

[Printer-friendly version](#)



Minor Planet Center

Search MPC



58

MPC Operations Status

Processing ([Info](#))
 ECS: Accessible

[MPC Status Page](#)

Observer Services (NEOs)

- [NEO Services Overview](#)
- [NEO Confirmation](#)
- [NEO Confirmation \(RA order\)](#)
- [NEO Ratings](#)
- [NEO Page](#)
- [NEO Observation Planning Aid](#)
- [NEOChecker](#)
- [NEOCMChecker](#)
- [NEOCP Blog](#)

Observer Services

- [Services Overview](#)
- [Minor Planet & Comet Ephem.](#)
- [Natural Satellite Ephemerides](#)
- [New Object Ephemerides](#)
- [MPCChecker](#)
- [CMTChecker](#)
- [Distant Artificial Satellites](#)
- [Observing List Customizer](#)
- [Sky Coverage](#)

Databases

- [MPC Database](#)
- [Light Curve Database](#)
- Orbital Elements**
- [Orbital Elements Overview](#)
- [MPCORB](#)
- [Orbital Elements for Programs](#)
- [MPCAT](#)
- [MPCUPDATE](#)

Astrometric Observations

- [MPCAT-OBS](#)
- [MPCOBS](#)
- Publications**
- [Publications Overview](#)
- [MPECs](#)
- [MPC Archive](#)
- [MPC RSS Feeds](#)
- [CBAT RSS Feeds](#)

Documentation

- [Documentation Overview](#)
- [Tech Info](#)
- [Minor Body Astrometry](#)
- [What's New](#)

Lists and Plots

- [Lists and Plots Overview](#)
- [Critical-List Minor Planets](#)

MPEC 2012-M02 : DAILY ORBIT UPDATE (2012 JUNE 16 UT)

The following [Minor Planet Electronic Circular](#) may be linked-to from your own Web pages, but must not otherwise be [redistributed electronically](#).

A form allowing access to any MPEC is at [the bottom of this page](#).



M.P.E.C. 2012-M02

Issued 2012 June 16, 06:02 UT

The Minor Planet Electronic Circulars contain information on unusual minor planets and routine data on comets. They are published on behalf of Commission 20 of the International Astronomical Union by the Minor Planet Center, Smithsonian Astrophysical Observatory, Cambridge, MA 02138, U.S.A.

Prepared using the [Tamkin Foundation Computer Network](#)

MPC@CFA.HARVARD.EDU

URL <http://www.minorplanetcenter.net/>

ISSN 1523-6714

DAILY ORBIT UPDATE (2012 JUNE 16 UT)

Update to [MPEC 2012-L41](#)

Full-precision elements for the objects listed here are available at <http://www.minorplanetcenter.org/iau/MPCORB.html>

New identification:

K02RQ9K	K10G67Y	K12K47P	MPCW
K04J31Q	K12G40M		MPCW
K05G69H	K12H84F		MPCW
K05K12D	K12F80R		MPCW
K08D39O	K12L08Z		MPCW
K09O17V	K12L08S		MPCW
K12J24D	K08E53F	K10B33J	MPCW

New multiple-opposition orbits:

Object	H	G	Epoch	M	Peri.	Node	Incl.	e	a	Opp	C
J91T16B	17.5	0.15	K123E	235.750	5.802	34.346	2.670	0.21913	2.35107	5	X
J95Q16D	18.1	0.15	K123E	339.287	10.490	272.054	5.486	0.13859	2.26577	5	X
J95S47S	16.8	0.15	K123E	226.994	36.763	19.931	6.078	0.24573	2.69767	5	X
J98H00N	18.6	0.15	K123E	3.095	28.195	181.083	6.935	0.18072	2.28836	3	X
J98S49Y	14.8	0.15	K123E	271.267	335.854	14.359	0.626	0.26998	3.93161	6	X
J98S53J	18.2	0.15	K123E	226.980	19.897	24.402	1.759	0.19022	2.37711	4	X
J98V43M	17.7	0.15	K123E	220.397	316.943	92.521	1.665	0.11528	2.39097	7	X
J98V56Q	16.2	0.15	K123E	187.233	157.804	229.137	12.354	0.23983	2.44641	4	X
J98W30A	16.6	0.15	K123E	212.453	151.871	234.022	10.960	0.10714	3.01635	5	X
J98X02N	19.5	0.15	K123E	262.163	126.341	255.769	1.779	0.54170	1.99943	2	X
J98Y19M	18.0	0.15	K123E	256.269	297.383	90.781	2.952	0.25180	2.39606	3	X
J99RM1Y	17.3	0.15	K123E	305.506	53.492	278.863	4.230	0.25850	2.21157	4	X
J99TH0R	15.8	0.15	K123E	319.647	78.204	204.007	12.598	0.19214	2.79141	4	X
J99TX2Q	16.8	0.15	K123E	195.301	71.654	4.408	4.086	0.09892	2.79332	6	X
K00AC6K	15.6	0.15	K123E	66.795	240.798	286.121	14.110	0.32421	3.08918	3	X
K00AM3U	15.6	0.15	K123E	23.120	79.642	127.333	22.926	0.05851	3.06511	5	X
K00C19U	15.8	0.15	K123E	95.102	334.688	144.578	21.465	0.25915	3.07078	4	X
K00F10B	18.0	0.15	K123E	87.822	133.556	20.795	4.671	0.17788	2.42205	4	X
K00L29W	16.0	0.15	K123E	311.851	227.371	87.863	17.068	0.08744	3.21280	5	X
K00R53D	20.1	0.15	K123E	286.181	192.698	176.017	9.281	0.42779	1.78706	2	X
K00S47X	16.4	0.15	K123E	279.956	132.422	208.295	11.680	0.28956	2.58468	3	X

Minor Planets	K00S91O	16.4	0.15	K123E	274.667	135.279	214.108	12.915	0.20753	2.58600	5	X
Comets	K00SE3O	16.2	0.15	K123E	223.455	153.567	227.739	9.486	0.09818	2.64940	7	X
Animations	K00SU2N	16.4	0.15	K123E	328.222	25.408	280.341	5.735	0.19512	2.56126	5	X
General	K00SU2W	16.8	0.15	K123E	284.942	80.148	273.389	3.220	0.21999	2.58310	6	X
MPC Blog	K00SW6G	17.4	0.15	K123E	191.297	59.988	13.295	3.235	0.05505	2.63526	6	X
Contact Us	K00SY0O	17.0	0.15	K123E	273.003	199.105	136.889	4.624	0.19319	2.60759	4	X
Index	K00SZ7H	16.6	0.15	K123E	215.799	336.012	84.431	12.864	0.26113	2.63870	5	X
Site Map	K00T00P	16.4	0.15	K123E	272.021	285.462	46.342	13.272	0.29424	2.63188	3	X
Links	K00T20Q	15.9	0.15	K123E	267.358	278.793	56.323	12.909	0.20302	2.63834	5	X
Minor Planet Center	K00U03Q	17.5	0.15	K123E	253.261	8.387	30.688	4.716	0.29978	2.60355	4	X
Central Bureau for Astro. Tel.	K00U59E	16.6	0.15	K123E	226.222	130.249	242.689	6.466	0.20876	2.68199	4	X
Cometary Science Archive	K00U74X	17.1	0.15	K123E	272.080	341.530	26.516	5.003	0.23890	2.59979	3	X
Smithsonian Astro. Obs.	K00X54E	17.5	0.15	K123E	166.959	329.984	89.579	5.366	0.08436	2.20933	4	X
	K00Y29E	16.7	0.15	K123E	52.784	48.651	109.181	14.394	0.52098	2.96960	5	X
	K01A49R	16.5	0.15	K123E	348.704	349.361	284.726	10.321	0.04422	2.78339	4	X
	K01B02T	16.7	0.15	K123E	38.074	49.016	111.263	24.977	0.24612	2.31641	3	X
	K01B06J	14.9	0.15	K123E	312.799	98.658	273.934	16.379	0.31349	2.58393	6	X
	K01C47X	15.7	0.15	K123E	173.742	123.912	330.281	6.496	0.27762	2.74853	4	X
	K01F01S	17.7	0.15	K123E	39.008	117.315	76.836	9.454	0.18099	2.30703	5	X
	K01K79C	17.6	0.15	K123E	269.318	293.419	73.404	5.222	0.19732	2.43849	5	X
	K01L05U	17.8	0.15	K123E	317.096	37.631	280.251	16.102	0.39819	2.38315	2	K
	K01M22E	15.8	0.15	K123E	332.093	1.235	293.119	14.357	0.23594	3.16567	4	X
	K01O47R	16.5	0.15	K123E	305.293	34.383	293.994	7.209	0.30428	2.39689	5	X
	K01P10F	17.5	0.15	K123E	290.898	63.014	280.132	1.099	0.22636	2.39760	6	X
	K01P53O	17.9	0.15	K123E	294.311	262.919	76.608	5.681	0.24505	2.40044	4	X
	K01QI7W	14.8	0.15	K123E	286.836	104.957	273.379	11.942	0.29998	3.19470	5	X
	K01QM8V	16.6	0.15	K123E	270.430	103.722	260.379	7.031	0.10700	2.41923	7	X
	K01QP0N	16.9	0.15	K123E	284.658	306.530	52.493	5.715	0.25440	2.40850	4	X
	K01QQ4R	15.4	0.15	K123E	305.074	48.936	295.790	15.240	0.24000	3.18826	4	X
	K01R09G	17.7	0.15	K123E	257.722	106.121	231.406	13.757	0.27891	2.00937	3	X
	K01R19P	17.5	0.15	K123E	309.983	307.494	9.627	1.699	0.26993	2.40123	7	X
	K01R65S	14.9	0.15	K123E	297.500	106.133	244.693	6.828	0.14702	3.23772	4	X
	K01RA0J	16.8	0.15	K123E	265.695	327.582	46.723	1.865	0.20994	2.41835	6	X
	K01RC8H	16.8	0.15	K123E	251.899	296.985	93.336	3.382	0.22839	2.43568	5	X
	K01S14C	17.6	0.15	K123E	279.470	318.472	39.288	1.268	0.22383	2.42463	3	X
	K01S85X	15.8	0.15	K123E	275.147	78.598	298.737	3.881	0.18609	3.21115	5	X
	K01SE8D	17.4	0.15	K123E	282.820	57.916	300.568	3.168	0.26335	2.42201	5	X
	K01ST0L	17.0	0.15	K123E	272.205	68.978	309.470	10.008	0.28384	2.42622	4	X
	K01T53L	17.2	0.15	K123E	280.116	306.757	53.081	3.884	0.20791	2.43473	5	X
	K01TK8A	17.9	0.15	K123E	300.742	282.947	45.296	1.787	0.19121	2.43786	4	X
	K01U31R	17.5	0.15	K123E	219.033	12.690	45.646	6.427	0.22317	2.47928	5	X
	K01UH5D	16.8	0.15	K123E	233.670	299.304	104.093	3.457	0.18937	2.47423	5	X
	K01UM1T	16.9	0.15	K123E	249.561	281.715	104.621	0.962	0.12789	2.48505	7	X
	K01V80W	15.5	0.15	K123E	115.096	222.378	245.877	21.246	0.05881	2.60496	5	X
	K01W98D	16.7	0.15	K123E	103.949	234.854	238.165	8.322	0.14045	2.62219	5	X
	K01XB6K	16.8	0.15	K123E	210.246	350.354	77.226	9.575	0.30869	2.53806	4	X
	K01XL6N	15.9	0.15	K123E	173.018	210.320	247.199	9.924	0.16263	2.55391	4	X
	K01XN7B	17.1	0.15	K123E	207.489	100.638	324.347	1.932	0.24827	2.52745	4	X
	K01Y59G	15.8	0.15	K123E	276.084	66.672	287.625	3.862	0.15158	2.52071	6	X
	K01Y71M	15.5	0.15	K123E	31.988	306.591	292.052	13.486	0.02136	2.58030	6	X
	K01Y71Z	15.4	0.15	K123E	44.184	241.809	296.312	11.919	0.29889	2.74078	4	X
	K01YD1U	15.9	0.15	K123E	188.292	149.516	289.224	12.576	0.14521	2.54466	6	X
	K02A18N	16.4	0.15	K123E	191.721	283.434	133.521	25.208	0.42869	2.59452	4	X
	K02AA2Y	16.6	0.15	K123E	246.206	348.455	45.179	2.658	0.17054	2.55209	7	X
	K02AA3B	16.8	0.15	K123E	219.325	49.996	5.013	3.379	0.15847	2.57140	6	X
	K02AB4A	16.7	0.15	K123E	183.390	341.701	104.305	5.027	0.18907	2.58291	4	X
	K02AK3R	17.4	0.15	K123E	192.098	135.594	303.609	3.346	0.15986	2.57503	5	X
	K02C05T	16.1	0.15	K123E	59.797	16.429	137.586	15.002	0.11629	2.76241	4	X
	K02CB6V	16.3	0.15	K123E	175.072	141.959	311.451	8.084	0.15813	2.62023	6	X
	K02CJ9P	16.8	0.15	K123E	30.151	225.597	340.313	4.629	0.20681	2.75977	5	X
	K02CR6K	16.8	0.15	K123E	89.684	229.285	280.899	13.343	0.17441	2.69685	3	X
	K02E38S	16.9	0.15	K123E	333.103	108.489	152.621	14.888	0.09625	2.75529	4	X
	K02JA8Z	17.3	0.15	K123E	262.167	231.458	102.319	27.854	0.07729	1.82922	4	X
	K02L35D	17.1	0.15	K123E	326.647	198.867	98.580	15.543	0.50145	2.94754	3	X
	K02N58N	17.9	0.15	K123E	263.871	136.794	212.171	4.692	0.22874	2.27322	4	X
	K02N69C	16.4	0.15	K123E	248.169	97.931	290.442	9.165	0.06593	2.95284	5	X
	K02N73R	17.8	0.15	K123E	260.282	91.617	279.993	9.586	0.16795	2.24871	4	X
	K02O32J	15.7	0.15	K123E	283.890	165.395	174.302	11.564	0.13396	2.99952	4	X
	K02O34J	16.8	0.15	K123E	316.557	64.489	222.587	3.574	0.16674	3.04167	4	X
	K02O35J	16.0	0.15	K123E	31.846	287.146	297.544	8.035	0.08632	3.00387	6	X
	K02P52P	15.9	0.15	K123E	220.036	258.733	128.932	16.952	0.23964	3.12426	4	X
	K02P90H	15.3	0.15	K123E	264.352	92.792	243.631	10.537	0.26822	3.11183	4	X
	K02PA0S	16.1	0.15	K123E	251.547	237.344	135.133	14.203	0.17711	3.05096	3	X
	K02PG0C	17.8	0.15	K123E	326.434	202.623	81.613	2.294	0.19890	2.24897	6	X
	K02PG7K	15.8	0.15	K123E	228.932	248.358	136.901	12.468	0.08586	3.08410	7	X
	K02PH4R	15.8	0.15	K123E	248.282	257.244	109.344	10.105	0.14654	3.06616	4	X
	K02PI8U	15.9	0.15	K123E	30.219	274.031	320.283	9.477	0.02857	2.98247	7	X

K02Q01U	17.9	0.15	K123E	273.270	70.419	289.200	4.123	0.22478	2.25939	3 X
K02Q12C	17.9	0.15	K123E	247.265	99.365	286.825	5.198	0.19562	2.26876	5 X
K02Q34E	15.3	0.15	K123E	170.818	276.229	152.823	18.643	0.22213	3.21453	5 X
K02Q57U	15.8	0.15	K123E	240.770	222.309	152.730	14.473	0.15818	3.10380	5 X
K02Q76K	16.8	0.15	K123E	222.506	32.274	17.403	2.210	0.09340	3.02352	6 X
K02Q80F	16.2	0.15	K123E	228.252	130.169	285.726	4.782	0.19646	3.02903	6 X
K02R36K	16.0	0.15	K123E	230.975	204.207	174.438	18.221	0.19378	3.14090	4 X
K02R460	17.7	0.15	K123E	261.325	218.500	135.498	3.517	0.24577	2.29502	6 X
K02RE2E	17.6	0.15	K123E	232.049	75.130	319.989	6.283	0.12648	2.29147	4 X
K02RP8Y	16.3	0.15	K123E	185.076	110.379	336.362	3.907	0.13688	3.10907	5 X
K02RQ7P	15.6	0.15	K123E	187.725	353.459	91.155	10.990	0.08962	3.09565	6 X
K02RQ9K	16.0	0.15	K123E	250.273	199.509	154.732	26.695	0.12003	3.16877	3 W
K02RS0V	16.0	0.15	K123E	96.707	28.142	141.470	10.663	0.03308	3.02105	7 X
K02RS1Q	16.9	0.15	K123E	341.498	240.268	36.949	2.087	0.21576	3.01439	4 X
K02RT0Q	16.3	0.15	K123E	317.682	228.645	81.257	7.194	0.16005	3.00699	5 X
K02S11V	17.4	0.15	K123E	282.457	301.668	42.811	3.154	0.16905	2.28897	5 X
K02S55S	17.4	0.15	K123E	241.432	266.512	106.705	3.337	0.26096	2.32139	5 X
K02T27Q	17.2	0.15	K123E	205.215	161.232	212.889	2.426	0.20113	2.38967	4 X
K02T84N	15.4	0.15	K123E	284.335	132.112	193.428	22.206	0.10532	3.17670	4 X
K02TC1G	16.9	0.15	K123E	275.698	71.228	282.912	5.085	0.13999	2.29972	6 X
K02TC2W	15.3	0.15	K123E	265.397	75.223	299.461	10.283	0.13256	3.05761	5 X
K02TC6W	17.7	0.15	K123E	245.718	265.819	100.810	4.410	0.22545	2.30969	6 X
K02TE7Q	18.3	0.15	K123E	233.407	70.564	331.319	2.369	0.19014	2.30308	5 X
K02TF8S	15.5	0.15	K123E	236.616	224.190	159.369	16.822	0.24972	3.18034	4 X
K02TI6G	18.2	0.15	K123E	298.643	129.997	207.224	6.678	0.27476	2.26049	3 X
K02TI8J	17.3	0.15	K123E	236.817	100.936	293.779	4.447	0.16412	2.30299	6 X
K02TN3S	15.8	0.15	K123E	255.150	96.368	297.656	10.870	0.18340	3.08633	6 X
K02TV7C	16.4	0.15	K123E	265.696	74.759	297.430	9.567	0.11079	3.02477	4 X
K02TY1K	16.5	0.15	K123E	186.288	354.115	95.337	6.188	0.12634	3.15853	5 X
K02TY6W	17.1	0.15	K123E	279.328	270.239	103.489	7.030	0.21413	3.05714	3 X
K02U12D	14.9	0.15	K123E	323.984	17.381	285.129	23.292	0.20153	3.08244	4 X
K02U78Q	18.5	0.15	K123E	278.743	27.837	329.126	2.020	0.24103	2.28799	4 X
K02V30R	17.4	0.15	K123E	210.182	16.386	50.757	6.176	0.22055	2.34491	4 X
K02V53G	17.9	0.15	K123E	261.881	294.940	82.340	2.418	0.23878	2.30296	7 X
K02V69P	17.9	0.15	K123E	62.418	188.740	306.970	10.154	0.52812	2.01840	6 X
K02VC0L	15.3	0.15	K123E	300.724	58.863	289.554	9.682	0.07513	3.14898	6 X
K02VE7E	18.2	0.15	K123E	234.390	317.084	80.912	2.535	0.17566	2.33872	3 X
K02W24L	16.4	0.15	K123E	266.423	298.723	78.614	2.181	0.16764	3.16137	4 X
K02W27H	15.8	0.15	K123E	268.677	284.598	97.133	8.678	0.22996	3.12665	6 X
K02X14E	17.7	0.15	K123E	207.155	273.758	114.094	23.446	0.14553	1.94969	4 X
K02X24C	17.4	0.15	K123E	196.742	347.004	77.535	5.710	0.16878	2.37863	4 X
K02X24R	17.7	0.15	K123E	215.356	24.114	28.024	1.774	0.16545	2.36594	7 X
K02X41W	17.3	0.15	K123E	231.726	16.236	24.056	5.613	0.16017	2.34873	6 X
K02X98W	17.1	0.15	K123E	182.735	285.021	123.661	2.455	0.12806	2.42295	9 X
K02XB7R	17.8	0.15	K123E	252.416	291.767	95.552	5.299	0.24790	2.31079	3 X
K03A21D	16.7	0.15	K123E	210.083	125.488	295.949	11.604	0.18158	2.38321	5 X
K03A41V	16.2	0.15	K123E	68.859	354.319	146.410	13.430	0.23009	2.58085	6 X
K03C21Y	16.5	0.15	K123E	95.253	250.474	222.604	5.460	0.22399	2.56348	5 X
K03D12O	16.7	0.15	K123E	110.558	301.210	167.364	17.095	0.12371	2.57633	6 X
K03E36X	16.3	0.15	K123E	351.093	136.051	93.859	15.115	0.22734	2.62448	5 X
K03F06M	16.4	0.15	K123E	339.980	104.812	183.659	28.519	0.32543	2.61759	5 W
K03G56B	17.0	0.15	K123E	1.935	58.982	178.865	10.408	0.01204	2.64722	5 X
K03H12Z	16.3	0.15	K123E	337.432	65.502	193.883	12.647	0.23171	2.69183	4 X
K03H15L	16.3	0.15	K123E	37.571	277.151	239.788	25.402	0.43158	2.66758	4 X
K03K02J	16.7	0.15	K123E	346.966	157.387	120.677	9.665	0.21257	2.66298	4 X
K03K20E	15.3	0.15	K123E	336.440	94.853	232.741	15.492	0.27111	2.60362	4 X
K03O30S	16.1	0.15	K123E	278.413	54.240	321.508	7.438	0.29619	2.79358	4 X
K03S25E	16.3	0.15	K123E	270.069	128.847	257.664	6.652	0.23230	2.79233	4 X
K03S52J	16.2	0.15	K123E	213.715	267.605	117.518	2.747	0.11396	3.00113	7 X
K03SL1G	16.2	0.15	K123E	295.730	205.690	140.236	10.709	0.14735	2.80505	5 X
K03SU1M	16.4	0.15	K123E	248.000	306.126	76.231	3.090	0.08093	2.87158	6 X
K03SX5A	17.3	0.15	K123E	273.406	309.572	50.267	2.793	0.11331	2.86635	4 X
K03SX9T	16.6	0.15	K123E	269.309	232.553	93.391	11.124	0.04160	3.04939	3 X
K03T12W	15.5	0.15	K123E	299.931	80.592	222.595	8.643	0.05057	2.94364	5 X
K03T39B	16.2	0.15	K123E	331.224	6.703	246.304	7.797	0.24668	2.97655	5 X
K03U69W	18.7	0.15	K123E	298.086	127.068	172.330	3.691	0.10714	2.15970	5 X
K03UD6Y	17.9	0.15	K123E	172.999	40.995	43.367	4.726	0.15293	2.18463	5 X
K03UL6T	15.5	0.15	K123E	149.825	217.435	220.329	16.611	0.18906	3.13982	6 X
K03UL9J	15.9	0.15	K123E	149.997	229.067	225.470	15.775	0.10696	3.06982	5 X
K03UP9V	15.3	0.15	K123E	238.389	136.632	246.571	21.788	0.22183	3.01453	4 X
K03UR5G	15.1	0.15	K123E	212.386	149.731	237.177	9.062	0.08976	3.07179	5 X
K03US0H	16.4	0.15	K123E	80.100	271.654	217.598	21.930	0.21577	2.31906	4 X
K03UW3M	17.0	0.15	K123E	210.509	30.014	31.345	2.220	0.06265	2.94115	5 X
K03V05H	15.4	0.15	K123E	203.600	125.286	247.106	8.121	0.07723	3.18148	5 X
K03W87V	16.9	0.15	K123E	83.190	39.065	103.762	4.594	0.39219	2.36115	4 X
K03W92A	17.7	0.15	K123E	206.068	262.321	136.197	3.969	0.17967	2.20619	5 X
K03WE4Q	17.2	0.15	K123E	132.390	240.683	243.629	6.068	0.07369	2.20682	7 X

