GSA Data Repository Item 2016361
Dehler, C., Gehrels, G., Porter, S., Heizler, M., Karlstrom, K., Cox, G., Crossey, L., and Timmons, M., 2016, Synthesis of the 780–740 Ma Chuar, Uinta Mountain, and Pahrump (ChUMP) groups, western USA: Implications for Laurentia-wide cratonic marine basins: GSA Bulletin, doi:10.1130/B31532.1.

DATA REPOSITORY TABLES

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Supplementary Figure S2— Chuar Group (including Nankoweap Fm) DZ data tables.

Supplementary Table S3— Chuar Group $^{40}Ar/^{39}Ar$ data table.

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Supplementary Table S5—Uinta Mountain Group microfossil counts.

Supplementary Table S6— Reference measured section of the Nankoweap Formation.

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Supplementary Table S8-- Chuar Group Nd methods, data table, and figures.

Supplementary Data S1: Chuar Group Facies and stratigraphic relationships

The "Tanner dolomite" marks the base of the Galeros Fm. and Chuar Group, and more specifically, the base of the ~185-m-thick Tanner Member, an otherwise monotonous interval of organic-rich shale (Fig. 5a). The stromatolitic "*Inzeria* bed" marks the base of the overlying Jupiter Member (< 400 m thick), above which lies a beautiful variegated shale interval with minor sandstone and siltstone interbeds (Fig. 5b). The Jupiter Member grades into the overlying Carbon Canyon Member (>350 m thick) at the first appearance of m-thick dolomite beds, two of which make excellent marker units: the "polygonal bed" (dolomite with contorted sub-meter scale mudcrack fills) and the stromatolitic "*Baicalia* bed" (Figs 5c-f). The Carbon Canyon Mbr. grades into the Duppa Mbr (<180 m thick), where the carbonates become thinner and the shale weathers red. The overlying Carbon Butte Sandstone (the base of the Kwagunt Fm.; <70 m thick) is marked by two prominent sandstone intervals: the "red sandstone" at the base and the "white sandstone" near the top (Fig 6a). The overlying basal Awatubi Mbr. (<344 m thick) is marked by the stromatolitic "brain bed" and overlying marcasite interval (in black shale) (Fig 6b, c). The Walcott Mbr. (~250 m thick) is marked at the base by the "flakey dolomite" and by two prominent dolomite marker units, the "dolomite doublet" or "couplet", near the top (e.g., Cook, 1991) (Fig 6d).

Figure S1A. Marker units and noteable facies in the Galeros Formation. A: Tanner dolomite marker bed at the base of the Tanner Member with crude laminations. The unit is a crystalline dolomite and shows rare crossbeds and ooids, photo taken in Lava Chuar drainage, note Sharpie for scale; B) *Inzeria* (Ford and Breed, 1973) marker bed at the base

of the Jupiter Member with medium to thin beds. The unit contains several different stromatolite morphotypes ranging from centimeter- to meter-scale, photo taken in Lava Chuar drainage, geologist for scale; C) Jupiter Member shales transitioning to Carbon Canyon Member shales on 'hill 3741'. The gradational contact is at the base of the break in slope where the carbonate interbeds become thicker and higher frequency, photo from Lava Chuar drainage, ~300 meters of section shown. D) "Polygonal bed" marker unit showing large-scale contorted mudcracks (both host rock and fill are dolomitic). Hammer for scale. E. Transgressive sandstone that sits sharply on the polygonal bed. Hammer for scale. F) *Baicalia* (Ford and Breed, 1973) marker bed in the Carbon Canyon Member. Hammerhead at top of bed for scale.

Figure S1B. Marker units and notable facies in the Kwagunt Formation. A): Carbon Butte Sandstone Member basal marker bed (red sandstone). Note the channelform architecture. This sandstone sits sharply on the Duppa Member gray to red shales below; B) Bedding plane view of the 'brain bed' also known as *Boxinia* (Ford and Breed, 1973), basal unit in the Awatubi Member and the basal record of the Awatubi Positive Carbon Isotope Excursion (APCIE). Hammer for scale; C) Marcasite nodule interval in transgressive black shale just above the brain bed (see Fig 6B). Red arrows point to marcasite nodules, one of which yielded the Ar-Ar age of 764+/- 8 Ma. Camera lens cap for scale; D) Photo facing northwest of Nankoweap Butte, the most accessible good exposure of the Kwagunt Formation. Za=Awatubi Member, Chuar Group; Zw=Walcott Member, Chuar Group; Zs=Sixtymile Formation. Red arrows from bottom to top point to 1) The basal 'flakey dolomite' marker bed of the Walcott Mbr, 2) the 'dolomite doublet', 3) area of

