MPEC 2019-V148 : DAILY ORBIT UPDATE (2019 November 13)

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Update to 2019-V146

Full-precision elements for the objects listed here are available at https://www.minorplanetcenter.net/iau/MPCORB.html

New identifications:

K17C33B	K10F72W			Lopez
K18U14N	K16B05S			Lopez
K18V07E	K15G00E			Lopez
K18V07E	K10A92V			Veres
K02PF4B	K15Bn2M			Doppler
K06E03E	K10C64P			Doppler
K14N32V	K13HF8O			Doppler
K14W25L	K16C07N			Doppler
K14WH2T	K17F66X			Doppler
K15FO3J	K08TJ3U			Doppler
K16C65S	J93T24T			Doppler
K19H01A	K12C04O			Doppler
K19J32Z	K05WE6C	K13G18Y	K15T39J	Doppler
K00S50Y	K10P85K			Doppler
K01D82A	K12F76K			Doppler
K01SJ9C	K01QX3B			Doppler
K01UN2Q	K16L33Y			Doppler
K02TV9X	K08CH1K			Doppler
K03F22R	K10P82W			Doppler
K03J18T	K10R42W			Doppler
K03Sa2V	K10O52R			Doppler
K03Sa3U	K15C46M			Doppler
K03T54V	K10DA5M			Doppler
K03U68P	K07L25K			Doppler
K04RO0H	J95S82E			Doppler
K04RS4C	K06DL8P			Doppler
K04TW9A	K03K01A			Doppler
K04XH6E	K09B22G			Doppler
K04XI8E	K08ST5J			Doppler
K05EF5E	K14Wa9V			Doppler
K05G28N	K10G79A			Doppler
K05M51E	K10MC4T			Doppler
K05TJ7W	K05XB3Z			Doppler
K05V35X	K11F71K			Doppler
K05WK4X	K10V15P			Doppler

K05Y31G	K10BE8U			Doppler
K15T06W	J95U78W			Doppler
K15T13R	J99W25U			Doppler
K15T30D	K07UE2V			Doppler
K15TN4H	J99W23J			Doppler
K15X12H	K04TY0U			Doppler
K15X80Q	K10BD5X			Doppler
K15XF8O	J95O06T			Doppler
K15XZ6H	J96A17X			Doppler
K15Xc3R	K04F11Z			Doppler
K15Y15F	K10EH9H			Doppler
K15Y15Z	K10D96O			Doppler
K16A85V	K17DC3Q			Doppler
K16A92R	K04XC7M			Doppler
K16AA1Z	K10EH7E			Doppler
K16CA7L	K10D98M			Doppler
K16CV3H	K10JJ2P			Doppler
K16EB6T	K08X56X			Doppler
K16F50K	K05GC2J			Doppler
K16G37S	J92T00S			Doppler
K16G69G	J99A34Z			Doppler
K16G71T	K06E71V			Doppler
K16GE0E	K00H99G			Doppler
K16GN0H	K13S06W			Doppler
K16H20Z	K10CP5G			Doppler
K16L16X	K15C49Z			Doppler
K16N03Y	K06E74K			Doppler
K16N33P	K10D99S			Doppler
K16N36L	K07VE6Y			Doppler
K16N63V	K14E76M			Doppler
K16P51Z	K12UH2T			Doppler
K16Q62M	K12G15P			Doppler
K16S21W	K05EN2K			Doppler
K16S33K	J95U53E			Doppler
K16T74O	K03P02V			Doppler
K16T80H	K08J42A			Doppler
K16UC5L	K10OE2D			Doppler
K17B35Y	K10BF1J			Doppler
K17B79X	K08Ub1H			Doppler
K17C17P	J95S75P			Doppler
K17D18H	K07A17G	K07B74A	K07B75N	Doppler
K17D18W	J95U29L			Doppler
K17F57Y	K10GJ2A			Doppler
K17FE7N	K10BD4L			Doppler
K17S65V	K06SL0T			Doppler
K17Y14B	K10AE7X			Doppler
K18V16X	K10AE7R			Doppler
K18VB2M	K10AF3D			Doppler
K19M03O	K08H07R			Doppler
K15Q08L	K10FC9G			Doppler
K15PH2P	K12XF6W			Doppler
K15PE0O	K10P43V			Doppler
K15PA6K	J95U71Q			Doppler
K15PA3N	K10OF3C			Doppler
K15M35E	K04V99D			Doppler
K15KE2M	K10GI8C			Doppler
K15K80R	K10GJ0A			Doppler
K15HE8D	K12T75B			Doppler
K15H81E	J95T12U			Doppler
K15H65T	K10HD1T			Doppler
K15H64N	K06DF9N	K17X35G		Doppler
K16S35W	K16P39T			Lopez
K15Fa5Z	K10EI4P			Doppler
K15FV5D	K10BD9J			Doppler
K15FM7P	J96W03R			Doppler
K15FJ0F	K18S13L			Doppler
K15F73K	K04G70C			Doppler
K15F55J	K10AF1N			Doppler
K15E10J	K10KF4V			Doppler
K15DI6G	K10AE6B			Doppler
K15DH5U	K10D98G			Doppler
K15DD1O	K02AE4H			Doppler
K15C58W	K10DA5N			Doppler
K15C26E	K10BD9F			Doppler
K15Bf8L	K10OD7F			Doppler
K15BU2A	K11G56G			Doppler
K15BN7D	J95U84A			Doppler
K15B28L	K10AA6D			Doppler
K15AL8M	J95U65E			Doppler
K15AL3P	J94E09O			Doppler
K15AK5T	K05SM2N			Doppler
K14Y20X	J98S52Z			Doppler
K14Y09Y	K03Uf2S			Doppler
K14Wm5N	J95U68Q			Doppler
K14Wj7F	K16AH8P			Doppler
K14Wf7F	K16AG0F			Doppler
K14Wc9D	K16C17R			Doppler
K14Wc5R	K12K51M			Doppler
K14WZ8G	K10EI1O			Doppler
K14WY3E	K10DA0O			Doppler
K14WP1D	J96G11X			Doppler
K14W31L	K02RP6N			Doppler
K14UE2Q	K05N81X			Doppler

K14UD0U	J99RL6N		Doppler
K14U10X	J98U11Z		Doppler
K14T02O	K10BD4Z		Doppler
K14SU1C	K05ST1L		Doppler
K14SS3T	J95B15L		Doppler
K14SQ7W	K16AG1H		Doppler
K14SO7U	K10BE5U		Doppler
K14SN9O	K16AG3S		Doppler
K14SH0B	K03Y22J		Doppler
K14SA9L	K16AH5F		Doppler
K14SA3L	K16B09O		Doppler
K14R58W	K10D27Q		Doppler
K14R51Z	K06H17A		Doppler
K14R38B	K03T59M		Doppler
K14R13Z	K16B05G		Doppler
K14Qi0W	K10BE4P		Doppler
K14QX3P	K15Xc4L		Doppler
K14QP4Q	K10AA0S		Doppler
K14QI6B	K10P85N		Doppler
K14QG2S	K01TQ3T		Doppler
K14Od1A	K10AE7Y		Doppler
K14OX3G	K10AE4U		Doppler
K14OL3L	K16B37W		Doppler
K14OE9K	K06A11X		Doppler
K14N53E	J97H03Y		Doppler
K14N03U	K05Q62W		Doppler
K14J68W	K07G12F		Doppler
K14J52N	K10D83P		Doppler
K14G07F	J94S02Z		Doppler
K14F14D	J95W14E		Doppler
K14D76X	J95S35K		Doppler
K14D51C	J99F77V		Doppler
K14D17E	K10P07G		Doppler
K14B58K	K09Sa6J		Doppler
K14B15C	K10BD4D		Doppler
K14A10M	K10P86Q		Doppler
K13Y84A	K13Y75S		Doppler
K13Y66P	K06DI3Z		Doppler
K13Y47Z	K10AF1O		Doppler
K13Y18B	K10FC5O		Doppler
K13X04M	J94S01V		Doppler
K13TD9G	K07P44Z		Doppler
K13S05W	K04S61E		Doppler
K13R77D	K11D35S	K11E91E	Doppler
K13P52R	K08SB4S		Doppler
K13J41P	K07EK7N		Doppler
K13HE4O	K05WJ5E		Doppler
K13H19Y	K14X00K		Doppler
K13H17T	K02ED3S		Doppler
K13G73V	K14Wb1E		Doppler
K13G73E	K05TI8R		Doppler
K13EF4D	J95U21Z		Doppler
K13EE1F	K08F32Y		Doppler
K13EA4C	K15Xb7K		Doppler
K13E46L	K17H51A		Doppler
K13C95B	K05GM3V		Doppler
K13C92E	J97N09T		Doppler
K13C48N	K10KD3R		Doppler
K13B42T	K10E79J		Doppler
K13AH8U	K10KD4L		Doppler
K13AF3U	K04L24R		Doppler
K13A76P	J96B03F		Doppler
K13A72F	J96T33N		Doppler
K13A69O	K10KE7A		Doppler
K12XE2X	K14HA0V		Doppler
K12XC5G	K11M06R		Doppler
K12X30J	K10BE3H		Doppler
K12W31B	K04VD0P		Doppler
K12V04N	J95S61J		Doppler
K12UC0Y	K01TO6B		Doppler
K12U86H	K09A24F		Doppler
K12U50M	K01SR4P		Doppler
K12TX1B	K15Xg2D		Doppler
K12TS3Q	J99U59V		Doppler
K12TF1S	J95S70S		Doppler
K12T80J	K10BE2K		Doppler
K12T63D	K10BD7Q		Doppler
K12S04X	K10B76S		Doppler

New multiple-opposition orbits:

Object	H	G	Epoch	M	Peri.	Node	Incl.	e	a	Opp	C
J97G27L	17.8	0.15	K194R	344.555	92.985	157.348	11.900	0.25882	2.67873	5	V
J98M23E	16.6	0.15	K194R	344.705	112.854	163.310	13.983	0.11791	3.00576	6	V
J99RO3K	18.8	0.15	K194R	328.590	165.390	143.396	0.527	0.16892	2.24636	5	V
J99VB8T	16.7	0.15	K194R	307.809	82.571	229.317	21.204	0.28996	3.04551	5	V
J99W20W	16.5	0.15	K194R	312.226	246.045	52.052	11.159	0.19619	3.06422	8	V
J99Y26L	16.3	0.15	K194R	284.164	236.386	76.570	16.962	0.09371	3.12810	6	V
K00L01P	16.4	0.15	K194R	9.387	326.223	251.284	23.099	0.21833	2.42547	5	V
K00S50Y	16.5	0.15	K194R	131.629	2.057	344.739	10.489	0.23338	3.13375	5	V
K00W63T	17.4	0.15	K194R	206.763	346.004	41.180	16.000	0.12990	2.54361	6	V
K01D82A	18.0	0.15	K194R	310.041	243.068	0.374	1.111	0.15823	2.34053	9	V
K01FM8S	18.7	0.15	K194R	330.638	128.188	180.872	5.942	0.21441	2.29287	4	V
K01SI4K	19.0	0.15	K194R	322.033	3.711	343.853	4.770	0.24853	2.34769	2	V

K01SJ9C	16.6	0.15	K194R	40.369	169.959	169.225	11.567	0.13010	3.19654	7	V
K01U94F	18.1	0.15	K194R	300.723	293.606	89.195	7.607	0.34269	2.36518	3	X
K01UN2Q	15.4	0.15	K194R	123.621	222.084	103.875	12.072	0.05298	3.10927	12	V
K02C65S	16.3	0.15	K194R	29.161	81.006	101.602	12.727	0.22416	3.09934	6	V
K02CP7K	16.9	0.15	K194R	284.912	61.937	306.483	5.075	0.08372	2.90666	8	V
K02N65Q	17.9	0.15	K194R	312.815	225.437	119.144	5.959	0.27120	2.62457	3	V
K02N69O	17.1	0.15	K194R	315.478	175.021	102.329	14.249	0.14972	2.67482	3	V
K02N72A	17.8	0.15	K194R	321.745	306.347	327.463	3.167	0.16577	2.66943	5	V
K02O27A	16.5	0.15	K194R	40.255	104.111	147.142	16.561	0.21812	3.14709	6	V
K02O37C	18.5	0.15	K194R	31.587	340.102	286.911	4.794	0.15389	2.23713	6	V
K02PF4B	18.0	0.15	K194R	307.505	315.776	321.001	5.367	0.16241	2.31079	7	V
K02PH5S	17.4	0.15	K194R	16.662	327.561	296.504	11.424	0.10522	2.62543	3	V
K02PJ1W	16.6	0.15	K194R	340.159	206.253	105.798	5.687	0.13546	3.19581	5	V
K02QF3P	17.2	0.15	K194R	352.899	26.458	273.770	12.942	0.25107	2.62034	2	V
K02RM2L	17.9	0.15	K194R	343.868	270.325	53.589	3.366	0.19331	2.25614	9	V
K02RT7C	17.6	0.15	K194R	329.993	202.707	139.004	14.129	0.26441	2.63177	3	V
K02S39N	18.4	0.15	K194R	295.079	5.414	16.432	7.487	0.21716	2.26931	4	V
K02TU9D	17.9	0.15	K194R	329.030	158.692	173.123	13.007	0.29750	2.64877	4	V
K02TV9X	17.9	0.15	K194R	282.038	223.962	197.552	5.098	0.26535	2.62718	4	V
K02U21A	18.0	0.15	K194R	296.393	23.469	5.582	6.715	0.22128	2.27021	4	V
K02X45X	16.3	0.15	K194R	344.488	340.267	79.377	34.023	0.17743	2.59739	8	X
K03F22R	17.8	0.15	K194R	288.201	131.944	14.983	23.335	0.15611	2.27182	6	V
K03J18T	16.6	0.15	K194R	49.630	323.572	212.841	5.862	0.06956	3.03296	9	V
K03K15U	18.2	0.15	K194R	318.172	23.001	224.059	19.784	0.04603	1.92926	3	V
K03L00E	15.9	0.15	K194R	322.119	46.889	248.629	20.975	0.09548	3.13110	6	V
K03P02X	18.4	0.15	K194R	318.174	192.342	150.119	4.470	0.23098	2.16440	7	V
K03Q00X	17.4	0.15	K194R	317.882	152.557	157.244	3.958	0.23373	2.54533	6	V
K03S01N	17.8	0.15	K194R	358.194	149.747	176.359	10.326	0.21516	3.04199	2	V
K03S12Q	17.0	0.15	K194R	250.155	194.083	181.596	6.205	0.21318	2.59795	8	V
K03SX3X	17.5	0.15	K194R	62.847	147.119	357.689	3.210	0.01447	2.67123	5	V
K03Sa1Y	17.3	0.15	K194R	289.855	188.120	157.304	9.367	0.17312	2.57633	6	V
K03Sa2V	18.8	0.15	K194R	162.416	29.647	5.750	5.173	0.21944	2.29510	6	V
K03Sa3U	17.1	0.15	K194R	5.317	144.104	325.395	9.776	0.08218	2.80491	5	V
K03T54V	17.3	0.15	K194R	284.495	199.209	174.432	11.005	0.21477	3.15939	3	V
K03T57P	17.6	0.15	K194R	269.740	189.545	166.331	4.360	0.23146	2.60090	5	V
K03U68P	17.3	0.15	K194R	328.280	72.162	211.698	5.668	0.23905	2.55163	7	V
K03U69O	17.5	0.15	K194R	7.124	94.012	179.480	6.365	0.07788	2.57039	8	V
K03UF4B	18.2	0.15	K194R	286.041	351.031	48.131	4.024	0.15417	2.55747	6	V
K03UW5C	17.5	0.15	K194R	297.108	116.027	214.778	13.970	0.13131	2.55782	4	V
K03Ua5H	16.6	0.15	K194R	315.071	231.934	65.491	11.601	0.16007	3.23019	7	V
K03Ue0T	17.3	0.15	K194R	345.765	49.932	212.306	12.927	0.23407	2.56272	4	V
K03WH8D	17.6	0.15	K194R	307.139	131.020	223.820	16.011	0.17653	2.55979	3	V
K04B26R	17.5	0.15	K194R	184.567	240.508	310.960	17.945	0.08098	1.93478	8	X
K04RO0H	17.1	0.15	K194R	347.575	252.620	181.412	3.460	0.07636	2.77397	10	V
K04RS4C	17.6	0.15	K194R	227.538	285.581	161.823	5.235	0.01854	2.41821	10	V
K04RU1X	18.5	0.15	K194R	76.039	261.856	31.215	2.257	0.15706	2.34066	5	V
K04TH7X	18.1	0.15	K194R	3.439	151.522	9.597	21.725	0.06618	1.93208	4	V
K04TW0O	17.5	0.15	K194R	166.714	130.175	200.325	11.982	0.19491	2.65748	4	W
K04TW9A	16.7	0.15	K194R	220.609	279.595	84.481	15.766	0.15677	2.54834	9	V
K04Ta1M	16.7	0.15	K194R	306.972	73.135	223.372	15.211	0.22123	3.11095	6	V
K04V42J	18.4	0.15	K194R	319.135	297.426	53.929	2.955	0.22420	2.44607	4	V
K04VA0C	18.8	0.15	K194R	89.114	66.192	221.534	2.097	0.18560	2.36134	3	V
K04XH6E	17.5	0.15	K194R	252.357	104.771	53.276	3.423	0.10315	2.40166	8	V
K04XI8E	17.3	0.15	K194R	163.947	82.023	256.818	10.437	0.33542	2.67088	4	V
K05EF5E	18.7	0.15	K194R	202.288	286.458	182.214	22.369	0.05353	1.90592	7	V
K05EP8U	18.1	0.15	K194R	337.103	330.949	354.912	5.545	0.19343	2.21959	5	V
K05G28N	16.4	0.15	K194R	129.652	92.482	160.488	16.549	0.05065	3.07961	8	V
K05L38M	17.4	0.15	K194R	338.277	191.042	90.854	14.475	0.28702	2.78260	3	V
K05M20K	19.0	0.15	K194R	348.601	189.639	123.240	2.401	0.23617	2.28439	4	V
K05M51E	17.2	0.15	K194R	183.947	58.227	190.437	10.599	0.17577	3.13910	2	V
K05N25B	18.0	0.15	K194R	357.537	163.589	157.798	8.396	0.20726	2.75340	3	V
K05S20K	16.8	0.15	K194R	316.842	166.617	221.460	12.038	0.30007	2.79212	4	X
K05SF9D	17.8	0.15	K194R	319.139	11.444	344.148	4.638	0.38669	2.82987	3	V
K05SM8K	18.7	0.15	K194R	329.022	301.679	7.914	1.300	0.20124	2.33270	3	V
K05TJ7W	18.3	0.15	K194R	133.559	70.250	225.204	1.865	0.15130	2.20101	8	V
K05U56H	18.6	0.15	K194R	312.404	110.560	220.918	10.377	0.30929	2.33646	2	V
K05UB7J	17.4	0.15	K194R	355.768	282.127	25.633	14.215	0.17104	2.84303	3	V
K05UC9X	18.9	0.15	K194R	313.438	309.860	31.941	2.833	0.21266	2.34661	4	V
K05UF9N	17.7	0.15	K194R	315.353	188.276	187.102	2.975	0.17823	2.30875	4	X
K05UO6C	18.6	0.15	K194R	307.705	238.335	107.534	3.288	0.23061	2.34735	4	V
K05UR2A	18.2	0.15	K194R	268.429	295.868	93.214	2.565	0.18458	2.36601	3	V
K05Ue9O	17.1	0.15	K194R	341.879	72.625	205.237	12.563	0.14322	2.94749	3	V
K05V35X	18.4	0.15	K194R	33.589	250.048	12.552	5.311	0.20702	2.33836	6	V
K05V48K	18.9	0.15	K194R	70.429	198.969	114.167	6.258	0.18392	2.24643	3	V
K05VC0R	16.6	0.15	K194R	303.454	186.757	266.769	23.040	0.23765	2.26671	6	X
K05W09R	18.3	0.15	K194R	281.106	316.644	58.204	2.293	0.19457	2.36665	3	V
K05WD2F	17.0	0.15	K194R	302.842	63.104	250.302	12.396	0.17433	3.01227	4	V
K05WK4X	16.9	0.15	K194R	330.344	351.241	250.826	9.724	0.03929	3.15345	5	V
K05XA0Z	17.1	0.15	K194R	353.374	356.667	301.640	12.116	0.12703	3.08140	2	V
K05Y31G	17.4	0.15	K194R	23.510	291.073	109.609	6.548	0.07121	2.76905	7	V
K05YJ8O	16.7	0.15	K194R	70.117	102.657	118.519	9.626	0.06252	3.05614	6	V
K05YP9C	16.4	0.15	K194R	254.085	256.844	93.298	16.785	0.04860	3.12368	6	V
K06A44U	16.5	0.15	K194R	5.205	13.995	301.593	7.559	0.10954	2.98125	6	V
K06BH6H	17.0	0.15	K194R	293.651	62.782	339.426	9.350	0.05814	2.97736	4	V
K06C46G	16.7	0.15	K194R	77.944	78.791	127.768	11.223	0.06752	3.12412	5	V
K06DF8D	17.5	0.15	K194R	340.531	225.133	23.405	4.256	0.11695	2.60423	6	V
K06DH9Z	17.3	0.15	K194R	330.745	117.720	163.035	10.985	0.10874	2.56975	7	V
K06E03E	18.6	0.15	K194R	105.132	306.826	142.974	4.558	0.19735	2.59287	4	V
K06E20K	20.8	0.15	K194R	23.162	328.933	177.748	2.784	0.26057	1.89248	2	V
K06F31H	17.7	0.15	K194R	311.731	154.514	183.092	14.254	0.08518	2.51664	5	V
K06H96X	17.2	0.15	K194R	307.361	62.499	228.776	14.290	0.15473	2.65917	6	V
K06HE0Z	17.0	0.15	K194R	348.605	324.703	332.226	1.237	0.19033	3.18244	4	V
K06J20W	17.2	0.15	K194R	354.463	172.973	105.192	8.754	0.16055	2.60772	6	V

