78147	241.68126	0.48448	0.0740403	0.27052347	2.3677331	21	4 30.1	20.2
451679 2013 AZ_{166}	17.2	X	252.70601	6.95166	260.85111	12.17555	0.0629393	0.24443202	2.5333624	21	1 13.4	21.0
451680 2013 BN_{9}	17.3	X	77.28712	35.72942	101.27564	6.77310	0.0855101	0.26328855	2.4109123	21	4 14.0	20.2

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
451681 2013 BJ_{12}	17.9	X	39.63936	105.04733	90.18668	7.03780	0.0594331	0.26865200	2.3787164	21	5 3.3	20.6
451682 2013 BK_{22}	17.2	X	60.25950	206.20030	302.67150	6.22504	0.0974635	0.26062750	2.4272950	21	3 28.7	19.9
451683 2013 BA_{49}	17.4	X	348.03059	109.89043	95.03606	2.62603	0.1263293	0.25214605	2.4814257	21	2 15.4	20.0
451684 2013 BV_{63}	18.6	X	141.92758	25.96192	113.07457	2.81980	0.1624894	0.27963588	2.3160119	21	7 15.7	21.8
451685 2013 BK_{66}	17.1	X	301.77706	79.62844	119.88142	5.75168	0.1596991	0.22881184	2.6473847	21	—	—
451686 2013 BR_{67}	17.5	X	285.80143	267.10211	61.73399	6.09281	0.0939600	0.27751386	2.3278032	21	5 9.4	20.2
451687 2013 BF_{68}	17.5	X	348.15341	125.21756	97.98582	6.80844	0.0521394	0.25924524	2.4359153	21	3 24.5	20.4
451688 2013 BV_{71}	17.7	X	6.68272	22.94600	273.44953	10.46039	0.0307762	0.29322412	2.2438970	21	8 2.4	20.3
451689 2013 BB_{76}	17.5	X	303.27347	170.14440	100.41153	6.10756	0.1136775	0.25703352	2.4498690	21	3 15.1	20.7
451690 2013 CC_{6}	17.7	X	184.12085	111.33011	287.66564	5.05476	0.1407403	0.26916352	2.3757017	21	4 13.1	21.5
451691 2013 CG_{6}	18.5	X	94.79012	308.25923	213.90280	1.76068	0.1424208	0.27225587	2.3576783	21	6 20.5	21.4
451692 2013 CO_{9}	18.0	X	144.54171	261.35170	231.43587	5.10384	0.1288852	0.27853075	2.3221340	21	7 6.9	21.3
451693 2013 CQ_{11}	18.6	X	170.01210	16.57773	83.40579	2.97814	0.1696938	0.28063736	2.3104987	21	6 21.5	22.2
451694 2013 CG_{22}	17.9	X	239.93523	237.34501	187.44717	1.03328	0.1652270	0.29286157	2.2457485	21	7 14.8	21.1
451695 2013 CL_{29}	17.4	X	168.78352	65.09398	332.61702	6.84201	0.0631153	0.25827286	2.4420255	21	3 22.8	20.8
451696 2013 CH_{34}	18.0	X	237.28038	279.40571	129.95834	5.02111	0.1293932	0.29214632	2.2494125	21	6 24.2	21.2
451697 2013 CC_{39}	17.8	X	71.16130	216.01404	305.06670	5.95555	0.0624391	0.26834745	2.3805158	21	4 28.5	20.6
451698 2013 CZ_{41}	18.2	X	194.65948	236.91920	184.54785	9.44236	0.1347920	0.27574755	2.3377332	21	5 26.9	21.8
451699 2013 CX_{49}	18.1	X	199.52729	227.86724	207.80349	5.60822	0.1721515	0.28566410	2.2833138	21	6 17.4	21.6
451700 2013 CY_{60}	17.1	X	8.63836	207.65255	308.58398	7.87122	0.1016473	0.24040491	2.5615755	21	1 18.3	19.8
451701 2013 CL_{65}	17.9	X	154.96070	142.06312	285.28190	3.50602	0.1669985	0.26588267	2.3952050	21	4 23.7	21.6
451702 2013 CN_{66}	17.6	X	358.28683	359.00684	172.75110	4.13321	0.0877196	0.24012063	2.5635969	21	1 23.2	20.7
451703 2013 CC_{67}	18.4	X	146.80554	222.23827	282.47682	4.30571	0.1521055	0.28196347	2.3032486	21	7 27.2	21.7
451704 2013 CL_{72}	16.3	X	225.73121	2.14841	300.06298	14.26143	0.1783833	0.24297395	2.5434873	21	1 26.5	20.3
451705 2013 CN_{73}	17.6	X	98.66606	99.40771	13.44875	4.30179	0.0672564	0.26106041	2.4246108	21	4 5.2	20.6
451706 2013 CN_{89}	17.0	X	279.68555	120.73896	136.24369	15.40541	0.0821982	0.23759987	2.5816969	21	1 31.8	20.6
451707 2013 CL_{106}	18.0	X	238.19128	37.68321	332.64216	2.50639	0.1361255	0.27251676	2.3561733	21	5 1.7	21.5
451708 2013 CZ_{107}	17.5	X	64.54727	217.31951	348.20164	3.70970	0.0938464	0.27150344	2.3620322	21	7 1.4	20.2
451709 2013 CN_{116}	17.1	X	262.83473	151.82762	99.96764	5.64864	0.0396574	0.23264365	2.6182347	21	1 11.5	20.7
451710 2013 CF_{118}	17.0	X	59.52840	111.44542	342.52295	9.48641	0.0583691	0.23399317	2.6081582	21	1 18.9	20.2
451711 2013 CC_{119}	18.0	X	175.98675	329.06358	128.33231	5.75079	0.1582450	0.27817433	2.3241171	21	6 23.8	21.7
451712 2013 CB_{127}	16.9	X	235.42992	356.06506	21.64258	6.53814	0.1119723	0.27097284	2.3651147	21	5 10.2	20.3
451713 2013 CE_{132}	18.6	X	183.04303	99.56172	340.27729	4.16027	0.2015203	0.27611864	2.3356382	21	6 7.1	22.4
451714 2013 CO_{147}	17.9	X	164.26980	40.88336	45.00589	1.89702	0.1585559	0.27210527	2.3585481	21	5 27.8	21.3
451715 2013 CV_{161}	18.0	X	211.40678	274.55351	129.30190	2.07253	0.1823136	0.27252755	2.3561112	21	5 18.3	21.6
451716 2013 CE_{171}	18.3	X	153.81355	244.03129	230.68102	1.67164	0.1285920	0.27511890	2.3412930	21	6 23.1	21.8
451717 2013 CZ_{175}	17.7	X	180.40506	104.58489	333.84343	6.15109	0.0925203	0.27084872	2.3658372	21	5 31.7	21.2