K03WF3N	15.2	0.15	K123E	178.590	267.593	149.116	15.713	0.28179	3.14009	5	X
K03X10J	15.2	0.15	K123E	243.234	114.845	290.492	32.388	0.25612	2.87856	5	X
K03Y10X	16.0	0.15	K123E	243.318	114.313	304.979	6.195	0.40809	2.92067	3	X
K03Y12S	14.9	0.15	K123E	171.313	163.372	295.965	26.952	0.15263	3.16301	4	X
K03Y16O	15.7	0.15	K123E	161.247	175.480	294.402	7.017	0.23007	3.16458	5	X
K03Y44J	18.0	0.15	K123E	181.888	343.487	93.110	2.627	0.14883	2.24811	4	X
K03Y79R	15.3	0.15	K123E	217.073	114.912	297.573	8.152	0.10090	3.13097	7	X
K03YB1A	15.5	0.15	K123E	239.578	106.653	284.116	8.216	0.06275	3.17074	7	X
K03YD0Q	15.8	0.15	K123E	168.737	155.836	306.874	9.921	0.21137	3.13498	3	X
K03YG2Z	15.1	0.15	K123E	240.659	297.653	77.192	17.196	0.24211	3.09180	4	X
K04A00K	15.2	0.15	K123E	172.127	173.220	283.124	8.168	0.05561	3.16367	5	X
K04A04E	17.2	0.15	K123E	20.128	277.697	305.932	6.028	0.08308	2.30783	6	X
K04B16V	15.6	0.15	K123E	177.560	355.940	96.002	16.892	0.24121	3.16614	3	X
K04B19X	15.6	0.15	K123E	258.795	287.387	95.618	10.761	0.12202	3.09642	6	X
K04B38W	17.2	0.15	K123E	69.477	31.945	106.561	7.363	0.22017	2.37053	4	X
K04B40W	17.4	0.15	K123E	102.814	198.737	298.563	1.362	0.15149	2.32127	4	X
K04B86L	18.9	0.15	K123E	178.716	311.222	126.730	23.740	0.40310	1.50219	5	X
K04BE4Z	17.7	0.15	K123E	33.742	57.605	127.941	8.488	0.04544	2.36123	4	X
K04C44V	18.2	0.15	K123E	41.947	45.703	150.637	3.007	0.16301	2.33709	4	X
K04C55G	18.1	0.15	K123E	93.596	196.405	315.414	1.833	0.12954	2.33766	5	X
K04D07B	17.2	0.15	K123E	79.284	206.091	323.453	6.135	0.05260	2.34065	4	X
K04D50A	17.4	0.15	K123E	6.784	287.173	305.596	1.426	0.16442	2.37980	5	X
K04D65Y	17.4	0.15	K123E	122.891	11.693	113.794	1.863	0.15957	2.32764	4	X
K04E00M	17.3	0.15	K123E	66.477	272.855	227.630	3.988	0.17048	2.41277	5	X
K04E19P	17.4	0.15	K123E	110.375	146.801	349.225	4.574	0.12978	2.34114	6	X
K04E44B	17.5	0.15	K123E	358.498	289.583	285.596	1.749	0.12356	2.45812	4	X
K04E90J	18.0	0.15	K123E	2.859	188.272	54.707	4.132	0.16715	2.41872	5	X
K04F19R	17.6	0.15	K123E	47.303	347.258	181.375	3.418	0.14571	2.41833	4	X
K04F67A	16.8	0.15	K123E	337.926	195.551	77.516	3.633	0.17070	2.41153	6	X
K04F93Q	16.9	0.15	K123E	41.029	158.667	39.802	2.946	0.14109	2.40477	4	X
K04G56Z	17.5	0.15	K123E	4.696	54.874	163.743	2.141	0.10174	2.44442	4	X
K04J03A	16.6	0.15	K123E	331.682	187.158	52.741	13.371	0.09181	2.53905	3	X
K04J31Q	16.6	0.15	K123E	299.702	190.614	58.513	32.679	0.07694	2.59814	2	W
K04N10H	16.1	0.15	K123E	314.069	1.815	308.990	7.543	0.19608	2.54727	4	X
K04N15A	16.2	0.15	K123E	328.001	0.253	288.588	14.562	0.11357	2.54504	6	X
K04N22L	16.5	0.15	K123E	314.286	273.524	36.725	4.508	0.17168	2.52803	5	X
K04P11Z	17.3	0.15	K123E	283.694	58.631	293.119	1.743	0.19095	2.56245	6	X
K04P27A	17.4	0.15	K123E	349.859	292.064	324.455	3.157	0.19424	2.56131	6	X
K04P58S	17.2	0.15	K123E	321.690	137.568	167.107	5.172	0.15588	2.56228	7	X
K04P60F	16.6	0.15	K123E	237.920	233.544	137.759	11.359	0.21135	2.68040	6	X
K04Q09S	17.4	0.15	K123E	296.123	225.845	95.843	4.956	0.28449	2.59860	3	X
K04Q18K	16.3	0.15	K123E	270.036	172.431	179.613	14.041	0.27167	2.67698	3	X
K04R02J	17.3	0.15	K123E	211.169	124.851	280.757	17.674	0.08998	1.97610	4	X
K04R53L	17.3	0.15	K123E	276.328	341.006	23.039	5.209	0.19672	2.58805	4	X
K04R63H	17.6	0.15	K123E	275.383	26.308	346.774	3.919	0.26672	2.59366	4	X
K04RC0M	17.3	0.15	K123E	275.236	4.183	3.436	3.357	0.20586	2.58520	6	X
K04RG2J	17.1	0.15	K123E	321.395	347.763	313.576	6.820	0.19081	2.59309	4	X
K04RH2A	17.5	0.15	K123E	299.006	18.145	318.873	1.690	0.24055	2.59058	3	X
K04RJ4U	17.1	0.15	K123E	296.736	137.906	196.656	10.800	0.29137	2.61037	5	X
K04RJ6A	17.3	0.15	K123E	270.535	87.258	297.666	4.591	0.31775	2.60380	5	X
K04RL3K	16.2	0.15	K123E	313.780	38.100	275.106	13.122	0.21171	2.61132	4	X
K04RL4A	16.6	0.15	K123E	294.983	84.935	264.353	12.083	0.20200	2.60828	4	X
K04RP3R	16.6	0.15	K123E	202.672	251.376	154.601	16.612	0.26408	2.73931	3	X
K04RR2C	17.6	0.15	K123E	309.834	140.182	158.995	3.150	0.18303	2.62911	5	X
K04RW7Q	16.2	0.15	K123E	219.645	145.682	237.948	10.161	0.06607	2.71367	7	X
K04RX1U	20.5	0.15	K123E	71.370	261.749	201.636	17.466	0.24391	1.24137	2	X
K04RY1A	16.5	0.15	K123E	257.750	289.385	88.524	13.596	0.17229	2.64167	6	X
K04RZ4U	17.6	0.15	K123E	212.316	96.046	324.095	1.301	0.13276	2.64118	5	X
K04S17H	17.3	0.15	K123E	283.746	186.073	150.230	15.125	0.25217	2.63777	5	X
K04T35J	16.9	0.15	K123E	141.822	105.139	15.928	4.275	0.07995	2.73509	5	X
K04TA6T	16.7	0.15	K123E	258.010	8.437	14.143	2.215	0.22138	2.64193	6	X
K04TC7G	17.1	0.15	K123E	308.994	261.974	70.731	5.428	0.31622	2.57597	3	X
K04TG4M	16.2	0.15	K123E	242.562	301.893	55.092	5.905	0.16481	2.78372	5	X
K04TG6P	17.1	0.15	K123E	93.743	298.263	197.941	3.462	0.01285	2.76803	6	X
K04TJ8W	17.0	0.15	K123E	241.214	162.357	197.680	4.078	0.08432	2.77782	6	X
K04TP8R	17.1	0.15	K123E	283.182	30.247	332.043	1.190	0.22505	2.63460	4	X
K04TQ3L	17.7	0.15	K123E	240.390	49.332	351.440	2.678	0.18123	2.68677	5	X
K04TT8U	17.4	0.15	K123E	240.372	93.072	307.132	0.917	0.20745	2.67624	4	X
K04TW3S	16.6	0.15	K123E	183.892	23.296	59.782	5.509	0.03807	2.77052	4	X
K04TZ6B	15.8	0.15	K123E	238.811	230.189	151.351	15.761	0.29403	2.74214	7	X
K04V13A	16.1	0.15	K123E	295.434	263.978	85.089	13.742	0.30316	2.63566	3	X
K04V29D	16.3	0.15	K123E	182.987	20.269	59.219	7.659	0.02033	2.77193	5	X
K04V36Z	16.6	0.15	K123E	127.520	52.916	40.278	2.255	0.08328	2.93904	5	X
K04V73X	16.7	0.15	K123E	213.489	334.812	91.516	4.420	0.18113	2.72684	5	X
K04X34A	16.1	0.15	K123E	84.219	48.157	82.832	10.640	0.16647	3.07774	5	X
K04XB8S	16.2	0.15	K123E	300.026	67.284	281.991	8.128	0.17708	2.75910	7	X
K04XH2G	16.2	0.15	K123E	274.293	117.432	265.240	5.292	0.21514	2.65222	5	X

K04Y07U	17.0	0.15	K123E	282.330	230.375	117.381	2.867	0.35026	2.67102	5	X
K05A34K	15.8	0.15	K123E	86.758	235.289	290.786	7.969	0.15646	3.05446	5	X
K05C07V	15.9	0.15	K123E	76.622	239.908	290.845	15.045	0.19517	3.14616	3	X
K05C28P	16.0	0.15	K123E	216.088	254.291	135.684	16.484	0.16524	3.05040	4	X
K05C43G	15.6	0.15	K123E	123.279	322.066	134.461	17.795	0.18869	3.15508	5	X
K05E86S	15.2	0.15	K123E	54.156	112.839	93.367	18.404	0.06693	3.21833	4	X
K05ED7F	17.8	0.15	K123E	23.134	198.182	17.146	4.130	0.12096	2.21708	4	X
K05EL0D	16.3	0.15	K123E	194.457	94.736	343.305	4.432	0.12046	3.06692	4	X
K05EX0C	16.2	0.15	K123E	90.921	13.393	146.620	0.353	0.12796	3.13339	5	X
K05G69H	17.0	0.15	K123E	35.990	353.086	171.102	24.979	0.16296	2.27513	2	W
K05GE4U	16.9	0.15	K123E	354.355	308.833	299.767	6.695	0.16361	2.23759	6	X
K05J37Y	17.5	0.15	K123E	322.204	181.775	91.544	5.601	0.25751	2.28035	3	X
K05J64X	18.2	0.15	K123E	55.406	20.217	137.243	3.057	0.12235	2.27165	5	X
K05K12D	17.4	0.15	K123E	346.849	139.177	62.521	23.907	0.19236	2.34238	2	W
K05M03K	17.5	0.15	K123E	321.826	140.969	124.397	8.701	0.10582	2.31563	3	X
K05M30B	17.4	0.15	K123E	348.121	7.895	258.446	5.050	0.09979	2.33155	7	X
K05M30S	17.2	0.15	K123E	273.236	82.379	249.083	4.155	0.21134	2.39186	5	X
K05M42T	14.9	0.15	K123E	278.158	146.774	199.223	3.438	0.23204	3.99998	5	X
K05N93R	18.3	0.15	K123E	339.130	330.786	270.976	1.508	0.15141	2.36977	3	X
K05NC4R	17.2	0.15	K123E	297.280	39.080	253.760	6.249	0.12847	2.40584	6	X
K05O20K	17.6	0.15	K123E	287.099	210.619	109.531	2.566	0.19136	2.38520	4	X
K05P05G	17.9	0.15	K123E	297.638	12.146	319.665	2.295	0.19706	2.33588	5	X
K05P10G	17.6	0.15	K123E	348.288	150.279	108.849	6.638	0.29748	2.31991	3	X
K05P10Q	17.6	0.15	K123E	268.978	241.035	101.090	4.379	0.20087	2.39503	6	X
K05P20A	17.6	0.15	K123E	319.408	325.993	331.845	1.671	0.21216	2.33695	5	X
K05Q05S	18.0	0.15	K123E	308.325	173.654	143.022	7.261	0.12284	2.33020	4	X
K05Q73R	16.8	0.15	K123E	284.462	55.354	292.751	3.584	0.20587	2.37988	5	X
K05Q96N	18.0	0.15	K123E	321.416	276.970	19.057	2.537	0.19281	2.35075	5	X
K05QA6J	17.5	0.15	K123E	317.359	247.942	58.058	3.154	0.22438	2.34592	5	X
K05QA9W	19.1	0.15	K123E	293.135	45.551	293.202	0.407	0.20666	2.36094	4	X
K05QD9O	17.5	0.15	K123E	240.326	3.920	18.189	3.164	0.09124	2.41527	5	X
K05QF8C	17.1	0.15	K123E	273.117	316.934	47.763	3.830	0.19757	2.37554	7	X
K05QI0S	15.6	0.15	K123E	327.165	243.247	66.962	3.944	0.22507	3.98726	4	X
K05QI3G	17.2	0.15	K123E	321.613	180.977	129.007	5.929	0.22442	2.35644	7	X
K05R05A	17.1	0.15	K123E	233.493	91.969	308.804	4.815	0.17894	2.42142	4	X
K05R11W	17.8	0.15	K123E	274.862	65.801	294.150	0.396	0.18122	2.39931	4	X
K05R25B	16.4	0.15	K123E	279.795	45.590	311.155	6.972	0.23081	2.38273	5	X
K05R41Q	17.5	0.15	K123E	247.281	292.866	98.081	2.893	0.19215	2.39312	4	X
K05S12M	15.9	0.15	K123E	277.404	116.410	239.090	6.400	0.11515	2.40309	5	X
K05S68Y	17.3	0.15	K123E	211.144	46.667	14.219	4.170	0.16994	2.45169	5	X
K05S71M	17.3	0.15	K123E	208.879	66.988	354.695	3.209	0.21235	2.43093	5	X
K05SA8P	18.4	0.15	K123E	299.102	355.452	305.221	0.559	0.18447	2.45659	5	X
K05SC3V	17.8	0.15	K123E	234.004	8.739	32.616	2.520	0.18142	2.42244	5	X
K05SC5Q	17.5	0.15	K123E	277.137	145.087	186.431	14.481	0.17623	2.43783	3	X
K05SE4A	17.4	0.15	K123E	77.398	15.213	165.943	6.628	0.02241	2.44894	6	X
K05SJ0G	17.3	0.15	K123E	272.893	250.291	120.968	1.650	0.22912	2.38717	4	X
K05SJ9B	17.5	0.15	K123E	301.850	129.053	197.977	5.330	0.14312	2.38968	6	X
K05SK3O	17.6	0.15	K123E	273.176	299.295	62.591	3.453	0.20076	2.39700	4	X
K05SK4Q	17.3	0.15	K123E	273.384	333.264	28.833	5.406	0.19109	2.39231	5	X
K05SK6N	17.4	0.15	K123E	282.617	295.974	67.180	5.327	0.28442	2.36547	4	X
K05SL0D	17.9	0.15	K123E	273.009	122.910	217.704	5.239	0.21931	2.42285	5	X
K05SN2N	18.0	0.15	K123E	263.364	342.882	25.350	3.124	0.14936	2.44228	4	X
K05SP6G	17.4	0.15	K123E	231.693	108.596	294.840	2.020	0.17021	2.41045	7	X
K05SP6S	17.7	0.15	K123E	288.949	10.492	328.089	0.857	0.18632	2.38301	4	X
K05SR7X	16.3	0.15	K123E	173.834	159.670	290.710	8.045	0.11879	2.72508	4	X
K05T12K	17.6	0.15	K123E	260.955	305.951	70.276	2.146	0.17292	2.41951	3	X
K05T23U	17.3	0.15	K123E	252.551	331.701	55.712	3.164	0.20857	2.38856	4	X
K05T99C	17.0	0.15	K123E	279.193	27.768	320.218	6.515	0.12455	2.39152	5	X
K05TD8C	16.9	0.15	K123E	136.349	266.313	189.280	14.302	0.03783	2.55028	5	X
K05U12Q	16.0	0.15	K123E	78.457	289.485	201.833	23.477	0.24358	2.72851	4	X
K05U48V	17.6	0.15	K123E	259.088	80.356	299.523	1.178	0.21987	2.42343	6	X
K05U94O	16.2	0.15	K123E	75.463	237.796	242.489	8.690	0.23036	2.80128	4	X
K05UC7C	18.3	0.15	K123E	254.715	339.408	43.508	2.045	0.19179	2.44567	3	X
K05UD9E	18.0	0.15	K123E	237.929	305.371	78.477	3.542	0.06611	2.50609	4	X
K05UI6T	17.0	0.15	K123E	262.532	80.834	247.540	4.911	0.09242	2.58240	5	X
K05UM8Q	16.5	0.15	K123E	21.226	355.006	216.483	12.540	0.09118	2.61502	4	X
K05UN4C	16.8	0.15	K123E	310.940	147.705	145.262	3.271	0.14001	2.52738	6	X
K05UP1C	17.7	0.15	K123E	272.874	103.122	269.240	1.078	0.23912	2.40625	4	X
K05UU9E	17.3	0.15	K123E	222.075	315.927	98.279	3.075	0.17668	2.45985	5	X
K05UW7E	16.5	0.15	K123E	203.486	137.495	250.318	9.286	0.09732	2.61940	5	X
K05Ud7G	17.3	0.15	K123E	286.201	283.691	72.365	6.116	0.25946	2.39283	5	X
K05Uk8T	16.4	0.15	K123E	99.619	224.363	251.655	8.593	0.09758	2.69731	5	X
K05Uq0X	18.4	0.15	K123E	341.887	79.334	192.532	4.580	0.19343	2.38953	4	X
K05V10V	16.9	0.15	K123E	163.661	356.741	97.454	3.965	0.07893	2.55302	7	X
K05V41R	16.9	0.15	K123E	227.305	268.634	117.520	4.823	0.20354	2.55018	5	X
K05V45Z	17.5	0.15	K123E	173.664	21.651	59.416	2.637	0.02248	2.53732	5	X
K05V73Z	17.1	0.15	K123E	266.112	278.249	78.148	9.792	0.06046	2.53465	4	X