K06J41Y	17.6	0.15	K194R	303.284	164.502	138.328	3.777	0.10673	2.63904	6	V
K06K76N	18.0	0.15	K194R	351.013	9.474	218.602	13.476	0.19667	2.66550	2	V
K06KA0U	17.6	0.15	K194R	294.185	227.424	97.748	14.924	0.28853	2.64793	2	V
K06KA9A	17.9	0.15	K194R	346.374	359.980	240.164	7.379	0.21917	2.65782	2	V
K06KB6F	18.0	0.15	K194R	30.452	97.640	145.791	1.993	0.09911	2.59182	3	V
K06KE4Q	17.8	0.15	K194R	334.660	140.417	119.052	6.337	0.14414	2.19250	5	V
K06O23K	17.4	0.15	K194R	7.273	327.314	299.795	18.115	0.13055	2.65697	3	V
K06P24B	17.8	0.15	K194R	340.006	353.387	332.602	14.008	0.26172	2.64440	4	V
K06Q06E	17.9	0.15	K194R	4.584	132.931	131.838	13.998	0.25797	2.65252	3	V
K06Q06G	18.0	0.15	K194R	326.909	356.480	341.588	20.990	0.16472	1.88419	5	X
K06Q74B	18.4	0.15	K194R	350.510	185.541	144.704	4.878	0.23402	2.63587	4	V
K06QA3R	18.0	0.15	K194R	351.434	315.700	333.619	11.486	0.17624	2.68475	2	V
K06QC5J	18.7	0.15	K194R	317.634	163.500	120.160	3.544	0.24285	2.23328	6	V
K06R22J	17.5	0.15	K194R	319.253	292.429	63.055	5.389	0.42561	2.68691	4	X
K06RA2M	17.1	0.15	K194R	314.630	15.353	356.999	14.224	0.26304	2.65773	8	V
K06RB4V	17.2	0.15	K194R	52.750	207.288	18.194	4.188	0.06236	2.75591	5	V
K06S10Q	17.2	0.15	K194R	312.959	160.080	213.035	11.272	0.10495	2.63981	8	V
K06S16T	17.8	0.15	K194R	323.193	358.615	358.016	10.156	0.35261	2.67380	2	V
K06S79H	18.7	0.15	K194R	323.999	164.134	185.083	13.901	0.26347	2.67929	2	V
K06SG2Z	17.5	0.15	K194R	334.463	284.013	32.072	5.275	0.16417	2.73192	4	V
K06SH6D	17.3	0.15	K194R	336.264	101.110	238.922	2.200	0.07706	2.68075	6	V
K06SX6N	18.7	0.15	K194R	323.988	202.993	157.927	6.520	0.12300	2.19233	5	V
K06SZ4C	18.1	0.15	K194R	307.488	347.914	36.899	9.118	0.31565	2.68171	3	V
K06T01D	21.0	0.15	K194R	275.115	5.806	57.195	2.418	0.36104	1.89309	3	X
K06UA1B	17.2	0.15	K194R	97.460	81.368	102.466	4.948	0.03644	2.80243	7	V
K06UK8G	18.2	0.15	K194R	315.902	247.471	41.987	5.732	0.22641	2.27311	4	V
K06UL3Y	17.5	0.15	K194R	300.118	4.462	29.529	6.520	0.06224	2.71555	5	V
K06UQ5B	17.9	0.15	K194R	0.983	286.666	32.141	5.083	0.11080	2.68748	2	V
K06UV5Y	18.1	0.15	K194R	307.541	271.408	120.767	1.911	0.22489	2.69454	3	V
K06UW0B	18.2	0.15	K194R	341.453	30.686	225.034	5.920	0.06978	2.33401	6	V
K06UX2M	18.2	0.15	K194R	305.604	217.872	177.316	12.099	0.18090	2.67349	4	V
K06UY4F	17.3	0.15	K194R	53.909	237.793	32.199	5.426	0.07682	2.71177	7	V
K06W45H	18.3	0.15	K194R	283.917	114.848	219.470	20.576	0.07199	1.93830	6	V
K06WD4A	17.0	0.15	K194R	317.002	110.476	235.869	24.260	0.08915	2.74131	3	V
K06WF4W	17.8	0.15	K194R	357.513	249.128	60.093	4.195	0.08136	2.75846	3	V
K06X14F	18.4	0.15	K194R	314.036	276.381	70.078	5.249	0.14229	2.25321	3	V
K07B96H	18.8	0.15	K194R	350.552	323.217	323.898	0.699	0.16623	2.35134	3	V
K07DB7F	17.5	0.15	K194R	48.555	273.797	336.917	6.144	0.14001	2.37199	5	V
K07E11N	17.8	0.15	K194R	272.928	93.433	338.055	22.183	0.16363	2.26209	4	X
K07F13O	17.9	0.15	K194R	345.244	189.696	111.137	6.443	0.14817	2.38746	5	V
K07J15D	18.3	0.15	K194R	358.101	256.806	47.017	14.864	0.17870	2.42957	4	V
K07J29U	16.1	0.15	K194R	58.224	189.990	56.157	25.233	0.23391	3.10272	5	V
K07L11A	16.7	0.15	K194R	356.274	198.853	100.540	6.560	0.13454	3.16718	6	V
K07M10K	17.7	0.15	K194R	309.681	201.962	115.165	8.776	0.20463	2.55038	4	V
K07M18A	17.5	0.15	K194R	277.285	216.647	122.910	15.526	0.13845	2.57678	3	V
K07R13S	16.7	0.15	K194R	223.674	322.108	6.868	8.312	0.28368	2.73118	5	V
K07TJ6X	18.4	0.15	K194R	323.102	120.337	189.857	13.115	0.27840	2.56194	4	V
K07TL7W	17.0	0.15	K194R	191.105	322.943	22.506	5.812	0.07734	2.85895	4	V
K07TQ9U	18.4	0.15	K194R	299.230	264.183	40.993	5.743	0.18110	2.14963	4	V
K07TW2M	17.8	0.15	K194R	285.035	233.032	107.607	3.586	0.22350	2.62842	3	V
K07TY7Y	17.1	0.15	K194R	280.174	188.883	149.771	3.686	0.19756	2.57922	7	V
K07Ti8N	17.8	0.15	K194R	294.142	289.586	47.358	13.535	0.28498	2.62256	2	V
K07U45Q	17.6	0.15	K194R	273.182	211.184	138.595	3.093	0.22027	2.63957	3	V
K07Y01O	16.8	0.15	K194R	317.756	237.632	148.970	31.363	0.34182	2.61388	6	X
K07Y27V	16.4	0.15	K194R	79.905	70.455	306.663	14.848	0.25537	3.12993	4	V
K08A61U	18.2	0.15	K194R	22.914	357.996	239.870	2.103	0.18016	2.25670	2	V
K08B29K	16.9	0.15	K194R	327.841	20.910	299.221	2.620	0.06730	2.77232	7	V
K08CD6U	17.4	0.15	K194R	86.360	333.285	317.165	12.224	0.08531	2.62261	4	V
K08F66J	17.1	0.15	K194R	347.894	169.273	73.428	2.196	0.12115	3.09418	5	V
K08FB3D	18.2	0.15	K194R	315.119	161.165	123.843	3.226	0.22041	2.36522	4	V
K08FB6X	17.4	0.15	K194R	10.461	26.017	203.150	9.068	0.26325	3.06098	4	V
K08H26Y	18.6	0.15	K194R	325.139	218.873	57.087	4.480	0.23316	2.36572	3	V
K08H54H	16.5	0.15	K194R	310.432	106.939	226.345	25.757	0.21073	3.04343	4	V
K08J09G	17.0	0.15	K194R	345.957	178.107	89.531	13.979	0.23167	3.08532	4	V
K08O03P	18.1	0.15	K194R	41.069	117.997	140.007	2.658	0.19132	2.33042	5	V
K08O14W	17.9	0.15	K194R	308.750	156.406	147.918	3.418	0.18725	2.41935	6	V
K08R53J	16.3	0.15	K194R	15.648	313.939	312.185	10.139	0.08017	3.20490	4	V
K08S33D	16.9	0.15	K194R	358.407	323.115	338.652	15.660	0.20465	3.12083	2	V
K08S40G	16.0	0.15	K194R	337.526	339.520	25.215	11.493	0.25633	3.11280	5	X
K08S64V	17.9	0.15	K194R	330.178	174.669	155.266	3.579	0.14267	2.39332	5	V
K08S87M	18.8	0.15	K194R	297.974	184.390	155.124	2.594	0.31734	2.43686	2	V
K08S93W	16.6	0.15	K194R	294.916	54.931	1.388	10.015	0.20777	3.14724	4	V
K08S98Q	18.0	0.15	K194R	346.637	158.288	167.525	5.534	0.25005	2.38538	3	V
K08SK2W	17.2	0.15	K194R	343.067	109.811	211.119	24.975	0.35675	3.19384	2	V
K08T96E	18.8	0.15	K194R	301.006	41.784	337.784	6.105	0.21796	2.39682	2	V
K08TE5P	16.8	0.15	K194R	351.482	303.820	23.399	9.809	0.06285	3.17355	3	V
K08UI4G	17.2	0.15	K194R	3.888	193.086	126.897	2.037	0.15296	3.16920	4	V
K08UL3R	17.6	0.15	K194R	330.217	347.438	341.953	12.894	0.22447	2.40498	3	V
K08UX1K	18.9	0.15	K194R	302.207	75.276	302.357	2.548	0.21292	2.40417	2	V
K08V81L	16.4	0.15	K194R	345.277	335.477	337.502	6.754	0.03850	3.23071	6	V
K08W01M	16.8	0.15	K194R	7.314	344.486	246.217	32.256	0.14424	2.62162	3	V
K08W10O	18.0	0.15	K194R	342.946	22.158	271.037	3.983	0.18572	2.45896	4	V
K08W26Z	17.3	0.15	K194R	49.385	208.299	308.855	3.927	0.14454	2.69722	4	V
K08X09Y	17.1	0.15	K194R	53.877	298.480	237.880	13.853	0.05276	2.63987	5	V
K08X39C	16.9	0.15	K194R	328.099	320.980	54.000	5.556	0.12049	3.24400	3	V
K08Y83C	17.1	0.15	K194R	292.282	213.433	98.302	14.946	0.11761	2.64343	6	V
K09A34O	17.8	0.15	K194R	243.862	86.831	326.159	2.247	0.17894	2.51789	4	V
K09B14X	16.6	0.15	K194R	115.906	210.798	309.505	15.887	0.09068	2.63067	3	V
K09B82J	16.1	0.15	K194R	321.254	115.764	336.149	18.243	0.19708	3.16263	4	X
K09BB4F	16.6	0.15	K194R	42.629	286.044	308.145	10.916	0.13078	2.63573	7	V
K09BE3S	17.4	0.15	K194R	332.949	151.178	136.404	10.051	0.14275	2.69413	4	V
K09BF5A	16.6	0.15	K194R	355.372	260.064	128.618	26.404	0.27801	3.21013	3	V
K09F28T	17.5	0.15	K194R	32.218	202.872	34.939	8.435	0.17648	2.75576	5	V