VSM bearing dolomite nodules and record of very high TOC values, and 4) location of reworked 742 Ma tuff and overlying unconformity with the Sixtymile Formation (see also Fig 4B). Approximately 400 meters of section shown. The APCIE is recorded in the Awatubi Member; E) Location of reworked tuffaceous interval at the top of the Walcott Member. Black marker pen points to color change between gray to black, which is where the tuffaceous material is found.

Figure S1C. Unconformity between the Walcott Member (Zw) of the Chuar below and the overlying Sixtymile Formation. Lower arrow points to the reworked tuff at the top of the Walcott Member. The upper arrow points to the base of the silicified unit within the Sixtymile Formation. Elston (1979) placed the top of the Walcott Member at the gray to red color change associated with the tuffaceous interval (note Don Elston's pmag holes for scale). Timmons et al (2001) placed the contact at the base of the silicified unit (with basal 'golf ball' bed).

Fig S1A Dehler et al Galeros

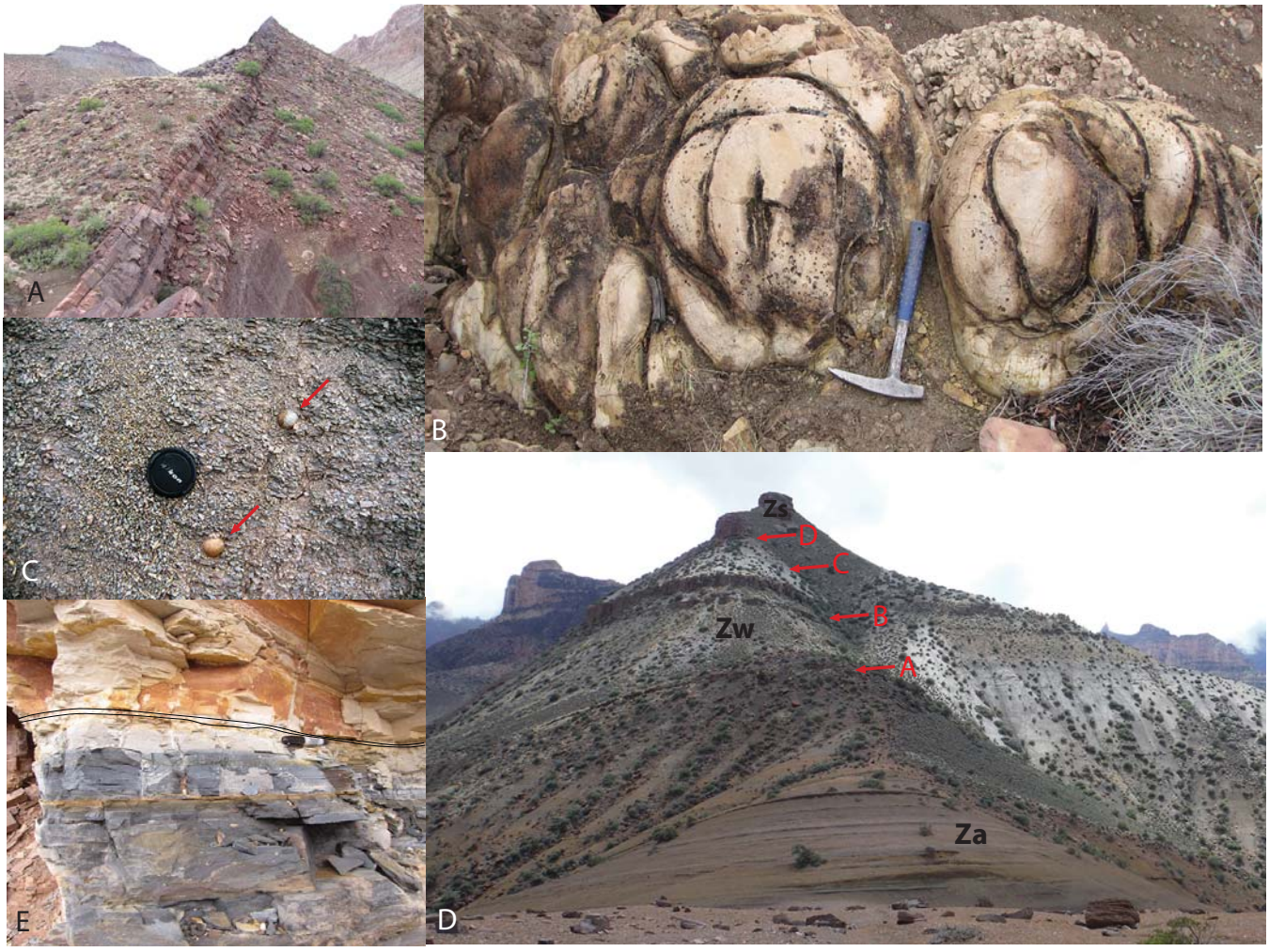


Fig S1B Dehler et al Kwagunt

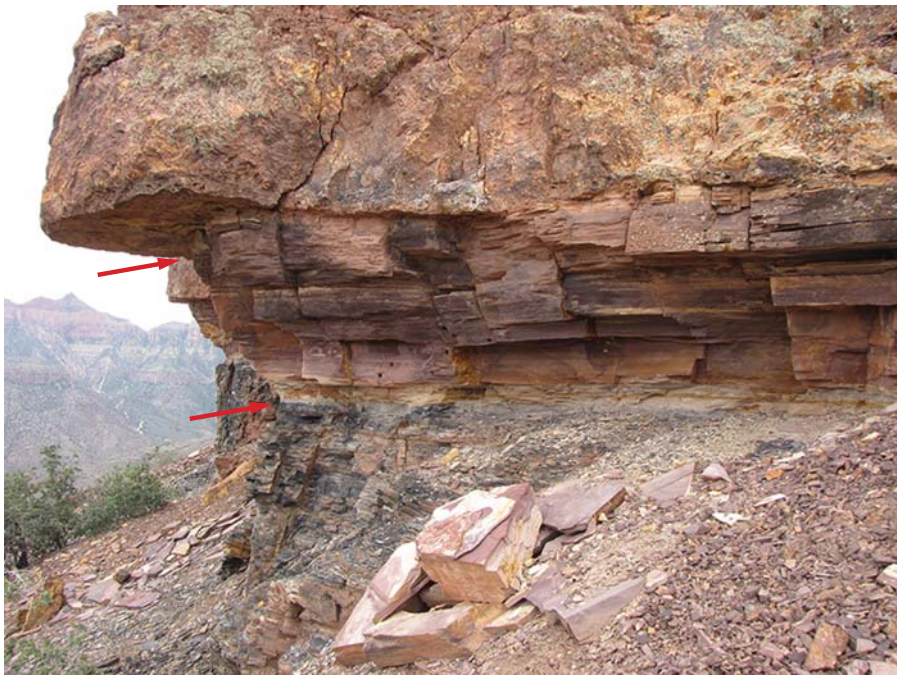


Fig S1C Dehler et al.

Supplementary Data_S2: Text

DZ geochronology methods (cont'd) and DZ data tables:

Analyses consist of single 15-second integrations on peaks with the laser off (for backgrounds), 15 one-second integrations with the laser firing, and a 30 second delay to purge the previous sample. The ablation pit is ~15 microns in depth and 30 microns in diameter. All isotope measurements were conducted with a Nu multicollector HR ICPMS.

In-run analyses of Sri Lanka standards were conducted after every fifth unknown grain analysis. Data reductions for sample runs are performed with an in-house data reduction system (agecalc) and plots were made using Isoplot (Ludwig, 2008). Ages are corrected for $^{206}Pb/^{238}U$ and $^{206}Pb/^{207}Pb$ instrumental fractionation using fractionation factors determined from standards analyzed throughout the sample run. $^{206}Pb/^{238}U$ ages were used for analyses younger than ~900 Ma while $^{206}Pb/^{207}Pb$ ages were used for analyses older than ~900 Ma. Samples with greater than 20% $^{206}Pb/^{238}U$ vs. $^{206}Pb/^{207}Pb$ discordance and 5% reverse discordance were discarded. A complete discussion of discordance cutoffs for provenance studies is found in Gehrels (2012).