K05VB8W	16.2	0.15	K123E	242.453	106.933	297.060	21.368	0.26728	2.40803	5 X
K05VD5R	17.0	0.15	K123E	112.156	53.760	79.018	9.432	0.19095	2.67309	4 X
K05W56W	17.3	0.15	K123E	262.845	314.052	27.290	3.741	0.23182	2.54120	3 X
K05W62R	16.9	0.15	K123E	228.121	263.130	123.661	5.220	0.21896	2.52890	5 X
K05W76W	17.1	0.15	K123E	121.989	42.945	52.765	4.654	0.07907	2.73145	4 X
K05WA9U	17.1	0.15	K123E	256.547	292.914	76.710	3.308	0.10972	2.51489	5 X
K05WE2K	17.1	0.15	K123E	238.197	314.964	67.415	6.008	0.02876	2.57627	5 X
K05WG5M	16.6	0.15	K123E	79.404	73.080	93.451	3.179	0.13822	2.64679	4 X
K05WK8H	16.9	0.15	K123E	352.724	332.703	292.047	2.129	0.04830	2.75957	5 X
K05X42C	17.4	0.15	K123E	181.077	150.295	253.614	5.334	0.12101	2.62411	6 X
K05X42S	16.9	0.15	K123E	279.092	43.290	300.019	3.932	0.02272	2.55600	3 X
K05XA5N	17.3	0.15	K123E	253.253	277.364	103.489	3.051	0.08821	2.64766	5 X
K05Y03W	15.3	0.15	K123E	8.624	66.368	116.022	22.504	0.53851	3.11596	3 X
K05Y08X	17.7	0.15	K123E	232.997	258.150	104.844	24.823	0.19632	1.87433	4 X
K05Y12T	17.1	0.15	K123E	72.624	113.241	58.487	2.716	0.15903	2.79176	5 X
K05Y14T	17.3	0.15	K123E	240.243	84.317	299.372	5.054	0.06399	2.65792	4 X
K05Y27S	17.2	0.15	K123E	249.348	49.613	346.161	2.387	0.21240	2.52369	4 X
K05Y31O	17.1	0.15	K123E	265.010	81.684	285.202	5.791	0.12976	2.58687	5 X
K05Y41T	17.0	0.15	K123E	206.142	327.254	101.502	4.201	0.15148	2.59448	7 X
K05Y71D	16.9	0.15	K123E	174.271	9.151	82.950	15.037	0.22260	1.60143	5 X
K05Y87G	17.2	0.15	K123E	205.519	289.606	103.549	4.611	0.10386	2.70343	5 X
K05Y93O	16.2	0.15	K123E	198.259	298.626	97.863	33.860	0.22116	2.66962	3 X
K05Y97N	16.4	0.15	K123E	327.542	215.029	76.043	5.900	0.09514	2.65485	6 X
K05YA4P	17.8	0.15	K123E	230.565	249.663	153.783	0.434	0.14895	2.55998	4 X
K05YC9L	17.3	0.15	K123E	258.029	268.403	91.054	5.969	0.26950	2.55007	3 X
K05YE3R	17.0	0.15	K123E	25.548	243.435	312.489	7.654	0.33906	3.02099	3 X
K05YH5D	16.0	0.15	K123E	202.479	298.985	135.230	13.706	0.12612	2.64146	5 X
K05YJ2P	17.2	0.15	K123E	245.164	226.924	116.718	23.251	0.07060	1.92520	5 X
K05YJ7E	16.7	0.15	K123E	295.196	131.386	167.264	1.785	0.04057	2.72980	6 X
K05YK4O	17.0	0.15	K123E	244.791	91.191	295.266	9.478	0.12341	2.61925	5 X
K05YM8D	16.8	0.15	K123E	63.068	224.996	326.641	6.738	0.07613	2.72696	5 X
K06A15F	16.5	0.15	K123E	315.784	10.998	292.446	6.608	0.01418	2.72074	4 X
K06A57V	16.3	0.15	K123E	174.077	152.780	293.633	12.904	0.05131	2.69647	3 X
K06A77N	16.6	0.15	K123E	45.049	266.913	295.779	6.414	0.09042	2.81060	3 X
K06B38H	16.4	0.15	K123E	173.042	262.815	156.620	2.566	0.06510	2.85743	5 X
K06B69B	16.5	0.15	K123E	36.065	146.964	77.751	4.763	0.03834	2.75910	5 X
K06B69S	16.9	0.15	K123E	324.523	277.215	18.823	4.655	0.05475	2.75498	6 X
K06B71U	17.1	0.15	K123E	260.483	314.553	70.613	5.705	0.22264	2.57801	7 X
K06B75P	17.2	0.15	K123E	47.348	220.212	348.346	5.486	0.04401	2.77878	4 X
K06B81R	16.8	0.15	K123E	186.050	29.915	50.391	4.007	0.14514	2.73399	4 X
K06B88O	17.3	0.15	K123E	184.927	90.294	345.338	2.869	0.04719	2.73008	4 X
K06BA9F	16.9	0.15	K123E	234.140	62.027	332.845	5.771	0.04238	2.69306	5 X
K06BC1O	16.5	0.15	K123E	246.741	48.147	324.731	5.581	0.02364	2.74034	4 X
K06BC7G	16.9	0.15	K123E	275.487	25.498	320.615	4.789	0.02255	2.79929	4 X
K06BC7M	17.0	0.15	K123E	245.363	178.823	175.944	2.046	0.07600	2.88090	5 X
K06BH8F	17.3	0.15	K123E	341.061	306.708	334.597	4.214	0.08335	2.74390	4 X
K06BM8T	17.0	0.15	K123E	295.515	236.918	103.893	5.639	0.15571	2.63867	5 X
K06BN1Y	16.8	0.15	K123E	251.217	17.701	355.800	5.058	0.04645	2.70373	4 X
K06BN2E	17.1	0.15	K123E	357.597	168.253	92.944	5.498	0.02591	2.75489	5 X
K06BN8C	17.4	0.15	K123E	248.658	28.488	349.352	4.822	0.05182	2.69726	5 X
K06D23Q	16.9	0.15	K123E	177.076	80.689	7.918	4.454	0.08362	2.77051	5 X
K06D25M	17.1	0.15	K123E	175.669	324.208	127.965	0.724	0.04004	2.77395	5 X
K06D68P	15.5	0.15	K123E	4.996	110.135	92.344	14.939	0.23977	3.16562	3 X
K06D78X	16.8	0.15	K123E	231.885	64.327	331.263	4.485	0.08431	2.78199	7 X
K06DA2W	16.7	0.15	K123E	338.270	122.277	132.721	1.651	0.09460	3.01963	5 X
K06DA6R	17.0	0.15	K123E	337.003	260.220	28.122	2.274	0.03279	2.86046	6 X
K06DF5V	15.9	0.15	K123E	100.112	198.469	317.410	7.991	0.05932	2.78414	6 X
K06DK2D	16.0	0.15	K123E	163.490	35.969	62.122	4.833	0.06443	2.77315	4 X
K06DK4X	16.4	0.15	K123E	46.797	96.652	54.874	19.746	0.21634	3.11258	3 X
K06E23Y	16.7	0.15	K123E	277.086	9.941	339.773	5.066	0.01705	2.79119	6 X
K06E35K	17.0	0.15	K123E	323.804	261.793	41.536	2.521	0.07627	2.88430	5 X
K06F01B	17.3	0.15	K123E	161.529	91.458	9.579	1.697	0.02944	2.83977	6 X
K06F05V	17.2	0.15	K123E	28.992	216.346	7.847	1.922	0.14082	2.98718	5 X
K06G54O	16.2	0.15	K123E	320.268	205.516	100.433	2.860	0.11104	3.05266	5 X
K06H75U	16.0	0.15	K123E	135.173	301.774	166.130	11.661	0.05620	3.16796	6 X
K06H89H	16.0	0.15	K123E	4.185	46.936	213.243	30.044	0.33407	3.13758	3 W
K06J12T	16.5	0.15	K123E	89.313	65.191	99.246	7.612	0.13990	3.05963	5 X
K06J56E	16.1	0.15	K123E	44.139	95.478	102.418	17.757	0.22462	3.08926	4 X
K06K06P	16.2	0.15	K123E	312.765	257.403	66.953	0.302	0.16018	3.10631	6 X
K06K13L	15.6	0.15	K123E	132.517	334.907	137.556	11.505	0.00850	3.11753	7 X
K06K20R	19.2	0.15	K123E	316.480	45.386	227.815	3.677	0.33493	2.09132	3 X
K06KB4C	15.3	0.15	K123E	324.326	177.688	97.441	16.774	0.23973	3.17485	4 X
K06M06H	14.6	0.15	K123E	16.466	344.542	299.142	29.385	0.21895	3.16623	6 X
K06Q98P	18.6	0.15	K123E	288.534	15.837	315.790	5.010	0.12090	2.12987	6 X
K06QH0J	16.6	0.15	K123E	172.707	346.839	49.606	24.360	0.19485	2.30227	3 X
K06R52M	18.4	0.15	K123E	207.614	28.999	20.229	3.868	0.04573	2.21245	4 X

K06S21O	17.5	0.15	K123E	176.390	194.657	219.403	6.416	0.13611	2.26412	5	X
K06SM2O	18.5	0.15	K123E	173.336	64.566	20.506	2.650	0.13916	2.21682	4	X
K06SQ8N	18.9	0.15	K123E	273.996	73.046	252.479	3.703	0.18209	2.21899	3	X
K06SS6O	16.7	0.15	K123E	148.054	253.035	181.817	21.828	0.27093	2.38889	5	X
K06SV1S	17.7	0.15	K123E	35.598	258.168	302.734	2.195	0.14785	2.24340	6	X
K06SW1Z	18.5	0.15	K123E	145.034	28.426	77.347	2.449	0.08973	2.23893	4	X
K06SX2J	17.9	0.15	K123E	17.430	218.938	13.306	4.975	0.02586	2.25274	4	X
K06Sd4D	17.7	0.15	K123E	276.898	246.981	60.749	7.220	0.15866	2.29465	6	X
K06T04R	18.3	0.15	K123E	288.669	246.432	61.289	5.741	0.18509	2.20164	5	X
K06T08R	17.8	0.15	K123E	228.726	6.886	34.314	4.708	0.13942	2.20579	3	X
K06T23X	18.0	0.15	K123E	148.078	47.759	59.767	2.987	0.18971	2.29087	5	X
K06T30E	17.8	0.15	K123E	197.772	21.315	47.498	3.846	0.15071	2.22859	4	X
K06U69Q	17.6	0.15	K123E	251.332	282.122	50.423	7.005	0.15643	2.27079	4	X
K06UD7Q	18.1	0.15	K123E	179.648	73.132	3.490	4.496	0.10362	2.27231	6	X
K06UF2A	17.7	0.15	K123E	342.426	182.557	80.011	6.946	0.14151	2.27615	6	X
K06UG9V	17.7	0.15	K123E	133.894	58.864	60.167	6.066	0.17783	2.28838	4	X
K06UI5R	18.1	0.15	K123E	217.852	340.867	73.039	6.237	0.19416	2.19623	5	X
K06UI6G	17.3	0.15	K123E	220.465	110.450	255.611	6.709	0.11920	2.27799	4	X
K06UL9G	17.6	0.15	K123E	257.232	267.573	58.237	10.045	0.15238	2.25059	4	X
K06UR9P	17.9	0.15	K123E	6.717	187.024	55.665	5.310	0.07742	2.26250	5	X
K06Ua1E	17.4	0.15	K123E	253.851	84.864	289.071	4.651	0.12626	2.19991	4	X
K06V21N	17.4	0.15	K123E	10.920	350.506	221.022	6.749	0.13496	2.32378	7	X
K06V24E	18.4	0.15	K123E	246.102	151.128	209.868	2.802	0.18012	2.25152	5	X
K06V94T	18.0	0.15	K123E	160.092	10.986	84.025	3.376	0.11252	2.30998	5	X
K06VD0S	17.7	0.15	K123E	54.699	299.539	226.150	5.544	0.04122	2.39618	4	X
K06W02M	17.1	0.15	K123E	280.266	82.067	240.444	6.413	0.17867	2.25245	5	X
K06W05N	15.4	0.15	K123E	284.624	170.259	174.954	4.397	0.27582	4.00757	4	X
K06W23A	17.3	0.15	K123E	190.572	336.615	87.323	7.782	0.07495	2.31029	6	X
K06W56M	17.3	0.15	K123E	120.906	77.698	43.856	3.129	0.13674	2.39056	5	X
K06W56Q	17.3	0.15	K123E	209.027	339.679	69.937	6.296	0.10112	2.29785	5	X
K06W62U	17.3	0.15	K123E	47.909	227.909	319.920	3.894	0.18375	2.40023	7	X
K06W95D	17.6	0.15	K123E	40.676	116.680	78.056	7.089	0.19563	2.38295	4	X
K06W96V	17.1	0.15	K123E	338.912	180.284	58.087	8.493	0.07260	2.40142	5	X
K06WE8C	17.7	0.15	K123E	299.762	270.554	57.966	5.536	0.23251	2.19225	4	X
K06WG2B	18.1	0.15	K123E	115.573	65.480	71.484	7.764	0.05206	2.30609	6	X
K06WK2U	17.5	0.15	K123E	138.252	15.695	104.740	3.242	0.01862	2.39371	5	X
K06X02V	17.1	0.15	K123E	29.821	292.123	237.137	11.669	0.10633	2.54735	4	X
K06X17G	17.1	0.15	K123E	141.760	34.211	77.674	7.562	0.06608	2.39165	6	X
K06X43W	16.9	0.15	K123E	233.580	327.229	70.915	6.608	0.16356	2.27065	5	X
K06X53N	16.9	0.15	K123E	119.206	63.180	67.961	6.952	0.16369	2.40240	4	X
K06X55A	17.3	0.15	K123E	166.407	24.418	71.911	6.788	0.19990	2.33836	5	X
K06X58T	18.2	0.15	K123E	157.362	72.112	23.693	2.131	0.15012	2.37597	4	X
K06Y21L	17.2	0.15	K123E	353.839	166.938	87.319	7.037	0.08899	2.38991	5	X
K06Y29Y	16.8	0.15	K123E	31.380	137.940	81.596	7.168	0.07632	2.43435	4	X
K06Y55P	17.6	0.15	K123E	23.846	288.068	285.205	3.558	0.16948	2.55929	4	X
K07A04A	17.3	0.15	K123E	163.985	126.390	331.095	6.731	0.23116	2.36454	5	X
K07A09O	17.3	0.15	K123E	111.724	50.841	85.255	4.815	0.11781	2.43309	6	X
K07B28L	17.8	0.15	K123E	186.010	73.848	6.870	1.179	0.15470	2.35333	5	X
K07B57H	17.1	0.15	K123E	190.763	5.607	66.745	4.707	0.10153	2.38832	6	X
K07B76P	17.7	0.15	K123E	215.097	84.280	321.260	3.454	0.10777	2.37195	5	X
K07B77L	17.4	0.15	K123E	199.624	99.187	321.488	6.241	0.09914	2.39433	4	X
K07B77O	18.1	0.15	K123E	191.221	107.504	321.410	2.464	0.15924	2.40168	5	X
K07C02R	17.8	0.15	K123E	122.033	171.087	312.592	4.838	0.14791	2.47875	4	X
K07C20B	17.5	0.15	K123E	117.969	48.118	84.732	3.654	0.15183	2.44721	7	X
K07C36N	18.0	0.15	K123E	175.851	97.780	349.022	1.017	0.15291	2.38510	5	X
K07C37K	17.0	0.15	K123E	139.521	116.794	353.457	1.359	0.14246	2.44747	4	X
K07D93D	16.8	0.15	K123E	64.252	355.147	148.279	14.289	0.18614	2.68840	2	X
K07DA9W	17.6	0.15	K123E	358.236	265.096	351.686	4.232	0.09154	2.58921	5	X
K07E14N	16.9	0.15	K123E	82.143	347.166	147.656	13.893	0.12253	2.62612	5	X
K07E18Q	16.4	0.15	K123E	90.714	25.929	90.263	6.154	0.20374	2.65602	4	X
K07E19O	18.1	0.15	K123E	130.125	147.538	330.471	1.816	0.13764	2.46466	5	X
K07E41J	16.7	0.15	K123E	8.198	273.417	287.448	1.742	0.20022	2.78612	4	X
K07E69O	17.4	0.15	K123E	59.314	136.866	52.263	3.474	0.06293	2.61573	6	X
K07E81C	17.7	0.15	K123E	41.170	208.746	340.914	4.771	0.21044	2.62744	3	X
K07E92Z	18.4	0.15	K123E	72.668	220.226	309.957	2.924	0.09499	2.54761	5	X
K07ED8T	17.0	0.15	K123E	346.280	94.500	145.296	12.729	0.22784	2.69046	4	X
K07EG7O	15.7	0.15	K123E	28.205	260.117	308.798	10.479	0.21256	2.67461	5	X
K07EL7S	17.9	0.15	K123E	105.895	134.962	8.840	2.757	0.09273	2.61071	5	X
K07G01J	17.4	0.15	K123E	339.620	150.709	100.091	4.103	0.02794	2.70654	3	X
K07G18A	16.1	0.15	K123E	227.741	138.773	235.308	8.275	0.09336	2.76280	3	X
K07G27U	16.8	0.15	K123E	52.869	84.908	88.349	10.783	0.26021	2.72085	3	X
K07G71B	17.1	0.15	K123E	11.438	42.966	169.629	2.580	0.11225	2.76723	4	X
K07H15J	16.9	0.15	K123E	346.212	138.329	105.091	4.592	0.06700	2.78359	5	X
K07H17M	16.0	0.15	K123E	357.419	202.554	51.901	6.041	0.07277	2.72360	4	X
K07H48B	16.7	0.15	K123E	358.250	81.341	183.544	5.456	0.08957	2.70352	5	X
K07H48P	16.7	0.15	K123E	343.909	205.348	72.412	4.341	0.04766	2.69509	4	X
K07H53R	16.2	0.15	K123E	294.417	251.572	80.890	8.321	0.13272	2.73387	7	X