K09F66Q	17.7	0.15	K194R	33.358	90.265	188.084	9.990	0.16266	2.68018	6 V
K09G04O	17.2	0.15	K194R	33.585	310.740	308.614	11.942	0.10589	2.74013	3 V
K09H74R	18.1	0.15	K194R	38.501	336.689	192.589	25.976	0.24945	2.22678	5 V
K09M02U	18.8	0.15	K194R	317.447	220.330	113.078	6.764	0.23994	2.22940	4 V
K09P17T	18.8	0.15	K194R	320.153	205.023	155.092	3.911	0.15092	2.20450	4 V
K09P19T	17.1	0.15	K194R	279.557	189.280	167.032	6.362	0.29687	3.07374	3 V
K09P19X	19.0	0.15	K194R	318.507	200.133	138.208	7.476	0.30994	2.24086	2 V
K09Q56X	18.5	0.15	K194R	207.107	13.032	12.458	5.378	0.23997	2.37490	3 V
K09R39K	16.4	0.15	K194R	296.772	85.172	216.224	13.681	0.15387	3.20095	4 V
K09S18X	16.9	0.15	K194R	287.400	111.739	219.351	3.558	0.21810	3.10682	5 V
K09SF1O	19.1	0.15	K194R	314.369	14.374	348.186	2.616	0.20928	2.23595	2 V
K09SN8T	18.4	0.15	K194R	305.789	232.030	135.451	6.164	0.26672	2.24888	4 V
K09U21K	18.7	0.15	K194R	318.307	12.428	345.851	3.448	0.21599	2.21226	5 V
K09U85Q	18.3	0.15	K194R	331.448	267.606	60.876	6.199	0.21849	2.27882	6 V
K09UB9X	19.1	0.15	K194R	342.375	123.504	200.385	6.071	0.21860	2.23996	2 V
K09UD4U	16.6	0.15	K194R	15.697	119.066	193.882	7.181	0.05518	3.02952	6 V
K09V30D	18.7	0.15	K194R	286.900	91.807	306.170	3.693	0.11203	2.26978	3 V
K09W22Y	18.5	0.15	K194R	302.763	67.134	308.004	1.903	0.20227	2.26716	3 V
K09W26B	15.0	0.15	K194R	314.595	268.472	141.476	32.420	0.20120	3.19830	12 X
K09W31H	18.3	0.15	K194R	341.639	242.886	89.764	2.704	0.08912	2.29013	6 V
K09WF0L	18.7	0.15	K194R	310.998	293.157	76.283	10.454	0.17594	2.26268	3 V
K09WQ8Q	17.7	0.15	K194R	283.192	244.920	82.959	3.520	0.19842	2.36964	6 V
K10A10B	15.4	0.15	K194R	216.569	200.910	297.145	24.672	0.06356	3.16888	6 X
K10A53D	17.7	0.15	K194R	28.989	25.047	172.430	5.162	0.13313	2.58850	3 V
K10A73E	17.3	0.15	K194R	251.030	278.567	149.224	12.302	0.15051	2.36318	7 V
K10AB0L	18.0	0.15	K194R	10.468	341.922	228.558	7.849	0.21830	2.69733	4 V
K10AB6Z	17.4	0.15	K194R	27.316	286.945	258.885	7.452	0.17842	2.69572	5 V
K10B27X	15.8	0.15	K194R	15.855	344.687	278.069	11.514	0.18295	3.12600	8 V
K10B37O	16.7	0.15	K194R	352.107	172.037	165.230	15.794	0.09711	2.98858	5 V
K10B61O	16.4	0.15	K194R	299.714	128.791	195.298	26.264	0.18885	3.18935	5 V
K10B94V	16.4	0.15	K194R	309.097	78.441	280.656	21.255	0.12687	3.06389	3 V
K10BA6H	16.3	0.15	K194R	216.114	322.652	127.483	27.010	0.15305	3.14447	4 V
K10BC4P	15.9	0.15	K194R	315.737	96.874	241.666	21.517	0.05062	3.14322	7 V
K10BC5Q	16.1	0.15	K194R	356.621	50.677	265.039	26.493	0.13269	3.04615	3 V
K10C87H	16.4	0.15	K194R	352.194	226.062	137.751	12.296	0.14727	3.15910	4 V
K10CL7W	16.0	0.15	K194R	46.767	220.341	13.197	7.281	0.17262	3.95196	4 V
K10CL9T	16.2	0.15	K194R	87.758	239.951	327.992	12.556	0.04186	3.19133	7 V
K10CP2E	17.4	0.15	K194R	23.144	140.798	121.191	8.736	0.20635	2.52796	4 V
K10D71C	16.2	0.15	K194R	325.042	212.138	126.137	22.499	0.09710	3.17222	6 V
K10E92R	17.1	0.15	K194R	358.646	78.999	172.820	14.408	0.09939	2.61356	9 V
K10EH7R	15.9	0.15	K194R	359.540	64.794	251.640	15.063	0.10306	3.15888	7 V
K10FC9F	17.3	0.15	K194R	285.799	72.149	347.886	12.530	0.15950	3.08707	3 V
K10G34N	17.2	0.15	K194R	307.062	136.144	176.787	12.342	0.10299	2.60853	8 V
K10GB6D	16.9	0.15	K194R	299.106	113.340	20.533	16.137	0.25080	3.04582	7 X
K10HC3V	16.6	0.15	K194R	329.980	248.979	104.195	22.512	0.27005	2.33958	6 X
K10J01N	18.4	0.15	K194R	8.991	342.802	232.766	16.683	0.44116	2.70111	2 V
K10J30Z	17.2	0.15	K194R	345.627	32.061	220.599	9.253	0.21733	2.71284	3 V
K10J82Q	17.5	0.15	K194R	334.366	177.669	87.230	15.120	0.39482	2.73758	2 V
K10JD2C	17.5	0.15	K194R	328.562	31.753	292.376	8.199	0.18926	2.75078	3 V
K10K01S	17.4	0.15	K194R	338.600	92.170	187.638	8.558	0.15390	2.55800	6 V
K10L11M	16.9	0.15	K194R	309.017	156.033	151.151	18.462	0.14865	2.86628	6 V
K10L50D	17.1	0.15	K194R	342.571	158.367	107.657	19.899	0.07988	2.60213	5 V
K10L64X	16.7	0.15	K194R	253.274	202.451	139.168	22.436	0.18933	2.80463	4 V
K10L65Q	18.7	0.15	K194R	351.589	176.023	106.826	9.283	0.30005	2.67669	2 V
K10LB9G	17.3	0.15	K194R	278.254	257.652	124.240	5.598	0.13013	2.80641	5 V
K10LE6L	18.1	0.15	K194R	339.021	348.908	266.122	2.650	0.14483	2.15216	7 V
K10LE9B	17.9	0.15	K194R	335.028	148.535	179.095	21.848	0.31774	2.74761	2 V
K10LF3L	16.8	0.15	K194R	278.561	210.462	133.912	9.763	0.17418	2.57645	6 V
K10LF6R	17.5	0.15	K194R	295.389	202.675	106.085	12.232	0.12851	2.63243	5 V
K10M07V	18.1	0.15	K194R	340.732	97.078	214.489	14.155	0.33098	2.76062	5 V
K10M13V	18.2	0.15	K194R	356.495	312.052	342.169	8.195	0.30518	2.74834	2 V
K10M25U	17.7	0.15	K194R	337.349	72.881	228.486	14.911	0.29418	2.79189	4 V
K10M92R	18.2	0.15	K194R	334.112	355.279	354.672	20.111	0.29537	2.73903	2 V
K10M98O	18.1	0.15	K194R	326.113	223.061	27.283	16.317	0.25115	2.73021	2 V
K10MD8Z	17.6	0.15	K194R	50.862	272.298	301.411	10.240	0.13540	2.57909	4 V
K10N68O	16.5	0.15	K194R	232.660	271.912	87.048	11.006	0.10316	3.05814	5 V
K10N87W	17.6	0.15	K194R	344.083	5.041	295.250	18.814	0.24330	2.59981	4 V
K10O02T	15.7	0.15	K194R	1.568	325.568	315.529	5.277	0.17464	3.98021	8 V
K10O11C	16.0	0.15	K194R	288.393	143.736	353.180	19.424	0.10858	3.14883	6 X
K10O15J	17.7	0.15	K194R	314.065	182.097	207.137	7.856	0.31449	2.74732	3 X
K10O62S	17.6	0.15	K194R	316.259	299.652	66.200	8.685	0.23420	2.78629	2 V
K10O90U	16.0	0.15	K194R	350.341	88.118	143.632	26.488	0.16435	3.11575	6 V
K10OA8R	15.9	0.15	K194R	321.449	36.331	228.361	19.498	0.08012	3.09806	7 V
K10P60W	17.2	0.15	K194R	39.633	105.567	164.149	12.614	0.17069	2.69354	7 V
K10P82B	17.9	0.15	K194R	352.083	175.967	110.913	8.406	0.11852	2.61817	2 V
K10RF3Y	16.8	0.15	K194R	323.077	84.541	346.247	10.800	0.28650	2.64298	7 X
K10RG8O	17.5	0.15	K194R	331.757	97.958	255.916	4.195	0.08288	2.69747	5 V
K10RH4Q	18.4	0.15	K194R	319.040	187.383	188.985	8.726	0.27914	2.72965	3 V
K10S16B	17.8	0.15	K194R	334.272	174.420	177.776	5.248	0.07610	2.70630	3 V
K10T34D	18.3	0.15	K194R	319.776	327.000	48.881	2.972	0.25012	2.74434	4 V
K10T36F	17.4	0.15	K194R	341.564	121.160	214.407	3.677	0.07777	2.75930	7 V
K10T72T	16.6	0.15	K194R	328.058	21.344	337.381	7.794	0.22559	2.74818	8 X
K10TF5Y	18.3	0.15	K194R	330.383	177.625	179.926	7.852	0.32949	2.73458	3 V
K10U06U	18.2	0.15	K194R	96.236	324.572	55.725	3.552	0.24211	2.42714	2 V
K10U93Z	16.6	0.15	K194R	8.913	13.818	1.525	17.218	0.20284	2.64851	9 X
K10V23B	18.5	0.15	K194R	307.795	205.743	72.666	2.790	0.07199	2.22962	5 V
K10V58K	17.5	0.15	K194R	325.402	29.039	297.047	7.136	0.22139	2.85254	3 V
K10VD8C	16.7	0.15	K194R	302.353	230.922	250.098	11.944	0.21880	2.62471	8 X
K10W49S	17.6	0.15	K194R	308.343	327.368	24.776	1.303	0.19268	2.90506	3 V
K11A47C	15.7	0.15	K194R	239.210	297.892	135.921	27.861	0.16560	3.06934	7 V
K11B21H	16.5	0.15	K194R	313.411	219.881	121.496	27.999	0.12313	3.09650	4 V
K11B48N	18.3	0.15	K194R	188.825	224.932	270.175	3.739	0.08256	2.20199	7 V
K11B77V	16.1	0.15	K194R	225.042	305.669	85.868	12.283	0.09315	2.97199	7 V

K11BC8O	18.3	0.15	K194R	19.661	329.906	284.126	6.383	0.14510	2.30463	5	V
K11C97N	16.8	0.15	K194R	322.820	14.430	320.616	32.527	0.06432	3.23065	2	V
K11D28R	16.5	0.15	K194R	83.321	246.680	327.231	9.122	0.05194	3.24239	7	V
K11F85G	17.8	0.15	K194R	32.982	188.703	86.277	7.664	0.11080	2.30156	4	V
K11H70F	18.0	0.15	K194R	354.702	7.334	300.738	1.472	0.19883	2.37654	4	V
K11H93U	18.0	0.15	K194R	349.583	194.724	84.598	1.061	0.15749	2.43487	6	V
K11K46F	17.7	0.15	K194R	5.309	286.716	339.511	2.565	0.14965	2.45830	5	V
K11L20W	18.1	0.15	K194R	124.698	28.913	67.564	22.673	0.08529	1.92650	2	V
K11M04G	17.6	0.15	K194R	330.641	147.478	143.148	15.405	0.17014	2.56998	4	V
K11O24E	16.6	0.15	K194R	321.719	197.678	103.351	17.693	0.16329	2.56856	7	V
K11O51R	17.4	0.15	K194R	285.984	192.911	129.170	16.055	0.13669	2.62114	5	V
K11Q13J	16.7	0.15	K194R	15.835	41.872	253.093	6.375	0.15393	2.48545	9	X
K11Q14Q	17.5	0.15	K194R	310.509	342.800	310.240	2.954	0.26077	2.61859	3	V
K11Q26X	17.0	0.15	K194R	179.463	93.367	222.691	5.240	0.06679	2.99406	6	V
K11Q33B	17.7	0.15	K194R	221.081	261.592	212.537	5.383	0.10492	2.43983	9	V
K11Q88W	18.4	0.15	K194R	58.768	262.147	63.437	1.872	0.20269	2.32928	5	V
K11SA1T	17.6	0.15	K194R	349.714	154.414	136.472	2.022	0.11456	2.60436	5	V
K11SJ3W	17.3	0.15	K194R	283.059	195.306	122.589	2.948	0.23187	2.71714	5	V
K11T10D	17.6	0.15	K194R	293.379	100.406	329.551	17.543	0.09137	1.87878	5	X
K11U63F	17.5	0.15	K194R	332.612	54.500	281.723	17.795	0.08206	1.94487	5	X
K11U84B	17.6	0.15	K194R	286.834	351.674	25.360	5.277	0.18498	2.65524	4	V
K11UH8T	17.7	0.15	K194R	294.825	281.957	86.608	5.885	0.20450	2.64056	3	V
K11UR0O	17.7	0.15	K194R	271.463	273.040	111.222	5.590	0.10847	2.64778	4	V
K11V17G	17.7	0.15	K194R	350.999	93.358	229.001	5.652	0.17812	2.59724	4	V
K11W86M	17.6	0.15	K194R	14.792	81.872	220.602	1.666	0.08931	2.62751	8	V
K11WA8N	17.1	0.15	K194R	350.939	201.675	91.351	3.450	0.03775	2.74901	9	V
K11Y50N	17.8	0.15	K194R	290.823	269.009	121.023	5.635	0.12598	2.71932	5	V
K12A23J	16.2	0.15	K194R	316.534	160.259	138.373	10.902	0.07222	3.00726	11	V
K12B12M	15.8	0.15	K194R	156.208	324.920	130.052	16.539	0.05332	3.08854	8	V
K12B21P	17.1	0.15	K194R	295.586	215.927	210.243	5.298	0.31515	2.58382	6	X
K12B93W	18.0	0.15	K194R	334.273	68.862	314.736	19.217	0.10710	1.94995	7	X
K12B99M	19.5	0.15	K194R	43.025	102.018	354.159	1.467	0.14702	2.32245	3	V
K12D71Q	16.9	0.15	K194R	130.425	207.399	303.420	10.162	0.05155	3.04602	3	V
K12D88C	16.8	0.15	K194R	37.570	292.225	302.631	5.485	0.13478	3.17320	2	V
K12F07D	17.6	0.15	K194R	249.238	122.684	339.007	6.810	0.18671	2.73915	3	V
K12F56Y	16.6	0.15	K194R	56.231	231.782	10.191	16.302	0.17193	3.12349	4	V
K12G06V	18.5	0.15	K194R	279.003	75.381	22.077	19.834	0.12955	1.97451	3	X
K12H36R	18.1	0.15	K194R	334.407	182.397	129.805	9.252	0.23097	2.22111	3	V
K12H38H	19.0	0.15	K194R	28.033	179.548	54.314	7.190	0.15779	2.23522	3	V
K12J50E	18.1	0.15	K194R	278.268	228.303	94.495	8.826	0.22456	2.34405	5	V
K12P31A	17.9	0.15	K194R	317.302	149.323	212.118	5.056	0.25513	2.28250	7	X
K12Q14Z	17.7	0.15	K194R	312.547	57.885	291.421	23.065	0.26150	2.31321	4	V
K12S04X	16.9	0.15	K194R	46.720	319.864	164.342	8.680	0.09738	2.80630	7	V
K12S33O	17.9	0.15	K194R	325.878	29.559	284.435	4.813	0.24183	2.34051	3	V
K12T03C	17.9	0.15	K194R	324.307	276.662	57.376	5.837	0.26027	2.33357	3	V
K12T63D	16.3	0.15	K194R	238.518	278.885	297.590	9.206	0.10843	3.06456	7	V
K12T70U	18.8	0.15	K194R	320.387	358.126	357.636	11.116	0.25412	2.32005	3	V
K12T80J	16.4	0.15	K194R	327.446	263.613	194.803	10.487	0.02065	3.16520	10	V
K12T92V	18.7	0.15	K194R	319.945	306.716	61.021	3.608	0.27370	2.29999	4	V
K12TF1S	16.8	0.15	K194R	95.366	294.152	65.017	2.350	0.09549	3.12976	6	V
K12TH8X	17.8	0.15	K194R	313.843	18.063	315.789	5.697	0.13839	2.38329	5	V
K12TM1E	19.0	0.15	K194R	334.259	196.041	139.014	0.311	0.21153	2.31663	3	V
K12TM5Q	18.7	0.15	K194R	16.144	251.852	33.222	3.960	0.16873	2.33544	3	V
K12TS3Q	19.0	0.15	K194R	45.965	261.637	80.447	1.940	0.20136	2.18212	3	V
K12TT6A	18.1	0.15	K194R	306.146	183.673	141.043	4.123	0.24902	2.38436	4	V
K12TU3R	18.5	0.15	K194R	288.824	245.672	127.937	2.225	0.19626	2.36917	3	V
K12TV0N	18.4	0.15	K194R	300.541	183.593	215.124	25.374	0.27404	2.31976	2	V
K12TV6N	18.4	0.15	K194R	305.977	228.911	143.060	5.791	0.27043	2.32751	4	V
K12TX1B	17.9	0.15	K194R	287.107	80.686	6.878	7.891	0.13255	2.22199	5	V
K12U30C	17.1	0.15	K194R	65.961	282.102	113.818	9.451	0.25178	3.10274	3	V
K12U32K	18.6	0.15	K194R	302.749	99.444	250.751	0.621	0.20267	2.38966	2	V
K12U34U	17.5	0.15	K194R	351.077	294.333	31.274	6.624	0.18650	2.32395	7	X
K12U50M	17.2	0.15	K194R	132.210	141.262	189.533	14.561	0.15926	3.05525	4	V
K12U54D	17.6	0.15	K194R	335.066	58.793	250.087	5.908	0.12600	2.41753	7	V
K12U76P	18.5	0.15	K194R	315.086	190.363	175.444	2.562	0.18830	2.34223	3	V
K12U86H	17.3	0.15	K194R	129.820	180.961	246.100	2.966	0.08523	2.76827	6	V
K12U87B	18.9	0.15	K194R	294.304	177.811	214.760	3.273	0.19624	2.35346	3	V
K12UA3D	18.8	0.15	K194R	340.039	155.795	183.615	2.420	0.14740	2.34152	4	V
K12UA9G	19.2	0.15	K194R	353.232	276.034	37.961	2.208	0.19494	2.33502	3	V
K12UB1K	18.6	0.15	K194R	338.983	143.428	193.812	3.773	0.21526	2.33681	2	V
K12UC0Y	17.0	0.15	K194R	128.538	350.600	6.988	8.819	0.09377	3.02169	4	V
K12UC1C	17.5	0.15	K194R	309.885	44.953	255.627	12.633	0.11852	2.54363	5	V
K12V04N	16.6	0.15	K194R	81.058	69.448	13.074	25.597	0.25855	3.09281	6	V
K12V26Y	18.5	0.15	K194R	332.721	344.442	344.020	1.643	0.18657	2.35661	3	V
K12V71O	18.7	0.15	K194R	304.010	301.854	62.292	5.758	0.24749	2.37871	3	V
K12V80B	18.7	0.15	K194R	311.670	84.788	228.355	4.720	0.32321	2.33288	3	V
K12W07M	17.9	0.15	K194R	315.420	302.434	47.202	5.395	0.15625	2.39951	3	V
K12W31B	17.3	0.15	K194R	61.238	23.226	223.858	2.567	0.15603	2.41626	10	V
K12X30J	17.9	0.15	K194R	230.556	189.687	270.704	4.249	0.19363	2.42299	6	V
K12X64F	19.0	0.15	K194R	89.301	250.755	239.544	18.180	0.12961	1.93526	2	V
K12XC5G	17.5	0.15	K194R	84.740	170.224	119.431	7.660	0.15665	2.26222	8	V
K12XE2X	17.7	0.15	K194R	182.790	249.295	189.431	8.944	0.19534	2.62458	4	V
K12Y07Y	17.1	0.15	K194R	290.273	149.943	312.438	22.015	0.22734	2.28454	4	X
K13A24T	18.0	0.15	K194R	278.076	326.382	94.787	12.937	0.22404	2.37868	3	V
K13A28U	16.9	0.15	K194R	145.766	298.629	243.237	5.657	0.20890	2.54995	7	V
K13A53L	18.7	0.15	K194R	118.616	212.851	297.962	16.709	0.06640	1.90232	2	V
K13A69O	16.5	0.15	K194R	313.700	209.516	18.084	9.182	0.08010	3.06857	6	V
K13A69T	16.9	0.15	K194R	314.592	30.948	338.983	11.413	0.17048	2.44756	9	X
K13A72F	16.9	0.15	K194R	127.052	33.463	14.990	10.556	0.24287	2.96998	8	V
K13A76P	16.0	0.15	K194R	120.251	309.401	272.226	23.598	0.09217	2.33926	10	V
K13A90P	17.6	0.15	K194R	59.459	104.930	104.947	8.971	0.14705	2.76612	3	V
K13AE7W	17.4	0.15	K194R	294.160	87.949	256.670	15.899	0.25348	2.57884	4	V
K13AF3U	16.7	0.15	K194R	198.888	150.290	162.871	17.838	0.24910	3.15245	5	V