451718 2013 CB_{179}	17.6	X	94.32471	1.37281	143.19558	7.44383	0.0712038	0.26496925	2.4007065	21	5 16.8	20.6
451719 2013 CC_{179}	17.7	X	128.87033	343.11791	138.52845	7.13223	0.1006609	0.27011553	2.3701164	21	6 2.8	21.0
451720 2013 CL_{184}	18.1	X	147.46838	320.30841	169.51952	3.86587	0.1373690	0.27600713	2.3362672	21	7 6.9	21.5
451721 2013 CO_{186}	18.3	X	184.19620	256.44232	232.27295	4.99904	0.1026762	0.28933446	2.2639628	21	8 12.4	21.6
451722 2013 CA_{209}	17.3	X	100.01472	279.67367	250.30194	2.92887	0.0694199	0.27260680	2.3556545	21	6 27.3	20.1
451723 2013 CD_{216}	16.9	X	206.79412	310.36054	306.01380	10.38793	0.0837320	0.21659248	2.7460417	21	—	—
451724 2013 CS_{219}	17.9	X	4.16915	111.23097	123.39014	4.61913	0.0527505	0.26346416	2.4498408	21	5 2.7	20.6
451725 2013 DE_{10}	17.3	X	121.22456	72.74246	14.25537	6.64260	0.0281671	0.25602970	2.4562684	21	3 27.0	20.2
451726 2013 DH_{14}	16.7	X	230.16663	72.82180	191.56061	8.68080	0.1564836	0.22432278	2.6825869	21	—	—
451727 2013 EY_{6}	16.6	X	225.61994	157.76738	170.76121	12.93074	0.1484081	0.24457871	2.5323493	21	2 27.3	20.6
451728 2013 EP_{7}	17.8	X	182.34826	225.24645	203.31798	1.61494	0.1696755	0.27177092	2.3604822	21	5 23.3	21.5
451729 2013 ED_{8}	17.3	X	200.80630	99.68922	285.83874	1.83557	0.0645272	0.25839052	2.4412841	21	4 14.7	20.8
451730 2013 EZ_{14}	18.0	X	100.62917	134.38963	8.93840	1.57706	0.1138775	0.26453310	2.4033445	21	5 27.9	20.9
451731 2013 EZ_{19}	17.1	X	58.97510	238.81077	281.16621	15.88425	0.1418764	0.25320403	2.4745086	21	4 14.6	20.2
451732 2013 EX_{20}	17.7	X	56.95982	4.06672	183.22226	3.11212	0.0740204	0.26555007	2.3972046	21	5 20.0	20.3
451733 2013 EP_{21}	18.0	X	133.62225	157.69599	328.28347	3.81660	0.0968447	0.26898130	2.3767746	21	6 12.6	21.3
451734 2013 EC_{23}	16.6	X	246.99496	342.69010	217.29638	7.35277	0.1534535	0.20996943	2.8034878	21	—	—
451735 2013 EQ_{24}	17.9	X	127.86618	64.09893	38.52128	4.56428	0.1596640	0.26099119	2.4250395	21	5 12.2	21.3
451736 2013 ES_{24}	17.8	X	107.45421	123.78211	30.60420	5.42552	0.1315365	0.26730407	2.3867064	21	6 24.5	21.1
451737 2013 EH_{25}	16.8	X	103.52565	352.84527	9.65201	6.23371	0.0668181	0.21489289	2.7605017	21	—	—
451738 2013 EP_{26}	17.9	X	159.38175	33.60674	74.78380	3.12735	0.1397755	0.27136821	2.3628169	21	6 21.1	21.4
451739 2013 EH_{32}	17.1	X	142.21948	202.10259	153.96605	6.82318	0.0565368	0.22453464	2.6808992	21	1 3.8	20.9
451740 2013 EA_{38}	17.5	X	142.31080	105.68826	13.83344	9.60556	0.1544337	0.27026118	2.3692648	21	6 18.7	21.2
451741 2013 EO_{38}	17.4	X	24.98741	130.55954	43.54334	5.54563	0.0091455	0.24484417	2.5305186	21	3 14.1	20.7
451742 2013 ER_{40}	17.1	X	80.71786	119.39105	74.42539	7.93278	0.0490793	0.28013758	2.3132459	21	6 30.9	19.8
451743 2013 EO_{45}	17.8	X	147.68354	93.12603	343.62152	6.77093	0.2258568	0.26323417	2.4112443	21	5 2.4	21.8
451744 2013 EG_{58}	17.1	X	128.78465	237.50840	140.53226	4.09845	0.0705960	0.22977942	2.6399476	21	1 15.7	20.7
451745 2013 EA_{64}	17.0	X	182.30164	326.83018	14.10237	1.39401	0.1144419	0.23310190	2.6148022	21	2 3.6	21.0
451746 2013 EH_{67}	18.0	X	122.23400	61.19099	51.17600	5.46215	0.2050564	0.26083065	2.4260345	21	5 24.3	21.6
451747 2013 EE_{75}	17.4	X	225.43148	214.15702	71.12827	1.76960	0.0422505	0.22994444	2.6386843	21	1 10.4	21.1
451748 2013 EC_{83}	16.8	X	160.02566	185.54432	89.41334	6.09227	0.0897037	0.20121802	2.8841962	21	—	—
451749 2013 EQ_{85}	17.7	X	142.11236	64.78852	59.40054	5.60074	0.1753850	0.27203257	2.3589684	21	6 26.8	21.2
451750 2013 EG_{88}	16.7	X	307.16551	175.00816	43.46075	10.59656	0.2493462	0.22964832	2.6409522	21	—	—
451751 2013 EM_{92}	17.2	X	349.31584	352.05405	176.67088	9.11729	0.0587572	0.23592706	2.5938859	21	1 10.4	20.6
451752 2013 EF_{93}	16.4	X	335.63707	299.12885	285.60231	7.96288	0.2227823	0.23521052	2.5991513	21	2 8.2	19.5
451753 2013 EP_{97}	17.5	X	42.89084	197.96261	356.11693	7.87798	0.0687808	0.25652298	2.4531185	21	5 2.9	20.4
451754 2013 EG_{101}	18.1	X	183.98455	19.37878	79.35199	6.28533	0.1761290	0.28060700	2.3106653	21	7 3.3	21.8
451755 2013 ET_{104}	17.6	X	120.27971	354.74357	128.96361	3.97865	0.1459266	0.26223950	2.4173376	21	5 31.5	21.0
451756 2013 EL_{105}	17.3	X	167.09541	234.72602	184.43824	4.87676	0.1040261	0.26149284	2.4219370	21	4 24.1	20.8
451757 2013 ER_{106}	17.4	X	82.34436	6.44467	107.41060	5.40722	0.1059673	0.24371697	2.5383151	21	3 25.3	20.5