K07J38R	17.2	0.15	K123E	83.235	188.642	333.532	1.495	0.13860	2.67661	5 X
K07L15Y	15.9	0.15	K123E	281.735	248.308	119.832	14.108	0.20940	2.71610	5 X
K07L34Q	16.8	0.15	K123E	307.771	115.305	181.956	14.787	0.14852	2.87278	4 X
K07M13M	17.7	0.15	K123E	337.100	294.434	242.656	38.195	0.56855	1.40116	4 X
K07O07H	15.3	0.15	K123E	297.785	98.727	246.030	23.806	0.37016	3.18637	2 X
K07R70D	16.6	0.15	K123E	272.770	262.397	111.614	3.190	0.17363	3.15523	3 X
K07R07S	16.5	0.15	K123E	296.000	59.901	297.426	13.949	0.28694	3.10551	3 X
K07T01M	16.3	0.15	K123E	288.179	167.563	166.507	1.525	0.27376	3.14414	4 X
K07T23V	17.2	0.15	K123E	113.668	309.806	201.180	21.083	0.05466	1.91181	4 X
K07T24K	17.1	0.15	K123E	285.826	58.932	302.725	2.128	0.21014	3.19016	3 X
K07T68H	16.2	0.15	K123E	288.175	50.037	310.341	9.379	0.23333	3.15416	3 X
K07T68O	16.2	0.15	K123E	275.000	81.025	298.569	8.462	0.23382	3.16475	3 X
K07T74J	14.8	0.15	K123E	331.979	105.590	239.101	17.992	0.16447	3.14732	4 X
K07VO5R	15.5	0.15	K123E	268.658	87.021	287.770	8.423	0.14215	3.45833	4 X
K08A32F	21.1	0.15	K123E	349.412	80.060	105.336	27.181	0.11087	1.21056	2 X
K08C20J	17.3	0.15	K123E	44.546	55.902	111.040	5.288	0.17705	2.32900	5 X
K08C95R	18.0	0.15	K123E	19.269	176.839	41.492	1.581	0.15038	2.29810	4 X
K08CB2J	18.0	0.15	K123E	22.999	159.104	54.744	2.401	0.10338	2.22843	4 X
K08CF8D	17.6	0.15	K123E	50.532	244.809	303.248	6.154	0.08588	2.22820	5 X
K08CK5M	17.5	0.15	K123E	336.924	341.590	259.829	1.586	0.14291	2.36081	4 X
K08CK7R	17.7	0.15	K123E	69.116	202.685	329.495	6.024	0.07913	2.20575	5 X
K08D15U	17.8	0.15	K123E	53.557	158.687	31.290	4.108	0.06678	2.23275	5 X
K08D16L	17.6	0.15	K123E	349.601	119.550	95.915	3.476	0.14867	2.44957	4 X
K08D39O	17.6	0.15	K123E	323.002	101.011	180.462	9.789	0.28349	2.38739	2 X
K08D82C	17.9	0.15	K123E	338.856	183.757	57.060	2.093	0.17442	2.41613	4 X
K08D89A	17.8	0.15	K123E	319.339	131.526	149.296	2.573	0.19979	2.34726	5 X
K08E12E	18.6	0.15	K123E	150.812	20.898	80.377	2.882	0.06826	2.18355	6 X
K08E54E	17.4	0.15	K123E	359.113	168.038	76.927	6.224	0.12459	2.31324	4 X
K08E73Y	17.8	0.15	K123E	36.305	81.610	91.872	3.346	0.14851	2.38372	6 X
K08EA8O	17.9	0.15	K123E	337.740	302.498	329.593	3.283	0.14824	2.21939	7 X
K08EB6Q	17.6	0.15	K123E	336.065	143.616	107.828	2.301	0.15146	2.40892	5 X
K08F10F	18.2	0.15	K123E	6.306	82.722	126.939	1.906	0.13735	2.34868	2 X
K08F20M	18.1	0.15	K123E	24.707	269.214	273.944	1.304	0.14490	2.40631	3 X
K08F23A	18.4	0.15	K123E	41.617	138.788	60.611	5.614	0.08883	2.31547	4 X
K08F49O	18.2	0.15	K123E	357.900	164.081	54.113	2.266	0.13795	2.42313	3 X
K08F55E	18.2	0.15	K123E	57.004	125.959	52.111	2.444	0.11767	2.33040	5 X
K08F60D	17.6	0.15	K123E	5.549	115.536	97.357	3.747	0.13607	2.40671	5 X
K08F68Y	17.4	0.15	K123E	123.766	331.530	121.911	2.857	0.17223	2.37210	4 X
K08FA2K	17.4	0.15	K123E	66.994	70.434	96.068	6.081	0.16463	2.34195	5 X
K08FC3N	18.1	0.15	K123E	3.178	214.315	28.622	1.823	0.14352	2.35467	4 X
K08FD6R	17.5	0.15	K123E	54.499	160.671	26.542	4.853	0.12969	2.31468	5 X
K08G54Q	17.7	0.15	K123E	6.804	158.544	74.031	2.496	0.14558	2.35347	5 X
K08G57Y	17.4	0.15	K123E	359.112	205.324	38.583	2.789	0.16994	2.35417	3 X
K08G71V	17.5	0.15	K123E	341.688	207.652	57.755	3.248	0.18669	2.36701	7 X
K08G79T	18.1	0.15	K123E	10.164	168.579	67.279	2.664	0.13438	2.38116	3 X
K08GB1B	17.6	0.15	K123E	45.393	94.268	90.087	22.355	0.22445	2.34673	4 X
K08GC4N	17.5	0.15	K123E	61.697	106.054	69.980	6.428	0.11219	2.29603	3 X
K08H15N	17.4	0.15	K123E	81.104	55.520	105.438	6.661	0.13117	2.34566	4 X
K08H55Q	18.1	0.15	K123E	353.809	172.368	76.897	3.881	0.21096	2.43725	3 X
K08J36Z	17.9	0.15	K123E	53.325	85.368	99.496	2.286	0.12694	2.40202	6 X
K08K10T	17.5	0.15	K123E	347.265	186.321	98.680	6.479	0.09357	2.37332	4 X
K08K28B	16.3	0.15	K123E	282.229	165.157	133.619	16.360	0.14571	2.52271	6 X
K08K38U	17.4	0.15	K123E	28.161	120.562	88.727	3.529	0.16188	2.40666	6 X
K08L09R	16.8	0.15	K123E	298.128	180.461	128.897	14.097	0.21719	2.52924	3 X
K08L10Z	17.4	0.15	K123E	352.728	168.516	84.110	11.062	0.19160	2.44400	5 X
K08L15E	17.5	0.15	K123E	296.878	165.126	144.032	13.219	0.17812	2.51848	4 X
K08N02X	16.4	0.15	K123E	347.271	322.127	307.227	8.069	0.04602	2.60661	4 X
K08O03J	16.2	0.15	K123E	296.590	180.561	140.257	14.930	0.28125	2.67034	4 X
K08O03W	17.3	0.15	K123E	319.574	132.179	156.679	12.970	0.28985	2.64193	4 X
K08O24W	16.4	0.15	K123E	251.323	223.356	159.893	11.245	0.31164	2.71701	5 X
K08O25E	16.6	0.15	K123E	281.748	41.131	306.771	10.338	0.08796	2.69928	5 X
K08P04H	17.1	0.15	K123E	306.174	264.854	66.244	4.973	0.24726	2.56458	3 X
K08P08L	16.3	0.15	K123E	355.253	329.383	292.521	11.424	0.10119	2.62628	6 X
K08P17J	16.8	0.15	K123E	311.737	53.334	272.663	11.902	0.21696	2.57690	5 X
K08P21H	15.8	0.15	K123E	265.653	219.467	133.714	16.358	0.27752	2.80066	6 X
K08Q06G	16.5	0.15	K123E	283.573	107.135	230.067	7.949	0.22620	2.72993	5 X
K08Q23S	16.4	0.15	K123E	181.175	251.545	164.986	15.546	0.15679	3.04642	3 X
K08Q38E	17.6	0.15	K123E	300.797	320.208	13.216	2.177	0.20098	2.68720	4 X
K08Q42T	17.3	0.15	K123E	251.426	52.873	331.550	1.095	0.10714	2.80896	4 X
K08R10V	16.6	0.15	K123E	265.359	353.701	11.176	5.292	0.12171	2.77818	6 X
K08R16K	17.1	0.15	K123E	259.276	96.477	290.044	3.740	0.17653	2.73519	5 X
K08R28J	17.4	0.15	K123E	262.964	36.707	331.013	4.716	0.05499	2.75760	5 X
K08R29B	17.0	0.15	K123E	329.035	96.353	180.641	9.153	0.10507	2.85451	4 X
K08R33R	16.9	0.15	K123E	307.717	353.527	322.396	3.586	0.06346	2.78426	8 X
K08R77V	16.3	0.15	K123E	246.517	86.092	305.155	11.005	0.12395	2.73439	3 X
K08R84E	17.0	0.15	K123E	319.267	359.782	304.389	3.400	0.13026	2.67540	3 X
K08R95B	17.2	0.15	K123E	258.858	56.442	316.987	4.191	0.08141	2.69382	5 X

K08RB3M	16.8	0.15	K123E	308.547	26.125	293.935	3.332	0.06624	2.80019	5	X
K08RB6F	17.3	0.15	K123E	261.302	35.974	336.555	1.304	0.07920	2.86822	4	X
K08RB8U	16.3	0.15	K123E	231.820	354.457	54.501	6.521	0.17014	3.05734	4	X
K08RE5F	17.0	0.15	K123E	108.374	118.975	33.721	2.268	0.01338	2.89185	5	X
K08RE6F	16.6	0.15	K123E	214.137	175.110	220.764	15.021	0.06230	3.01494	6	X
K08S07X	18.4	0.15	K123E	324.185	6.161	348.067	6.489	0.48350	2.43576	2	W
K08S26B	17.4	0.15	K123E	267.391	2.594	3.867	4.706	0.13448	2.73759	5	X
K08S50A	17.1	0.15	K123E	300.022	331.614	355.997	4.152	0.06999	2.79184	6	X
K08S71F	16.7	0.15	K123E	287.818	143.930	188.822	13.373	0.20645	2.79489	3	X
K08S83Y	15.6	0.15	K123E	237.396	108.743	241.792	10.743	0.06153	3.05999	5	X
K08S93G	16.1	0.15	K123E	255.005	122.703	225.917	8.204	0.08317	3.09374	4	X
K08SD6P	16.4	0.15	K123E	168.719	139.333	318.752	5.576	0.21600	3.09951	4	X
K08SF3X	16.3	0.15	K123E	312.319	281.133	31.197	4.208	0.08971	2.77277	3	X
K08SH0P	16.5	0.15	K123E	317.710	72.229	203.291	8.416	0.02068	3.02995	5	X
K08SH3L	16.3	0.15	K123E	260.195	94.912	287.481	7.869	0.18124	2.74452	4	X
K08SK1D	16.2	0.15	K123E	229.082	155.442	223.353	8.180	0.07337	3.16532	7	X
K08SM0U	17.3	0.15	K123E	260.367	26.305	344.736	1.467	0.08045	2.88125	5	X
K08SP1H	15.7	0.15	K123E	302.478	118.056	192.521	10.673	0.09988	2.98947	5	X
K08SR3D	16.3	0.15	K123E	258.790	300.496	80.086	12.321	0.08914	3.08868	5	X
K08ST1O	16.4	0.15	K123E	293.456	81.753	259.113	5.304	0.06990	2.73300	5	X
K08SU9Z	16.2	0.15	K123E	220.332	354.470	57.158	3.955	0.09366	3.15495	4	X
K08T03G	15.9	0.15	K123E	210.612	326.383	101.879	10.877	0.13867	2.92698	4	X
K08T14G	16.5	0.15	K123E	258.684	150.687	193.175	17.950	0.08186	3.01254	4	X
K08T15X	17.1	0.15	K123E	278.451	70.058	284.978	2.619	0.09894	2.78864	4	X
K08T94A	16.7	0.15	K123E	262.527	298.450	72.606	3.051	0.08491	2.84900	6	X
K08T95J	17.2	0.15	K123E	194.504	88.496	342.903	4.923	0.06032	2.77313	5	X
K08T97X	16.9	0.15	K123E	262.494	82.269	297.291	3.829	0.17750	2.78199	7	X
K08TA6B	16.8	0.15	K123E	249.016	308.203	72.309	3.108	0.08000	2.87543	5	X
K08TB1K	15.5	0.15	K123E	211.759	187.483	212.557	28.376	0.18319	3.15732	5	X
K08TB1Y	16.0	0.15	K123E	244.643	134.745	231.667	8.821	0.17887	3.04699	6	X
K08TE8G	16.7	0.15	K123E	53.049	151.836	52.294	3.524	0.05256	2.95262	5	X
K08TF8D	15.4	0.15	K123E	207.890	143.370	280.660	9.380	0.10729	3.07964	5	X
K08TH5A	17.1	0.15	K123E	203.964	28.211	30.393	1.773	0.01719	3.00323	4	X
K08TI1K	16.1	0.15	K123E	276.851	245.299	127.874	9.198	0.14352	2.76196	4	X
K08TI8L	15.4	0.15	K123E	258.635	90.127	242.788	14.243	0.08444	3.19555	3	X
K08U04K	16.0	0.15	K123E	286.300	86.707	230.536	7.833	0.08385	3.01703	4	X
K08U27R	16.4	0.15	K123E	313.073	104.854	181.754	2.173	0.26356	3.06817	5	W
K08U68N	16.2	0.15	K123E	124.258	38.221	95.035	6.283	0.14153	3.17618	4	X
K08U70X	15.8	0.15	K123E	322.279	95.653	254.706	12.197	0.22314	2.64383	6	X
K08UB4B	15.9	0.15	K123E	232.758	120.456	247.746	5.138	0.13358	3.25687	5	X
K08UC4V	16.0	0.15	K123E	249.956	78.167	303.439	7.563	0.08341	3.10304	6	X
K08UD9P	16.0	0.15	K123E	25.542	4.154	235.713	3.565	0.05262	3.13440	6	X
K08UE2S	16.5	0.15	K123E	27.237	183.452	55.416	4.177	0.04299	3.17313	4	X
K08UE7X	17.6	0.15	K123E	275.048	348.021	27.526	2.861	0.23006	2.84625	3	X
K08UF7P	16.3	0.15	K123E	191.378	15.787	64.544	2.868	0.04557	3.18147	5	X
K08UG7T	16.3	0.15	K123E	185.175	0.345	90.018	2.402	0.16324	3.11617	4	X
K08UH9A	15.5	0.15	K123E	170.434	163.242	295.508	7.468	0.14816	3.11679	4	X
K08UJ2F	15.8	0.15	K123E	210.908	2.567	64.082	5.320	0.10864	3.06405	5	X
K08UK0M	16.9	0.15	K123E	272.677	131.925	241.219	3.750	0.17079	2.76723	7	X
K08UK5C	15.0	0.15	K123E	202.022	287.741	117.554	23.306	0.20771	3.14617	3	X
K08UL4F	15.5	0.15	K123E	283.168	69.065	243.327	12.894	0.13331	3.14863	5	X
K08UL6L	16.6	0.15	K123E	337.175	320.617	330.269	6.212	0.02089	3.07838	5	X
K08UP0G	16.5	0.15	K123E	304.410	240.203	47.377	16.935	0.20880	3.14178	3	X
K08UU7G	16.2	0.15	K123E	273.431	46.017	306.699	6.758	0.03175	3.14221	4	X
K08UV4B	16.5	0.15	K123E	173.557	129.314	320.750	4.561	0.15495	3.17763	5	X
K08UZ3K	16.5	0.15	K123E	264.224	77.086	294.437	1.156	0.11046	3.04684	7	X
K08UZ3Q	16.5	0.15	K123E	216.638	146.392	272.727	3.496	0.06217	3.15095	5	X
K08Ua8N	16.1	0.15	K123E	222.495	315.989	97.791	2.018	0.05522	3.16254	6	X
K08V08M	15.4	0.15	K123E	205.397	161.712	266.350	8.359	0.04891	3.05446	6	X
K08V17Q	16.4	0.15	K123E	219.207	350.189	78.896	2.763	0.26962	2.99852	6	X
K08V24R	15.6	0.15	K123E	217.239	340.194	83.042	10.743	0.21757	3.12961	6	X
K08V29N	16.2	0.15	K123E	126.946	219.956	280.866	7.054	0.03383	3.13320	4	X
K08V51G	16.2	0.15	K123E	283.310	305.550	49.192	4.396	0.16206	3.00818	7	X
K08V57Q	16.2	0.15	K123E	305.848	254.537	72.936	2.517	0.07840	3.04265	6	X
K08V77G	15.8	0.15	K123E	272.784	268.230	91.577	10.247	0.06229	3.09189	4	X
K08W03N	16.2	0.15	K123E	300.696	72.743	231.350	8.918	0.11313	3.14603	2	X
K08W12U	16.5	0.15	K123E	194.252	41.095	41.816	5.093	0.13809	3.13168	4	X
K08W18N	16.4	0.15	K123E	269.819	335.193	358.963	1.269	0.15590	3.12217	5	X
K08W18O	16.7	0.15	K123E	327.696	342.404	314.542	1.157	0.14391	2.93567	5	X
K08W73Y	16.1	0.15	K123E	257.246	322.597	76.121	4.089	0.24757	3.02495	5	X
K08W81M	15.5	0.15	K123E	253.541	307.676	81.946	14.768	0.15411	3.04517	7	X
K08W98K	16.0	0.15	K123E	343.633	1.847	294.915	9.885	0.03119	2.98586	8	X
K08Y07Q	15.9	0.15	K123E	266.339	292.334	90.495	9.900	0.23775	2.99589	6	X
K08Y11M	15.4	0.15	K123E	263.519	105.275	288.840	10.504	0.25726	3.13240	4	X
K08Y64D	15.5	0.15	K123E	256.864	114.041	286.760	14.859	0.25311	3.14327	3	X
K09C39D	17.6	0.15	K123E	4.687	60.415	158.086	23.404	0.07595	1.90475	5	X
K09F56S	17.1	0.15	K123E	51.966	255.509	287.367	18.062	0.05552	1.88050	5	X