K13AF9P	17.4	0.15	K194R	28.313	359.051	264.198	14.557	0.12704	2.65122	3 V
K13AH8U	16.4	0.15	K194R	239.880	148.780	143.610	22.994	0.11553	3.09259	7 V
K13B33R	16.8	0.15	K194R	53.377	275.443	314.882	23.308	0.18077	2.72973	2 V
K13B40F	17.6	0.15	K194R	108.391	9.673	142.567	5.145	0.06764	2.77320	4 V
K13B42T	17.8	0.15	K194R	34.840	259.426	126.261	3.374	0.16515	2.24653	7 V
K13B67B	16.6	0.15	K194R	357.333	158.799	73.272	16.272	0.09708	2.86818	8 V
K13C29B	18.7	0.15	K194R	350.435	323.891	313.706	17.516	0.06749	1.91469	2 V
K13C48N	16.6	0.15	K194R	25.447	264.882	261.402	6.921	0.08742	3.02901	9 V
K13C92E	17.2	0.15	K194R	261.779	215.783	159.492	4.671	0.08591	2.71043	8 V
K13C95B	17.4	0.15	K194R	97.371	45.108	170.625	3.500	0.02651	2.62679	7 V
K13CA7V	17.0	0.15	K194R	346.205	75.478	145.820	16.713	0.18417	3.15594	3 V
K13CD2A	16.4	0.15	K194R	340.282	156.940	191.846	4.697	0.20342	2.57424	13 X
K13CI4P	16.5	0.15	K194R	100.885	199.908	11.302	16.262	0.22940	2.70289	3 V
K13CJ5Q	17.1	0.15	K194R	73.476	332.774	146.509	2.395	0.13560	3.08956	6 V
K13CJ8D	17.1	0.15	K194R	32.882	206.738	60.876	9.183	0.08705	2.71124	8 V
K13CL1D	19.0	0.15	K194R	42.493	105.099	126.273	24.967	0.02334	1.89677	3 V
K13E08E	17.0	0.15	K194R	313.664	77.823	262.967	2.200	0.20232	2.74474	8 V
K13E46L	17.7	0.15	K194R	42.786	201.248	179.568	5.069	0.14579	2.32755	7 V
K13E69N	14.2	0.15	K194R	264.770	97.681	349.430	19.147	0.01438	5.19067	7 V
K13EA4C	17.0	0.15	K194R	311.968	341.686	52.330	10.293	0.22262	2.45858	9 V
K13ED7C	17.9	0.15	K194R	345.994	186.583	115.207	2.084	0.08764	2.66434	5 V
K13EE1F	16.3	0.15	K194R	274.124	324.331	309.525	1.217	0.15955	3.13030	10 V
K13EF4D	16.6	0.15	K194R	261.757	351.052	342.345	0.641	0.08401	2.96722	12 V
K13F12U	17.2	0.15	K194R	32.661	105.645	77.709	17.920	0.23326	3.16454	3 V
K13G04T	17.7	0.15	K194R	274.700	355.066	67.763	3.744	0.08010	2.61374	4 V
K13G06G	17.1	0.15	K194R	9.957	237.129	39.848	6.253	0.03832	2.84565	6 V
K13G73E	16.6	0.15	K194R	308.129	293.234	43.498	7.916	0.08958	2.89203	6 V
K13G73V	18.9	0.15	K194R	196.013	278.250	212.692	21.951	0.04722	1.88593	6 V
K13G74X	16.7	0.15	K194R	21.463	77.213	140.425	26.134	0.23620	3.14586	4 V
K13H17T	16.4	0.15	K194R	60.912	214.541	338.519	11.415	0.21010	3.04278	3 V
K13H19Y	18.5	0.15	K194R	43.450	258.460	62.269	23.084	0.02345	1.82367	6 V
K13H26U	17.7	0.15	K194R	80.972	1.652	225.671	16.315	0.18104	2.84830	2 V
K13H40J	17.2	0.15	K194R	329.019	92.186	217.990	24.248	0.27948	3.08929	4 V
K13H51L	16.9	0.15	K194R	198.642	166.296	231.501	10.823	0.07308	3.16147	4 V
K13H58A	17.2	0.15	K194R	317.219	60.792	228.532	11.694	0.15060	3.15752	2 V
K13H91X	16.7	0.15	K194R	294.440	204.089	203.164	32.954	0.19664	2.62201	7 X
K13HE4O	16.9	0.15	K194R	297.558	136.040	231.173	9.962	0.27902	2.90523	3 V
K13HE6S	17.4	0.15	K194R	226.041	199.942	222.098	1.169	0.05282	2.86778	8 V
K13J04S	16.2	0.15	K194R	174.200	254.506	225.171	14.038	0.10746	2.87034	7 V
K13J41P	16.4	0.15	K194R	95.720	319.009	201.104	16.876	0.18379	3.08673	5 V
K13J57O	17.4	0.15	K194R	358.078	173.586	109.445	6.599	0.15492	3.08237	4 V
K13J62U	17.2	0.15	K194R	0.447	34.116	219.973	14.242	0.23737	3.16801	2 V
K13K02U	16.8	0.15	K194R	353.556	55.025	215.358	27.513	0.34066	3.17810	3 V
K13L15Y	16.4	0.15	K194R	4.581	65.173	233.980	24.032	0.40706	3.15931	5 X
K13L22B	16.1	0.15	K194R	351.602	35.932	255.781	13.549	0.24980	3.15683	7 V
K13N07N	17.6	0.15	K194R	5.704	4.857	272.765	12.051	0.33597	3.25295	2 V
K13O09W	16.2	0.15	K194R	41.804	139.160	149.166	14.034	0.22544	3.03974	8 V
K13P52R	16.3	0.15	K194R	322.921	221.448	181.399	16.154	0.10788	3.07930	8 V
K13R77D	16.4	0.15	K194R	105.996	43.750	186.040	1.250	0.13708	3.16822	10 V
K13S02Y	17.6	0.15	K194R	280.486	16.360	277.883	12.310	0.18188	2.33081	5 V
K13S05W	17.8	0.15	K194R	115.241	182.648	186.954	4.704	0.24336	2.65612	3 V
K13T56O	17.6	0.15	K194R	63.171	224.993	223.616	11.475	0.26442	2.64342	2 V
K13TB9A	19.1	0.15	K194R	322.732	24.406	295.468	3.884	0.13834	2.14499	3 V
K13TD9G	16.1	0.15	K194R	36.124	288.459	25.803	24.778	0.32514	3.15537	5 V
K13W36D	17.4	0.15	K194R	118.698	262.125	102.221	12.931	0.19088	2.65565	4 V
K13X04M	18.1	0.15	K194R	341.417	82.887	12.245	20.457	0.06486	1.92965	5 V
K13Y18B	17.5	0.15	K194R	83.511	278.450	282.367	9.257	0.19745	2.43467	6 V
K13Y47Z	16.1	0.15	K194R	316.729	12.558	137.051	14.624	0.08420	2.98090	6 V
K13Y66P	18.0	0.15	K194R	44.362	86.493	48.421	3.796	0.24231	2.64658	4 V
K13Y84A	18.5	0.15	K194R	221.012	207.270	203.625	2.727	0.16356	2.34229	3 V
K14A10M	16.7	0.15	K194R	116.243	186.770	170.535	7.656	0.02966	3.06890	7 V
K14A49A	17.7	0.15	K194R	65.808	333.262	163.739	5.344	0.10994	2.67498	4 V
K14B15C	16.9	0.15	K194R	50.446	71.919	358.228	6.757	0.08802	2.93585	7 V
K14B58K	18.2	0.15	K194R	317.333	96.753	293.062	4.342	0.14255	2.18480	6 V
K14D17E	15.7	0.15	K194R	338.469	359.874	103.560	28.379	0.11102	3.11577	7 V
K14D51C	16.9	0.15	K194R	76.793	294.893	161.759	9.092	0.04968	2.94655	5 V
K14D60B	17.4	0.15	K194R	354.565	106.104	150.068	13.277	0.15391	2.69533	4 V
K14D72L	17.3	0.15	K194R	168.914	326.632	120.959	5.435	0.21598	2.52889	6 V
K14D76X	18.6	0.15	K194R	307.759	18.933	20.793	6.691	0.10290	2.26592	6 V
K14D94Y	18.6	0.15	K194R	10.493	272.542	351.174	7.095	0.17121	2.56365	3 V
K14DD5L	17.7	0.15	K194R	348.735	111.505	154.725	15.270	0.14491	2.65741	3 V
K14E02R	17.0	0.15	K194R	241.191	218.968	153.658	5.790	0.05724	2.57593	6 V
K14E27F	18.0	0.15	K194R	41.391	164.310	103.010	3.714	0.14584	2.46180	2 V
K14EA8B	18.0	0.15	K194R	344.273	13.687	278.467	2.286	0.17487	2.57067	4 V
K14F14D	16.6	0.15	K194R	5.337	177.008	75.373	15.024	0.05387	2.61081	9 V
K14F74J	17.8	0.15	K194R	1.031	150.213	69.083	9.498	0.24335	2.85504	2 V
K14G07F	17.1	0.15	K194R	296.545	329.503	358.809	13.970	0.11216	2.63640	5 V
K14G50V	17.2	0.15	K194R	3.293	154.014	107.074	12.874	0.20977	2.72579	5 V
K14H54T	17.8	0.15	K194R	357.437	176.509	99.421	3.559	0.08801	2.65429	3 V
K14HA0B	17.4	0.15	K194R	255.507	283.382	122.899	3.383	0.18561	2.51150	7 V
K14J05X	16.9	0.15	K194R	238.367	229.977	136.085	7.044	0.01798	2.76446	7 V
K14J52N	16.8	0.15	K194R	165.410	68.594	66.707	6.686	0.07258	2.55886	8 V
K14J68W	15.5	0.15	K194R	57.811	51.177	40.382	10.803	0.08207	3.38711	7 V
K14K15Z	17.8	0.15	K194R	11.916	159.171	101.118	3.923	0.14078	2.75738	4 V
K14K62R	19.4	0.15	K194R	18.146	122.185	84.965	22.998	0.11267	1.84912	2 V
K14KA2V	17.6	0.15	K194R	69.684	172.583	67.812	15.231	0.11620	2.58166	2 V
K14N03U	16.9	0.15	K194R	313.924	218.444	157.356	25.905	0.14380	2.78492	7 V
K14N04P	17.6	0.15	K194R	318.116	236.437	94.737	3.223	0.07638	2.87371	5 V
K14N22B	17.6	0.15	K194R	5.060	43.765	254.115	4.245	0.15602	2.80000	5 V
K14N32V	16.9	0.15	K194R	83.064	25.028	197.186	4.861	0.11080	2.75093	9 V
K14N53E	15.3	0.15	K194R	311.893	236.326	91.255	22.351	0.15492	3.08083	9 V
K14O49Y	18.1	0.15	K194R	345.136	332.404	6.768	3.647	0.09861	2.76929	2 V
K14O55R	17.2	0.15	K194R	310.006	228.078	119.934	3.766	0.16788	2.96448	3 V

K14O79H	17.6	0.15	K194R	29.621	301.707	332.996	8.101	0.18163	2.76035	5	V
K14OA4U	17.3	0.15	K194R	3.749	317.747	328.819	7.639	0.14283	2.94104	6	V
K14OE9K	16.8	0.15	K194R	68.134	235.138	304.683	0.374	0.05139	3.14364	8	V
K14OH5L	17.7	0.15	K194R	299.469	37.499	359.242	4.095	0.12556	2.71693	7	V
K14OL3L	17.7	0.15	K194R	347.362	283.313	108.889	12.982	0.27348	2.60571	4	V
K14OM4Q	17.2	0.15	K194R	359.658	305.093	341.984	8.532	0.08573	2.90641	3	V
K14OO6Q	17.0	0.15	K194R	78.825	240.056	331.974	9.745	0.05784	2.85181	7	V
K14OR1P	17.2	0.15	K194R	352.173	149.915	104.791	18.238	0.17572	3.12678	2	V
K14OR9E	16.7	0.15	K194R	352.309	136.989	127.643	19.176	0.16898	3.12072	4	V
K14OV2U	16.9	0.15	K194R	87.321	72.672	131.395	9.426	0.04127	2.88910	7	V
K14OX2B	16.9	0.15	K194R	0.790	325.061	317.959	10.146	0.07020	2.94940	3	V
K14OX3G	16.1	0.15	K194R	310.838	323.766	335.880	28.042	0.21195	3.17129	5	V
K14OX6C	16.7	0.15	K194R	333.019	359.537	349.868	8.017	0.32659	2.85822	4	X
K14OZ1Z	17.6	0.15	K194R	7.472	50.653	264.472	2.576	0.08919	2.75958	2	V
K14Ob1H	17.8	0.15	K194R	316.090	279.103	113.212	6.016	0.16723	2.71008	3	V
K14Oc7O	16.9	0.15	K194R	319.009	29.954	339.470	8.639	0.16395	2.80793	4	V
K14Od1A	16.1	0.15	K194R	307.487	244.902	74.088	10.501	0.08438	3.17279	8	V
K14P47E	17.2	0.15	K194R	323.437	157.565	148.108	12.887	0.21855	3.10637	2	V
K14Q39S	17.2	0.15	K194R	301.867	222.863	187.482	13.092	0.17800	2.73699	4	V
K14Q40Y	16.0	0.15	K194R	10.969	358.280	237.427	11.082	0.04346	3.23501	8	V
K14Q48M	17.6	0.15	K194R	312.999	210.084	171.822	10.451	0.14756	2.76811	2	V
K14Q89L	17.0	0.15	K194R	326.681	60.715	268.459	6.567	0.12468	2.97627	3	V
K14QA0Z	17.1	0.15	K194R	8.043	334.406	296.919	8.524	0.08190	3.02659	3	V
K14QD0O	17.4	0.15	K194R	210.224	336.916	152.687	4.675	0.03388	2.82182	6	V
K14QE5H	20.0	0.15	K194R	205.517	13.737	300.753	0.961	0.11684	2.11245	2	V
K14QF6F	17.3	0.15	K194R	359.551	284.029	33.614	7.942	0.22042	2.78732	7	V
K14QG2S	17.1	0.15	K194R	333.940	300.306	53.992	6.674	0.03670	2.73925	10	V
K14QI6B	18.5	0.15	K194R	357.544	197.465	196.794	5.234	0.32042	2.63933	2	V
K14QJ3U	17.1	0.15	K194R	297.361	179.647	162.718	17.888	0.19703	3.14086	3	V
K14QJ7D	17.2	0.15	K194R	322.918	25.388	305.080	8.798	0.11665	3.03000	3	V
K14QK8A	17.6	0.15	K194R	10.917	339.656	328.856	8.471	0.12157	2.85401	3	V
K14QK8V	17.7	0.15	K194R	103.047	317.258	311.338	3.656	0.13431	2.57059	3	V
K14QN9F	17.1	0.15	K194R	2.682	318.374	1.579	11.398	0.11682	2.88600	3	V
K14QP2L	17.0	0.15	K194R	316.231	211.964	133.062	12.367	0.05651	3.08607	5	V
K14QP4Q	16.1	0.15	K194R	299.810	225.257	147.274	21.822	0.02928	3.04833	9	V
K14QP9J	17.7	0.15	K194R	322.335	314.633	52.763	12.882	0.07202	2.91184	2	V
K14QQ3B	17.5	0.15	K194R	319.249	222.480	141.422	16.680	0.14877	2.95516	3	V
K14QR6K	16.4	0.15	K194R	51.051	271.560	328.895	13.882	0.09127	2.88775	5	V
K14QS2V	17.1	0.15	K194R	330.715	260.284	80.481	11.590	0.19937	2.93171	2	V
K14QS6R	16.9	0.15	K194R	309.966	306.879	79.837	11.834	0.19656	2.87850	6	V
K14QV5W	17.5	0.15	K194R	315.860	33.162	340.343	3.908	0.08470	2.77094	7	V
K14QV6F	17.8	0.15	K194R	44.125	286.981	336.450	6.572	0.19080	2.76817	3	V
K14QX3P	17.3	0.15	K194R	352.581	284.551	66.612	4.339	0.06169	2.88090	4	V
K14Qa5V	17.1	0.15	K194R	316.776	236.652	113.744	5.910	0.14084	3.03805	4	V
K14Qg9Q	17.0	0.15	K194R	319.358	133.778	180.862	15.081	0.24129	3.15237	3	V
K14Qh1O	16.8	0.15	K194R	344.338	162.574	114.559	22.252	0.23677	3.11276	3	V
K14Qi0W	15.7	0.15	K194R	254.494	131.098	265.489	9.477	0.14178	3.14635	6	V
K14Qi4P	17.8	0.15	K194R	316.823	14.528	359.623	5.756	0.08477	2.87588	3	V
K14Ql0Z	16.1	0.15	K194R	298.679	183.397	221.893	12.509	0.10545	2.87421	5	X
K14Ql8R	17.4	0.15	K194R	315.853	210.786	147.478	11.714	0.11251	2.93030	2	V
K14Qn0B	16.7	0.15	K194R	334.759	207.719	118.132	10.921	0.10889	3.04350	4	V
K14R13Z	17.5	0.15	K194R	317.148	214.241	198.534	8.932	0.28804	2.78766	3	V
K14R38B	16.7	0.15	K194R	241.264	232.752	188.436	9.357	0.07058	3.09691	7	V
K14R38H	18.5	0.15	K194R	101.557	103.661	195.970	1.733	0.18894	2.47408	4	V
K14R51Z	18.0	0.15	K194R	204.276	61.419	151.230	4.864	0.16115	2.37290	8	V
K14R58W	16.3	0.15	K194R	240.958	54.214	7.738	15.944	0.08352	3.18435	3	V
K14S06D	17.4	0.15	K194R	275.521	238.746	181.641	1.822	0.06836	2.87515	6	V
K14S09V	16.4	0.15	K194R	21.480	276.796	339.260	15.280	0.12344	3.12104	5	V
K14S31C	17.3	0.15	K194R	327.903	337.199	13.354	12.429	0.09163	2.96376	4	V
K14S38K	16.6	0.15	K194R	36.523	156.971	91.076	11.269	0.05149	3.07604	6	V
K14S53R	18.0	0.15	K194R	318.313	260.082	131.048	5.695	0.12289	2.81450	3	V
K14S77T	17.0	0.15	K194R	340.459	153.035	132.763	18.458	0.20475	3.10509	5	V
K14SA3L	18.2	0.15	K194R	338.802	325.488	172.615	9.270	0.16188	2.34193	3	V
K14SA9L	17.0	0.15	K194R	175.421	308.641	188.172	10.913	0.10019	3.13986	4	V
K14SG2T	17.3	0.15	K194R	328.802	196.800	132.589	3.757	0.28594	3.08000	2	V
K14SG8V	17.1	0.15	K194R	316.153	49.363	297.820	21.091	0.23724	3.05266	2	V
K14SH0B	16.8	0.15	K194R	251.310	144.820	266.804	13.614	0.26029	3.20274	3	V
K14SN0J	17.2	0.15	K194R	315.088	173.450	200.584	10.903	0.12576	3.00627	3	V
K14SN9O	17.8	0.15	K194R	351.648	205.240	187.329	14.041	0.25730	2.62251	3	V
K14SO0Z	17.1	0.15	K194R	321.073	208.978	124.082	9.604	0.16292	3.09684	3	V
K14SO7U	16.4	0.15	K194R	19.551	155.397	123.796	14.358	0.05832	3.11723	8	V
K14SP9A	16.9	0.15	K194R	321.339	110.044	212.297	11.545	0.28959	3.11825	4	V
K14SQ7W	17.5	0.15	K194R	231.457	261.564	192.509	13.896	0.27399	3.17039	2	V
K14SS3T	15.9	0.15	K194R	14.943	319.821	327.416	12.817	0.05824	3.09308	8	V
K14SS9U	17.4	0.15	K194R	290.496	59.408	328.343	12.180	0.19473	3.02599	4	V
K14SU1C	18.0	0.15	K194R	72.605	7.762	308.564	2.140	0.19795	2.65364	3	V
K14T02O	16.6	0.15	K194R	316.111	51.369	315.965	11.086	0.03440	3.02250	6	V
K14T51W	17.1	0.15	K194R	13.574	318.996	350.244	12.482	0.12645	2.99643	3	V
K14T78L	17.9	0.15	K194R	17.426	156.199	237.382	5.584	0.14114	2.60711	4	V
K14U10X	17.3	0.15	K194R	262.114	230.119	210.552	14.451	0.27646	3.06624	3	V
K14U15S	16.5	0.15	K194R	10.425	61.878	242.144	12.260	0.09376	3.13606	4	V
K14U16J	17.4	0.15	K194R	353.859	324.613	7.364	5.049	0.14201	3.02259	2	V
K14U28V	17.2	0.15	K194R	317.084	151.911	226.853	24.710	0.41864	3.02458	2	V
K14U72U	17.2	0.15	K194R	2.379	130.333	188.917	0.853	0.14909	3.04942	4	V
K14U75P	16.4	0.15	K194R	161.896	318.366	215.614	10.478	0.02826	3.07544	5	V
K14UC2T	16.9	0.15	K194R	339.486	30.701	314.991	9.975	0.06546	3.11403	4	V
K14UD0U	18.0	0.15	K194R	325.840	62.049	339.780	2.420	0.20773	2.88207	4	V
K14UE2Q	17.5	0.15	K194R	142.810	275.617	1.300	4.041	0.13771	2.57958	9	V
K14UE4L	17.3	0.15	K194R	298.733	206.194	193.504	10.481	0.11967	3.04888	3	V
K14UJ6H	16.6	0.15	K194R	202.686	95.360	27.848	9.752	0.06454	3.16319	2	V
K14W25L	16.9	0.15	K194R	25.722	116.839	218.077	1.247	0.09599	2.94523	9	V
K14W31L	16.2	0.15	K194R	328.025	103.520	238.903	11.199	0.11284	3.18933	10	V
K14W42T	17.3	0.15	K194R	340.410	79.771	270.832	4.054	0.17122	3.04694	4	V