Gehrels, G. E., 2012, DZ U-Pb geochronology: current methods and new opportunities, in Busby, C., and Azor, A., eds., Tectonics of Sedimentary Basins: Recent Advances: Hoboken, NJ, Blackwell Publishing Ltd., p. 47-62.

Ludwig, K., 2008, Isoplot/Ex, version 3.7: A geochronological toolkit for Microsoft Excel: Berkeley, California, Geochronology Center Berkeley.

Table _S2_. Chuar U-Pb geochronologic analyses by Laser-Ablation Multicollector ICP Mass Spectrometery

						Isotope ratios							Apparent ages (Ma)		
Analysis	U	206Pb	U/Th	206Pb*	±	207Pb*	±	206Pb*	±	error	206Pb*	±	207Pb*	±	206Pb*
	(ppm)	204Pb		207Pb*	(%)	235U*	(%)	238U	(%)	corr.	238U*	(Ma)	235U	(Ma)	207Pb*
Basal Nankoweap															
Basal Nankoweap-75	137	39765	1.8	13.99696	1.13	1.57390	2.31	0.15978	2.01	0.87	956	18	960	14	970
Basal Nankoweap-82	62	13095	2.0	13.93656	2.33	1.59297	2.53	0.16101	1.00	0.39	962	9	967	16	979
Basal Nankoweap-42	184	40340	1.3	13.84081	2.23	1.68494	2.68	0.16914	1.49	0.56	1007	14	1003	17	993
Basal Nankoweap-21	98	27470	1.5	13.73409	2.75	1.69083	2.93	0.16842	1.00	0.34	1003	9	1005	19	1009
Basal Nankoweap-9	78	29790	3.6	13.71324	2.18	1.71443	2.46	0.17051	1.14	0.46	1015	11	1014	16	1012
Basal Nankoweap-50	353	76560	2.1	13.70369	1.52	1.60942	1.82	0.15996	1.00	0.55	957	9	974	11	1013
Basal Nankoweap-59	30	7815	1.2	13.69799	2.58	1.72170	3.41	0.17105	2.24	0.66	1018	21	1017	22	1014
Basal Nankoweap-84	290	83085	4.0	13.7	1.08	1.72899	1.53	0.17142	1.09	0.71	1020	10	1019	10	1018
Basal Nankoweap-29	45	20470	1.4	13.63956	2.35	1.81830	2.56	0.17987	1.00	0.39	1066	10	1052	17	1023
Basal Nankoweap-57	366	89435	2.2	13.62932	1.29	1.67476	1.63	0.16555	1.00	0.61	988	9	999	10	1024
Basal Nankoweap-39	273	77745	2.7	13.61565	1.50	1.74959	1.80	0.17277	1.00	0.55	1027	9	1027	12	1026
Basal Nankoweap-71	85	20805	1.4	13.48480	2.66	1.79550	2.89	0.17560	1.12	0.39	1043	11	1044	19	1046
Basal Nankoweap-92	77	37405	2.3	13.46822	2.22	1.79058	3.00	0.17491	2.01	0.67	1039	19	1042	20	1048
Basal Nankoweap-69	330	83910	3.0	13.46147	1.42	1.72123	2.12	0.16805	1.57	0.74	1001	15	1016	14	1049
Basal Nankoweap-73	78	24480	2.6	13.46009	3.09	1.75375	3.49	0.17120	1.62	0.46	1019	15	1029	23	1049
Basal Nankoweap-64	310	63770	2.6	13.45853	1.66	1.75054	1.94	0.17087	1.00	0.52	1017	9	1027	13	1050
Basal Nankoweap-96	156	38380	2.1	13.43670	1.52	1.76379	2.44	0.17188	1.91	0.78	1022	18	1032	16	1053
Basal Nankoweap-16	160	37130	2.0	13.38933	2.27	1.76099	2.53	0.17101	1.12	0.44	1018	11	1031	16	1060
Basal Nankoweap-91	253	89305	0.6	13.38917	1.28	1.83170	1.87	0.17787	1.36	0.73	1055	13	1057	12	1060
Basal Nankoweap-51	391	104975	3.9	13.38151	2.12	1.76865	2.34	0.17165	1.00	0.43	1021	9	1034	15	1061
Basal Nankoweap-86	501	115485	1.7	13.35606	1.00	1.82196	1.41	0.17649	1.00	0.71	1048	10	1053	9	1065
Basal Nankoweap-24	334	82945	2.2	13.35053	4.27	1.69881	4.52	0.16449	1.49	0.33	982	14	1008	29	1066
Basal Nankoweap-7	140	57930	2.9	13.31875	3.30	1.83568	3.45	0.17732	1.00	0.29	1052	10	1058	23	1071
Basal Nankoweap-58	46	10120	0.6	13.30870	1.81	1.79172	2.14	0.17294	1.14	0.53	1028	11	1042	14	1072
Basal Nankoweap-88	398	74875	2.4	13.30639	1.66	1.82337	1.94	0.17597	1.00	0.52	1045	10	1054	13	1073
Basal Nankoweap-81	180	37075	1.1	13.28873	1.56	1.87587	2.10	0.18079	1.41	0.67	1071	14	1073	14	1075
Basal Nankoweap-19	336	76605	1.1	13.27715	1.09	1.78429	1.48	0.17182	1.00	0.68	1022	9	1040	10	1077
Basal Nankoweap-54	286	75000	1.6	13.22134	1.01	1.88302	1.42	0.18056	1.00	0.70	1070	10	1075	9	1085
Basal Nankoweap-28	60	20735	1.8	13.20220	2.56	1.72238	3.09	0.16492	1.73	0.56	984	16	1017	20	1088