K09N00H	18.7	0.15	K123E	276.933	216.693	145.698	7.326	0.48603	2.17629	2 X
K09O02V	16.3	0.15	K123E	248.645	262.601	115.761	23.026	0.35935	2.31435	4 X
K09O17V	18.3	0.15	K123E	306.828	131.947	156.651	6.912	0.17638	2.21834	3 X
K09O24E	17.7	0.15	K123E	247.391	24.931	348.345	2.828	0.10873	2.27243	3 X
K09P03O	18.4	0.15	K123E	294.595	116.101	198.973	2.821	0.21645	2.18192	6 X
K09P06D	18.0	0.15	K123E	307.519	27.733	257.131	4.896	0.20433	2.19235	3 X
K09R39O	17.4	0.15	K123E	304.526	33.299	284.821	4.469	0.22382	2.20124	5 X
K09R48J	18.1	0.15	K123E	296.708	289.858	9.938	1.137	0.18866	2.37648	5 X
K09R57W	17.2	0.15	K123E	264.276	114.537	263.944	4.755	0.16323	2.20725	6 X
K09S42J	17.1	0.15	K123E	114.571	211.932	287.928	3.843	0.11051	2.53200	6 X
K09S73W	16.6	0.15	K123E	176.387	351.433	58.324	6.175	0.13968	2.71547	4 X
K09SA7R	17.8	0.15	K123E	220.578	39.865	4.619	3.372	0.12540	2.39277	4 X
K09SA9W	18.0	0.15	K123E	291.740	41.122	293.210	4.868	0.21327	2.19530	5 X
K09SC3D	16.5	0.15	K123E	339.057	11.613	219.011	11.364	0.13914	2.65058	3 X
K09SF7E	18.1	0.15	K123E	275.759	318.694	31.161	4.071	0.15151	2.27372	6 X
K09SQ7G	17.0	0.15	K123E	299.363	335.556	344.328	3.626	0.03132	2.42291	5 X
K09SR5C	17.9	0.15	K123E	253.676	220.686	135.380	1.840	0.19978	2.36222	4 X
K09T03M	17.8	0.15	K123E	233.689	111.114	291.663	4.059	0.23404	2.35945	4 X
K09T10L	17.7	0.15	K123E	284.131	271.138	46.519	3.591	0.21818	2.33845	6 X
K09T10V	18.0	0.15	K123E	226.361	25.442	24.486	2.778	0.20699	2.36262	4 X
K09T20X	17.9	0.15	K123E	280.422	284.785	70.890	4.331	0.22287	2.21863	5 X
K09T22V	17.4	0.15	K123E	282.447	275.399	71.874	9.466	0.19137	2.26688	5 X
K09T27F	15.8	0.15	K123E	192.654	230.372	172.072	13.910	0.08717	2.68361	6 X
K09T33H	16.0	0.15	K123E	195.307	341.773	47.645	13.364	0.12880	2.72449	3 X
K09T33M	18.1	0.15	K123E	279.811	258.246	93.082	4.673	0.17599	2.21785	5 X
K09T47O	16.1	0.15	K123E	68.391	253.303	246.859	6.007	0.12651	3.10228	4 X
K09U04U	17.4	0.15	K123E	254.559	69.176	270.855	3.028	0.13917	2.54999	4 X
K09U04X	17.7	0.15	K123E	197.961	36.014	33.709	5.790	0.12013	2.43760	5 X
K09U08Y	17.5	0.15	K123E	282.763	210.027	113.041	3.334	0.18897	2.34766	5 X
K09U46N	16.6	0.15	K123E	260.621	281.713	46.260	15.101	0.17904	2.63998	4 X
K09U57D	16.4	0.15	K123E	201.400	167.353	228.284	6.481	0.14561	2.66000	4 X
K09U59M	17.7	0.15	K123E	308.856	217.737	98.903	6.662	0.21748	2.23848	6 X
K09U86Q	16.8	0.15	K123E	321.211	42.496	263.769	6.144	0.07682	2.36820	5 X
K09U89Z	15.4	0.15	K123E	107.304	49.301	53.007	27.951	0.11715	3.16397	2 X
K09U91P	17.0	0.15	K123E	201.482	249.654	157.816	5.061	0.20754	2.59404	4 X
K09UA7Z	18.4	0.15	K123E	256.377	324.735	55.565	2.254	0.20182	2.33092	4 X
K09UA8S	16.1	0.15	K123E	158.523	359.225	51.118	12.000	0.07450	3.05211	3 X
K09UB4L	18.0	0.15	K123E	195.438	43.216	28.419	1.835	0.16444	2.40420	5 X
K09UE6X	17.1	0.15	K123E	294.842	265.827	63.897	5.606	0.05804	2.55165	6 X
K09V04C	15.3	0.15	K123E	62.122	284.067	236.447	24.775	0.21414	3.18785	3 X
K09V37L	16.1	0.15	K123E	163.426	4.991	51.398	10.830	0.09357	2.98367	3 X
K09V38F	17.8	0.15	K123E	217.704	25.700	30.322	1.665	0.17722	2.41728	3 X
K09V50A	17.6	0.15	K123E	267.181	340.690	23.586	2.582	0.18698	2.35107	5 X
K09V58U	16.7	0.15	K123E	112.247	199.166	303.764	4.735	0.04926	2.55805	5 X
K09V59F	17.9	0.15	K123E	264.390	323.582	49.405	3.453	0.23663	2.31152	3 X
K09V66O	17.8	0.15	K123E	290.050	85.607	260.964	3.621	0.19681	2.30671	5 X
K09V66Z	18.2	0.15	K123E	258.790	25.001	352.726	2.174	0.21129	2.36033	5 X
K09V78T	17.6	0.15	K123E	223.792	322.155	92.620	3.490	0.18523	2.43323	4 X
K09V84A	17.5	0.15	K123E	282.561	320.875	31.993	3.863	0.21046	2.33338	5 X
K09VA3Q	17.4	0.15	K123E	235.085	37.101	9.024	2.488	0.18302	2.60924	6 X
K09VB4S	16.1	0.15	K123E	138.400	185.837	297.249	9.036	0.11930	3.08403	5 X
K09V25M	16.4	0.15	K123E	270.181	285.108	90.338	23.660	0.30203	2.27087	5 X
K09W29D	17.9	0.15	K123E	232.533	331.887	69.588	7.414	0.12459	2.46587	4 X
K09W43P	16.2	0.15	K123E	214.692	271.869	112.242	3.064	0.10960	2.92630	7 X
K09W45Q	16.4	0.15	K123E	139.606	32.333	83.588	5.996	0.12068	2.76071	5 X
K09W64H	16.7	0.15	K123E	259.421	147.214	194.678	4.220	0.07923	2.77085	4 X
K09W66R	17.2	0.15	K123E	333.514	55.991	201.766	3.525	0.01226	2.77524	6 X
K09W70M	15.6	0.15	K123E	12.146	334.508	235.216	16.503	0.16040	3.12020	3 X
K09W74F	16.5	0.15	K123E	212.199	298.328	88.472	5.922	0.13237	2.75964	5 X
K09W74G	17.2	0.15	K123E	249.912	297.224	90.263	3.633	0.17432	2.40510	6 X
K09W83L	17.9	0.15	K123E	202.888	118.974	303.737	4.839	0.06296	2.53690	5 X
K09W87T	17.4	0.15	K123E	187.182	71.787	3.151	3.263	0.08100	2.62834	6 X
K09W92N	17.1	0.15	K123E	19.971	278.126	311.976	6.689	0.11678	2.69703	5 X
K09W93A	16.2	0.15	K123E	200.909	335.651	92.602	15.945	0.10686	2.65602	5 X
K09W67T	15.8	0.15	K123E	346.767	176.665	56.430	13.429	0.10224	3.04280	3 X
K09WC1R	15.8	0.15	K123E	135.929	199.076	245.865	9.584	0.04016	3.06161	3 X
K09WD0J	16.3	0.15	K123E	57.688	252.026	265.383	3.866	0.09770	3.18449	5 X
K09WG0X	18.0	0.15	K123E	196.056	136.051	294.964	2.290	0.07150	2.55936	4 X
K09WG6X	16.2	0.15	K123E	13.592	152.991	96.448	5.557	0.02320	2.76120	6 X
K09WG7Z	17.3	0.15	K123E	156.941	24.313	76.240	5.201	0.04308	2.65365	4 X
K09WG9H	17.6	0.15	K123E	294.694	239.326	96.941	5.874	0.17306	2.38948	5 X
K09WH1M	18.1	0.15	K123E	284.279	55.719	295.123	2.807	0.18988	2.31644	3 X
K09WH1S	18.1	0.15	K123E	311.562	356.787	316.972	3.741	0.18575	2.35767	3 X
K09WH1Y	16.2	0.15	K123E	352.107	340.337	276.881	7.194	0.13481	2.59941	5 X
K09WI0O	17.9	0.15	K123E	313.834	200.440	120.741	3.001	0.21669	2.36188	5 X
K09WJ3K	17.8	0.15	K123E	277.349	308.187	44.422	3.358	0.19639	2.33383	4 X
K09WL7T	17.6	0.15	K123E	290.433	337.587	4.345	1.683	0.23951	2.31850	6 X

K09WN0J	17.2	0.15	K123E	283.953	267.246	77.559	3.755	0.19538	2.31357	4	X
K09WP0P	15.9	0.15	K123E	191.844	176.336	263.291	13.801	0.06550	2.59807	7	X
K09WP7N	16.7	0.15	K123E	257.278	286.251	76.201	6.837	0.02733	2.69970	5	X
K09WP9P	16.1	0.15	K123E	223.553	316.743	107.148	14.733	0.25191	2.59924	5	X
K09WQ3B	16.4	0.15	K123E	179.465	172.231	273.641	4.176	0.08825	2.73320	5	X
K09X03Q	15.7	0.15	K123E	105.880	59.029	92.128	16.061	0.09858	2.87020	4	X
K09Y06S	14.3	0.15	K123E	4.612	288.847	295.870	147.767	0.92036	20.31048	4	X
K09Y11O	16.1	0.15	K123E	178.920	129.299	322.966	4.102	0.16331	2.79647	6	X
K09Y12M	16.4	0.15	K123E	88.898	223.652	303.376	9.062	0.03768	3.06572	4	X
K09Y21F	16.6	0.15	K123E	246.148	297.902	95.499	14.784	0.17159	2.61617	4	X
K10A05F	16.5	0.15	K123E	171.197	3.863	88.650	4.811	0.15341	2.78442	4	X
K10A21J	16.6	0.15	K123E	199.674	162.254	272.776	14.214	0.08064	2.64572	6	X
K10A33B	16.4	0.15	K123E	201.463	103.429	325.471	7.508	0.09102	2.93029	5	X
K10A64B	16.7	0.15	K123E	287.816	259.708	86.275	8.065	0.12165	2.75954	5	X
K10A66D	15.7	0.15	K123E	201.075	286.244	119.620	19.529	0.13835	3.19786	4	X
K10A73V	16.2	0.15	K123E	147.099	15.042	103.618	11.393	0.05552	2.78523	4	X
K10A79E	15.9	0.15	K123E	3.638	137.852	126.770	12.191	0.06919	3.09868	4	X
K10B02M	17.1	0.15	K123E	242.757	342.041	66.485	4.103	0.27236	2.54243	6	X
K10C29J	15.1	0.15	K123E	129.320	143.526	350.994	4.673	0.14459	3.65075	5	X
K10D04Q	16.7	0.15	K123E	218.855	96.733	323.514	8.143	0.14426	2.83516	5	X
K10J39U	19.6	0.15	K123E	188.211	311.368	95.205	36.207	0.54627	0.91900	4	X
K10L14G	17.8	0.15	K123E	192.231	182.810	271.305	34.213	0.74264	1.04521	3	X
K10U07T	19.5	0.15	K123E	272.788	277.191	65.925	25.428	0.66051	1.58357	2	X
K10U11W	16.9	0.15	K123E	70.229	272.527	213.163	26.881	0.38840	2.61107	3	X
K10U93O	17.0	0.15	K123E	55.140	276.992	239.607	20.942	0.23917	2.34590	3	X
K10V25Y	17.6	0.15	K123E	81.135	265.005	228.360	5.200	0.09467	2.22232	5	X
K10VA4O	16.1	0.15	K123E	73.604	262.837	225.265	14.755	0.24799	2.57296	4	X
K10VH0R	16.7	0.15	K123E	6.350	308.148	243.093	12.109	0.21902	2.59998	3	X
K10VJ8J	16.6	0.15	K123E	84.728	211.393	301.711	11.161	0.17156	2.73865	4	X
K10X16X	17.7	0.15	K123E	157.514	335.938	92.174	6.063	0.10212	2.20501	5	X
K10X23S	17.7	0.15	K123E	202.627	132.651	282.362	17.330	0.13673	1.93020	4	X
K10X77G	17.3	0.15	K123E	103.526	218.921	246.448	5.936	0.11499	2.34466	5	X
K11A04H	15.7	0.15	K123E	75.276	45.925	102.633	28.319	0.00677	2.57883	3	X
K11A06Q	17.1	0.15	K123E	88.963	183.380	296.831	1.189	0.15225	2.65470	5	X
K11A07Z	17.7	0.15	K123E	81.977	241.077	274.373	1.228	0.14607	2.35805	4	X
K11A14G	16.4	0.15	K123E	32.558	82.673	99.029	9.194	0.16484	3.03110	4	X
K11A19R	17.2	0.15	K123E	70.141	256.515	281.678	6.028	0.06230	2.40354	4	X
K11A21H	17.5	0.15	K123E	23.819	135.390	84.064	5.466	0.17297	2.56109	3	X
K11A26E	17.0	0.15	K123E	125.919	31.022	58.654	5.786	0.06479	2.56008	3	X
K11A30R	17.8	0.15	K123E	57.941	247.740	298.846	3.116	0.08341	2.34547	4	X
K11A46D	16.5	0.15	K123E	29.440	271.594	300.941	6.293	0.15893	2.76129	6	X
K11A49A	16.1	0.15	K123E	324.003	141.022	133.742	9.606	0.25824	2.79184	5	X
K11A55J	17.2	0.15	K123E	20.320	94.901	105.702	4.389	0.13115	2.74134	4	X
K11A61W	16.7	0.15	K123E	3.824	110.541	115.368	7.401	0.12940	2.67818	5	X
K11A63R	17.5	0.15	K123E	118.578	175.239	311.183	6.432	0.17861	2.34689	4	X
K11A66L	17.4	0.15	K123E	79.966	212.641	315.631	4.846	0.07447	2.33850	5	X
K11A71H	18.1	0.15	K123E	60.074	139.598	35.790	4.983	0.20649	2.58136	5	X
K11A76T	16.4	0.15	K123E	116.323	351.919	117.250	11.138	0.02574	2.74306	6	X
K11A77U	17.1	0.15	K123E	115.049	357.395	106.184	6.062	0.16074	2.58878	6	X
K11B08K	18.2	0.15	K123E	96.059	111.420	34.369	0.835	0.14277	2.33892	5	X
K11B11F	15.4	0.15	K123E	54.884	23.903	139.070	18.545	0.11536	3.17031	3	X
K11B25H	17.5	0.15	K123E	79.513	118.459	46.560	1.712	0.13752	2.41934	6	X
K11B25M	16.0	0.15	K123E	132.627	341.748	112.480	22.808	0.03016	2.65123	2	X
K11B44U	16.7	0.15	K123E	79.762	0.778	139.251	3.036	0.12623	2.93476	4	X
K11B52C	15.5	0.15	K123E	6.180	95.426	122.710	16.359	0.16413	3.12239	3	X
K11B62R	17.2	0.15	K123E	77.057	77.347	90.891	7.214	0.07064	2.43798	5	X
K11B72A	17.6	0.15	K123E	304.784	16.604	294.758	6.422	0.10214	2.41472	4	X
K11B75M	17.3	0.15	K123E	281.629	34.775	305.520	5.034	0.10429	2.29969	7	X
K11B88Q	16.7	0.15	K123E	32.983	270.113	308.390	7.019	0.07536	2.63452	6	X
K11B93A	16.7	0.15	K123E	280.933	61.424	251.063	6.333	0.09503	2.43438	6	X
K11B96V	16.6	0.15	K123E	29.904	263.238	314.480	9.009	0.12995	2.73557	4	X
K11B97V	18.0	0.15	K123E	48.176	163.959	33.201	4.897	0.09258	2.41746	3	X
K11BA0M	17.0	0.15	K123E	80.719	233.066	295.300	8.463	0.11148	2.56449	5	X
K11BA1H	17.8	0.15	K123E	62.302	142.612	37.515	1.978	0.13002	2.44614	5	X
K11BB4K	16.5	0.15	K123E	324.968	145.123	115.197	14.826	0.16500	2.72430	4	X
K11C17E	17.3	0.15	K123E	308.738	1.227	302.793	5.064	0.05343	2.32903	3	X
K11C32B	17.2	0.15	K123E	6.718	289.777	310.323	5.394	0.12395	2.45793	3	X
K11C32V	17.6	0.15	K123E	347.961	293.380	331.282	5.487	0.12039	2.37048	5	X
K11C33W	17.4	0.15	K123E	52.593	238.004	312.545	5.816	0.06178	2.37049	5	X
K11C42O	17.5	0.15	K123E	37.595	273.144	294.937	6.366	0.15941	2.78543	3	X
K11C54M	17.9	0.15	K123E	45.660	235.702	325.723	4.831	0.08872	2.56614	4	X
K11C72D	15.8	0.15	K123E	31.809	49.868	136.524	17.624	0.18036	3.14372	4	X
K11C74J	17.0	0.15	K123E	87.164	221.471	291.557	5.681	0.19079	2.62440	5	X
K11C74W	17.4	0.15	K123E	126.496	71.082	48.722	3.366	0.13695	2.40059	5	X
K11C79A	17.1	0.15	K123E	155.708	172.077	254.380	2.723	0.08329	2.72805	6	X
K11C86S	16.8	0.15	K123E	348.283	335.861	289.566	4.496	0.10563	2.54615	7	X
K11C91X	17.6	0.15	K123E	81.358	232.670	292.496	6.244	0.06304	2.35570	3	X