451758 2013 EW_{113}	16.8	X	242.93738	205.64094	28.12480	8.18877	0.1660373	0.21152631	2.7897147	21	—	—
451759 2013 EH_{121}	18.1	X	104.93734	296.06877	188.26133	4.31356	0.1322310	0.25647494	2.4534249	21	5 11.8	21.3
451760 2013 ED_{122}	17.8	X	104.10203	301.45269	170.04167	5.48624	0.0919102	0.25264749	2.4781413	21	4 17.5	20.9

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
451761 2013 FE_1	16.0	X	159.21875	234.26382	6.67553	16.60313	0.0959711	0.18309904	3.0714633	21	11 23.5	21.0
451762 2013 FA_7	16.8	X	185.54378	127.45500	166.27089	6.67446	0.0332451	0.21394009	2.7686917	21	—	—
451763 2013 FO_{11}	16.5	X	70.07700	134.80522	183.03747	10.22967	0.0639290	0.18387586	3.0628066	21	11 25.1	21.0
451764 2013 FK_{18}	17.3	X	240.05634	211.80323	42.88803	3.48727	0.0491841	0.21937420	2.7227788	21	—	—
451765 2013 FU_{21}	16.8	X	121.15771	66.12426	14.62559	15.32996	0.0812690	0.24425595	2.5345797	21	3 28.9	20.0
451766 2013 FY_{24}	15.8	X	94.65460	276.28972	17.98899	17.62978	0.1518141	0.17817136	3.1278370	21	11 26.7	20.9
451767 2013 FP_{26}	17.1	X	163.27855	184.23316	179.39437	3.26541	0.0814217	0.23094238	2.6310774	21	2 7.9	20.8
451768 2013 FU_{26}	17.7	X	57.40710	109.73126	18.22852	6.26881	0.0659775	0.23996805	2.5646834	21	3 1.4	20.7
451769 2013 GB_4	17.9	X	136.16593	111.54839	12.84206	2.11299	0.1169969	0.26744768	2.3858520	21	6 15.7	21.1
451770 2013 GB_{13}	16.8	X	339.86879	142.92313	61.70860	14.66803	0.1231986	0.23542281	2.5975886	21	2 11.8	20.2
451771 2013 GJ_{19}	16.8	X	148.44265	340.19803	44.89884	12.45074	0.0797659	0.23641370	2.5903252	21	2 24.2	20.7
451772 2013 GP_{24}	16.7	X	103.19952	78.75470	202.87340	12.16318	0.0864979	0.18055165	3.1002858	21	11 20.5	21.4
451773 2013 GU_{36}	16.6	X	285.25976	126.33384	92.41304	7.83711	0.1346803	0.21992158	2.7182589	21	—	—
451774 2013 GL_{62}	17.5	X	303.60934	182.38764	28.01219	5.54711	0.0450293	0.22424125	2.6832371	21	1 10.7	21.2
451775 2013 GA_{64}	17.1	X	160.74217	286.30246	215.74106	22.28210	0.1823226	0.27786363	2.3258494	21	7 31.3	21.4
451776 2013 GN_{71}	16.4	X	27.64797	195.66301	187.40325	7.53633	0.1637395	0.18571352	3.0425685	21	—	—
451777 2013 GW_{85}	17.4	X	332.64184	304.65832	258.78432	3.18492	0.1797146	0.23525010	2.5988597	21	1 15.4	20.8
451778 2013 GM_{91}	17.7	X	99.61727	252.12018	264.65460	3.57103	0.1764229	0.26409049	2.4060291	21	6 24.3	21.0
451779 2013 GG_{92}	15.0	X	122.99628	186.62400	82.25948	28.77907	0.1455168	0.17368716	3.1814437	21	11 30.8	20.2
451780 2013 GP_{92}	16.8	X	320.98861	322.32804	243.30609	7.60675	0.2797900	0.22620831	2.6676592	21	—	—
451781 2013 GC_{97}	16.4	X	143.50387	235.55522	34.68810	7.54863	0.1949804	0.18286014	3.0741379	21	12 17.6	21.7
451782 2013 GJ_{100}	15.4	X	181.28537	339.81199	218.48318	20.51601	0.1153454	0.17614938	3.1517274	21	10 29.1	20.4
451783 2013 GW_{100}	16.0	X	128.81816	225.57274	34.93224	27.94721	0.1906969	0.17348441	3.1839219	21	11 17.9	21.5
451784 2013 GK_{109}	16.9	X	287.20764	197.60649	16.86677	8.62184	0.2241396	0.21641958	2.7475041	21	—	—
451785 2013 GJ_{113}	15.7	X	176.38150	190.39358	47.83188	17.73081	0.0671427	0.18298998	3.0726836	21	12 10.6	20.5
451786 2013 GR_{123}	17.1	X	146.33668	27.63496	20.69553	4.53844	0.1483779	0.24168276	2.5525383	21	3 24.3	20.9
451787 2013 GD_{124}	17.1	X	199.49162	277.75511	15.74881	4.18214	0.0825435	0.21301757	2.7766795	21	—	—
451788 2013 GV_{124}	17.2	X	263.56690	25.81859	199.66713	3.76050	0.0477795	0.21257021	2.7805739	21	—	—
451789 2013 GN_{129}	17.5	X	71.37801	201.07211	300.01206	6.09086	0.0587523	0.25414258	2.4684127	21	3 31.6	20.6
451790 2013 GY_{132}	17.2	X	261.11812	148.73745	74.87190	0.56404	0.0164730	0.21429234	2.7656568	21	—	—
451791 2013 GH_{136}	15.7	X	95.75785	236.12343	79.70138	10.57894	0.0944455	0.18134766	3.0912069	21	12 22.3	20.2
451792 2013 HC_5	15.5	X	69.46505	253.31831	56.39245	21.53265	0.1136374	0.17411619	3.1762154	21	11 18.2	20.1
451793 2013 HG_9	16.2	X	201.67808	149.47826	134.37761	13.47776	0.1180911	0.21338677	2.7734759	21	—	—
451794 2013 HA_{10}	16.6	X	64.08933	357.33242	125.24619	22.58558	0.0427646	0.23040918	2.6351350	21	3 5.9	20.2
451795 2013 HS_{17}	16.4	X	149.06301	129.49867	121.71193	10.17753	0.1530708	0.17798165	3.1300593	21	12 2.0	21.6
451796 2013 HU_{19}	17.1	X	321.55967	347.88879	183.60341	9.19031	0.1274542	0.21769606	2.7367534	21	—	—
451797 2013 HH_{21}	15.8	X	69.55898	310.24106	37.04143	16.55868	0.0808194	0.18563000	3.0434811	21	12 30.5	20.5