Basal Nankoweap-26	71	34520	1.7	13.19998	2.37	1.91960	2.57	0.18377	1.00	0.39	1088	10	1088	17	1089
Basal Nankoweap-6	384	136940	4.1	13.19043	2.29	1.86001	2.88	0.17794	1.75	0.61	1056	17	1067	19	1090
Basal Nankoweap-78	166	44055	1.5	13.04238	2.36	1.95973	3.06	0.18538	1.94	0.63	1096	20	1102	21	1113
Basal Nankoweap-94	543	78325	1.0	12.89289	1.00	2.07362	1.59	0.19390	1.23	0.78	1142	13	1140	11	1136
Basal Nankoweap-38	164	52355	1.5	12.86892	1.71	2.14859	1.98	0.20054	1.00	0.50	1178	11	1165	14	1139
Basal Nankoweap-53	141	53185	3.6	12.86606	1.77	2.13839	2.03	0.19954	1.00	0.49	1173	11	1161	14	1140
Basal Nankoweap-47	95	42360	2.2	12.83511	1.61	2.06878	2.22	0.19258	1.52	0.69	1135	16	1139	15	1145
Basal Nankoweap-77	254	89570	2.9	12.79618	1.71	2.01225	2.28	0.18675	1.51	0.66	1104	15	1120	15	1151
Basal Nankoweap-66	180	52545	2.6	12.79127	1.75	2.05875	2.02	0.19099	1.00	0.50	1127	10	1135	14	1151
Basal Nankoweap-85	136	36470	1.1	12.76593	1.26	2.05099	1.61	0.18990	1.00	0.62	1121	10	1133	11	1155
Basal Nankoweap-76	227	71040	0.9	12.74805	1.95	2.04501	2.27	0.18908	1.16	0.51	1116	12	1131	15	1158
Basal Nankoweap-18	207	43685	3.6	12.72533	2.18	1.76671	2.74	0.16305	1.66	0.61	974	15	1033	18	1162
Basal Nankoweap-10	439	98120	2.9	12.70626	1.87	1.91088	3.11	0.17610	2.49	0.80	1046	24	1085	21	1165
Basal Nankoweap-17	193	48535	2.7	12.68898	1.21	2.02447	2.06	0.18631	1.67	0.81	1101	17	1124	14	1167
Basal Nankoweap-22	147	33740	1.8	12.67747	1.03	2.03109	3.28	0.18675	3.11	0.95	1104	32	1126	22	1169
Basal Nankoweap-44	97	22840	1.4	12.62958	1.85	2.12982	2.98	0.19509	2.33	0.78	1149	25	1159	21	1177
Basal Nankoweap-49	277	73300	2.0	12.61513	1.40	2.11288	1.76	0.19332	1.06	0.60	1139	11	1153	12	1179
Basal Nankoweap-23	61	9705	1.6	12.57239	5.52	1.87864	5.69	0.17130	1.35	0.24	1019	13	1074	38	1186
Basal Nankoweap-12	183	62985	2.7	12.56887	2.24	2.18748	2.67	0.19941	1.45	0.54	1172	16	1177	19	1186