K11C97D	17.1	0.15	K123E	191.640	171.841	229.191	5.343	0.03334	2.68429	4	X
K11CA1A	17.2	0.15	K123E	306.949	83.342	207.723	5.790	0.02802	2.77042	6	X
K11D02E	17.7	0.15	K123E	122.141	139.325	344.546	2.230	0.16025	2.36499	4	X
K11D07Y	17.4	0.15	K123E	124.995	118.814	14.313	3.045	0.07889	2.59265	5	X
K11D10Q	15.8	0.15	K123E	70.291	61.745	95.571	26.416	0.36928	3.11317	4	X
K11D13B	17.4	0.15	K123E	134.773	152.360	326.589	6.401	0.07773	2.32765	3	X
K11D18A	17.0	0.15	K123E	289.496	315.780	22.803	2.753	0.15638	2.63149	6	X
K11D18N	17.2	0.15	K123E	48.806	196.354	0.823	1.043	0.14809	3.19931	4	X
K11D22X	16.1	0.15	K123E	54.134	140.990	54.995	3.067	0.10234	3.07987	6	X
K11D25K	17.0	0.15	K123E	337.298	327.145	304.794	6.453	0.09722	2.35279	6	X
K11D49P	16.6	0.15	K123E	101.249	206.740	296.508	6.731	0.15160	2.60143	4	X
K11E04A	16.1	0.15	K123E	307.114	134.998	167.964	11.007	0.06465	3.12317	8	X
K11E08P	17.8	0.15	K123E	99.366	40.870	106.034	3.394	0.13042	2.43179	4	X
K11E10A	16.5	0.15	K123E	257.062	177.270	161.828	8.955	0.12683	2.61094	4	X
K11E10X	15.7	0.15	K123E	292.892	148.854	159.502	17.413	0.05547	3.03320	4	X
K11E13G	16.9	0.15	K123E	51.973	189.370	4.190	3.855	0.13727	2.75273	6	X
K11E36E	17.7	0.15	K123E	140.358	74.763	40.577	2.526	0.07156	2.63696	6	X
K11E38A	16.7	0.15	K123E	261.849	267.193	98.019	7.283	0.05808	2.67718	6	X
K11E39E	16.4	0.15	K123E	63.179	89.550	103.573	2.646	0.12533	3.09907	5	X
K11E66L	15.9	0.15	K123E	112.020	291.753	173.702	19.491	0.20198	3.18257	5	X
K11E69H	16.3	0.15	K123E	3.710	196.084	63.322	5.584	0.02471	2.76803	4	X
K11E81K	17.4	0.15	K123E	100.927	154.721	354.614	3.071	0.09390	2.61182	5	X
K11F01V	15.9	0.15	K123E	134.551	77.855	48.576	5.861	0.01110	2.71860	5	X
K11F06G	15.1	0.15	K123E	55.444	92.820	104.814	9.070	0.11486	3.17647	8	X
K11F35G	16.2	0.15	K123E	85.763	106.436	59.599	4.762	0.09194	3.13680	5	X
K11F98E	17.0	0.15	K123E	175.003	25.377	55.021	7.802	0.11472	2.44532	4	X
K11FA2U	16.9	0.15	K123E	315.714	198.787	107.838	5.924	0.03662	2.52897	6	X
K11FF0Z	15.9	0.15	K123E	78.816	70.734	107.120	15.778	0.09109	2.85520	4	X
K11G07X	15.9	0.15	K123E	191.616	270.207	139.987	17.714	0.06715	3.12987	6	X
K11G09K	16.0	0.15	K123E	62.144	62.066	134.543	11.489	0.08388	2.88176	5	X
K11G28Y	17.2	0.15	K123E	240.777	297.259	83.608	4.077	0.02635	2.74305	5	X
K11G29W	17.1	0.15	K123E	61.580	72.434	118.943	2.969	0.13638	3.03755	5	X
K11G61M	16.7	0.15	K123E	171.365	353.373	102.939	10.816	0.12442	2.67796	4	X
K11G64X	15.4	0.15	K123E	90.963	85.580	85.539	10.212	0.04629	3.16573	7	X
K11H90E	16.4	0.15	K123E	104.789	74.656	79.011	13.367	0.11763	2.99428	3	X
K11WD4V	17.1	0.15	K123E	355.678	25.635	157.789	6.044	0.67834	2.78607	3	X
K12D03Z	15.6	0.15	K123E	348.340	125.625	123.535	26.261	0.44374	3.13198	4	X
K12D32X	21.3	0.15	K123E	355.558	67.619	127.475	1.445	0.40798	2.05427	2	X
K12F44J	18.1	0.15	K123E	347.784	17.231	198.912	2.704	0.15014	2.26169	4	X
K12G34L	16.3	0.15	K123E	306.754	224.949	49.747	12.404	0.14122	2.65654	6	X
K12H02C	16.9	0.15	K123E	338.077	169.272	104.042	21.703	0.50465	3.03033	2	X
K12H07P	15.9	0.15	K123E	5.900	151.219	50.405	12.726	0.08929	3.10597	4	X
K12H20G	17.3	0.15	K123E	348.565	18.348	211.485	21.217	0.05366	1.93894	4	X
K12H23T	16.6	0.15	K123E	145.102	293.219	147.545	15.117	0.02613	2.63999	5	X
K12H26A	15.6	0.15	K123E	293.444	217.092	100.121	16.841	0.30876	3.07663	4	X
K12H26J	18.4	0.15	K123E	349.012	55.330	158.957	2.411	0.16036	2.34687	3	X
K12H28W	17.6	0.15	K123E	359.544	151.821	50.196	4.758	0.16429	2.38361	4	X
K12H29K	16.5	0.15	K123E	312.778	215.758	58.548	9.686	0.20063	2.99291	2	X
K12H38N	17.7	0.15	K123E	292.741	245.613	56.571	2.944	0.19089	2.37934	5	X
K12H39J	15.7	0.15	K123E	345.668	18.310	218.351	21.008	0.23914	3.06671	3	X
K12H56R	16.2	0.15	K123E	325.357	173.268	101.876	14.694	0.28465	3.06414	3	X
K12H56Z	17.0	0.15	K123E	352.368	139.137	73.448	4.776	0.14847	2.61357	5	X
K12H64L	15.9	0.15	K123E	80.034	77.206	45.436	14.261	0.05953	2.57180	6	X
K12H70J	18.1	0.15	K123E	354.375	134.229	73.219	3.322	0.16932	2.36469	2	X
K12H71Y	15.5	0.15	K123E	251.387	207.461	155.380	13.986	0.22002	2.57177	7	X
K12H78H	16.1	0.15	K123E	14.425	136.378	57.050	11.658	0.15701	2.57513	2	X
K12J01J	15.6	0.15	K123E	26.487	117.515	62.130	12.497	0.03491	3.01222	6	X
K12J02F	16.4	0.15	K123E	327.149	95.827	171.473	12.621	0.13587	2.60941	5	X
K12J08C	16.5	0.15	K123E	141.082	24.196	49.093	8.350	0.07772	2.54509	5	X
K12J08S	17.4	0.15	K123E	72.303	143.847	359.756	1.364	0.01933	2.62517	7	X
K12J15G	15.6	0.15	K123E	276.956	264.284	47.443	9.808	0.07368	3.16245	5	X
K12J23G	16.3	0.15	K123E	295.449	201.982	89.720	14.685	0.13985	2.61290	4	X
K12J24D	16.8	0.15	K123E	291.809	174.749	144.256	12.045	0.22885	2.32644	5	X
K12J32M	16.1	0.15	K123E	326.481	85.373	192.275	15.637	0.20332	3.06885	4	X
K12J37F	17.3	0.15	K123E	305.403	183.890	109.621	4.061	0.13221	2.58257	5	X
K12J38D	18.3	0.15	K123E	343.279	192.635	44.832	1.854	0.14287	2.36180	5	X
K12J45R	15.9	0.15	K123E	354.340	15.521	218.857	4.925	0.13704	3.20641	3	X
K12J46L	15.1	0.15	K123E	255.832	264.742	76.806	16.730	0.04247	3.03216	8	X
K12K02K	16.7	0.15	K123E	319.676	136.017	146.940	13.558	0.23884	2.56685	6	X
K12K02M	16.0	0.15	K123E	81.069	326.072	170.505	15.137	0.13287	2.54671	5	X
K12K09O	15.9	0.15	K123E	49.310	82.545	61.784	10.192	0.14016	3.14699	5	X
K12K16K	17.3	0.15	K123E	310.753	133.709	160.162	3.274	0.18546	2.72913	3	X
K12K17H	16.8	0.15	K123E	340.813	45.833	208.438	4.606	0.13071	3.16569	4	X
K12K23H	15.1	0.15	K123E	275.564	186.466	139.589	16.533	0.06554	3.38021	6	X
K12K25D	16.5	0.15	K123E	359.390	96.708	129.479	16.379	0.08663	2.72047	5	X
K12K43M	16.7	0.15	K123E	306.051	176.954	113.785	4.593	0.08030	2.77758	4	X
K12K44C	16.3	0.15	K123E	141.049	316.068	129.696	5.332	0.04032	2.77346	6	X

K12K50L	16.7	0.15	K123E	305.181	195.619	116.564	16.690	0.28150	2.61522	5	X
K12L01L	19.4	0.15	K123E	302.424	63.085	240.674	19.474	0.30677	1.90624	2	X
T2S4276	17.5	0.15	K123E	268.118	200.796	148.180	4.556	0.21790	2.34489	6	X

New perturbed one-opposition orbits:

Object	H	G	Epoch	M	Peri.	Node	Incl.	e	a	Arc	C
J99G06R	20.0	0.15	K123E	81.833	146.545	180.910	29.072	0.76061	1.34013	35	W
K11Y15W	24.7	0.15	K123E	47.271	353.643	91.657	5.054	0.32840	1.48280	55	X
K11Y74U	23.0	0.15	K123E	351.083	275.637	275.551	1.955	0.25983	1.28063	170	X
K12D61H	19.2	0.15	K123E	341.881	130.710	86.188	23.389	0.51003	2.21215	108	X
K12G05D	22.5	0.15	K123E	318.477	174.172	98.818	2.470	0.42704	1.95887	64	X
K12H00O	22.7	0.15	K123E	314.072	47.702	202.493	21.768	0.22165	1.43303	32	X
K12H01W	19.8	0.15	K123E	235.125	163.672	207.832	49.570	0.66167	1.06082	60	X
K12H08W	17.3	0.15	K123E	5.355	140.515	60.387	30.559	0.28803	3.05464	76	X
K12H15R	16.8	0.15	K123E	14.524	332.375	80.812	27.925	0.73839	2.47820	54	X
K12H27R	18.1	0.15	K123E	335.789	188.077	45.035	4.800	0.15887	2.20646	93	X
K12H31G	18.9	0.15	K123E	310.993	172.948	148.414	10.218	0.52999	2.17246	61	X
K12H33Y	19.4	0.15	K123E	293.090	270.665	63.756	14.696	0.54333	1.99775	49	X
K12H69R	19.9	0.15	K123E	317.106	167.506	128.437	6.510	0.46193	2.28063	54	W
K12J04U	20.8	0.15	K123E	300.859	60.156	224.240	17.075	0.27565	1.79220	48	X
K12J11H	22.2	0.15	K123E	340.673	358.845	224.549	6.715	0.34295	1.81520	32	X
K12J11S	20.0	0.15	K123E	324.502	121.201	210.731	9.193	0.66449	2.84648	31	X
K12J16B	19.7	0.15	K123E	317.223	189.139	70.436	35.747	0.27705	1.73681	32	X
K12J17R	17.8	0.15	K123E	330.542	191.908	132.041	7.815	0.57253	2.62265	32	X
K12J17T	18.5	0.15	K123E	304.010	117.724	225.300	14.268	0.61366	2.48192	31	X
K12K06C	21.7	0.15	K123E	354.351	337.922	195.459	11.331	0.24616	1.24031	28	X
K12K42U	17.6	0.15	K123E	317.554	207.741	136.305	18.990	0.51580	2.20661	21	X
K12K45M	18.7	0.15	K123E	332.747	158.495	95.239	28.210	0.59293	2.26660	17	X
K12L00A	27.5	0.15	K123E	233.794	68.016	237.304	3.254	0.01935	1.04087	14	X
K12L00U	25.2	0.15	K123E	299.577	200.359	88.777	3.146	0.36100	1.53427	6	X
K12L01C	16.1	0.15	K123E	344.405	52.145	53.952	34.442	0.76187	1.99644	8	X
K12L01D	21.9	0.15	K123E	349.340	303.090	246.175	15.202	0.11746	1.18834	7	X
K12L01P	23.4	0.15	K123E	290.677	224.588	76.911	19.998	0.32964	1.50939	5	X
K12L01R	20.5	0.15	K123E	7.416	66.567	83.135	42.326	0.38123	1.33672	7	X
K12L01Z	19.8	0.15	K123E	335.356	13.865	264.693	26.408	0.60017	2.59265	5	X
K12L02J	21.6	0.15	K123E	348.616	94.722	86.743	34.393	0.53609	1.79556	4	X
K12L02K	17.3	0.15	K123E	9.630	24.112	110.289	31.811	0.82881	2.28734	5	X
K12L04F	24.5	0.15	K123E	258.490	72.950	252.479	5.853	0.26074	1.27108	3	X
K12L04G	23.6	0.15	K123E	219.193	100.482	262.711	14.159	0.30962	1.12996	3	X
K12L07T	19.1	0.15	K123E	338.304	358.157	112.349	41.576	0.75660	1.06869	2	W
K12L07U	18.9	0.15	K123E	315.613	179.906	153.532	8.904	0.54246	2.41768	3	W
K12L07W	23.3	0.15	K123E	335.819	123.123	91.289	8.636	0.22295	1.33828	1	K
K12L09K	17.4	0.15	K123E	283.067	322.752	64.132	13.593	0.66443	2.44944	3	W
K12L09L	18.5	0.15	K123E	327.307	205.755	129.931	35.384	0.73454	2.78780	3	W

New one-opposition orbits:

Object	H	G	Epoch	M	Peri.	Node	Incl.	e	a	Arc	C
K02N79Z	17.5	0.15	K0275	336.609	221.638	110.726	5.965	0.24852	2.56243	74	X
K12F61Z	17.8	0.15	K124N	346.057	146.787	86.925	3.590	0.12703	2.28543	78	X
K12F62J	17.5	0.15	K124N	4.419	80.246	128.860	28.282	0.43397	2.62459	78	W
K12G01R	18.5	0.15	K125D	354.493	96.947	148.176	27.113	0.47169	2.67069	64	W
K12G20U	17.2	0.15	K125D	310.683	236.762	59.203	23.216	0.23142	2.37064	61	X
K12G26D	18.8	0.15	K125D	338.115	185.829	62.642	22.180	0.04477	1.85940	62	X
K12G27B	16.0	0.15	K125D	10.174	336.490	229.889	17.176	0.19859	3.06631	61	W
K12G39Y	17.0	0.15	K124N	13.987	316.694	238.315	10.847	0.19222	2.38220	72	W
K12H00F	17.4	0.15	K125D	348.587	134.998	139.272	17.430	0.43916	2.69720	60	W
K12H11E	18.3	0.15	K125D	23.228	129.938	56.325	23.621	0.24728	2.33455	62	X
K12H14G	16.9	0.15	K125D	23.187	66.799	136.501	13.764	0.21514	2.70003	57	X
K12H23R	16.7	0.15	K124N	1.518	159.683	54.082	8.529	0.13361	2.58000	77	X
K12H27Q	17.8	0.15	K124N	353.975	171.890	53.384	5.688	0.21441	2.56376	78	X
K12H39A	16.2	0.15	K125D	333.616	208.200	58.595	11.948	0.10729	3.16956	57	X
K12H54U	17.4	0.15	K125D	310.506	239.296	56.076	8.876	0.14016	2.65886	48	X
K12H64S	17.3	0.15	K124N	345.708	184.048	51.559	13.384	0.10576	2.66582	79	X
K12H73X	18.6	0.15	K124N	336.110	172.843	74.434	3.607	0.13698	2.18371	78	X
K12H76O	18.3	0.15	K125D	36.575	310.113	225.922	5.690	0.12242	2.34396	48	X
K12H79J	16.1	0.15	K125D	323.390	224.396	54.774	18.277	0.13392	3.14670	48	X
K12H82A	18.2	0.15	K124N	320.468	176.735	100.595	1.124	0.23482	2.22370	78	X
K12H82L	17.8	0.15	K125D	314.584	250.535	55.367	23.037	0.33139	2.30765	52	X
K12J01G	17.8	0.15	K125D	350.473	171.117	63.534	13.021	0.14352	2.56717	61	X
K12J06L	18.1	0.15	K125D	290.229	7.537	306.555	1.797	0.10797	2.09714	34	X
K12J06S	17.6	0.15	K125D	351.513	194.560	48.420	6.105	0.16951	2.62753	34	X
K12J07A	17.5	0.15	K125D	13.358	155.143	57.424	4.695	0.14332	2.57006	47	X
K12J07L	17.5	0.15	K125D	323.868	40.705	251.033	3.559	0.27588	2.64545	55	X
K12J08B	17.2	0.15	K125D	310.137	247.953	45.921	6.144	0.12226	2.43746	48	X
K12J08D	16.4	0.15	K125D	307.861	243.332	50.477	9.530	0.09588	2.66113	57	X
K12J08F	16.4	0.15	K125D	265.333	281.480	52.899	17.515	0.07121	3.06638	34	X
K12J09S	18.1	0.15	K125D	315.863	245.231	50.525	3.100	0.19432	2.38744	48	X

K12J10R	18.5	0.15	K125D	356.071	176.710	64.468	7.740	0.25410	2.64142	46 X
K12J23S	16.7	0.15	K125D	338.517	126.045	144.791	13.609	0.20317	2.57708	46 X
K12J32O	17.3	0.15	K125D	341.659	85.790	184.958	12.477	0.23334	2.57131	34 X
K12J33E	17.5	0.15	K125D	15.662	35.389	183.177	13.867	0.19070	2.71672	33 X
K12J34E	17.8	0.15	K125D	278.863	75.113	252.812	5.079	0.13064	2.34732	34 X
K12J34G	17.6	0.15	K125D	39.918	287.727	249.541	5.337	0.17631	2.65648	34 X
K12J37D	16.5	0.15	K125D	291.370	260.226	54.414	2.826	0.06598	2.89928	45 X
K12J38L	18.2	0.15	K125D	350.861	177.881	58.461	11.893	0.20184	2.59821	49 X
K12J45P	15.7	0.15	K125D	315.536	211.448	81.531	11.842	0.05602	3.20678	31 X
K12J48Q	17.4	0.15	K124N	276.261	247.464	68.497	8.264	0.14038	2.26613	78 X
K12J52F	16.5	0.15	K125D	153.844	47.573	29.608	2.210	0.04683	2.95437	55 X
K12J56M	17.9	0.15	K125D	357.095	193.563	42.487	5.472	0.09832	2.73184	48 X
K12J59S	16.3	0.15	K125D	78.129	97.737	48.130	1.596	0.09194	3.17061	45 W
K12K00C	18.5	0.15	K125D	137.304	244.028	216.149	21.779	0.09251	1.87156	51 X
K12K00L	16.9	0.15	K125D	339.684	91.222	194.420	26.648	0.34933	2.61429	50 W
K12K01Z	18.2	0.15	K124N	335.498	159.911	90.349	2.783	0.18408	2.27692	79 X
K12K02J	17.5	0.15	K125D	349.547	117.105	139.915	13.064	0.22864	2.59944	30 X
K12K02L	17.3	0.15	K125D	43.874	330.255	211.777	23.479	0.18710	2.40638	51 X
K12K02O	17.3	0.15	K125D	345.438	109.207	158.896	15.829	0.23294	3.12623	30 X
K12K16F	17.0	0.15	K1262	339.829	201.971	78.033	14.454	0.22290	2.62096	26 X
K12K16J	18.9	0.15	K1262	346.866	163.817	103.639	4.571	0.17120	2.17828	26 X
K12K17J	18.4	0.15	K1262	349.721	61.828	200.983	4.651	0.17347	2.16567	26 X
K12K18S	17.4	0.15	K125D	348.052	114.632	145.677	13.166	0.24439	2.60528	57 X
K12K18T	16.4	0.15	K125D	348.914	111.986	146.302	14.015	0.20173	2.69848	30 X
K12K24M	17.9	0.15	K1262	340.974	192.319	85.069	9.148	0.17969	2.21856	25 X
K12K27W	15.9	0.15	K125D	332.823	52.394	222.795	10.213	0.10428	3.12909	30 X
K12K30V	15.8	0.15	K1262	350.064	92.667	166.716	4.325	0.11549	3.09573	26 X
K12K40T	17.3	0.15	K125D	18.641	118.373	99.683	12.916	0.10517	2.76119	26 X
K12K42R	17.6	0.15	K1262	353.721	109.351	148.553	12.915	0.23271	2.71686	20 X
K12K44N	18.1	0.15	K125D	333.569	55.173	226.663	2.336	0.22587	2.30403	31 X
K12K44Q	16.3	0.15	K125D	11.000	68.393	159.008	15.416	0.11803	3.04063	53 X
K12K46M	16.9	0.15	K1262	327.964	216.876	86.619	14.086	0.26811	2.55216	25 X
K12K46O	15.7	0.15	K1262	358.130	168.210	83.680	16.284	0.15725	3.11902	25 W
K12K46Q	16.5	0.15	K1262	339.959	188.590	89.324	9.379	0.17654	2.74176	25 X
K12K46R	17.6	0.15	K1262	3.399	149.651	94.951	7.361	0.15341	2.30646	25 X
K12K46Y	17.1	0.15	K1262	354.693	170.712	86.515	7.177	0.18576	2.38924	19 W
K12K48C	17.8	0.15	K125D	54.337	307.246	231.554	4.320	0.09053	2.25930	31 X
K12K48R	16.8	0.15	K1262	357.400	9.421	244.246	14.348	0.22570	2.99246	21 X
K12K48Y	16.5	0.15	K1262	291.715	215.688	109.680	5.431	0.06806	2.81124	17 X
K12K49F	16.5	0.15	K1262	27.436	339.715	234.424	9.826	0.11409	2.57772	17 X
K12K49M	16.5	0.15	K1262	308.871	201.969	107.695	6.047	0.10519	2.71468	15 X
K12L00D	18.2	0.15	K125D	223.770	175.427	210.493	19.889	0.07913	1.92198	51 X
K12L00E	16.7	0.15	K1262	351.352	165.663	97.467	34.447	0.22619	2.61844	20 W
K12L00F	17.4	0.15	K1262	125.917	257.411	221.785	23.354	0.14002	1.94151	7 X
K12L00S	16.2	0.15	K1262	5.856	89.744	146.402	16.142	0.28765	3.06037	7 X
K12L01J	18.3	0.15	K1262	128.612	242.645	241.711	20.658	0.06934	1.85543	6 X
K12L02A	17.7	0.15	K1262	314.525	235.077	93.521	11.521	0.28313	2.32653	8 X
K12L04V	17.0	0.15	K1262	15.510	141.540	92.819	14.371	0.11782	2.65801	8 X
K12L05B	15.2	0.15	K1262	340.603	195.485	78.573	25.705	0.13931	3.17889	25 X
K12L07N	15.8	0.15	K1262	199.217	197.901	211.485	24.490	0.02979	3.15653	15 X
K12L07S	17.9	0.15	K1262	274.638	239.786	102.477	24.317	0.06524	1.92385	3 X
K12L07X	17.1	0.15	K1262	281.857	220.374	122.034	6.424	0.14311	2.35288	7 W
K12L07Z	18.3	0.15	K1262	299.505	172.578	157.196	6.143	0.20292	2.21972	16 W
K12L08H	16.3	0.15	K1262	343.412	124.300	155.179	16.559	0.24799	3.10098	7 W
K12L08J	18.2	0.15	K1262	341.782	62.046	229.642	24.709	0.37681	3.02756	6 W
K12L08L	16.7	0.15	K1262	64.498	63.292	108.175	26.339	0.10557	2.77351	7 W
K12L08O	17.2	0.15	K1262	346.144	36.790	233.358	14.077	0.22952	2.63811	6 W
K12L09A	16.7	0.15	K1262	311.853	170.822	146.028	11.932	0.18624	2.26224	7 W