451798 2013 HT_{23}	16.6	X	354.50693	355.47962	198.93723	17.79176	0.1365121	0.23072141	2.6327570	21	2 9.2	20.0
451799 2013 HP_{27}	16.9	X	16.72181	154.89327	32.14695	8.49427	0.1036354	0.23512770	2.5997616	21	3 19.6	19.7
451800 2013 HJ_{29}	16.6	X	121.20227	23.63366	259.87878	7.90481	0.0583385	0.18492838	3.0511742	21	12 9.0	21.2
451801 2013 HA_{30}	16.0	X	40.27049	117.78460	225.99748	15.18789	0.2289682	0.17400624	3.1775532	21	12 9.8	20.4
451802 2013 HM_{30}	16.5	X	89.15022	281.81248	352.70789	9.47074	0.0846546	0.17035227	3.2228302	21	10 22.0	21.4
451803 2013 HM_{32}	16.2	X	117.95720	348.31299	359.88028	15.12131	0.1426610	0.20344680	2.8630931	21	—	—
451804 2013 HT_{42}	17.1	X	98.09656	109.92527	286.63941	4.35873	0.0630845	0.21555392	2.7548551	21	1 1.9	20.7
451805 2013 HB_{43}	17.3	X	118.15552	83.38030	293.74324	5.55691	0.0592063	0.21548603	2.7554337	21	1 3.3	21.0
451806 2013 HH_{43}	17.6	X	314.06935	202.45195	282.62984	4.81982	0.0454209	0.19909309	2.9046820	21	—	—
451807 2013 HQ_{43}	17.5	X	44.14565	183.88147	257.76887	5.37915	0.0249924	0.21338045	2.7735306	21	—	—
451808 2013 HM_{46}	17.7	X	130.41620	123.88370	300.82585	3.12200	0.1619200	0.23945044	2.5683781	21	3 27.3	21.3
451809 2013 HX_{47}	17.1	X	83.34377	37.87559	291.72657	2.38731	0.2081526	0.18015358	3.1048512	21	—	—
451810 2013 HQ_{55}	16.8	X	106.87825	76.65218	218.29418	9.10616	0.2084207	0.17823112	3.1271378	21	12 16.9	22.0
451811 2013 HD_{56}	17.3	X	86.31349	47.06785	3.05338	5.89324	0.0502730	0.21831254	2.7315989	21	1 1.5	20.9
451812 2013 HK_{56}	17.0	X	47.09465	95.25035	339.28440	5.68117	0.0148047	0.21296874	2.7771040	21	—	—
451813 2013 HH_{61}	17.6	X	94.22283	225.59571	234.89320	4.78420	0.1130639	0.24092196	2.5579092	21	3 20.9	20.8
451814 2013 HM_{61}	17.1	X	86.06315	188.81911	228.31201	5.51709	0.0496051	0.22042554	2.7141141	21	1 7.9	20.6
451815 2013 HO_{61}	17.1	X	121.53008	114.44157	247.38996	3.39723	0.0873736	0.21132380	2.7914966	21	—	—
451816 2013 HL_{67}	16.7	X	338.94792	184.30577	224.10533	9.43980	0.0308240	0.18094146	3.0958316	21	11 14.1	20.7
451817 2013 HZ_{88}	17.1	X	260.64967	331.07348	266.30867	1.77836	0.0481419	0.21717832	2.7411012	21	—	—
451818 2013 HW_{90}	17.5	X	124.40545	148.32431	214.85457	5.45725	0.1715472	0.21248097	2.7813524	21	1 9.0	21.4
451819 2013 HR_{95}	16.6	X	165.54753	31.68990	202.63560	13.83450	0.0791435	0.18389669	3.0625753	21	11 28.1	21.4
451820 2013 HJ_{104}	17.5	X	94.33916	60.84962	25.64300	6.04559	0.0634584	0.23392231	2.6086849	21	2 28.7	20.8
451821 2013 HK_{115}	17.5	X	82.47847	348.59891	46.69686	1.00717	0.0758185	0.21002887	2.8029588	21	—	—
451822 2013 HY_{116}	17.0	X	76.48609	264.73928	60.85319	2.21780	0.1639218	0.17889306	3.1194190	21	12 21.0	21.8
451823 2013 HL_{117}	17.2	X	96.31515	182.20087	173.28431	2.02614	0.1024222	0.19884993	2.9070495	21	—	—
451824 2013 HL_{119}	17.9	X	18.00779	316.58091	173.22253	2.93944	0.0430546	0.22120718	2.7077168	21	1 6.2	21.2
451825 2013 HA_{122}	17.4	X	104.11051	310.51731	79.60437	1.41761	0.0766088	0.21492349	2.7602396	21	1 3.8	21.0
451826 2013 HL_{131}	17.3	X	195.07881	82.27989	242.20702	4.09266	0.0471689	0.22308828	2.6924741	21	1 24.5	21.3
451827 2013 HY_{132}	17.0	X	319.31385	150.05094	21.57584	10.65815	0.0663878	0.21580332	2.7527322	21	—	—
451828 2013 HC_{150}	17.1	X	197.78985	314.95909	348.52712	1.68052	0.0695955	0.21592830	2.7516700	21	1 5.6	21.3
451829 2013 JG_5	15.3	X	160.65676	11.88349	230.79041	27.07998	0.1029191	0.17915488	3.1163791	21	11 30.4	20.3
451830 2013 JC_8	15.7	X	109.97808	229.98002	67.01411	10.34175	0.0966252	0.17663892	3.1459015	21	12 13.9	20.4
451831 2013 JB_9	15.8	X	143.31147	181.28150	75.47977	8.83904	0.1331274	0.17755130	3.1351150	21	12 1.4	20.9
451832 2013 JU_{11}	16.1	X	83.67560	302.46075	44.29297	13.94430	0.0873641	0.18778569	3.0201445	21	—	—
451833 2013 JF_{13}	16.1	X	47.87092	286.51379	91.52341	9.85293	0.0391366	0.18389552	3.0625883	21	—	—
451834 2013 JO_{18}	16.7	X	331.26905	95.35685	56.09603	9.53978	0.0861374	0.20858858	2.8158469	21	—	—
451835 2013 JL_{20}	17.0	X	24.59350	341.39240	182.18456	12.45790	0.2780928	0.23560015	2.5962849	21	2 15.1	18.8
451836 2013 JW_{29}	16.7	X	38.24348	302.09501	211.98087	12.60484	0.1506411	0.23738874	2.5832274	21	3 4.1	19.5
451837 2013 JV_{32}	16.8	X	348.79476	26.78023	134.12919	11.29983	0.1622485	0.21559545	2.7545013	21	—	—
451838 2013 JL_{36}	16.0	X	103.63421	163.84740	123.68955	14.75711	0.0951351	0.18307776	3.0717014	21	12 1.2	20.9