K14W81P	16.2	0.15	K194R	351.723	245.403	79.776	9.930	0.14753	3.18877	6	V
K14WB1Y	18.0	0.15	K194R	343.469	131.262	214.542	3.031	0.18410	3.09020	3	V
K14WF0N	17.2	0.15	K194R	353.302	173.506	157.297	2.358	0.22512	3.02427	5	V
K14WH2T	16.3	0.15	K194R	348.117	259.123	84.606	10.344	0.13713	2.85309	8	V
K14WI0R	17.3	0.15	K194R	296.731	219.717	176.414	8.993	0.18445	3.05678	3	V
K14WP1D	16.0	0.15	K194R	6.006	231.798	44.930	10.861	0.26125	3.13279	8	V
K14WU6Z	17.5	0.15	K194R	41.915	36.943	321.021	7.756	0.13535	2.71004	2	V
K14WX2P	17.4	0.15	K194R	300.406	220.622	185.835	10.547	0.17293	3.07831	3	V
K14WY1B	17.3	0.15	K194R	319.425	229.478	136.879	10.961	0.21791	3.12684	2	V
K14WY3E	16.9	0.15	K194R	227.377	15.747	127.411	10.631	0.11408	3.01273	7	V
K14WZ3K	17.5	0.15	K194R	268.251	230.514	214.144	25.024	0.22016	3.16684	2	V
K14WZ8G	16.9	0.15	K194R	307.599	114.526	283.707	8.004	0.15799	3.04664	5	V
K14Wa2N	18.0	0.15	K194R	238.660	182.119	263.553	19.980	0.10033	1.87636	5	X
K14Wa9E	17.9	0.15	K194R	28.843	326.795	274.282	18.234	0.05232	1.96860	4	V
K14Wb6P	16.8	0.15	K194R	334.150	305.484	63.577	2.975	0.09961	3.11914	5	V
K14Wc0E	17.6	0.15	K194R	332.390	7.996	352.375	5.609	0.17837	3.12345	4	V
K14Wc5R	16.9	0.15	K194R	155.437	143.790	117.288	7.280	0.02103	2.71584	8	V
K14Wc9D	16.5	0.15	K194R	329.798	219.254	150.701	15.191	0.15998	3.10219	6	V
K14Wd5V	16.5	0.15	K194R	342.147	350.778	3.391	7.869	0.16716	3.04938	6	V
K14Wd6H	16.5	0.15	K194R	291.548	91.058	293.298	10.068	0.18201	3.23809	5	V
K14Wf7F	16.4	0.15	K194R	35.790	101.083	222.270	11.708	0.16670	3.01610	9	V
K14Wh4A	15.7	0.15	K194R	354.162	54.743	268.340	25.778	0.15528	3.16947	3	V
K14Wj7F	17.1	0.15	K194R	178.220	316.788	240.885	7.734	0.06954	3.00198	3	V
K14Wm5N	16.8	0.15	K194R	229.104	340.604	208.420	9.836	0.09212	2.77524	9	V
K14Wn6C	15.9	0.15	K194R	319.635	265.190	144.381	25.469	0.33591	3.17592	6	X
K14X07S	18.4	0.15	K194R	283.885	283.142	117.395	22.566	0.13544	1.87469	5	X
K14Y09Y	17.2	0.15	K194R	305.232	152.045	269.983	1.530	0.26339	3.06261	7	V
K14Y20X	16.3	0.15	K194R	337.456	358.582	20.038	10.419	0.11138	3.01693	8	V
K14Y32A	15.9	0.15	K194R	328.021	36.701	47.980	17.871	0.32272	3.09033	6	X
K15A51V	17.9	0.15	K194R	343.504	359.637	253.286	5.023	0.15280	2.18725	9	V
K15AK5T	17.1	0.15	K194R	74.473	259.775	110.026	13.730	0.29330	2.61830	6	V
K15AL3P	16.9	0.15	K194R	208.374	11.481	165.536	12.072	0.13110	3.10614	3	V
K15AL8M	17.1	0.15	K194R	114.329	108.083	205.643	11.038	0.07537	2.75652	8	V
K15AR9R	18.5	0.15	K194R	260.707	110.106	314.561	17.819	0.11075	1.95457	3	X
K15B28L	16.1	0.15	K194R	325.278	153.621	309.203	9.338	0.05724	3.09754	9	V
K15B39Z	18.5	0.15	K194R	352.253	131.820	30.080	3.441	0.08003	2.48489	3	V
K15B59L	17.6	0.15	K194R	276.531	150.658	96.026	4.429	0.17953	2.56810	3	V
K15B92S	18.3	0.15	K194R	290.277	274.416	122.278	24.356	0.26264	1.91388	6	X
K15BJ3S	18.7	0.15	K194R	13.385	40.629	90.618	3.686	0.19256	2.57065	2	V
K15BL4R	16.5	0.15	K194R	329.674	83.906	294.885	20.424	0.29049	3.16301	3	X
K15BN7D	17.8	0.15	K194R	70.168	8.190	4.627	4.385	0.08499	2.75459	5	V
K15BP4Y	18.0	0.15	K194R	314.708	96.215	305.572	18.827	0.11631	1.87423	5	X
K15BU2A	17.5	0.15	K194R	10.601	51.059	113.364	10.513	0.14094	2.57629	6	V
K15Bf7Y	19.3	0.15	K194R	12.109	199.121	34.879	3.075	0.34023	2.33769	3	V
K15Bf8L	16.4	0.15	K194R	253.521	183.768	332.269	12.604	0.08450	3.22585	5	V
K15Bi5O	17.7	0.15	K194R	193.418	277.929	32.030	3.065	0.05415	2.65670	4	V
K15Bm4F	18.4	0.15	K194R	342.654	343.046	280.437	1.767	0.21176	2.25171	4	V
K15C26E	16.9	0.15	K194R	289.572	165.633	350.916	12.753	0.07131	3.06822	5	V
K15C41W	18.3	0.15	K194R	30.975	65.614	138.670	6.947	0.12415	2.28423	5	V
K15C46V	18.3	0.15	K194R	15.934	351.599	203.758	1.702	0.15416	2.41573	4	V
K15C58W	17.3	0.15	K194R	310.869	67.465	148.263	11.265	0.07393	2.60639	6	V
K15DA4C	15.6	0.15	K194R	328.058	281.233	110.669	25.805	0.35627	3.20310	5	X
K15DD1O	17.5	0.15	K194R	62.193	332.071	119.027	15.015	0.20268	2.59585	4	V
K15DH4U	18.0	0.15	K194R	334.860	51.949	226.670	12.565	0.22035	2.35088	4	V
K15DH5U	15.8	0.15	K194R	234.699	334.005	271.708	15.783	0.03141	3.05347	9	V
K15DI6G	16.1	0.15	K194R	46.773	301.361	81.099	11.087	0.09598	3.08505	9	V
K15DM3C	17.9	0.15	K194R	7.385	43.285	194.584	11.686	0.21805	2.37947	3	V
K15E10J	16.4	0.15	K194R	229.144	106.436	107.425	5.310	0.14092	3.02744	6	V
K15F55J	16.6	0.15	K194R	280.570	295.459	197.278	17.121	0.08836	3.14604	5	V
K15F73K	16.9	0.15	K194R	219.250	76.380	200.260	14.901	0.22131	3.10860	3	V
K15FA6B	18.7	0.15	K194R	354.003	33.848	211.099	6.239	0.13966	2.39080	4	V
K15FF5V	18.5	0.15	K194R	34.535	134.974	131.392	3.380	0.15667	2.20379	3	V
K15FG3M	19.0	0.15	K194R	9.390	241.159	39.818	7.687	0.31064	2.31015	4	V
K15FJ0F	16.4	0.15	K194R	353.890	217.149	195.316	27.359	0.20610	3.19658	4	V
K15FL5K	18.2	0.15	K194R	349.581	132.713	143.389	6.165	0.22806	2.31343	6	V
K15FM7P	16.6	0.15	K194R	77.830	202.891	169.694	8.077	0.17075	3.08513	6	V
K15FM8E	18.6	0.15	K194R	335.860	112.054	165.622	7.269	0.20633	2.35627	4	V
K15FN3X	18.8	0.15	K194R	4.033	160.438	107.593	3.342	0.20544	2.29165	4	V
K15FO1U	17.8	0.15	K194R	336.126	200.077	61.414	7.365	0.10147	2.37536	5	V
K15FO3J	16.1	0.15	K194R	140.461	305.937	69.912	7.080	0.05861	2.69841	8	V
K15FO4U	18.2	0.15	K194R	324.440	214.037	66.595	7.437	0.17740	2.38837	3	V
K15FT9C	18.3	0.15	K194R	352.037	149.761	124.390	6.400	0.24280	2.42060	3	V
K15FV5D	16.8	0.15	K194R	94.118	207.423	177.945	24.124	0.06746	2.97798	3	V
K15Fa5Z	16.7	0.15	K194R	179.355	69.894	258.693	15.839	0.15227	2.62820	6	V
K15Fe2C	16.8	0.15	K194R	308.954	105.871	8.291	15.600	0.21498	3.17912	6	X
K15H31D	18.0	0.15	K194R	196.923	356.170	86.351	6.537	0.03057	2.23462	6	V
K15H46Z	18.5	0.15	K194R	0.862	202.667	70.764	7.041	0.16330	2.30041	4	V
K15H64N	17.5	0.15	K194R	109.877	48.369	24.217	1.717	0.08657	2.63998	11	V
K15H65T	17.9	0.15	K194R	41.855	93.206	27.972	11.574	0.15919	2.68432	4	V
K15H81E	17.5	0.15	K194R	208.563	332.156	335.971	1.137	0.22624	3.03025	5	V
K15H93V	18.3	0.15	K194R	336.290	231.335	87.062	6.035	0.20069	2.30519	3	V
K15HB8A	19.1	0.15	K194R	351.495	313.566	354.333	0.964	0.22659	2.27466	3	V
K15HC5Y	18.9	0.15	K194R	359.679	356.225	274.560	1.310	0.20264	2.36311	2	V
K15HD2J	18.6	0.15	K194R	6.916	199.672	78.161	3.587	0.19720	2.31845	4	V
K15HE8D	18.0	0.15	K194R	318.553	356.499	248.711	1.253	0.09331	2.61440	3	V
K15K31K	18.3	0.15	K194R	14.735	156.266	60.796	1.920	0.14622	2.47311	2	V
K15K32P	19.1	0.15	K194R	349.453	47.588	262.121	1.849	0.19259	2.30071	5	V
K15K35A	18.1	0.15	K194R	331.370	45.086	259.805	2.120	0.17974	2.37829	5	V
K15K66K	18.6	0.15	K194R	322.141	199.913	153.011	6.694	0.27148	2.27267	4	V
K15K67B	18.7	0.15	K194R	345.792	155.702	166.441	5.653	0.16499	2.26368	4	V
K15K79F	18.2	0.15	K194R	28.386	119.941	126.922	7.695	0.08832	2.33774	3	V
K15K80R	16.4	0.15	K194R	228.391	154.139	108.385	13.714	0.04969	3.14916	5	V
K15KC2Q	18.4	0.15	K194R	329.697	236.889	89.455	8.540	0.22197	2.32440	2	V