Basal Nankoweap-35	64	24560	2.4	12.56708	5.80	2.20813	5.89	0.20126	1.00	0.17	1182	11	1184	41	1186
Basal Nankoweap-63	264	66360	2.0	12.54656	1.00	2.17651	1.45	0.19805	1.05	0.72	1165	11	1174	10	1190
Basal Nankoweap-45	122	37450	1.4	12.53446	1.42	2.15889	2.27	0.19626	1.77	0.78	1155	19	1168	16	1192
Basal Nankoweap-72	625	18605	2.4	12.49860	1.86	1.86466	2.11	0.16903	1.00	0.47	1007	9	1069	14	1197
Basal Nankoweap-41	523	184455	2.4	12.49033	1.31	2.20561	1.65	0.19980	1.00	0.61	1174	11	1183	12	1198
Basal Nankoweap-30	140	89750	2.1	12.37251	2.02	2.14699	2.78	0.19266	1.91	0.69	1136	20	1164	19	1217
Basal Nankoweap-100	163	86580	2.4	12.31290	1.25	2.25754	2.05	0.20160	1.62	0.79	1184	18	1199	14	1227
Basal Nankoweap-15	121	32540	3.9	12.30199	5.28	2.03410	5.50	0.18149	1.53	0.28	1075	15	1127	37	1228
Basal Nankoweap-62	761	32155	2.8	12.19882	2.89	1.99994	3.06	0.17694	1.00	0.33	1050	10	1115	21	1245
Basal Nankoweap-79	165	39085	1.8	12.18131	2.84	2.21739	3.03	0.19590	1.05	0.35	1153	11	1187	21	1248
Basal Nankoweap-95	79	23275	1.4	12.14567	1.55	2.20923	1.97	0.19461	1.22	0.62	1146	13	1184	14	1253
Basal Nankoweap-8	103	41305	7.3	12.04675	3.05	2.30868	3.29	0.20171	1.23	0.37	1185	13	1215	23	1269
Basal Nankoweap-31	189	128440	1.5	11.98576	1.22	2.46667	1.97	0.21442	1.55	0.79	1252	18	1262	14	1279
Basal Nankoweap-32	54	28415	2.4	11.98083	1.35	2.38732	2.10	0.20744	1.60	0.76	1215	18	1239	15	1280
Basal Nankoweap-25	104	18960	2.8	11.78948	1.53	2.41092	1.83	0.20615	1.00	0.55	1208	11	1246	13	1311
Basal Nankoweap-87	207	68600	2.9	11.75127	1.54	2.62465	1.84	0.22369	1.00	0.54	1301	12	1308	14	1318
Basal Nankoweap-89	31	9700	1.1	11.51337	2.86	2.40177	3.20	0.20055	1.43	0.45	1178	15	1243	23	1357
Basal Nankoweap-99	100	37145	3.3	11.43442	1.46	2.76833	2.07	0.22958	1.47	0.71	1332	18	1347	15	1371