451839 2013 JT_{40}	16.0	X	176.23995	154.63672	78.87393	19.57062	0.1745839	0.18034720	3.1026285	21	12 3.6	21.1
451840 2013 JM_{41}	16.1	X	60.31355	257.98736	94.36988	17.28898	0.0875649	0.17714252	3.1399363	21	12 25.3	20.5

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
451841 2013 KR_2	16.4	X	46.47732	132.99889	46.47447	5.01685	0.1774775	0.24222764	2.5487090	21	5 4.8	18.9
451842 2013 KV_9	16.4	X	219.60064	345.35923	221.46809	9.48564	0.0917192	0.18595018	3.0399865	21	12 19.8	21.0
451843 2013 KD_{11}	16.4	X	330.75326	320.15076	229.97174	13.19627	0.1363159	0.21974641	2.7197033	21	1 4.2	20.2
451844 2013 KL_{14}	17.0	X	341.36976	315.37237	225.46853	10.28429	0.1285356	0.22029392	2.7151951	21	1 8.3	20.5
451845 2013 LW_3	16.0	X	72.37367	295.89725	64.77298	10.36114	0.0997025	0.18405194	3.0608528	21	—	—
451846 2013 LK_5	16.0	X	94.90208	245.38928	72.59962	16.12297	0.1400717	0.17427888	3.1742384	21	12 26.4	21.0
451847 2013 LQ_{10}	15.8	X	222.28907	24.84809	202.50417	10.10561	0.0594409	0.19103612	2.9857886	21	—	—
451848 2013 LG_{18}	17.3	X	330.24790	316.86049	215.43103	8.30836	0.1933480	0.21541343	2.7560528	21	—	—
451849 2013 MD_2	16.3	X	198.87319	6.79060	203.32390	11.58422	0.0837783	0.17681075	3.1438629	21	12 2.1	21.1
451850 2014 AT_{32}	17.4	X	286.83457	266.14775	269.87212	18.72228	0.0911348	0.38597342	1.8682333	21	—	—
451851 2014 BK_{38}	17.5	X	354.13635	290.14132	325.33066	8.80554	0.1624375	0.29500126	2.2348762	21	4 25.9	19.6
451852 2014 CE_9	17.4	X	111.64697	174.04468	132.53525	24.76721	0.0787116	0.36932547	1.9239622	21	—	—
451853 2014 DF_{11}	17.6	X	300.19412	280.38359	176.08054	23.10593	0.1133665	0.36250442	1.9480219	21	—	—
451854 2014 DR_{50}	16.4	X	85.35000	153.02022	149.75578	10.05778	0.1527131	0.20922744	2.8101120	21	12 8.3	20.8
451855 2014 DD_{74}	17.6	X	332.90413	233.05988	73.65327	7.20122	0.1919519	0.29922323	2.2138040	21	6 5.9	18.9
451856 2014 DM_{110}	17.7	X	292.68087	129.31088	164.85873	5.34297	0.1946603	0.27525678	2.3405111	21	3 16.6	21.0
451857 2014 FM	18.5	X	340.73581	107.54875	28.50191	21.00811	0.0587465	0.38493759	1.8715833	21	—	—
451858 2014 FB_{56}	18.2	X	331.20535	158.84719	122.45116	6.47161	0.1550998	0.28060434	2.3106799	21	5 2.6	20.5
451859 2014 FD_{68}	17.1	X	320.18358	268.58886	11.71804	11.14629	0.1843012	0.27756744	2.3275037	21	4 3.7	19.7
451860 2014 GY_{11}	17.5	X	322.50770	243.00493	46.79275	6.47641	0.1807191	0.28731391	2.2745646	21	4 22.5	19.8
451861 2014 GM_{17}	18.3	X	65.06560	163.07803	207.25992	22.97960	0.1173554	0.35987735	1.9574907	21	—	—
451862 2014 GN_{38}	17.9	X	283.16280	84.19629	229.65753	5.36329	0.1384594	0.27808839	2.3245960	21	4 5.9	21.2
451863 2014 HX_1	16.9	X	181.90781	221.44834	49.26409	16.38651	0.2846868	0.21971723	2.7199441	21	—	—
451864 2014 HZ_2	18.1	X	332.72897	53.80450	73.18732	23.47292	0.0699385	0.36839853	1.9271882	21	—	—
451865 2014 HB_{14}	17.9	X	269.80507	331.87636	38.41867	6.72114	0.1012675	0.29822439	2.2187444	21	6 12.8	20.7
451866 2014 HE_{15}	18.0	X	275.60700	78.55649	209.02748	4.12205	0.2302246	0.26179918	2.4200473	21	2 14.7	22.0
451867 2014 HP_{17}	17.7	X	2.26966	279.92250	21.02379	6.02009	0.2023773	0.30058000	2.2071372	21	8 21.0	18.9
451868 2014 HU_{19}	16.9	X	167.53566	358.46329	300.77009	1.20134	0.1904226	0.22567651	2.6718484	21	—	—
451869 2014 HV_{21}	18.6	X	343.54613	340.68901	309.88318	0.90762	0.1300831	0.29206067	2.2498522	21	6 11.2	20.4
451870 2014 HK_{23}	18.2	X	18.95399	166.26066	97.07709	2.31449	0.1697304	0.29803129	2.2197027	21	7 18.5	19.5
451871 2014 HP_{32}	17.8	X	287.76151	206.40697	111.80609	3.99975	0.2003548	0.27681360	2.3317274	21	4 12.7	21.0
451872 2014 HS_{33}	17.4	X	229.28032	193.57939	88.84906	6.73898	0.2096500	0.24186875	2.5512296	21	1 6.9	21.6
451873 2014 HS_{37}	17.3	X	282.15792	208.19511	72.25957	11.08416	0.1900837	0.26176679	2.4202470	21	2 22.5	21.1
451874 2014 HH_{41}	18.0	X	8.52862	82.19887	170.77043	4.18125	0.2190358	0.28587568	2.2821871	21	6 3.3	19.2
451875 2014 HS_{41}	17.9	X	300.62407	221.79601	20.62799	2.19667	0.1711371	0.25689496	2.4507499	21	1 23.8	21.4
451876 2014 HR_{44}	17.0	X	207.83045	101.16399	202.35980	16.12814	0.2583875	0.24122691	2.5557530	21	1 12.6	21.9
451877 2014 HF_{45}	17.6	X	305.00319	110.38343	154.22634	1.64284	0.1674421	0.26892206	2.3771236	21	2 24.4	20.8
451878 2014 HH_{45}	18.0	X	29.18983	238.16710	44.68433	3.62354	0.1509430	0.30717080	2.1754516	21	9 12.6	19.9