K15KC4V	18.1	0.15	K194R	328.282	220.412	66.497	2.287	0.16824	2.44667	4	V
K15KE2M	16.8	0.15	K194R	239.923	19.180	240.331	19.944	0.07015	3.11764	5	V
K15KE4H	18.6	0.15	K194R	11.928	193.383	69.740	4.974	0.16832	2.36886	3	V
K15KG5B	17.8	0.15	K194R	318.662	173.234	124.023	14.826	0.16412	2.54676	2	V
K15L05Z	17.6	0.15	K194R	4.068	328.293	266.304	11.482	0.17375	2.47692	3	V
K15L13U	17.8	0.15	K194R	309.562	84.504	217.426	12.566	0.18386	2.59090	3	V
K15L18N	18.5	0.15	K194R	335.825	23.763	255.851	12.744	0.27480	2.53861	2	V
K15L19A	16.9	0.15	K194R	322.339	194.581	91.486	13.727	0.31801	2.59884	6	V
K15L19E	17.1	0.15	K194R	295.745	229.249	102.833	9.783	0.20205	2.54750	7	V
K15M08Q	17.8	0.15	K194R	340.191	7.228	268.818	13.793	0.27953	2.59380	2	V
K15M11T	17.6	0.15	K194R	357.106	260.190	331.722	4.019	0.15558	2.64848	5	V
K15M32E	18.2	0.15	K194R	12.764	138.922	123.321	7.128	0.08525	2.33839	4	V
K15M35E	17.7	0.15	K194R	62.762	276.940	222.359	21.083	0.08548	2.61603	5	V
K15M48G	17.9	0.15	K194R	296.991	267.431	104.776	14.845	0.18689	2.54358	2	V
K15M58M	17.4	0.15	K194R	319.112	36.001	298.384	14.362	0.12042	2.48839	3	V
K15M77E	17.9	0.15	K194R	10.341	39.842	179.861	6.546	0.17229	2.67715	4	V
K15M88P	17.9	0.15	K194R	18.947	81.011	129.738	12.331	0.24343	2.64263	3	V
K15M94U	17.3	0.15	K194R	306.709	93.654	234.212	15.434	0.20531	2.54702	2	V
K15MB4D	18.2	0.15	K194R	331.057	178.593	152.110	14.133	0.15154	2.46233	2	V
K15N15H	17.2	0.15	K194R	279.777	224.056	125.011	10.059	0.19025	2.72076	2	V
K15N19R	17.8	0.15	K194R	303.257	286.057	132.672	20.998	0.36026	2.42154	3	X
K15N25S	17.0	0.15	K194R	316.936	78.860	266.863	27.520	0.28866	2.57306	3	V
K15O09F	17.5	0.15	K194R	315.970	31.344	261.900	12.450	0.17199	2.67861	2	V
K15O19T	17.2	0.15	K194R	347.708	350.754	260.896	12.227	0.25087	2.72576	3	V
K15O21L	18.6	0.15	K194R	330.592	183.393	161.773	2.316	0.22598	2.42588	3	V
K15O24Z	17.3	0.15	K194R	326.016	38.176	258.384	12.472	0.24987	2.64331	3	V
K15O27J	18.0	0.15	K194R	332.700	176.177	138.970	12.551	0.27689	2.57006	3	V
K15O42Z	17.3	0.15	K194R	323.725	30.508	311.656	12.814	0.19733	2.45132	3	V
K15O53T	17.2	0.15	K194R	310.245	203.811	114.007	18.916	0.19352	2.66770	4	V
K15O53W	17.7	0.15	K194R	359.599	200.195	83.734	10.291	0.03027	2.57703	4	V
K15O68Z	17.8	0.15	K194R	301.313	164.348	206.060	3.785	0.13993	2.45714	6	V
K15O71D	18.7	0.15	K194R	320.582	39.269	289.642	4.388	0.20016	2.53691	3	V
K15O72W	18.9	0.15	K194R	330.739	198.612	154.108	6.145	0.25423	2.42591	3	V
K15P00W	16.7	0.15	K194R	294.141	206.663	204.413	13.477	0.23937	2.60964	7	X
K15P08G	17.7	0.15	K194R	305.222	49.556	299.581	13.905	0.13530	2.59491	2	V
K15P18M	17.3	0.15	K194R	293.093	274.735	42.604	3.923	0.17802	2.71862	6	V
K15P19Z	17.3	0.15	K194R	307.288	201.744	94.928	9.895	0.13256	2.72336	4	V
K15P22S	17.8	0.15	K194R	292.661	322.261	53.091	5.631	0.22572	2.51570	3	V
K15P43Z	18.2	0.15	K194R	329.945	202.933	118.979	14.022	0.18811	2.56004	3	V
K15P47J	17.5	0.15	K194R	346.632	136.943	129.852	14.327	0.23082	2.66652	3	V
K15P47T	17.7	0.15	K194R	324.932	227.644	98.082	6.970	0.22300	2.56652	2	V
K15P75B	18.1	0.15	K194R	263.471	295.851	140.602	4.107	0.11991	2.31769	5	V
K15P87T	17.8	0.15	K194R	311.530	183.584	122.700	15.883	0.16775	2.65927	3	V
K15PA3N	17.4	0.15	K194R	120.259	38.563	113.335	9.684	0.10337	2.58226	9	V
K15PA6K	16.9	0.15	K194R	172.009	276.549	140.695	3.736	0.19827	2.99615	7	V
K15PB1Z	18.8	0.15	K194R	310.386	295.754	81.092	2.854	0.17354	2.40992	4	V
K15PC9G	18.7	0.15	K194R	281.642	343.036	78.983	1.475	0.18797	2.36934	5	V
K15PE0O	16.2	0.15	K194R	100.493	324.725	117.884	11.386	0.07120	3.35148	8	V
K15PF0V	18.2	0.15	K194R	283.145	251.744	122.590	5.777	0.16264	2.57290	3	V
K15PF6M	18.4	0.15	K194R	351.761	179.125	104.337	4.323	0.18357	2.56240	2	V
K15PH2P	18.7	0.15	K194R	316.290	276.713	115.922	7.453	0.12342	2.32681	4	V
K15PH8J	18.6	0.15	K194R	2.241	284.615	349.826	7.249	0.18466	2.55076	4	V
K15PK8C	18.3	0.15	K194R	331.698	178.425	107.915	19.517	0.24690	2.68014	2	V
K15PM3J	18.2	0.15	K194R	339.799	11.575	297.445	17.474	0.21700	2.57963	2	V
K15PM4S	16.9	0.15	K194R	347.476	38.776	269.765	13.141	0.11413	2.57253	3	V
K15PN0U	18.3	0.15	K194R	5.770	204.969	98.816	3.803	0.19921	2.42738	2	V
K15PN3S	18.4	0.15	K194R	326.251	227.145	92.656	1.605	0.13834	2.51876	3	V
K15PN9Y	18.6	0.15	K194R	328.413	198.737	121.210	4.854	0.13401	2.53077	3	V
K15PQ6S	17.7	0.15	K194R	308.998	216.540	122.198	5.194	0.11833	2.53498	4	V
K15PS1M	17.9	0.15	K194R	337.191	164.185	118.263	15.152	0.24349	2.66611	4	V
K15PS2B	18.1	0.15	K194R	340.058	289.033	48.628	8.062	0.21593	2.46696	3	V
K15Q08L	16.9	0.15	K194R	305.126	355.204	321.451	12.756	0.09575	2.73629	3	V
K15Q09P	17.7	0.15	K194R	328.223	147.910	148.465	5.856	0.27174	2.68288	3	V
K15Q11M	17.3	0.15	K194R	319.087	332.916	45.536	5.792	0.28185	2.57735	7	X
K15R09E	17.9	0.15	K194R	335.328	29.375	305.414	6.044	0.16177	2.46321	3	V
K15R13Y	18.6	0.15	K194R	313.552	225.214	148.562	7.499	0.19134	2.45056	3	V
K15R40X	18.0	0.15	K194R	345.998	310.786	344.485	8.652	0.17494	2.65234	3	V
K15R63Y	17.6	0.15	K194R	319.868	175.617	152.012	0.896	0.08489	2.70756	4	V
K15R66U	18.2	0.15	K194R	323.716	212.394	149.706	3.936	0.13325	2.52028	5	V
K15R97L	17.5	0.15	K194R	305.702	223.997	161.657	10.514	0.14670	2.48698	7	V
K15RB8V	17.5	0.15	K194R	313.009	318.939	65.299	3.524	0.20445	2.45652	8	X
K15RL1S	17.6	0.15	K194R	276.671	34.373	337.088	3.093	0.04954	2.53441	5	V
K15RM0L	17.9	0.15	K194R	309.284	228.682	118.400	3.987	0.13373	2.69276	3	V
K15RO0K	16.5	0.15	K194R	291.237	197.006	148.672	14.597	0.17428	2.97969	6	V
K15RO3H	16.7	0.15	K194R	323.902	68.493	229.107	11.244	0.12491	2.70654	9	V
K15RP1F	18.5	0.15	K194R	306.033	55.905	297.977	1.334	0.22027	2.67090	3	V
K15S04J	17.7	0.15	K194R	321.580	104.657	211.265	11.874	0.31597	2.66135	6	V
K15S07Q	16.3	0.15	K194R	210.598	166.831	283.309	20.920	0.01720	2.68065	4	V
K15S15X	16.7	0.15	K194R	76.424	243.955	335.548	13.037	0.13373	2.59664	6	V
K15T02R	17.5	0.15	K194R	286.130	83.953	283.341	3.832	0.09125	2.78309	6	V
K15T06W	17.9	0.15	K194R	341.448	238.859	57.270	5.336	0.28577	2.54717	3	V
K15T09F	17.8	0.15	K194R	326.762	8.185	310.178	13.286	0.13076	2.62907	3	V
K15T12F	17.4	0.15	K194R	2.907	334.351	288.832	5.285	0.25859	2.61521	4	V
K15T13R	16.6	0.15	K194R	249.133	93.700	236.071	9.470	0.11922	3.14774	9	V
K15T30D	17.1	0.15	K194R	302.712	305.786	54.815	12.645	0.10386	2.58433	8	V
K15T30G	17.6	0.15	K194R	357.661	162.227	139.198	17.633	0.15192	2.54188	2	V
K15T42V	17.8	0.15	K194R	296.724	230.720	135.522	14.940	0.13107	2.62968	3	V
K15T55Y	17.7	0.15	K194R	305.815	27.582	324.461	6.532	0.18680	2.65033	3	V
K15T69M	18.5	0.15	K194R	324.043	351.236	10.260	6.770	0.27546	2.59081	2	V
K15T74H	17.2	0.15	K194R	307.843	95.243	221.122	9.790	0.14500	3.03695	2	V
K15T86H	17.7	0.15	K194R	283.612	326.225	70.235	4.098	0.10056	2.75230	3	V
K15TA4M	17.4	0.15	K194R	325.851	231.814	131.414	5.897	0.31344	2.58446	4	V
K15TA6R	16.8	0.15	K194R	31.118	214.138	70.373	12.785	0.08706	2.78161	6	V

K15TB1D	17.7	0.15	K194R	285.741	249.983	162.681	6.412	0.06230	2.70526	3	V
K15TB4J	17.3	0.15	K194R	332.916	234.502	82.928	11.751	0.13396	2.91235	4	V
K15TC6Q	17.9	0.15	K194R	338.808	195.308	135.843	10.298	0.11295	2.69826	2	V
K15TC9R	19.1	0.15	K194R	325.262	240.218	101.040	8.322	0.31163	2.64182	2	V
K15TG0H	17.8	0.15	K194R	334.566	325.924	348.610	5.627	0.17243	2.65346	3	V
K15TH3N	17.9	0.15	K194R	346.605	199.769	146.154	4.437	0.07085	2.60507	3	V
K15TH7E	18.1	0.15	K194R	359.484	178.490	139.577	5.508	0.21809	2.59933	3	V
K15TI7Z	17.0	0.15	K194R	336.518	99.210	185.657	11.894	0.19679	2.98528	5	V
K15TM2Z	18.8	0.15	K194R	289.208	146.592	265.660	2.966	0.22099	2.52871	3	V
K15TN4H	17.7	0.15	K194R	0.794	84.191	233.462	13.128	0.17146	2.54732	6	V
K15TN4L	17.4	0.15	K194R	290.110	91.967	317.263	8.489	0.20559	2.57534	4	X
K15TP2A	18.1	0.15	K194R	322.329	195.947	168.062	2.651	0.11601	2.60801	2	V
K15TP6L	18.6	0.15	K194R	310.500	34.563	350.555	13.133	0.20758	2.62062	2	V
K15TP6M	18.7	0.15	K194R	305.317	47.074	349.474	13.290	0.27188	2.60106	2	V
K15TR7K	18.2	0.15	K194R	354.292	50.222	268.600	3.393	0.17551	2.55586	3	V
K15TR9L	18.2	0.15	K194R	359.880	311.560	0.422	13.400	0.17176	2.56122	2	V
K15TS0N	17.4	0.15	K194R	61.798	251.106	357.272	12.627	0.13617	2.60019	4	V
K15TU4O	17.1	0.15	K194R	294.717	233.347	84.360	11.511	0.16499	3.04650	4	V
K15TV9O	19.6	0.15	K194R	325.165	165.684	193.189	2.530	0.25600	2.55014	2	V
K15TW4E	16.7	0.15	K194R	243.758	255.871	182.103	21.804	0.03338	2.65937	4	V
K15TX7H	17.5	0.15	K194R	350.894	155.362	166.533	7.101	0.19985	2.58159	4	V
K15TY1O	16.2	0.15	K194R	205.942	310.551	62.480	17.962	0.13556	3.20863	4	V
K15TY9U	17.7	0.15	K194R	349.678	192.216	125.580	7.667	0.14281	2.69466	4	V
K15TZ7V	17.7	0.15	K194R	348.160	191.387	148.534	4.965	0.10217	2.66106	4	V
K15U21G	18.7	0.15	K194R	335.753	227.723	115.559	2.800	0.20456	2.56494	2	V
K15U30H	16.7	0.15	K194R	295.262	137.266	194.202	12.264	0.11053	2.95013	5	V
K15U77M	17.3	0.15	K194R	309.517	161.327	226.724	13.874	0.27341	2.61512	6	X
K15V26L	17.4	0.15	K194R	283.610	6.972	6.013	9.064	0.19097	2.80158	4	V
K15V56O	17.3	0.15	K194R	333.785	95.699	205.015	14.317	0.16337	2.83894	4	V
K15V62N	17.6	0.15	K194R	347.787	274.477	64.129	2.414	0.09267	2.63942	4	V
K15V69P	18.9	0.15	K194R	71.953	120.317	192.167	5.642	0.21681	2.25771	4	V
K15V93G	16.7	0.15	K194R	359.021	261.327	47.249	14.130	0.19393	2.68822	5	V
K15V93W	17.9	0.15	K194R	301.190	61.510	328.078	4.039	0.20313	2.62752	4	V
K15VC0L	18.7	0.15	K194R	302.027	211.327	189.738	5.359	0.27222	2.59223	2	V
K15VC8T	17.8	0.15	K194R	311.196	62.926	312.809	2.273	0.14447	2.63456	7	V
K15VD4Z	18.0	0.15	K194R	326.491	228.493	135.444	2.767	0.27195	2.59557	3	V
K15VE5K	16.2	0.15	K194R	51.098	344.097	248.429	16.923	0.16566	3.08373	5	V
K15X10J	18.1	0.15	K194R	334.671	257.290	89.230	11.228	0.24090	2.65632	2	V
K15X12H	16.1	0.15	K194R	239.014	263.746	91.928	12.996	0.23370	3.14416	7	V
K15X52P	18.1	0.15	K194R	320.797	216.811	165.261	10.633	0.22246	2.60114	3	V
K15X61B	16.7	0.15	K194R	267.079	276.410	110.562	11.776	0.03786	3.06094	7	V
K15X63Q	16.6	0.15	K194R	272.972	175.110	195.167	9.217	0.06964	3.15689	4	V
K15X64L	17.1	0.15	K194R	327.110	155.966	214.841	12.958	0.16167	2.63110	6	X
K15X73S	18.2	0.15	K194R	325.127	191.841	169.839	3.185	0.22087	2.61423	3	V
K15X80Q	17.0	0.15	K194R	189.633	323.716	148.090	11.700	0.17971	3.16362	5	V
K15XE1P	17.2	0.15	K194R	313.114	257.582	100.806	3.368	0.03968	2.90827	4	V
K15XF8O	16.6	0.15	K194R	302.795	48.072	293.220	13.816	0.15373	2.86691	5	V
K15XG3F	17.2	0.15	K194R	301.661	231.317	132.904	13.506	0.16728	2.73206	6	V
K15XK1A	17.6	0.15	K194R	330.273	86.908	255.197	11.250	0.22457	2.73351	2	V
K15XK5S	17.4	0.15	K194R	335.837	86.326	261.428	2.978	0.11233	2.74380	6	V
K15XL5X	17.1	0.15	K194R	254.373	219.878	189.903	0.895	0.12561	2.96982	4	V
K15XO4P	18.8	0.15	K194R	300.251	174.036	227.384	5.063	0.26591	2.64955	2	V
K15XP9P	17.7	0.15	K194R	287.320	12.651	39.309	4.529	0.06625	2.76714	4	V
K15XQ0V	18.5	0.15	K194R	0.654	339.291	262.008	17.908	0.06071	1.85650	3	V
K15XR9H	17.3	0.15	K194R	323.676	270.034	77.241	9.511	0.15761	2.78316	3	V
K15XS9U	17.9	0.15	K194R	342.033	212.550	124.781	3.303	0.21326	2.72742	3	V
K15XX7C	16.3	0.15	K194R	339.196	36.462	261.355	13.738	0.26499	3.17523	6	V
K15XZ0F	17.9	0.15	K194R	322.177	33.695	338.817	1.200	0.21414	2.62803	4	V
K15XZ6H	16.8	0.15	K194R	354.963	200.432	172.406	3.238	0.19533	2.54176	7	V
K15Xa0T	16.4	0.15	K194R	319.053	209.421	94.850	18.631	0.18276	3.11456	3	V
K15Xc3R	17.2	0.15	K194R	220.188	316.335	214.238	10.294	0.16592	2.60068	5	V
K15Y15F	16.6	0.15	K194R	159.649	175.143	3.905	12.793	0.16569	3.18075	4	V
K15Y15Z	17.0	0.15	K194R	202.293	109.179	17.857	13.785	0.26189	3.17399	3	V
K16A18E	17.6	0.15	K194R	325.174	281.963	84.645	3.291	0.08485	2.92472	4	V
K16A52W	17.4	0.15	K194R	290.224	308.108	105.298	13.464	0.14237	2.86154	3	V
K16A85V	16.4	0.15	K194R	358.329	23.952	260.558	3.856	0.02842	3.23942	7	V
K16A88P	17.7	0.15	K194R	325.219	300.266	68.366	1.359	0.08642	2.76387	4	V
K16A92R	15.9	0.15	K194R	160.558	239.552	251.870	21.238	0.24773	3.16834	5	V
K16AA1Z	16.1	0.15	K194R	274.350	298.331	105.754	16.027	0.19188	3.12276	7	V
K16AA2S	16.8	0.15	K194R	289.587	278.576	107.852	18.810	0.24423	3.10393	3	V
K16B28J	16.4	0.15	K194R	281.238	281.357	106.369	16.786	0.15660	3.22648	4	V
K16B54G	17.4	0.15	K194R	298.297	239.460	165.455	3.473	0.15287	2.97330	6	V
K16C27H	15.4	0.15	K194R	297.464	50.936	334.658	15.050	0.04850	3.25640	4	V
K16C65S	17.5	0.15	K194R	62.022	0.720	27.167	9.563	0.22004	2.32850	6	V
K16CA7L	16.8	0.15	K194R	90.228	130.472	157.719	17.746	0.12992	2.93293	8	V
K16CM6C	16.6	0.15	K194R	238.964	10.326	92.305	11.392	0.07887	3.18205	6	V
K16CP0U	16.7	0.15	K194R	287.877	258.850	134.873	26.647	0.23256	3.12216	3	V
K16CV3H	17.0	0.15	K194R	244.073	293.692	176.484	26.215	0.20386	3.18539	4	V
K16E38L	16.9	0.15	K194R	232.027	273.536	191.943	10.634	0.02821	3.13041	5	V
K16EB6T	16.8	0.15	K194R	124.906	174.773	94.362	2.778	0.08558	3.04480	6	V
K16F50K	17.2	0.15	K194R	153.482	286.077	354.501	13.300	0.35551	3.10033	3	V
K16G37S	18.3	0.15	K194R	65.612	230.295	182.472	1.383	0.17622	2.37074	6	V
K16G69G	16.8	0.15	K194R	327.251	224.274	201.461	7.312	0.05980	3.08284	5	V
K16G71T	18.3	0.15	K194R	261.584	104.085	181.174	3.298	0.16197	2.21844	8	V
K16GE0E	16.0	0.15	K194R	288.146	60.455	45.358	14.023	0.05634	3.09681	8	V
K16GN0H	16.1	0.15	K194R	342.159	228.989	203.697	10.773	0.01039	3.02571	6	V
K16H20Z	16.2	0.15	K194R	221.615	65.023	109.155	15.797	0.11550	2.89402	7	V
K16L16X	16.3	0.15	K194R	333.795	312.211	144.225	11.214	0.08990	3.14414	7	V
K16N01M	19.7	0.15	K194R	326.110	211.294	87.926	6.272	0.34480	2.10113	3	V
K16N03Y	17.2	0.15	K194R	194.865	205.154	144.670	3.568	0.10625	2.63439	11	V
K16N33P	15.9	0.15	K194R	252.558	340.402	270.474	14.009	0.04726	2.99024	7	V
K16N36L	18.6	0.15	K194R	288.582	254.259	87.187	4.785	0.20825	2.14917	5	V
K16N63V	16.8	0.15	K194R	186.779	349.654	328.955	27.216	0.17094	3.15363	3	V