New observations:

J98X02N	KC2012	06	15.27726	16	12	51.98	-21	15	01.7	21.5	RoEM002291
J98X02N	KC2012	06	15.28198	16	12	51.45	-21	14	59.1	21.2	RoEM002291
K00R53D	mC2012	06	15.41153	22	01	40.49	+07	39	56.4		oEM002291
K00R53D	mC2012	06	15.41387	22	01	40.91	+07	39	58.8		oEM002291
K02V69P	C2012	06	14.45651	19	37	43.644	-28	48	43.28	21.8	wLEM002F51
K02V69P	C2012	06	14.46805	19	37	42.717	-28	48	44.30	21.6	wLEM002F51
K02V69P	C2012	06	14.49102	19	37	40.932	-28	48	46.37	21.8	wLEM002F51
K04B86L	HC2012	06	15.38697	19	58	55.94	-02	15	38.7		oEM002291
K04B86L	HC2012	06	15.39060	19	58	55.69	-02	15	39.4		oEM002291
K04B86L	HC2012	06	15.39421	19	58	55.51	-02	15	40.6		oEM002291
K04RX1U	C2012	06	15.88772	16	04	23.48	+17	39	02.5	20.9	RoEM002461
K04RX1U	C2012	06	15.90040	16	04	22.49	+17	39	00.1	21.0	RoEM002461
K04RX1U	C2012	06	15.91307	16	04	21.54	+17	38	58.2	21.9	RoEM002461
K07M13M	C2012	06	14.97504	20	38	51.69	+71	32	43.3	16.5	VuEM002C47
K07M13M	C2012	06	14.97653	20	38	49.78	+71	32	41.8	18.2	VuEM002C47
K07M13M	C2012	06	14.98393	20	38	41.45	+71	32	32.2	17.8	VuEM002C47
K07M13M	C2012	06	14.98542	20	38	39.64	+71	32	30.6	18.2	VuEM002C47

K07M13M	C2012	06	14.98690	20	38	37.91	+71	32	28.6	17.6	VuEM002C47
K07M13M	C2012	06	14.98839	20	38	36.12	+71	32	27.8	18.1	VuEM002C47
K08A32F	KC2012	06	15.17970815	39	43.30	+42	34	18.4		21.5	VuEM002H21
K08A32F	KC2012	06	15.18494715	39	42.72	+42	33	52.4		20.9	VuEM002H21
K08S07X	mC2012	06	15.45217	00	28	12.59	-01	16	58.6		oEM002291
K08S07X	mC2012	06	15.45349	00	28	12.89	-01	16	55.3		oEM002291
K08S07X	mC2012	06	15.45479	00	28	13.16	-01	16	53.1		oEM002291
K09N00H	HC2012	06	15.17116	15	52	52.80	-06	34	59.8	21.1	VoEM002691
K09N00H	HC2012	06	15.19489	15	52	50.96	-06	34	58.7	21.3	VoEM002691
K09N00H	HC2012	06	15.21864	15	52	49.08	-06	34	56.4	21.4	VoEM002691
K10J39U	mC2012	06	15.44450	00	34	11.96	-01	13	54.3		oEM002291
K10J39U	mC2012	06	15.44506	00	34	12.52	-01	13	55.9		oEM002291
K10J39U	mC2012	06	15.44561	00	34	13.12	-01	13	58.4		oEM002291
K10L14G	C2012	06	15.36793	22	09	30.56	+18	29	58.2	19.3	VrEM002703
K10L14G	C2012	06	15.37484	22	09	30.92	+18	30	21.4	19.8	VrEM002703
K10L14G	C2012	06	15.38166	22	09	31.32	+18	30	41.4	19.5	VrEM002703
K10L14G	C2012	06	15.38848	22	09	31.57	+18	31	03.1	19.8	VrEM002703
K10U07T	mC2012	06	16.16845	12	04	32.34	+15	59	35.6		oEM002291
K10U07T	mC2012	06	16.17279	12	04	32.05	+15	59	29.4		oEM002291
K10U07T	mC2012	06	16.17710	12	04	31.83	+15	59	23.0		oEM002291
K11WD4V	C2012	06	15.20999	17	38	27.15	-01	02	44.8	16.9	RuEM002H45
K11WD4V	C2012	06	15.21128	17	38	27.06	-01	02	46.8	16.7	RuEM002H45
K11WD4V	C2012	06	15.21231	17	38	27.01	-01	02	48.6	16.9	RuEM002H45
K11WD4V	C2012	06	15.21452	17	38	26.85	-01	02	52.5	16.8	RuEM002H45
K11WD4V	C2012	06	15.21629	17	38	26.74	-01	02	55.5	16.7	RuEM002H45
K11WD4V	C2012	06	15.21729	17	38	26.68	-01	02	57.1	16.8	RuEM002H45
K11WD4V	KC2012	06	15.85840	17	37	51.02	-01	21	19.0	16.8	VuEM002151
K11WD4V	KC2012	06	15.85939	17	37	50.95	-01	21	20.7	16.9	VuEM002151
K11WD4V	KC2012	06	15.86038	17	37	50.89	-01	21	22.5	16.9	VuEM002151
K11WD4V	KC2012	06	15.86137	17	37	50.83	-01	21	24.0	17.0	VuEM002151
K11WD4V	KC2012	06	15.86236	17	37	50.76	-01	21	26.0	16.8	VuEM002151
K11WD4V	KC2012	06	15.86336	17	37	50.70	-01	21	27.5	16.9	VuEM002151
K11WD4V	KC2012	06	15.86435	17	37	50.65	-01	21	28.9	17.0	VuEM002151
K11Y15W	2C2012	02	13.56532410	58	36.961+38	06	03.93			21.6	RtEM002568
K11Y15W	2C2012	02	13.56963010	58	36.555+38	06	00.85			21.7	RtEM002568
K11Y15W	2C2012	02	13.57370410	58	36.192+38	05	57.89			22.0	RtEM002568
K11Y74U	JC2012	06	14.44563	21	39	34.48	-14	20	41.6	21.3	RoEM002695
K11Y74U	JC2012	06	14.45332	21	39	33.85	-14	20	40.4	21.4	RoEM002695
K11Y74U	JC2012	06	14.46097	21	39	33.23	-14	20	39.1		oEM002695
K12D32X	C2012	06	15.25127	15	56	32.92	-16	46	45.2	21.1	VrEM002G96
K12D32X	C2012	06	15.25643	15	56	33.00	-16	46	46.5	20.9	VrEM002G96
K12D32X	C2012	06	15.26164	15	56	33.07	-16	46	48.6	20.7	VrEM002G96
K12D32X	C2012	06	15.26686	15	56	33.18	-16	46	50.0	20.9	VrEM002G96
K12D61H	C2012	06	15.14774	13	38	49.51	+16	24	40.5	18.8	RuEM002H45
K12D61H	C2012	06	15.14941	13	38	49.76	+16	24	28.3	18.8	RuEM002H45
K12D61H	C2012	06	15.15036	13	38	49.97	+16	24	20.7	18.9	RuEM002H45
K12D61H	C2012	06	15.15135	13	38	50.17	+16	24	13.9	19.1	RuEM002H45
K12D61H	C2012	06	15.15216	13	38	50.28	+16	24	06.5	19.1	RuEM002H45
K12D61H	C2012	06	15.15352	13	38	50.50	+16	23	58.8	19.0	RuEM002H45
K12D61H	C2012	06	15.15440	13	38	50.61	+16	23	52.7	18.8	RuEM002H45
K12D61H	KC2012	06	15.94468	13	41	09.76	+14	49	58.9	18.7	RuEM002160
K12D61H	KC2012	06	15.94745	13	41	10.22	+14	49	38.9	18.3	RuEM002160
K12D61H	KC2012	06	15.95019	13	41	10.66	+14	49	19.0	18.2	RuEM002160
K12G05D	KC2012	06	15.22537	13	04	44.36	-01	49	10.6	21.5	RoEM002291
K12G05D	KC2012	06	15.22905	13	04	44.71	-01	49	15.1	21.4	RoEM002291
K12H00O	KC2012	06	09.17051616	19	27.67	+58	31	13.8		23.1	VuEM002H21
K12H00O	KC2012	06	09.19441916	19	29.64	+58	31	23.2		22.7	VuEM002H21
K12H00O	KC2012	06	09.22172516	19	31.89	+58	31	33.7		22.8	VuEM002H21
K12H00O	KC2012	06	14.19712416	27	28.77	+58	53	02.0		23.3	VuEM002H21
K12H00O	KC2012	06	14.21646416	27	30.28	+58	53	03.7		23.0	VuEM002H21
K12H00O	KC2012	06	14.23540316	27	31.87	+58	53	06.2			uEM002H21
K12H00O	KC2012	06	15.20872416	29	04.13	+58	54	53.4		23.6	VuEM002H21
K12H00O	KC2012	06	15.22939416	29	05.75	+58	54	55.2		22.9	VuEM002H21
K12H01W	mC2012	06	16.18547	10	25	08.92	+58	58	16.5		oEM002291
K12H01W	mC2012	06	16.18840	10	25	08.13	+58	58	17.5		oEM002291
K12H01W	mC2012	06	16.19132	10	25	07.07	+58	58	17.3		oEM002291
K12H15R	KC2012	06	15.19228	11	11	41.96	+33	52	15.4	21.0	RoEM002291
K12H15R	KC2012	06	15.19596	11	11	42.33	+33	52	11.3	20.8	RoEM002291
K12H15R	KC2012	06	15.19964	11	11	42.71	+33	52	06.8	20.5	RoEM002291
K12H31G	KC2012	06	15.16520	15	30	15.94	+17	37	45.0	18.7	VuEM002H21
K12H31G	KC2012	06	15.16828	15	30	15.68	+17	37	46.6	18.9	VuEM002H21
K12H31G	KC2012	06	15.17138	15	30	15.45	+17	37	48.2	18.8	VuEM002H21
K12H31G	KC2012	06	15.17445	15	30	15.19	+17	37	49.6	18.9	VuEM002H21
K12H31G	KC2012	06	15.87280	15	29	25.88	+17	43	19.4	18.5	VuEM002151
K12H31G	KC2012	06	15.87570	15	29	25.65	+17	43	20.7	18.7	VuEM002151
K12H31G	KC2012	06	15.87861	15	29	25.42	+17	43	22.0	18.7	VuEM002151
K12H31G	KC2012	06	15.89713	15	29	24.00	+17	43	31.8	18.2	RuEM002203

K12H31G	KC2012	06	15.93791	15	29	20.85	+17	43	50.0	18.3	RuEM002203
K12H33Y	KC2012	06	15.24084	13	23	53.37	-06	05	51.1	20.4	RoEM002291
K12H33Y	KC2012	06	15.24555	13	23	53.04	-06	05	54.7	20.9	RoEM002291
K12H33Y	KC2012	06	15.25027	13	23	52.74	-06	05	58.1	20.5	RoEM002291
K12J04U	KC2012	06	15.25705	14	05	49.16	+05	59	33.9	20.9	RoEM002291
K12J04U	KC2012	06	15.26103	14	05	49.42	+05	59	39.0	21.2	RoEM002291
K12J04U	KC2012	06	15.26486	14	05	49.65	+05	59	42.8	21.3	RoEM002291
K12J11H	C2012	06	15.39561	16	42	36.650	-02	26	38.47	20.7	wLEM002F51
K12J11H	C2012	06	15.40920	16	42	37.229	-02	26	34.11	20.9	wLEM002F51
K12J11H	C2012	06	15.43648	16	42	38.378	-02	26	25.30	20.8	wLEM002F51
K12J11S	KC2012	06	15.16984	15	01	16.89	+00	15	50.0	20.6	RuEM002448
K12J11S	KC2012	06	15.20547	15	01	13.82	+00	16	30.2	20.6	RuEM002448
K12J11S	KC2012	06	15.25251	15	01	09.94	+00	17	26.6	20.5	RuEM002448
K12J16B	C2012	06	14.97226	14	10	37.78	-23	13	46.0	19.1	VoEM002807
K12J16B	C2012	06	14.97586	14	10	37.05	-23	14	06.2	18.8	VoEM002807
K12J16B	C2012	06	14.97945	14	10	36.34	-23	14	26.2	19.8	VoEM002807
K12J16B	C2012	06	14.98302	14	10	35.63	-23	14	45.8	19.0	VoEM002807
K12J16B	KC2012	06	15.14082	14	10	05.02	-23	29	45.4	19.0	VuEM002H21
K12J16B	KC2012	06	15.15452	14	10	02.35	-23	31	01.2	19.3	VuEM002H21
K12J16B	KC2012	06	15.16016	14	10	01.24	-23	31	31.9	19.4	VuEM002H21
K12J17R	KC2012	06	15.37057823	07	58.73	+01	25	45.3	19.1	VuEM002H21	
K12J17R	KC2012	06	15.37330523	07	59.54	+01	25	47.6	19.2	VuEM002H21	
K12J17R	KC2012	06	15.37697223	08	00.67	+01	25	51.5	19.2	VuEM002H21	
K12J17T	HC2012	06	15.16163	14	09	30.34	-06	39	25.6	20.6	RoEM002291
K12J17T	HC2012	06	15.16456	14	09	30.13	-06	39	22.5	20.1	RoEM002291
K12J17T	HC2012	06	15.16749	14	09	30.01	-06	39	20.6	20.7	RoEM002291
K12K06C	C2012	06	14.34950	16	43	29.868	+36	19	55.02	21.1	gLEM002F51
K12K06C	C2012	06	14.37037	16	43	29.514	+36	19	08.35	20.6	rLEM002F51
K12K06C	C2012	06	14.38054	16	43	29.348	+36	18	45.13	20.6	rLEM002F51
K12K06C	KC2012	06	15.23877	16	43	29.45	+35	46	08.2	21.0	VuEM002H21
K12K06C	KC2012	06	15.24416	16	43	29.40	+35	45	56.0	21.0	VuEM002H21
K12K06C	KC2012	06	15.24955	16	43	29.32	+35	45	43.4	20.9	VuEM002H21
K12K42U	KC2012	06	15.36240623	21	17.42	+09	04	18.6	19.3	VuEM002H21	
K12K42U	KC2012	06	15.36519123	21	18.24	+09	04	19.2	19.3	VuEM002H21	
K12K42U	KC2012	06	15.36785423	21	19.01	+09	04	19.9	19.1	VuEM002H21	
K12K42U	C2012	06	15.39012	23	21	25.92	+09	04	25.4	18.9	VrEM002703
K12K42U	C2012	06	15.39916	23	21	28.58	+09	04	27.9	18.7	VrEM002703
K12K42U	C2012	06	15.40832	23	21	31.28	+09	04	29.6	18.6	VrEM002703
K12K42U	C2012	06	15.41754	23	21	34.02	+09	04	31.1	18.6	VrEM002703
K12K45M	KC2012	06	15.12021	10	31	10.74	+54	29	36.1	19.5	VuEM002H21
K12K45M	KC2012	06	15.12752	10	31	10.61	+54	29	09.5	20.0	VuEM002H21
K12K45M	KC2012	06	15.13117	10	31	10.54	+54	28	55.9	19.7	VuEM002H21
K12K45M	KC2012	06	15.13482	10	31	10.48	+54	28	42.6	19.8	VuEM002H21
K12L00A	KC2012	06	15.25574817	19	09.39	+51	39	22.9	22.5	VuEM002H21	
K12L00A	KC2012	06	15.27720017	19	09.66	+51	40	51.7	22.5	VuEM002H21	
K12L00A	KC2012	06	15.29927617	19	10.03	+51	42	19.5	22.4	VuEM002H21	
K12L00U	C2012	06	15.18024	16	13	38.17	-11	37	14.3	18.7	RuEM002H45
K12L00U	C2012	06	15.18159	16	13	38.84	-11	37	21.5	18.8	RuEM002H45
K12L00U	C2012	06	15.18234	16	13	39.31	-11	37	25.7	18.6	RuEM002H45
K12L00U	C2012	06	15.18366	16	13	39.90	-11	37	33.6	18.7	RuEM002H45
K12L00U	C2012	06	15.18615	16	13	41.13	-11	37	47.8	18.5	RuEM002H45
K12L00U	C2012	06	15.18687	16	13	41.52	-11	37	52.9	18.7	RuEM002H45
K12L00U	C2012	06	15.18781	16	13	41.80	-11	37	57.3	18.8	RuEM002H45
K12L00U	KC2012	06	15.22691	16	14	00.14	-11	41	57.8		uEM002H21
K12L00U	KC2012	06	15.22990	16	14	01.62	-11	42	14.9	19.0	VuEM002H21
K12L00U	KC2012	06	15.23065	16	14	02.00	-11	42	19.4	18.8	VuEM002H21
K12L00U	KC2012	06	15.23364	16	14	03.50	-11	42	36.5	18.8	VuEM002H21
K12L01C	KC2012	06	15.10605	10	26	47.99	+26	07	03.6	18.6	VuEM002H21
K12L01C	KC2012	06	15.10941	10	26	49.25	+26	06	50.5	18.4	VuEM002H21
K12L01C	KC2012	06	15.11287	10	26	50.56	+26	06	36.9	18.5	VuEM002H21
K12L01C	KC2012	06	15.11620	10	26	51.79	+26	06	24.0	18.5	VuEM002H21
K12L01C	KC2012	06	15.87067	10	31	32.22	+25	17	28.0	18.3	VuEM002A78
K12L01C	KC2012	06	15.87581	10	31	34.12	+25	17	07.3	18.4	VuEM002A78
K12L01C	KC2012	06	15.88093	10	31	35.95	+25	16	47.1	18.4	VuEM002A78
K12L01C	KC2012	06	15.88586	10	31	37.74	+25	16	27.9	18.4	VuEM002A78
K12L01C	KC2012	06	15.88927	10	31	38.96	+25	16	15.2	18.2	VuEM002A78
K12L01D	KC2012	06	15.11000716	11	09.92	+12	21	30.1	19.3	VuEM002H21	
K12L01D	KC2012	06	15.11363816	11	10.01	+12	21	41.1	19.3	VuEM002H21	
K12L01D	KC2012	06	15.11758416	11	10.12	+12	21	53.5	19.6	VuEM002H21	
K12L01D	C2012	06	15.18995	16	11	12.10	+12	25	42.0	19.4	RuEM002H45
K12L01D	C2012	06	15.19146	16	11	12.12	+12	25	45.4	19.4	RuEM002H45
K12L01D	C2012	06	15.19364	16	11	12.15	+12	25	53.6	19.5	RuEM002H45
K12L01D	C2012	06	15.19477	16	11	12.22	+12	25	56.8	19.5	RuEM002H45
K12L01D	C2012	06	15.19587	16	11	12.25	+12	26	00.1	19.6	RuEM002H45
K12L01D	C2012	06	15.19681	16	11	12.28	+12	26	02.6	19.6	RuEM002H45
K12L01D	KC2012	06	15.96872	16	11	44.36	+13	04	11.2	19.0	RoEM002B67
K12L01D	KC2012	06	15.97369	16	11	44.46	+13	04	25.5	18.8	RoEM002B67