451879 2014 HL_{76}	17.0	X	62.43533	117.54102	196.86606	13.07756	0.3234936	0.18545011	3.0454489	21	12 13.3	22.0
451880 2014 HD_{77}	18.2	X	265.33188	159.81496	138.72079	2.67476	0.1844970	0.26253104	2.4155477	21	2 24.3	22.0
451881 2014 HO_{103}	17.6	X	280.74595	191.75630	110.84542	3.61570	0.2004414	0.26824476	2.3811233	21	3 15.9	21.1
451882 2014 HF_{186}	17.7	X	340.06513	158.61958	112.68586	4.15509	0.1802847	0.28087746	2.3091818	21	4 28.8	19.7
451883 2014 HO_{188}	17.6	X	195.60210	274.42706	71.17498	2.63246	0.1928118	0.25463132	2.4652530	21	2 22.8	21.7
451884 2014 JD_3	18.4	X	49.11654	64.41488	203.54338	1.45206	0.1179710	0.30664987	2.1779146	21	9 15.1	20.5
451885 2014 JO_7	17.4	X	294.24526	187.72580	78.04780	5.64286	0.1326970	0.26108421	2.4244634	21	2 21.5	20.7
451886 2014 JZ_{19}	17.9	X	312.21875	192.02674	96.59551	5.73081	0.1154708	0.28059362	2.3107388	21	4 18.4	20.5
451887 2014 JT_{22}	17.4	X	222.38175	99.87118	203.76451	6.05482	0.1532901	0.24145824	2.5541204	21	1 24.9	21.7
451888 2014 JU_{30}	18.6	X	18.16498	286.40402	198.00759	20.96914	0.1042179	0.38669817	1.8658983	21	—	—
451889 2014 JO_{36}	18.3	X	11.09413	201.78378	74.15096	1.21769	0.1775816	0.29258371	2.2471701	21	7 22.3	19.7
451890 2014 JP_{36}	17.8	X	313.91952	68.80978	195.68216	2.00197	0.1815582	0.26741679	2.3860357	21	3 5.2	20.9
451891 2014 JB_{37}	18.1	X	19.60023	143.50661	107.81519	3.28806	0.1636975	0.28956144	2.2627795	21	6 27.4	19.5
451892 2014 JS_{39}	17.9	X	74.23147	150.34290	78.62235	8.16958	0.0667904	0.30261648	2.1972240	21	8 20.6	20.5
451893 2014 JU_{41}	17.4	X	202.62100	222.20208	56.19234	4.62676	0.2775542	0.22563483	2.6721774	21	—	—
451894 2014 JU_{43}	17.8	X	335.44534	184.28378	98.02063	7.73216	0.1058085	0.28056260	2.3109091	21	5 18.7	20.1
451895 2014 JG_{52}	17.8	X	305.73003	55.83351	235.67512	0.77150	0.1814164	0.27152711	2.3618950	21	3 30.9	20.6
451896 2014 JN_{54}	17.0	X	265.32489	284.88796	66.30012	24.67315	0.3105400	0.27759075	2.3273734	21	4 28.4	21.1
451897 2014 JP_{55}	17.7	X	58.56878	210.22811	210.31651	21.39382	0.0900891	0.37412529	1.9074713	21	—	—
451898 2014 JY_{62}	17.0	X	189.62957	193.83191	131.80905	12.96829	0.2282472	0.23814991	2.5777202	21	1 27.1	21.2
451899 2014 JM_{65}	17.4	X	164.07145	176.39311	129.90491	3.93818	0.1846409	0.22248036	2.6973767	21	—	—
451900 2014 JD_{66}	17.2	X	289.79141	220.94876	85.67372	7.96355	0.1155848	0.27303542	2.3531885	21	4 14.1	20.3
451901 2014 JG_{73}	18.2	X	80.37183	115.48087	116.42343	1.79767	0.0958477	0.30521120	2.1847533	21	9 4.9	20.6
451902 2014 JZ_{75}	18.1	X	72.05949	36.74139	218.01214	2.13546	0.1135790	0.30951096	2.1644723	21	9 28.5	20.6
451903 2014 JS_{77}	18.2	X	300.68492	117.11584	175.63411	2.50312	0.1147036	0.27347658	2.3506571	21	4 5.8	21.2
451904 2014 KF_6	17.7	X	265.38063	239.24902	79.61370	2.26430	0.1951830	0.26825593	2.3810572	21	3 21.2	21.2
451905 2014 KE_8	18.0	X	290.48571	110.09875	169.51657	1.41534	0.1773384	0.26494601	2.4008468	21	2 26.1	21.2
451906 2014 KV_8	17.9	X	222.12768	10.35351	29.05767	7.52541	0.1211451	0.28634921	2.2796704	21	5 23.3	21.3
451907 2014 KO_{18}	17.4	X	211.52333	143.43724	181.45562	5.19568	0.2130563	0.24321139	2.5418316	21	2 10.3	21.8
451908 2014 KU_{21}	17.9	X	265.50096	109.19305	98.02929	23.25268	0.0603306	0.36868695	1.9261830	21	—	—
451909 2014 KW_{24}	16.7	X	208.56453	236.61283	61.64950	28.75733	0.2244218	0.23408669	2.6074635	21	1 9.8	21.6
451910 2014 KG_{26}	17.8	X	211.37254	241.68125	99.97732	6.66003	0.1451950	0.25271056	2.4777289	21	3 5.0	21.8
451911 2014 KQ_{27}	17.5	X	314.60118	70.41454	194.09931	14.55122	0.2147559	0.26766670	2.3845503	21	2 26.3	20.7
451912 2014 KQ_{33}	17.6	X	305.23553	226.25452	93.88785	10.33357	0.1496767	0.28656659	2.2785174	21	5 17.6	20.2
451913 2014 KY_{33}	16.6	X	123.75244	190.16128	132.96509	14.92314	0.1992877	0.21310619	2.7759098	21	—	—
451914 2014 KU_{38}	16.8	X	163.76515	219.87585	87.10850	14.42755	0.3267370	0.22191098	2.7019886	21	—	—
451915 2014 KV_{53}	16.7	X	146.99766	179.09020	136.61648	5.89020	0.1631906	0.21573343	2.7533267	21	—	—
451916 2014 KE_{55}	18.3	X	249.98038	97.67116	202.55137	1.81315	0.1852185	0.25309065	2.4752476	21	2 12.5	22.3
451917 2014 KZ_{61}	16.1	X	127.92375	246.88611	72.36039	19.56724	0.2291534	0.19800757	2.9152884	21	—	—
451918 2014 KM_{64}	18.1	X	354.26004	0.16083	243.46990	1.57501	0.1698904	0.27425144	2.3462274	21	4 13.7	20.1
451919 2014 KY_{65}	17.8	X	313.94800	161.43092	107.01310	2.20493	0.1508037	0.26664782	2.3906208	21	3 17.4	20.5