Basal Nankoweap-2	178	107800	2.2	11.32656	2.54	2.88862	2.81	0.23729	1.20	0.43	1373	15	1379	21	1389
Basal Nankoweap-48	160	79380	2.1	11.24451	2.26	2.86020	2.77	0.23326	1.60	0.58	1352	20	1371	21	1403
Basal Nankoweap-60	165	64835	2.6	11.24154	2.24	2.84780	2.50	0.23218	1.11	0.44	1346	13	1368	19	1403
Basal Nankoweap-56	60	21590	0.7	11.22964	2.07	2.95962	2.58	0.24105	1.53	0.59	1392	19	1397	20	1405
Basal Nankoweap-4	134	89120	1.8	11.20597	2.04	2.81900	3.31	0.22911	2.61	0.79	1330	31	1361	25	1409
Basal Nankoweap-46	36	15625	1.4	11.13962	2.23	3.04684	2.44	0.24616	1.00	0.41	1419	13	1419	19	1421
Basal Nankoweap-70	204	54480	1.1	11.09077	1.86	2.97507	3.11	0.23931	2.49	0.80	1383	31	1401	24	1429
Basal Nankoweap-43	176	61230	1.2	11.07201	1.11	3.13076	1.49	0.25141	1.00	0.67	1446	13	1440	12	1432
Basal Nankoweap-97	132	45040	0.8	11.03121	1.41	3.10389	1.73	0.24833	1.00	0.58	1430	13	1434	13	1439
Basal Nankoweap-36	25	3575	1.5	10.92911	2.40	3.16251	3.00	0.25068	1.81	0.60	1442	23	1448	23	1457
Basal Nankoweap-52	194	61995	1.3	10.92075	1.26	3.10967	1.61	0.24630	1.00	0.62	1419	13	1435	12	1458
Basal Nankoweap-33	74	45755	1.5	10.73358	1.82	3.17582	2.08	0.24723	1.00	0.48	1424	13	1451	16	1491
Basal Nankoweap-93	123	70465	1.7	10.02257	1.47	3.74129	1.93	0.27196	1.25	0.65	1551	17	1580	15	1620
Basal Nankoweap-67	114	3010	4.1	9.95627	2.14	3.78182	2.89	0.27308	1.94	0.67	1556	27	1589	23	1632
Basal Nankoweap-11	454	10955	2.3	9.93103	2.10	3.88463	2.33	0.27980	1.00	0.43	1590	14	1610	19	1637
Basal Nankoweap-40	52	23490	1.5	9.83782	2.15	3.88844	2.37	0.27744	1.00	0.42	1578	14	1611	19	1654
Basal Nankoweap-5	253	174740	2.0	9.64676	1.38	4.23802	2.89	0.29651	2.54	0.88	1674	37	1681	24	1691
Basal Nankoweap-74	95	54405	3.0	9.62520	1.99	4.07777	2.68	0.28466	1.80	0.67	1615	26	1650	22	1695
Basal Nankoweap-27	94	90395	2.9	9.25328	2.41	4.73935	2.61	0.31806	1.00	0.38	1780	16	1774	22	1767
Basal Nankoweap-98	84	38990	0.9	8.98679	1.37	4.82635	2.30	0.31457	1.85	0.80	1763	29	1790	19	1820
Basal Nankoweap-14	244	118015	2.0	8.81608	1.00	4.80944	1.41	0.30752	1.00	0.71	1728	15	1787	12	1855
Basal Nankoweap-37	223	80075	1.8	8.76582	2.70	4.94381	2.88	0.31431	1.00	0.35	1762	15	1810	24	1865
Basal Nankoweap-68	110	56135	1.0	8.71094	2.31	5.09233	3.24	0.32172	2.27	0.70	1798	36	1835	27	1877
Basal Nankoweap-83	323	137800	1.5	8.6	1.00	5.44337	2.09	0.34045	**1.83**	**0.88**	1889	30	1892	18	1895
Basal Nankoweap-34	120	103675	0.7	8.28975	2.30	6.22813	2.87	0.37445	1.71	0.60	2050	30	2008	25	1966
Basal Nankoweap-65	357	152275	1.2	8.27591	1.30	5.71983	1.94	0.34332	1.44	0.74	1903	24	1934	17	1969
Basal Nankoweap-13	166	129350	2.9	8.21983	1.64	5.89544	2.49	0.35146	1.87	0.75	1942	31	1961	22	1981
Basal Nankoweap-3	86	76185	1.6	8.15766	1.04	6.06099	1.44	0.35860	1.00	0.69	1976	17	1985	13	1994
Basal Nankoweap-1	136	65670	2.0	8.01827	1.94	6.49891	2.18	0.37794	1.00	0.46	2067	18	2046	19	2025
Basal Nankoweap-90	182	5170	0.3	7.24723	1.55	7.14121	1.84	0.37536	1.00	0.54	2055	18	2129	16	2202
Basal Nankoweap-55	122	70335	1.8	6.69821	1.04	8.52659	1.44	0.41422	1.00	0.69	2234	19	2289	13	2338
Basal Nankoweap-20	281	163290	1.8	5.33023	2.41	13.11026	2.84	0.50682	1.51	0.53	2643	33	2688	27	2721
Basal Nankoweap-80	305	89155	2.8	5.23674	1.00	13.26291	1.79	0.50373	1.48	0.83	2630	32	2699	17	2750
Basal Nankoweap-61	87	52735	1.5	4.73313	1.12	16.24106	1.50	0.55752	1.00	0.67	2856	23	2891	14	2915
Lower Nankoweap															
Lower Nankoweap-29	41	9875	1.1	14.94547	2.74	1.23643	3.68	0.13402	2.46	0.67	811	19	817	21	835