K12L01D	KC2012	06	15.97866	16	11	44.59	+13	04	39.5	19.0	RoEM002B67
K12L01P	C2012	06	14.99380	13	58	09.54	-33	04	13.0	20.0	VoEM002807
K12L01P	C2012	06	14.99736	13	58	06.90	-33	05	02.5	20.2	VoEM002807
K12L01P	C2012	06	15.00091	13	58	04.25	-33	05	52.0	20.0	VoEM002807
K12L01R	C2012	06	15.11336	16	46	55.60	-15	50	21.1	18.4	VoEM002807
K12L01R	C2012	06	15.11569	16	46	54.86	-15	50	35.2	18.4	VoEM002807
K12L01R	C2012	06	15.11801	16	46	54.11	-15	50	49.0	18.9	VoEM002807
K12L01R	KC2012	06	15.25514416	46	11.53	-16	05	02.5	20.2	VuEM002H21	
K12L01R	KC2012	06	15.25882016	46	10.41	-16	05	25.0	19.5	VuEM002H21	
K12L01R	KC2012	06	15.26257716	46	09.24	-16	05	47.2	20.3	VuEM002H21	
K12L01R	C2012	06	15.29499	16	45	59.68	-16	08	59.7	18.6	VrEM002G96
K12L01R	C2012	06	15.30021	16	45	58.06	-16	09	30.1	18.7	VrEM002G96
K12L01R	C2012	06	15.30537	16	45	56.41	-16	10	01.6	18.8	VrEM002G96
K12L01R	C2012	06	15.31064	16	45	54.75	-16	10	33.0	18.8	VrEM002G96
K12L01R	mC2012	06	15.33871	16	45	46.03	-16	13	20.1		oEM002291
K12L01R	mC2012	06	15.33927	16	45	45.83	-16	13	23.7		oEM002291
K12L01R	mC2012	06	15.33982	16	45	45.69	-16	13	26.9		oEM002291
K12L01R	KC2012	06	15.91760	16	42	53.23	-17	10	15.5		uEM002104
K12L01R	KC2012	06	15.92130	16	42	52.09	-17	10	37.3	18.0	RuEM002104
K12L01R	KC2012	06	15.92499	16	42	50.96	-17	10	58.6	18.3	RuEM002104
K12L01Z	C2012	06	14.46050	19	38	44.338	-22	56	44.00	13.7	wLEM002F51
K12L01Z	C2012	06	14.47202	19	38	49.074	-22	46	20.87	13.7	wLEM002F51
K12L01Z	C2012	06	14.48352	19	38	53.766	-22	35	58.56	13.8	wLEM002F51
K12L01Z	C2012	06	14.49502	19	38	58.427	-22	25	34.95	13.7	wLEM002F51
K12L01Z	C2012	06	15.28718	19	45	16.06	-10	19	49.5	14.2	RuEM002H45
K12L01Z	C2012	06	15.28795	19	45	16.34	-10	19	07.4	14.1	RuEM002H45
K12L01Z	C2012	06	15.28818	19	45	16.42	-10	18	54.3	14.2	RuEM002H45
K12L01Z	C2012	06	15.28855	19	45	16.55	-10	18	34.4	14.1	RuEM002H45
K12L01Z	C2012	06	15.28881	19	45	16.61	-10	18	19.6	14.1	RuEM002H45
K12L01Z	C2012	06	15.28927	19	45	16.83	-10	17	54.8	14.1	RuEM002H45
K12L01Z	C2012	06	15.28965	19	45	16.95	-10	17	34.0	14.3	RuEM002H45
K12L01Z	C2012	06	15.29004	19	45	17.10	-10	17	12.9	14.3	RuEM002H45
K12L01Z	C2012	06	15.29045	19	45	17.23	-10	16	50.9	14.3	RuEM002H45
K12L01Z	C2012	06	15.29092	19	45	17.45	-10	16	24.4	14.3	RuEM002H45
K12L01Z	C2012	06	15.29134	19	45	17.57	-10	16	01.7	14.4	RuEM002H45
K12L01Z	C2012	06	15.29171	19	45	17.71	-10	15	41.3	14.2	RuEM002H45
K12L01Z	C2012	06	15.29215	19	45	17.87	-10	15	17.3	14.2	RuEM002H45
K12L01Z	C2012	06	15.29255	19	45	17.99	-10	14	54.6	14.5	RuEM002H45
K12L01Z	C2012	06	15.29310	19	45	18.22	-10	14	25.6	14.3	RuEM002H45
K12L01Z	C2012	06	15.29369	19	45	18.42	-10	13	53.4	14.4	RuEM002H45
K12L01Z	AC2012	06	15.31424	19	45	28.84	-09	54	58.6	14.0	EM002H06
K12L01Z	AC2012	06	15.31490	19	45	29.09	-09	54	22.1	14.1	EM002H06
K12L01Z	AC2012	06	15.31552	19	45	29.31	-09	53	47.1	14.0	EM002H06
K12L01Z	AC2012	06	15.31616	19	45	29.57	-09	53	12.2	14.1	EM002H06
K12L01Z	AC2012	06	15.31681	19	45	29.79	-09	52	37.1	14.1	EM002H06
K12L01Z	AC2012	06	15.31745	19	45	30.03	-09	52	01.8	14.2	EM002H06
K12L01Z	AC2012	06	15.31810	19	45	30.27	-09	51	26.1	14.1	EM002H06
K12L01Z	AC2012	06	15.31874	19	45	30.49	-09	50	51.2	14.2	EM002H06
K12L01Z	AC2012	06	15.31939	19	45	30.70	-09	50	16.0	14.0	EM002H06
K12L01Z	AC2012	06	15.32003	19	45	30.95	-09	49	40.4	14.2	EM002H06
K12L01Z	C2012	06	15.36459	19	45	48.10	-09	09	05.1	15.3	RoEM002857
K12L01Z	C2012	06	15.36581919	45	43.39	-09	08	21.9	14.2	VuEM002H21	
K12L01Z	C2012	06	15.36794019	45	44.15	-09	06	26.1	14.3	VuEM002H21	
K12L01Z	C2012	06	15.36806	19	45	49.36	-09	05	55.1	15.3	RoEM002857
K12L01Z	C2012	06	15.36992419	45	44.87	-09	04	37.8	14.2	VuEM002H21	
K12L01Z	C2012	06	15.37190219	45	45.59	-09	02	49.7	14.2	VuEM002H21	
K12L01Z	C2012	06	15.37416119	45	46.42	-09	00	46.1	14.2	VuEM002H21	
K12L01Z	C2012	06	15.37501	19	45	51.82	-08	59	36.0	15.8	RoEM002857
K12L01Z	C2012	06	15.37615019	45	47.14	-08	58	57.5	14.2	VuEM002H21	
K12L01Z	C2012	06	15.37811619	45	47.85	-08	57	10.2	14.2	VuEM002H21	
K12L01Z	C2012	06	15.38009419	45	48.58	-08	55	22.0	14.2	VuEM002H21	
K12L01Z	C2012	06	15.38115119	45	48.96	-08	54	24.2	14.2	VuEM002H21	
K12L01Z	QC2012	06	15.63060019	47	43.799	-05	05	03.09	13.6	VrEM002E12	
K12L01Z	QC2012	06	15.63118719	47	44.007	-05	04	31.47	13.6	VrEM002E12	
K12L01Z	QC2012	06	15.63150319	47	44.112	-05	04	14.65	13.6	VrEM002E12	
K12L01Z	QC2012	06	15.63264919	47	44.501	-05	03	13.34	13.6	VrEM002E12	
K12L01Z	QC2012	06	15.63322619	47	44.695	-05	02	42.46	13.6	VrEM002E12	
K12L01Z	C2012	06	15.90038	19	49	40.72	-01	12	33.7	14.3	VcEM002A48
K12L01Z	C2012	06	15.90091	19	49	40.99	-01	12	06.5	14.3	VcEM002A48
K12L01Z	C2012	06	15.90144	19	49	41.18	-01	11	39.0	14.3	VcEM002A48
K12L01Z	C2012	06	15.90192	19	49	41.36	-01	11	14.5	14.3	VcEM002A48
K12L01Z	KC2012	06	15.90881	19	49	43.72	-01	05	22.6	14.4	VuEM002151
K12L01Z	KC2012	06	15.90922	19	49	43.87	-01	05	01.2	14.4	VuEM002151
K12L01Z	KC2012	06	15.90963	19	49	44.03	-01	04	40.2	14.4	VuEM002151
K12L01Z	C2012	06	16.00222	19	50	22.94	+00	16	28.4	14.5	RoEM002954
K12L01Z	C2012	06	16.00628	19	50	17.83	+00	18	29.5	13.4	RuEM002104
K12L01Z	C2012	06	16.00697	19	50	24.52	+00	20	31.8	14.3	RoEM002954

K12L01Z	C2012	06	16.00903	19	50	25.24	+00	22	16.1	14.6	RoEM002954
K12L01Z	C2012	06	16.01106	19	50	25.95	+00	23	59.9	14.4	RoEM002954
K12L01Z	C2012	06	16.01499	19	50	27.26	+00	27	20.4	14.1	RoEM002954
K12L01Z	C2012	06	16.01727	19	50	28.03	+00	29	18.2	14.3	RoEM002954
K12L01Z	C2012	06	16.01995	19	50	22.36	+00	30	08.0	13.7	RuEM002104
K12L01Z	C2012	06	16.02241	19	50	29.74	+00	33	41.2	13.6	RoEM002954
K12L01Z	C2012	06	16.02440	19	50	30.41	+00	35	21.8	13.4	RoEM002954
K12L01Z	C2012	06	16.02708	19	50	31.30	+00	37	38.9	13.8	RoEM002954
K12L01Z	C2012	06	16.02927	19	50	25.45	+00	38	04.2	13.7	RuEM002104
K12L01Z	C2012	06	16.04624	19	50	31.03	+00	52	29.0	13.7	RuEM002104
K12L02J	KC2012	06	15.28027717	13	01.73	-07	39	00.5	19.5	VuEM002H21	
K12L02J	KC2012	06	15.28332717	13	00.84	-07	39	39.3	19.6	VuEM002H21	
K12L02J	KC2012	06	15.28643817	12	59.93	-07	40	18.6	19.3	VuEM002H21	
K12L02J	KC2012	06	15.28945617	12	59.06	-07	40	56.9	19.4	VuEM002H21	
K12L02K	KC2012	06	15.32078919	24	37.36	-08	31	01.9	19.5	VuEM002H21	
K12L02K	KC2012	06	15.32709919	24	36.49	-08	31	07.4	19.6	VuEM002H21	
K12L02K	KC2012	06	15.33382819	24	35.53	-08	31	13.8	20.4	VuEM002H21	
K12L04F	KC2012	06	15.26653917	38	11.86	+08	32	22.6	19.4	VuEM002H21	
K12L04F	KC2012	06	15.26930217	38	12.49	+08	33	08.6	19.3	VuEM002H21	
K12L04F	KC2012	06	15.27214117	38	13.13	+08	33	55.9	19.4	VuEM002H21	
K12L04F	KC2012	06	15.27488717	38	13.73	+08	34	41.6	19.3	VuEM002H21	
K12L04F	KC2012	06	15.27727017	38	14.28	+08	35	21.1	19.3	VuEM002H21	
K12L04G	C2012	06	14.95005	16	09	18.16	-20	33	36.8	19.1	VoEM002807
K12L04G	C2012	06	14.95689	16	09	15.05	-20	32	09.3	19.3	VoEM002807
K12L04G	C2012	06	14.96053	16	09	13.36	-20	31	22.8	19.1	VoEM002807
K12L04G	KC2012	06	15.21573	16	07	13.27	-19	37	34.4	18.6	VuEM002H21
K12L04G	KC2012	06	15.21796	16	07	12.18	-19	37	04.2	18.8	VuEM002H21
K12L04G	KC2012	06	15.22016	16	07	11.14	-19	36	34.4	19.3	VuEM002H21
K12L04G	KC2012	06	15.22236	16	07	10.08	-19	36	04.7	19.1	VuEM002H21
K12L07T	KC2012	06	14.88737	18	03	26.46	+49	11	59.5	20.4	VuEM002C92
K12L07T	KC2012	06	14.92761	18	03	08.26	+49	09	09.8	19.8	VuEM002C92
K12L07U	C2012	06	14.24149	18	06	20.15	+04	06	33.5	18.6	VoEM002G48
K12L07U	C2012	06	14.24259	18	06	20.04	+04	06	33.2	18.8	VoEM002G48
K12L07U	C2012	06	14.24370	18	06	20.05	+04	06	34.1	18.8	VoEM002G48
K12L07U	KC2012	06	14.91304	18	06	12.23	+04	15	20.8	17.8	RuEM002B49
K12L07U	KC2012	06	14.92081	18	06	12.11	+04	15	26.6	18.1	RuEM002B49
K12L07U	KC2012	06	14.93155	18	06	11.94	+04	15	34.9	18.2	RuEM002B49
K12L07U	C2012	06	15.22779	18	06	08.23	+04	19	30.3	19.0	RuEM002H45
K12L07U	C2012	06	15.22953	18	06	08.18	+04	19	32.3	18.8	RuEM002H45
K12L07U	C2012	06	15.23131	18	06	08.13	+04	19	33.7	19.0	RuEM002H45
K12L07U	C2012	06	15.23228	18	06	08.07	+04	19	34.1	19.0	RuEM002H45
K12L07U	C2012	06	15.23346	18	06	08.07	+04	19	35.1	19.0	RuEM002H45
K12L07U	C2012	06	15.23527	18	06	08.06	+04	19	36.8	18.9	RuEM002H45
K12L07U	C2012	06	15.23688	18	06	08.06	+04	19	38.5	19.1	RuEM002H45
K12L07U	C2012	06	15.23850	18	06	08.00	+04	19	39.3	19.2	RuEM002H45
05626	C2012	06	14.92365	18	24	44.14	-17	00	22.8	17.2	VuEM002C47
05626	C2012	06	14.92941	18	24	43.73	-17	00	22.2	17.3	VuEM002C47
07092	C2012	06	15.16734	10	50	24.07	+14	14	48.3	16.8	VrEM002703
07092	C2012	06	15.17238	10	50	25.83	+14	14	29.3	16.8	VrEM002703
07092	C2012	06	15.17756	10	50	27.60	+14	14	10.7	16.8	VrEM002703
07092	C2012	06	15.18275	10	50	29.40	+14	13	51.0	16.8	VrEM002703
20460	C2012	06	15.36455	22	10	54.91	+12	44	34.6	18.3	VrEM002703
20460	C2012	06	15.37137	22	10	54.73	+12	44	46.7	18.2	VrEM002703
20460	C2012	06	15.37824	22	10	54.55	+12	44	58.4	18.3	VrEM002703
20460	C2012	06	15.38505	22	10	54.44	+12	45	10.1	18.2	VrEM002703
24445	C2012	06	15.25788	16	22	35.37	+03	27	26.2	20.1	VoEM002691
24445	C2012	06	15.27562	16	22	34.39	+03	27	28.5	20.1	VoEM002691
24445	C2012	06	15.29334	16	22	33.38	+03	27	30.9	19.9	VoEM002691
B2221	KC2012	06	15.83899	11	50	17.74	+02	24	16.4	17.5	VuEM002A78
B2221	KC2012	06	15.84339	11	50	18.62	+02	24	31.5	17.4	VuEM002A78
B2221	KC2012	06	15.84767	11	50	19.52	+02	24	46.2	17.5	VuEM002A78
B2221	KC2012	06	15.85429	11	50	20.95	+02	25	09.9	17.5	VuEM002A78
E1056	KC2012	06	15.13440	13	33	44.60	-21	54	38.9	15.9	RuEM002448
E1056	KC2012	06	15.13578	13	33	45.31	-21	54	30.3	15.9	RuEM002448
E1056	KC2012	06	15.13717	13	33	46.04	-21	54	21.6	15.8	RuEM002448
E1056	KC2012	06	15.13854	13	33	46.75	-21	54	12.8	15.7	RuEM002448
E1056	KC2012	06	15.13991	13	33	47.43	-21	54	04.5	15.9	RuEM002448
E3637	C2012	06	15.33151	16	30	21.671+45	26	21.54	20.5	gLEM002F51	
E3637	C2012	06	15.34210	16	30	20.031+45	26	21.09	20.5	gLEM002F51	
E3637	C2012	06	15.35991	16	30	17.233+45	26	20.61	20.0	rLEM002F51	
E3637	C2012	06	15.36968	16	30	15.701+45	26	20.34	19.9	rLEM002F51	
F4302	C2012	06	15.97333	17	56	07.37	+21	03	42.9	19.0	RoEM002461
F4302	C2012	06	15.98390	17	56	06.08	+21	03	45.6	18.9	RoEM002461
F4302	C2012	06	15.99442	17	56	04.78	+21	03	48.2	18.9	RoEM002461
G2173	C2012	06	15.27213	16	09	40.03	-18	22	11.8	18.2	VrEM002G96
G2173	C2012	06	15.27730	16	09	39.49	-18	22	07.1	18.2	VrEM002G96
G2173	C2012	06	15.28252	16	09	38.95	-18	22	02.4	18.2	VrEM002G96

G2173	C2012 06 15.28780 16 09 38.41 -18 21 57.6	18.2 VrEM002G96
G3732	C2012 06 15.34538 16 53 20.836+42 21 29.69	20.1 gLEM002F51
G3732	C2012 06 15.35602 16 53 19.785+42 21 35.53	20.0 gLEM002F51
G3732	C2012 06 15.36293 16 53 19.096+42 21 39.21	19.5 rLEM002F51
G3732	C2012 06 15.37268 16 53 18.131+42 21 44.40	19.5 rLEM002F51
M6219	C2012 06 15.18030 14 02 00.99 -16 01 21.8	21.0 VrEM002G96
M6219	C2012 06 15.18551 14 02 00.85 -16 01 19.6	20.6 VrEM002G96
M6219	C2012 06 15.19079 14 02 00.74 -16 01 18.3	20.9 VrEM002G96
M6219	C2012 06 15.19604 14 02 00.60 -16 01 16.2	21.2 VrEM002G96
O8818	KC2012 06 15.29024 17 09 24.20 -01 53 11.7	19.3 RuEM002448
O8818	KC2012 06 15.30373 17 09 22.81 -01 52 56.0	19.2 RuEM002448
O8818	KC2012 06 15.31826 17 09 21.37 -01 52 40.2	19.2 RuEM002448
W6732	C2012 06 15.38488 16 09 42.086+04 38 15.72	16.8 wLEM002F51
W6732	C2012 06 15.39851 16 09 41.816+04 38 24.31	16.8 wLEM002F51
W6732	C2012 06 15.41209 16 09 41.558+04 38 32.83	16.9 wLEM002F51
W6732	C2012 06 15.42577 16 09 41.285+04 38 41.45	16.7 wLEM002F51
W9275	KC2012 06 15.92330 15 34 00.42 +20 26 50.6	18.7 RuEM002203
W9275	KC2012 06 15.96127 15 33 56.86 +20 29 08.8	18.5 RuEM002203
W9437	KC2012 06 15.91236 16 31 39.91 +55 12 01.7	17.1 RuEM002160
W9437	KC2012 06 15.91497 16 31 39.55 +55 11 46.4	17.0 RuEM002160
W9437	KC2012 06 15.91771 16 31 39.20 +55 11 30.4	17.3 RuEM002160

A. U. Tomatic

(C) Copyright 2012 MPC

M.P.E.C. 2012-M02

[Read MPEC 2012-M01](#)

Display MPEC number:

Clear

Enter an [MPEC](#) number in one of the following forms:

- 1997-B01 (the full form)
- J97B01 (the packed version of the full form)
- B01 (the abbreviated form)