451920 2014 KD_{75}	17.5	X	291.85884	224.25397	79.84093	3.87776	0.1892754	0.26767823	2.3844818	21	4 1.1	20.7

Planet	H	G	M	ω	Ω	i	e	μ	a	TE	Oppos.	V
	m		°	°	°	°		°				
451921 2014 KF_{76}	17.4	X	241.05806	198.86276	83.31236	22.14071	0.0715177	0.38157431	1.8825649	21	—	—
451922 2014 KJ_{80}	17.8	X	47.43930	158.99863	56.49533	5.88817	0.2040759	0.28910075	2.2651827	21	7 6.1	19.7
451923 2014 KK_{81}	17.5	X	50.04823	173.67113	64.79447	7.24231	0.0464087	0.29498418	2.2349624	21	7 21.8	20.0
451924 2014 KP_{85}	17.7	X	286.77744	219.02879	63.23535	3.20114	0.1986944	0.26064624	2.4271787	21	2 25.3	21.2
451925 2014 KK_{89}	17.1	X	186.76849	72.64410	228.53239	11.54083	0.1518713	0.22613519	2.6682342	21	—	—
451926 2014 KP_{90}	16.0	X	65.55222	96.01249	238.19484	9.67642	0.1904751	0.17448662	3.1717185	21	12 21.8	20.8
451927 2014 KX_{93}	17.0	X	162.00172	206.97340	88.44328	5.47001	0.1857236	0.21288165	2.7778613	21	—	—
451928 2014 LO_{4}	17.4	X	259.66908	92.46966	223.95961	6.86907	0.1480679	0.26165662	2.4209263	21	3 13.5	21.1
451929 2014 LF_{12}	17.7	X	91.60683	297.52712	264.07522	3.42282	0.1048338	0.29782230	2.2207410	21	8 5.8	20.3
451930 2014 LC_{18}	17.3	X	198.00451	253.69225	86.32955	12.96271	0.1862045	0.24383802	2.5374750	21	2 22.8	21.7
451931 2014 LR_{18}	17.5	X	359.81826	164.22181	63.72113	6.34482	0.1164340	0.27585849	2.3371064	21	4 9.7	19.7
451932 2014 LX_{18}	17.1	X	21.41695	213.63956	60.04850	6.81081	0.0900446	0.29912891	2.2142694	21	8 4.0	19.2
451933 2014 LC_{23}	17.4	X	299.65869	68.84449	182.40633	7.81094	0.0975730	0.25362563	2.4717656	21	2 10.9	20.8
451934 2014 LQ_{23}	17.8	X	70.93963	108.53645	127.30046	6.14398	0.0397623	0.29916948	2.2140692	21	8 18.1	20.2
451935 2014 LD_{24}	16.8	X	249.02887	263.29366	24.83415	8.94876	0.1531657	0.23823590	2.5770999	21	2 4.9	21.0
451936 2014 LN_{27}	17.0	X	113.68264	187.85104	216.90963	28.12992	0.0921016	0.24152309	2.5536632	21	1 22.7	21.1
451937 2014 LA_{28}	17.3	X	347.19794	316.93220	290.48007	4.92431	0.2056784	0.27487895	2.3426553	21	3 27.3	19.3
451938 2014 MF	16.8	X	237.59340	90.59207	196.05679	11.03843	0.1837750	0.23790851	2.5794636	21	1 17.2	21.2
451939 2014 MQ_{1}	17.5	X	70.99210	152.25207	78.10932	6.47541	0.0935613	0.29756073	2.2220422	21	8 21.4	20.1
451940 2014 MX_{6}	17.0	X	199.99350	110.88154	185.75648	14.51954	0.2387383	0.22608484	2.6686304	21	1 2.3	21.9
451941 2014 MH_{7}	17.6	X	271.22773	222.06091	70.29159	2.60509	0.1323827	0.25808125	2.4432341	21	2 28.9	21.0
451942 2014 MQ_{8}	16.3	X	184.07248	36.75293	237.45808	14.25230	0.1111280	0.20404773	2.8574690	21	—	—
451943 2014 MR_{13}	17.5	X	359.10926	110.93847	122.49404	7.27956	0.1318104	0.26078435	2.4263216	21	4 18.9	19.9
451944 2014 MY_{13}	17.4	X	194.60309	79.60965	210.19949	10.31237	0.1753182	0.22323938	2.6912591	21	—	—
451945 2014 MU_{14}	16.5	X	190.71028	225.91773	129.47232	16.61613	0.1665726	0.24421850	2.5348388	21	3 4.7	20.7
451946 2014 MW_{19}	17.2	X	332.54827	163.05798	94.17286	2.45324	0.1473194	0.26003821	2.4309607	21	4 1.1	19.8
451947 2014 MR_{24}	16.5	X	161.86218	353.09208	294.36306	6.28578	0.1006039	0.20159694	2.8805810	21	—	—
451948 2014 MF_{26}	16.8	X	153.72523	176.24450	105.42420	7.89053	0.1901065	0.19715268	2.9237097	21	—	—
451949 2014 MH_{26}	16.8	X	214.29856	215.24598	70.39728	9.55592	0.0659374	0.22090340	2.7101986	21	—	—
451950 2014 MZ_{27}	16.8	X	173.59420	107.99179	269.08837	4.14899	0.1688336	0.24151234	2.5537390	21	3 10.8	20.9
451951 2014 MH_{31}	16.2	X	16.18563	102.58982	231.78732	10.14504	0.0724204	0.17386138	3.1793179	21	10 1.5	20.6
451952 2014 MS_{37}	16.0	X	37.50426	254.02111	123.25625	16.69091	0.1019885	0.17521726	3.1628951	21	12 29.6	20.5
451953 2014 MZ_{40}	15.9	X	43.86628	23.86498	334.16505	9.83685	0.0706675	0.17898292	3.1183749	21	12 9.4	20.4
451954 2014 ML_{43}	15.8	X	124.14560	44.67933	272.20585	9.31037	0.0671130	0.18499361	3.0504569	21	—	—
451955 2014 MR_{46}	16.4	X	111.40647	204.56602	238.21140	13.08016	0.0363290	0.23767477	2.5811545	21	3 5.4	20.2
451956 2014 MG_{52}	16.1	X	323.66190	240.46414	268.99837	13.84529	0.0963653	0.20348058	2.8627763	21	—	—
451957 2014 MR_{53}	15.6	X	19.98282	244.82649	130.84714	26.95902	0.2015300	0.17060613	3.2196325	21	12 20.2	20.0
451958 2014 MB_{58}	15.8	X	314.60328	98.77388	354.53929	9.00411	0.0637292	0.17811788	3.1284631	21	12 3.2	20.0
451959 2014 MN_{59}	16.4	X	130.23058	49.66860	244.79114	10.72914	0.0438776	0.18449660	3.0559329	21	12 29.9	21.0