K16P12R	18.3	0.15	K194R	280.759	257.919	47.962	7.607	0.13369	2.35086	3	V
K16P27O	17.5	0.15	K194R	5.627	327.676	260.458	7.070	0.25004	2.19366	5	V
K16P51Z	16.8	0.15	K194R	63.071	44.071	39.791	9.132	0.08557	3.02878	5	V
K16Q60P	18.9	0.15	K194R	312.050	98.383	184.555	7.868	0.18761	2.27828	2	V
K16Q62M	18.8	0.15	K194R	0.906	47.297	209.149	4.653	0.08585	2.21907	2	V
K16R06Y	17.4	0.15	K194R	195.410	229.329	261.304	19.956	0.05220	1.97272	7	X
K16S10J	18.5	0.15	K194R	282.364	215.481	121.208	3.302	0.21499	2.32714	2	V
K16S21W	17.4	0.15	K194R	239.237	160.686	158.112	9.086	0.15326	2.77114	3	V
K16S33K	18.1	0.15	K194R	267.362	307.674	63.974	8.018	0.13651	2.31501	6	V
K16T40E	19.8	0.15	K194R	329.575	68.024	260.490	2.669	0.19586	2.11926	2	V
K16T74O	18.2	0.15	K194R	255.154	77.592	228.160	1.574	0.31943	2.61842	3	V
K16T80H	16.4	0.15	K194R	159.902	2.521	16.754	9.332	0.08614	3.16922	6	V
K16U36F	19.6	0.15	K194R	339.567	270.401	43.261	3.343	0.31071	2.14161	3	V
K16U63O	17.4	0.15	K194R	274.989	252.800	93.649	7.427	0.15017	2.38196	5	V
K16U72Z	18.8	0.15	K194R	326.840	293.273	32.932	5.262	0.20853	2.18126	3	V
K16U77B	17.3	0.15	K194R	252.875	279.466	82.275	9.060	0.12738	2.64064	3	V
K16UC5L	17.5	0.15	K194R	252.061	266.700	29.846	15.306	0.26316	2.87874	4	V
K16UE2A	19.1	0.15	K194R	294.277	98.400	225.111	5.918	0.19780	2.38742	3	V
K16UE7L	19.1	0.15	K194R	298.057	46.521	315.774	3.255	0.23477	2.20140	5	V
K16W14V	19.2	0.15	K194R	297.158	44.530	344.485	0.980	0.16200	2.15575	4	V
K16W41E	17.3	0.15	K194R	303.473	238.495	62.871	14.635	0.13428	2.69285	5	V
K16X12R	16.5	0.15	K194R	223.129	167.266	233.373	20.802	0.07905	2.65919	8	V
K16X14U	18.1	0.15	K194R	316.645	221.423	129.248	7.555	0.25967	2.23073	4	V
K16X18R	18.5	0.15	K194R	298.388	305.237	54.408	7.649	0.20218	2.26016	3	V
K17A01O	17.5	0.15	K194R	29.698	288.813	352.525	16.434	0.14417	2.57829	2	V
K17A14E	17.3	0.15	K194R	283.292	272.281	105.518	5.387	0.20179	2.47401	5	V
K17B27Z	17.4	0.15	K194R	292.056	216.882	166.048	6.596	0.05015	2.74908	7	V
K17B35Y	16.1	0.15	K194R	71.314	257.577	320.747	17.574	0.13342	3.19409	5	V
K17B79X	18.4	0.15	K194R	283.211	275.147	129.646	3.620	0.17991	2.41730	6	V
K17BB0W	18.1	0.15	K194R	283.049	135.374	269.962	3.770	0.21192	2.44041	5	V
K17BD4F	17.9	0.15	K194R	94.469	272.423	0.424	7.253	0.09279	2.38050	4	V
K17C17P	18.4	0.15	K194R	289.451	60.114	358.630	1.576	0.20529	2.25971	7	V
K17C33B	17.7	0.15	K194R	255.170	302.743	151.402	22.829	0.23942	2.27670	5	V
K17D18H	18.2	0.15	K194R	356.225	220.932	149.686	3.083	0.17858	2.20249	6	V
K17D18W	17.0	0.15	K194R	277.261	219.422	157.415	2.412	0.09214	2.89822	9	V
K17D24C	17.0	0.15	K194R	301.628	27.698	334.925	11.739	0.17107	2.77028	4	V
K17D41D	17.6	0.15	K194R	305.823	257.977	111.506	6.465	0.09390	2.69379	4	V
K17D66X	17.4	0.15	K194R	295.969	229.679	158.884	7.371	0.12037	2.62619	5	V
K17DB8H	16.3	0.15	K194R	276.270	110.940	319.107	21.658	0.04303	2.56505	7	X
K17F44L	16.3	0.15	K194R	247.954	300.386	136.717	12.835	0.02300	3.02921	6	V
K17F57Y	16.9	0.15	K194R	323.365	0.792	29.530	24.988	0.16615	2.58026	6	V
K17FB4Q	16.9	0.15	K194R	83.326	236.339	11.133	10.252	0.01527	3.01535	4	V
K17FE7N	17.9	0.15	K194R	136.830	114.484	147.307	22.803	0.13601	2.35668	5	V
K17S10Z	18.8	0.15	K194R	18.721	57.252	148.066	23.528	0.05500	1.83765	4	V
K17S65V	18.7	0.15	K194R	191.575	314.905	352.239	3.109	0.13807	2.38621	2	V
K17U43T	18.5	0.15	K194R	69.097	275.205	251.658	18.367	0.06819	1.93916	3	V
K17W01Y	18.5	0.15	K194R	29.071	313.753	257.124	18.763	0.04566	1.95491	4	V
K17X41O	17.0	0.15	K194R	46.967	213.310	256.354	9.184	0.03915	3.19651	4	V
K17Y14B	16.9	0.15	K194R	94.062	28.424	123.999	14.525	0.18490	2.59380	6	V
K18A00S	18.4	0.15	K194R	298.588	201.629	145.292	24.062	0.07094	1.90277	6	V
K18A17J	18.4	0.15	K194R	264.770	81.379	302.701	18.981	0.10958	1.91362	5	V
K18B01F	18.9	0.15	K194R	287.218	40.842	322.896	21.102	0.13848	1.87416	3	V
K18C08H	17.4	0.15	K194R	93.138	62.742	108.399	3.775	0.15988	2.43522	6	V
K18C12G	18.0	0.15	K194R	14.556	302.406	312.161	0.517	0.14276	2.41583	7	V
K18F18A	17.7	0.15	K194R	26.710	156.221	103.377	4.931	0.08581	2.64367	4	V
K18F23L	16.0	0.15	K194R	336.936	147.651	125.759	3.791	0.18100	3.98363	4	V
K18U14N	17.9	0.15	K194R	48.073	201.438	201.808	7.493	0.23708	2.33857	2	V
K18V07E	17.2	0.15	K194R	3.486	215.578	258.038	13.072	0.44309	2.71853	4	V
K18V16X	15.8	0.15	K194R	13.775	231.990	179.654	18.337	0.08989	3.10271	7	V
K18VB2M	15.9	0.15	K194R	106.115	267.202	58.948	10.936	0.12136	3.14882	9	V
K19G06V	18.1	0.15	K194R	13.839	275.549	271.909	5.594	0.35462	2.64538	2	V
K19H01A	17.6	0.15	K194R	13.642	28.951	157.179	22.567	0.12100	2.27359	5	V
K19J32Z	16.3	0.15	K194R	345.055	178.996	62.576	12.462	0.04610	3.12009	9	V
K19M03O	13.4	0.15	K194R	195.297	281.473	87.238	19.664	0.10502	5.15403	5	V
K19Q05D	18.3	0.15	K194R	306.540	18.067	3.690	6.712	0.33680	2.28112	6	X
K19Q06W	17.5	0.15	K194R	324.490	252.830	131.082	15.241	0.32785	2.65908	3	V
K19S01L	17.9	0.15	K194R	315.071	81.701	335.039	27.483	0.38792	2.59030	4	V
K19T01L	20.2	0.15	K194R	324.761	48.226	304.083	4.375	0.37097	2.34377	2	V
K19T02W	19.1	0.15	K194R	63.914	279.340	323.867	17.635	0.08800	1.90784	2	V
K19T03J	18.2	0.15	K194R	31.339	292.827	339.906	18.529	0.07576	1.92667	5	V

New perturbed one-opposition orbits:

Object	H	G	Epoch	M	Peri.	Node	Incl.	e	a	Arc	C
K16S35W	19.1	0.15	K194R	270.561	283.236	62.471	6.171	0.30994	2.30095	89	V
K19F02B	26.5	0.15	K194R	113.587	237.451	188.360	11.288	0.36173	0.92380	7	B
K19O01L	21.9	0.15	K194R	271.143	141.146	221.982	10.644	0.28832	1.46407	111	X
K19P03L	17.6	0.15	K194R	341.036	281.293	79.469	22.884	0.49488	3.08648	95	B
K19Q04N	19.3	0.15	K194R	320.238	94.756	253.791	6.239	0.30395	2.20880	66	V
K19R01A	21.5	0.15	K194R	18.468	244.803	341.519	36.252	0.10740	1.27841	58	X
K19S00M	20.8	0.15	K194R	320.427	164.789	209.286	19.333	0.53979	2.56023	52	X
K19S02Z	19.8	0.15	K194R	284.413	155.527	222.433	22.453	0.24846	1.68322	48	X
K19S06H	19.9	0.15	K194R	270.635	6.636	107.384	8.177	0.47810	2.00448	45	X
K19T01P	21.1	0.15	K194R	145.101	126.254	12.070	25.222	0.26931	1.29553	32	X
K19U00L	29.0	0.15	K194R	297.336	198.702	19.434	1.918	0.19672	0.84146	6	X
K19U08W	25.3	0.15	K194R	289.291	82.048	208.978	29.393	0.61040	1.46402	6	X
K19U09H	25.2	0.15	K194R	296.838	101.924	179.593	1.697	0.68621	1.56344	16	X
K19U11F	24.2	0.15	K194R	206.843	9.160	49.194	12.505	0.14040	1.20983	12	X
K19U12N	22.0	0.15	K194R	290.221	297.737	226.419	4.992	0.84202	2.27279	17	X
K19U12R	24.2	0.15	K194R	247.138	342.804	39.723	10.114	0.24023	1.32431	11	X
K19U14C	23.1	0.15	K194R	278.728	73.591	52.870	1.939	0.67300	2.09912	20	X
K19V00V	25.3	0.15	K194R	240.757	26.440	255.600	0.306	0.29557	0.94084	7	X
K19V00W	26.8	0.15	K194R	293.878	15.757	219.825	5.206	0.14641	0.88226	6	X
K19V00X	25.4	0.15	K194R	298.364	206.825	239.149	3.907	0.60913	2.36019	36	X

```
K19V05L 25.9  0.15 K194R  89.459 229.717 286.955   1.552 0.27823   1.00155   4 X

New one-opposition orbit:
Object    H    G   Epoch    M     Peri.   Node    Incl.     e         a     Arc C
K08H32G 18.3  0.15 K084O  15.643 143.371  55.197  14.015 0.12508   2.62736  57 W

New observations:
     K06T01D  C2019 11 13.30365 00 55 54.665+03 06 03.24          19.4 iUEV148F52
     K06T01D  C2019 11 13.31539 00 55 54.929+03 06 12.83          19.4 iUEV148F52
     K06T01D  C2019 11 13.32719 00 55 55.191+03 06 22.58          19.5 iUEV148F52
     K06T01D  C2019 11 13.33899 00 55 55.444+03 06 32.05          19.5 iUEV148F52
     K19F02B KC2019 03 31.88912 10 23 24.15 +35 45 06.4           19.1 GVEV148K38
     K19F02B KC2019 03 31.90451 10 24 04.90 +35 43 20.2           19.1 GVEV148K38
     K19F02B KC2019 03 31.91981 10 24 44.98 +35 41 34.1           19.0 GVEV148K38
     K19F02B KC2019 03 31.92055510 24 52.23 +35 41 47.0           18.7 VqEV148I93
     K19F02B KC2019 03 31.92323210 24 59.11 +35 41 29.1           18.7 VqEV148I93
     K19F02B KC2019 03 31.92634710 25 07.15 +35 41 07.4           18.9 VqEV148I93
     K19F02B KC2019 03 31.94043 10 25 38.21 +35 39 06.0           18.6 GVEV148K38
     K19F02B KC2019 03 31.95410 10 26 13.01 +35 37 27.6           18.9 GVEV148K38
     K19F02B KC2019 03 31.97007 10 26 53.41 +35 35 30.7           18.9 GVEV148K38
     K19O01L KC2019 11 11.83511600 03 13.06 -00 53 16.2           19.3 GVEV148C95
     K19O01L KC2019 11 11.88990300 03 34.89 -00 55 09.9           18.7 GVEV148C95
     K19R01A KC2019 11 01.22598821 00 04.143+26 12 08.95          23.47GVEV148T12
     K19S00M KC2019 11 08.21995202 14 45.58 -08 49 10.0           19.3 VuEV148H21
     K19S00M KC2019 11 08.22282602 14 46.01 -08 49 19.0           19.3 VuEV148H21
     K19S00M KC2019 11 08.22498102 14 46.35 -08 49 25.1           19.2 VuEV148H21
     K19S00M KC2019 11 08.22713602 14 46.63 -08 49 30.8           19.7 VuEV148H21
     K19S00M KC2019 11 08.22956802 14 46.99 -08 49 38.6           19.5 VuEV148H21
     K19S02Z KC2019 11 08.19335701 09 43.29 +12 49 37.7           19.3 VuEV148H21
     K19S02Z KC2019 11 08.19551301 09 43.47 +12 49 28.8           19.4 VuEV148H21
     K19S02Z KC2019 11 08.19767101 09 43.65 +12 49 19.8           19.4 VuEV148H21
     K19S02Z KC2019 11 08.19982801 09 43.83 +12 49 10.6           19.2 VuEV148H21
     K19S02Z KC2019 11 08.20198401 09 44.02 +12 49 01.7           19.0 VuEV148H21
     K19S06H KC2019 11 08.38142205 25 22.03 -02 47 46.0           19.5 VuEV148H21
     K19S06H KC2019 11 08.38285905 25 22.21 -02 47 46.8           19.3 VuEV148H21
     K19S06H KC2019 11 08.38429505 25 22.41 -02 47 48.0           19.0 VuEV148H21
     K19S06H KC2019 11 08.38573105 25 22.61 -02 47 48.6           19.6 VuEV148H21
     K19S06H KC2019 11 08.38716705 25 22.79 -02 47 49.8           19.7 VuEV148H21
     K19S06H KC2019 11 08.38860505 25 22.99 -02 47 50.4           19.3 VuEV148H21
     K19T01P  C2019 11 01.20852722 42 14.407+00 22 29.70          22.07GVEV148T12
     K19T01P  C2019 11 01.21086322 42 14.177+00 22 33.08          21.86GVEV148T12
     K19U00L ZC2019 10 17.25618100 47 32.173+51 35 12.73          19.7 GVEV148G96
     K19U00L ZC2019 10 17.26149200 46 24.834+51 28 24.74          18.8 GVEV148G96
     K19U08W ZC2019 10 23.20940700 11 51.734+00 25 28.62               VEV148703
     K19U08W ZC2019 10 23.22471600 13 43.211-00 10 05.83          16.5 GVEV148703
     K19U09H ZC2019 10 20.38290104 34 21.419-00 44 30.74          19.5 GVEV148703
     K19U09H ZC2019 10 20.39873704 33 23.957-00 42 49.99          19.8 GVEV148703
     K19U09H ZC2019 10 23.34174202 53 41.648+02 17 04.65          20.1 GVEV148703
     K19U09H ZC2019 10 23.34703202 53 35.572+02 17 13.43          19.8 GVEV148703
     K19U11F KC2019 11 08.34333605 06 24.99 +14 46 59.4           19.0 VuEV148H21
     K19U11F KC2019 11 08.34484405 06 24.94 +14 47 19.1           19.3 VuEV148H21
     K19U11F KC2019 11 08.34635405 06 24.93 +14 47 38.7           19.4 VuEV148H21
     K19U11F KC2019 11 08.34779305 06 24.91 +14 47 57.6           19.2 VuEV148H21
     K19U11F KC2019 11 08.34923105 06 24.90 +14 48 16.1           19.9 VuEV148H21
     K19U11F KC2019 11 08.35066905 06 24.87 +14 48 35.2           20.2 VuEV148H21
     K19U12N .C2019 11 12.43969 05 27 48.99 +07 49 36.4           14.4 RoEV148F65
     K19U12N .C2019 11 12.44010 05 27 50.49 +07 49 16.9           14.3 RoEV148F65
     K19U12N .C2019 11 12.44051 05 27 52.00 +07 48 57.3           14.1 RoEV148F65
     K19U12N KC2019 11 13.02475706 27 31.19 -05 05 15.4           14.4 GVEV148J95
     K19U12N KC2019 11 13.02602906 27 43.30 -05 07 53.7           14.4 GVEV148J95
     K19U12N KC2019 11 13.02917506 28 13.33 -05 14 25.0           14.2 GVEV148J95
     K19U12N KC2019 11 13.03054706 28 26.49 -05 17 16.5           14.3 GVEV148J95
     K19U12N KC2019 11 13.03198906 28 40.35 -05 20 17.1           14.2 GVEV148J95
     K19U12R  C2019 11 03.20938100 43 50.43 +03 31 19.5           17.6 VuEV148H21
     K19U12R  C2019 11 03.21023800 43 50.54 +03 31 46.1           17.3 VuEV148H21
     K19U12R  C2019 11 03.21109500 43 50.65 +03 32 12.5           17.2 VuEV148H21
     K19U12R  C2019 11 03.21195000 43 50.77 +03 32 38.8           17.6 VuEV148H21
     K19U12R  C2019 11 03.21280700 43 50.88 +03 33 05.2           17.2 VuEV148H21
     K19U12R  C2019 11 03.21366200 43 50.99 +03 33 31.4           17.3 VuEV148H21
     K19U12R  C2019 11 03.21451900 43 51.11 +03 33 58.1           17.8 VuEV148H21
     K19U12R KC2019 11 03.21533300 43 51.20 +03 34 23.1           17.5 VuEV148H21
     K19U13O KC2019 11 08.30726503 49 54.47 +36 06 22.6           18.3 VuEV148H21
     K19U13O KC2019 11 08.30870203 49 55.17 +36 06 19.2           18.2 VuEV148H21
     K19U13O KC2019 11 08.31013903 49 55.89 +36 06 15.8           18.2 VuEV148H21
     K19U13O KC2019 11 08.31157703 49 56.60 +36 06 12.3           18.0 VuEV148H21
     K19U13O KC2019 11 08.31301503 49 57.30 +36 06 08.7           18.0 VuEV148H21
     K19U13O KC2019 11 08.31445303 49 58.02 +36 06 05.4           18.2 VuEV148H21
     K19U14C ZC2019 10 20.28091701 34 15.388+05 54 22.59          20.9 GVEV148G96
     K19U14C ZC2019 10 20.28927801 34 14.117+05 54 15.40          21.5 GVEV148G96
     K19U14C ZC2019 10 27.25113201 13 32.960+03 49 25.72          21.3 GVEV148G96
     K19U14C ZC2019 10 27.25673801 13 31.660+03 49 18.72          20.9 GVEV148G96
     K19U14C ZC2019 10 27.26234101 13 30.361+03 49 11.26          21.0 GVEV148G96
     K19V00V KC2019 11 08.25732703 09 20.99 +22 18 49.3           18.6 VuEV148H21
     K19V00V KC2019 11 08.25876403 09 19.62 +22 18 40.5           18.4 VuEV148H21
     K19V00V KC2019 11 08.26019903 09 18.22 +22 18 31.8           18.6 VuEV148H21
     K19V00V KC2019 11 08.26163803 09 16.82 +22 18 23.4           19.0 VuEV148H21
     K19V00V KC2019 11 08.26300503 09 15.50 +22 18 15.1           19.0 VuEV148H21
     K19V00W KC2019 11 08.23538102 37 25.58 -11 49 23.5           19.4 VuEV148H21
     K19V00W KC2019 11 08.23937002 37 22.11 -11 50 15.5           19.4 VuEV148H21
     K19V00W KC2019 11 08.24257602 37 19.30 -11 50 56.9           19.2 VuEV148H21
     K19V00W KC2019 11 08.24571002 37 16.56 -11 51 37.6           19.4 VuEV148H21
     K19V00X KC2019 11 12.96959722 45 55.25 +82 09 49.9           17.1 GVEV148J95
     K19V00X KC2019 11 12.97058722 45 32.55 +82 11 18.0           17.8 GVEV148J95
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     K19V00X KC2019 11 12.97630922 43 19.96 +82 19 43.6          17.7 GVEV148J95
     K19V00X KC2019 11 12.97794122 42 40.73 +82 22 07.4          17.6 GVEV148J95
     K19V00X KC2019 11 12.98263922 40 46.98 +82 29 01.7          17.1 GVEV148J95
     K19V05L KC2019 11 11.89525805 55 07.02 +71 58 39.0               VEV148J69
     K19V05L KC2019 11 11.91120605 55 59.24 +72 04 16.7               VEV148J69
     K19V05L KC2019 11 12.98850907 35 35.37 +77 42 00.4          19.6 GVEV148J95
     K19V05L KC2019 11 13.01403807 39 13.16 +77 48 41.5          19.7 GVEV148J95
01620         C2019 11 08.11347522 05 07.13 +08 13 35.4          16.4 VuEV148H21
01620         C2019 11 08.11491322 05 07.30 +08 13 36.2          16.5 VuEV148H21
01620         C2019 11 08.11634822 05 07.48 +08 13 37.0          16.5 VuEV148H21
01620         C2019 11 08.11778322 05 07.66 +08 13 37.8          16.4 VuEV148H21
01620         C2019 11 08.11922522 05 07.82 +08 13 38.6          16.4 VuEV148H21
01620         C2019 11 12.28443022 13 38.02 +08 50 07.2          16.41oVEV148T05
01620         C2019 11 12.28976622 13 38.64 +08 50 09.9          16.50oVEV148T05
01620         C2019 11 12.29292222 13 39.03 +08 50 11.7          16.65oVEV148T05
01620         C2019 11 12.30502822 13 40.44 +08 50 17.7          17.05oVEV148T05
01627         C2019 11 12.49289109 38 00.13 +12 03 14.1          17.15oVEV148T05
01627         C2019 11 12.49661309 38 00.29 +12 03 13.6          17.07oVEV148T05
01627         C2019 11 12.50216109 38 00.53 +12 03 12.5          17.23oVEV148T05
01627         C2019 11 12.51204709 38 01.00 +12 03 11.1          17.09oVEV148T05
02059         C2019 11 08.09872522 26 32.49 -10 56 18.6          16.6 VuEV148H21
02059         C2019 11 08.10015122 26 32.77 -10 56 19.5          17.0 VuEV148H21
02059         C2019 11 08.10157622 26 33.03 -10 56 20.3          16.6 VuEV148H21
02059         C2019 11 08.10300422 26 33.29 -10 56 20.8          16.6 VuEV148H21
02059         C2019 11 08.10428622 26 33.54 -10 56 21.5          16.7 VuEV148H21
02059         C2019 11 12.29267822 40 21.60 -11 25 02.0          16.28oVEV148T08
02059         C2019 11 12.29589922 40 22.23 -11 25 03.0          16.25oVEV148T08
02059         C2019 11 12.30191722 40 23.41 -11 25 05.0          16.99oVEV148T08
02059         C2019 11 12.31259922 40 25.51 -11 25 08.5          16.28oVEV148T08
02102         C2019 11 12.60784709 14 44.16 -21 36 25.0          17.98oVEV148T08
02102         C2019 11 12.61107209 14 44.61 -21 36 21.2          17.32oVEV148T08
02102         C2019 11 12.61665309 14 45.38 -21 36 14.5          17.37oVEV148T08
02212         C2019 11 12.60073912 00 55.42 +10 35 05.4          16.69oVEV148T05
02212         C2019 11 12.60368912 00 56.37 +10 34 58.4          16.16oVEV148T05
02212         C2019 11 12.60889812 00 58.11 +10 34 46.0          16.18oVEV148T05
02212         C2019 11 12.62063712 01 01.97 +10 34 17.9          16.29oVEV148T05
02212         C2019 11 12.65153812 01 12.14 +10 33 04.0          16.36oVEV148T05
03200         C2019 11 12.41151200 32 33.41 +37 42 29.7          16.64oVEV148T05
03200         C2019 11 12.41850800 32 32.71 +37 42 16.9          16.74oVEV148T05
03200         C2019 11 12.42940100 32 31.72 +37 41 56.9          16.75oVEV148T05
03200         C2019 11 12.43285000 32 31.37 +37 41 50.7          16.77oVEV148T05
04183         C2019 11 12.32873123 51 08.44 +09 03 11.4          18.28oVEV148T05
04183         C2019 11 12.33589623 51 08.14 +09 03 07.8          18.25oVEV148T05
04183         C2019 11 12.33973023 51 08.04 +09 03 07.1          18.05oVEV148T05
04183         C2019 11 12.35698723 51 07.42 +09 03 00.1          18.25oVEV148T05
05131         C2019 11 12.41953 03 15 55.674-45 01 46.82         17.8 iUEV148F51
05131         C2019 11 12.42852 03 15 54.411-45 01 41.40         17.7 iUEV148F51
05131         C2019 11 12.43751 03 15 53.133-45 01 35.97         17.7 iUEV148F51
05131         C2019 11 12.44651 03 15 51.863-45 01 30.55         17.6 iUEV148F51
05626         C2019 11 12.46683209 02 14.68 +10 02 28.7          16.48oVEV148T05
05626         C2019 11 12.46964209 02 15.01 +10 02 26.7          15.85oVEV148T05
05626         C2019 11 12.47477009 02 15.59 +10 02 23.8          15.84oVEV148T05
05626         C2019 11 12.48492409 02 16.80 +10 02 17.2          15.77oVEV148T05
05626         C2019 11 12.58801 09 02 28.641+10 01 13.66         15.6 iUEV148F52
05626         C2019 11 12.59832 09 02 29.817+10 01 07.30         15.6 iUEV148F52
05626         C2019 11 12.60867 09 02 30.996+10 01 00.78         15.7 iUEV148F52
05626         C2019 11 12.61904 09 02 32.176+10 00 54.31         15.7 iUEV148F52
09400         C2019 11 12.24160721 15 47.81 -14 35 07.8          16.98oVEV148T08
09400         C2019 11 12.24488221 15 47.90 -14 35 00.1          17.05oVEV148T08
09400         C2019 11 12.25001621 15 48.02 -14 34 47.8          17.01oVEV148T08
09400         C2019 11 12.26252821 15 48.36 -14 34 18.0          17.07oVEV148T08
20826         C2019 11 12.56372511 50 28.54 +31 01 21.3          15.91oVEV148T05
20826         C2019 11 12.56697511 50 29.24 +31 01 14.3          16.02oVEV148T05
20826         C2019 11 12.57316811 50 30.58 +31 01 01.1          17.47oVEV148T05
20826         C2019 11 12.58329411 50 32.75 +31 00 39.7          16.04oVEV148T05
26663         C2019 11 12.28713 00 21 50.297+30 32 30.79         20.7 zUEV148F51
26663         C2019 11 12.29252 00 21 49.869+30 32 26.02         20.6 zUEV148F51
26663         C2019 11 12.29751 00 21 49.467+30 32 21.77         20.5 zUEV148F51
26663         C2019 11 12.30215 00 21 49.061+30 32 17.41         20.6 zUEV148F51
53110         C2019 11 12.42081 03 19 38.403-45 42 01.42         18.8 iUEV148F51
53110         C2019 11 12.42980 03 19 36.961-45 41 54.06         19.0 iUEV148F51
53110         C2019 11 12.43879 03 19 35.529-45 41 46.48         19.0 iUEV148F51
53110         C2019 11 12.44780 03 19 34.088-45 41 39.24         19.0 iUEV148F51
66146         C2019 11 12.25745821 39 46.05 -25 15 02.9          15.37oVEV148T08
66146         C2019 11 12.26114821 39 46.36 -25 14 59.1          15.32oVEV148T08
66146         C2019 11 12.26673321 39 46.80 -25 14 53.5          15.23oVEV148T08
66146         C2019 11 12.27781921 39 47.76 -25 14 42.4          15.24oVEV148T08
85236        KC2019 11 11.53460909 34 41.61 +14 41 28.3          17.8 GVEV148T03
85236        KC2019 11 11.54678309 34 38.71 +14 43 27.6          17.1 GVEV148T03
85236        KC2019 11 11.55997909 34 35.53 +14 45 36.7          16.8 GVEV148T03
85236        KC2019 11 11.57341709 34 32.27 +14 47 48.0          16.8 GVEV148T03
85236        KC2019 11 11.58695109 34 28.96 +14 50 00.2          16.8 GVEV148T03
85236        KC2019 11 11.60308009 34 24.98 +14 52 37.5          16.8 GVEV148T03
85236        KC2019 11 11.61149609 34 22.90 +14 53 59.4          16.8 GVEV148T03
85236         C2019 11 12.48076209 31 15.04 +17 12 50.6          16.65oVEV148T05
85236         C2019 11 12.48400209 31 14.31 +17 13 22.5          16.59oVEV148T05
85236         C2019 11 12.48960509 31 13.02 +17 14 16.2          16.68oVEV148T05
85236         C2019 11 12.49939009 31 10.74 +17 15 50.8          16.48oVEV148T05
96536         C2019 11 13.26086 23 54 06.157+04 31 59.15         20.0 iUEV148F52
96536         C2019 11 13.27132 23 54 05.986+04 31 52.74         20.0 iUEV148F52
96536         C2019 11 13.28175 23 54 05.776+04 31 46.39         19.7 iUEV148F52
96536         C2019 11 13.29231 23 54 05.565+04 31 39.57         19.9 iUEV148F52
96536         C2019 11 13.30830 23 54 05.260+04 31 30.08         19.8 iUEV148F52
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96536       C2019 11 13.32007 23 54 05.035+04 31 22.49          19.8 iUEV148F52
96536       C2019 11 13.33183 23 54 04.802+04 31 15.62          19.8 iUEV148F52
D8852       C2019 11 12.39736102 31 43.71 -37 40 20.0           17.33oVEV148T08
D8852       C2019 11 12.40104902 31 41.84 -37 39 38.6           17.80oVEV148T08
D8852       C2019 11 12.40657302 31 38.95 -37 38 33.8           17.84oVEV148T08
D8852       C2019 11 12.42684302 31 28.48 -37 34 37.4           17.79oVEV148T08
F3842       C2019 11 12.38439501 22 39.90 -22 46 00.5           17.45oVEV148T08
F3842       C2019 11 12.38762801 22 40.29 -22 45 54.2           16.92oVEV148T08
F3842       C2019 11 12.38949901 22 40.50 -22 45 51.5           17.16oVEV148T08
F3842       C2019 11 12.39275001 22 40.88 -22 45 45.3           16.47oVEV148T08
F3842       C2019 11 12.39367101 22 40.99 -22 45 43.3           16.48oVEV148T08
F3842       C2019 11 12.39828901 22 41.52 -22 45 34.8           16.39oVEV148T08
F3842       C2019 11 12.40381001 22 42.14 -22 45 23.1           16.40oVEV148T08
F3842       C2019 11 12.40841501 22 42.68 -22 45 15.7           16.55oVEV148T08
F9399       C2019 11 12.46350504 31 12.59 -15 03 33.1           17.81oVEV148T08
F9399       C2019 11 12.46902604 31 12.01 -15 03 45.8           18.22oVEV148T08
F9399       C2019 11 12.47227304 31 11.79 -15 03 54.6           18.00oVEV148T08
F9399       C2019 11 12.48285604 31 10.79 -15 04 19.1           18.20oVEV148T08
G2082       C2019 11 12.41723703 19 31.45 -36 50 38.0           16.00oVEV148T08
G2082       C2019 11 12.42154903 19 31.74 -36 50 50.2           16.06oVEV148T08
G2082       C2019 11 12.44164403 19 33.11 -36 51 46.8           16.75oVEV148T08
G3696       C2019 11 12.46728909 03 57.36 +15 14 17.4           16.36oVEV148T05
G3696       C2019 11 12.47062309 03 57.08 +15 14 40.0           16.32oVEV148T05
G3696       C2019 11 12.47661809 03 56.55 +15 15 21.2           16.42oVEV148T05
G3696       C2019 11 12.48682909 03 55.74 +15 16 31.4           16.45oVEV148T05
L4088       C2019 11 12.45988308 40 05.29 +15 27 42.0           16.34oVEV148T05
L4088       C2019 11 12.46312908 40 05.33 +15 27 45.4           16.29oVEV148T05
L4088       C2019 11 12.46867708 40 05.40 +15 27 51.8           16.23oVEV148T05
L4088       C2019 11 12.47845508 40 05.54 +15 28 03.4           16.37oVEV148T05
P2399       C2019 11 12.37054501 13 40.39 -14 00 12.4           17.77oVEV148T08
P2399       C2019 11 12.37377001 13 38.98 -14 00 11.7           18.32oVEV148T08
P2399       C2019 11 12.38069601 13 35.88 -14 00 10.8           17.84oVEV148T08
P2399       C2019 11 12.39089601 13 31.22 -14 00 08.4           17.99oVEV148T08
T4739       C2019 11 12.57087711 23 11.37 +25 43 20.0           17.83oVEV148T05
T4739       C2019 11 12.57454011 23 11.32 +25 43 05.2           17.57oVEV148T05
T4739       C2019 11 12.58051711 23 11.24 +25 42 41.5           17.39oVEV148T05
T4739       C2019 11 12.59225011 23 11.05 +25 41 55.4           17.65oVEV148T05
U9203       C2019 11 13.20598 22 15 14.433-17 53 20.81          19.7 iUEV148F52
U9203       C2019 11 13.21771 22 15 15.221-17 53 16.90          19.6 iUEV148F52
U9203       C2019 11 13.22942 22 15 15.976-17 53 12.67          19.7 iUEV148F52
U9203       C2019 11 13.24114 22 15 16.756-17 53 08.71          19.8 iUEV148F52
W6777      KC2019 11 08.16322823 01 01.66 +18 36 44.1           18.6 VuEV148H21
W6777      KC2019 11 08.16538323 01 02.10 +18 36 40.1           18.3 VuEV148H21
W6777      KC2019 11 08.16753823 01 02.53 +18 36 36.2           18.5 VuEV148H21
W6777      KC2019 11 08.16969423 01 02.93 +18 36 32.0           18.6 VuEV148H21
W6777      KC2019 11 08.17199323 01 03.39 +18 36 27.8           18.5 VuEV148H21
X4412       C2019 11 12.38870 02 37 36.715-29 04 22.04          19.2 iUEV148F52
X4412       C2019 11 12.39910 02 37 36.247-29 04 28.96          18.9 iUEV148F52
X4412       C2019 11 12.40949 02 37 35.754-29 04 36.37          19.3 iUEV148F52
Y9063       C2019 11 12.58224 08 23 49.031+14 24 21.59          20.2 iUEV148F52
Y9063       C2019 11 12.60289 08 23 51.070+14 24 02.98          19.9 iUEV148F52
Y9063       C2019 11 12.61324 08 23 52.078+14 23 53.67          19.8 iUEV148F52
j8745       C2019 11 12.55617806 04 45.55 -07 18 37.7           17.64oVEV148T08
j8745       C2019 11 12.56829306 04 47.02 -07 18 37.4           17.46oVEV148T08
j8745       C2019 11 12.57481106 04 47.81 -07 18 36.9           17.55oVEV148T08
j8745       C2019 11 12.58417606 04 48.91 -07 18 36.7           17.66oVEV148T08
m1394       C2019 11 08.26407303 26 37.60 +22 27 27.5           14.6 VuEV148H21
m1394       C2019 11 08.26550203 26 37.16 +22 27 20.2           14.7 VuEV148H21
m1394       C2019 11 08.26692503 26 36.72 +22 27 12.9           14.7 VuEV148H21
m1394       C2019 11 08.26835203 26 36.28 +22 27 05.7           14.7 VuEV148H21
m1394       C2019 11 08.26977503 26 35.84 +22 26 58.3           14.7 VuEV148H21
m1394       C2019 11 08.90988403 23 42.36 +21 29 50.9           15.2 GVEV148073
m1394       C2019 11 08.91715303 23 39.96 +21 29 10.5           15.1 GVEV148073
m1394       C2019 11 08.92369203 23 37.77 +21 28 33.8           15.1 GVEV148073
m1394       C2019 11 08.92950203 23 35.88 +21 28 01.7           15.0 GVEV148073
m1394       C2019 11 09.87513903 18 52.75 +19 53 22.8           14.8 GVEV148073
m1394       C2019 11 09.88531203 18 49.03 +19 52 18.0           13.9 GVEV148073
m1394       C2019 11 09.89694403 18 44.80 +19 51 04.0           14.7 GVEV148073
m1394       C2019 11 09.91003503 18 40.06 +19 49 40.7           14.8 GVEV148073
m1394       C2019 11 09.92094903 18 36.02 +19 48 30.4           14.8 GVEV148073
m1394       C2019 11 09.93620403 18 30.38 +19 46 51.6           14.8 GVEV148073

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