451960 2014 MR_{59}	15.8	X	232.60223	285.64236	260.70392	9.54820	0.1368211	0.18601524	3.0392776	21	12 4.6	20.2
451961 2014 MS_{60}	17.8	X	13.47618	43.72533	189.70431	2.60692	0.1901315	0.26850567	2.3795806	21	5 13.9	19.5
451962 2014 MO_{61}	15.6	X	155.80424	0.27499	285.27418	10.78568	0.0285748	0.19424230	2.9528418	21	—	—
451963 2014 MR_{61}	17.1	X	192.35091	174.86879	123.15424	9.01986	0.0226184	0.21314530	2.7755701	21	—	—
451964 2014 NR_{3}	16.7	X	129.75669	211.15985	134.63669	9.01792	0.2272331	0.21386344	2.7693532	21	1 1.7	20.8
451965 2014 NS_{9}	17.3	X	103.52014	256.62381	108.02892	3.15790	0.1022159	0.20556608	2.8433812	21	—	—
451966 2014 NC_{16}	15.8	X	21.44321	96.69293	279.69002	14.86590	0.1033079	0.16903400	3.2395647	21	12 5.4	20.1
451967 2014 NV_{20}	16.0	X	88.47949	296.67707	156.48761	22.06505	0.0694941	0.23489731	2.6014612	21	2 27.7	19.1
451968 2014 NP_{21}	16.0	X	56.99028	140.02444	233.97491	15.41193	0.1320399	0.18479028	3.0526942	21	—	—
451969 2014 NS_{22}	15.4	X	85.86175	61.79869	285.48643	20.08450	0.0601009	0.19305303	2.9649563	21	—	—
451970 2014 NF_{24}	17.0	X	71.37586	220.87241	268.07409	14.07712	0.0550081	0.24481906	2.5306917	21	3 10.9	20.5
451971 2014 NT_{26}	16.9	X	212.49937	16.21628	248.03812	3.35498	0.0201907	0.21169414	2.7882400	21	—	—
451972 2014 NM_{28}	16.0	X	125.02423	10.20503	280.36198	10.16369	0.0636409	0.18669455	3.0319005	21	12 22.2	20.4
451973 2014 NF_{29}	17.2	X	69.00498	234.56637	136.99844	4.84347	0.1352008	0.19025542	2.9939510	21	—	—
451974 2014 NO_{30}	16.7	X	15.99234	255.29965	154.96032	10.31724	0.1707946	0.18161934	3.0881234	21	—	—
451975 2014 NP_{34}	15.6	X	94.00339	296.22619	27.76524	9.66393	0.0789960	0.18225450	3.0809445	21	12 29.2	20.3
451976 2014 NU_{35}	16.0	X	60.26784	330.80831	64.69039	13.05693	0.0881315	0.19086771	2.9875446	21	—	—
451977 2014 NT_{39}	16.8	X	254.65290	358.62072	260.54649	3.45940	0.1255157	0.22519225	2.6756774	21	1 6.4	20.8
451978 2014 NN_{42}	16.8	X	21.70433	305.20733	249.22998	13.73214	0.0705520	0.24700599	2.5157321	21	3 27.6	20.0
451979 2014 NY_{43}	16.5	X	128.92284	60.32182	242.72525	11.77285	0.1064935	0.18719793	3.0264630	21	—	—
451980 2014 NT_{44}	16.3	X	10.14340	196.38990	229.02863	8.95603	0.0645704	0.18477308	3.0528836	21	—	—
451981 2014 NS_{49}	16.2	X	48.04642	190.80486	206.80640	10.28045	0.0068502	0.19130681	2.9829715	21	—	—
451982 2014 NN_{55}	15.6	X	302.34270	140.33392	351.30006	10.71207	0.0915430	0.18567929	3.0429424	21	—	—
451983 2014 NS_{56}	15.4	X	231.15484	71.55588	110.30934	16.74615	0.0412641	0.17713594	3.1400141	21	12 10.6	20.1
451984 2014 NP_{58}	16.2	X	114.39505	216.92775	78.25759	12.62523	0.0693498	0.17768839	3.1335022	21	12 14.9	20.8
451985 2014 NS_{60}	17.2	X	225.19973	228.85302	104.02091	5.09744	0.1540844	0.23388366	2.6089723	21	3 8.3	21.4
451986 2014 NC_{62}	17.1	X	235.56278	188.88670	78.16569	3.35658	0.1265954	0.22621140	2.6676349	21	—	—
451987 2014 NL_{62}	17.2	X	265.08950	167.84073	80.02279	10.34506	0.1345410	0.23149278	2.6269053	21	1 1.5	21.2
451988 2014 NM_{62}	16.4	X	84.30550	264.35737	66.63889	9.56576	0.1547413	0.18512594	3.0490031	21	—	—
451989 2014 NR_{62}	17.0	X	160.95427	253.29645	60.20782	5.29575	0.2104652	0.21025428	2.8009551	21	—	—
451990 2014 OU_{12}	16.7	X	155.52303	246.74355	110.93130	5.40069	0.0984620	0.22186292	2.7023789	21	1 27.5	20.5
451991 2014 OX_{13}	15.3	X	243.33717	298.65176	100.18378	3.06392	0.2157361	0.12416127	3.9793483	21	6 11.8	21.5
451992 2014 OX_{14}	17.2	X	193.07038	108.92457	153.91211	2.52694	0.0203538	0.20305279	2.8667957	21	—	—
451993 2014 OZ_{19}	17.7	X	351.30729	303.77417	244.58877	1.78469	0.0871885	0.23844404	2.5755999	21	2 4.6	20.9
451994 2014 OH_{20}	16.7	X	104.11338	140.22341	130.33669	5.94398	0.1676301	0.17369484	3.1813499	21	11 15.3	21.8
451995 2014 OM_{26}	16.6	X	344.18234	116.32234	311.96346	7.81200	0.0424004	0.18234905	3.0798794	21	12 15.6	20.8
451996 2014 OG_{30}	16.5	X	40.45936	264.21268	113.49453	11.59488	0.1623402	0.18028769	3.1033112	21	—	—
451997 2014 OR_{35}	15.5	X	348.60281	299.79706	115.72872	10.50920	0.0706653	0.17746098	3.1361786	21	12 7.7	19.7
451998 2014 OH_{37}	17.4	X	342.17426	270.32715	308.37149	4.34559	0.0697697	0.24528570	2.5274810	21	3 3.9	20.5
451999 2014 OA_{39}	16.4	X	111.74753	327.92383	334.21167	4.89590	0.0456782	0.18392255	3.0622882	21	12 19.8	21.0
452000 2014 OQ_{45}	17.2	X	31.30410	261.86797	131.10433	3.57301	0.0963116	0.18459465	3.0548506	21	—	—