Lower Nankoweap-47	174	43515	1.2	13.89661	1.62	1.71382	2.55	0.17273	1.97	0.77	1027	19	1014	16	985
Lower Nankoweap-85	96	20045	1.1	13.88073	2.69	1.61912	3.76	0.16300	2.63	0.70	973	24	978	24	987
Lower Nankoweap-73	86	21490	1.9	13.83815	1.02	1.73368	1.43	0.17400	1.00	0.70	1034	10	1021	9	993
Lower Nankoweap-1	202	29810	2.0	13.75832	1.43	1.69291	1.75	0.16893	1.00	0.57	1006	9	1006	11	1005
Lower Nankoweap-83	898	166615	7.6	13.75285	1.40	1.66958	2.33	0.16653	1.86	0.80	993	17	997	15	1006
Lower Nankoweap-41	147	47410	2.8	13.72711	1.47	1.77480	1.97	0.17670	1.31	0.66	1049	13	1036	13	1010
Lower Nankoweap-81	52	9770	0.7	13.68962	2.36	1.68907	2.89	0.16770	1.66	0.57	999	15	1004	18	1015
Lower Nankoweap-44	187	70035	1.9	13.63170	2.16	1.75273	2.38	0.17329	1.00	0.42	1030	10	1028	15	1024
Lower Nankoweap-33	109	21410	2.1	13.57857	2.37	1.70531	2.59	0.16794	1.04	0.40	1001	10	1011	17	1032
Lower Nankoweap-5	241	38435	2.7	13.54602	2.40	1.70728	2.77	0.16773	1.38	0.50	1000	13	1011	18	1037
Lower Nankoweap-96	81	54740	1.9	13.53913	2.60	1.70703	2.81	0.16762	1.06	0.38	999	10	1011	18	1038
Lower Nankoweap-58	559	39740	2.8	13.53851	1.26	1.76167	1.91	0.17298	1.43	0.75	1029	14	1031	12	1038
Lower Nankoweap-71	143	27445	2.3	13.52289	1.00	1.83487	1.42	0.17996	1.00	0.71	1067	10	1058	9	1040
Lower Nankoweap-68	177	14655	1.1	13.45402	3.69	1.67972	4.05	0.16390	1.68	0.41	978	15	1001	26	1050
Lower Nankoweap-82	132	33830	2.1	13.37426	1.39	1.89676	1.87	0.18398	1.25	0.67	1089	13	1080	12	1062
Lower Nankoweap-32	336	93625	3.4	13.37305	1.60	1.87054	2.11	0.18143	1.37	0.65	1075	14	1071	14	1063
Lower Nankoweap-14	98	19385	1.1	13.29840	2.13	1.83546	2.46	0.17703	1.23	0.50	1051	12	1058	16	1074
Lower Nankoweap-90	72	33245	2.4	13.23007	3.50	1.69698	4.02	0.16283	1.98	0.49	972	18	1007	26	1084
Lower Nankoweap-25	115	28275	0.9	13.22027	3.24	1.89136	3.39	0.18135	1.00	0.29	1074	10	1078	23	1086
Lower Nankoweap-60	225	51125	1.9	13.17575	2.02	1.92166	2.75	0.18363	1.87	0.68	1087	19	1089	18	1092
Lower Nankoweap-99	255	85670	2.7	13.09158	2.04	1.99180	3.33	0.18912	2.63	0.79	1117	27	1113	23	1105
Lower Nankoweap-91	117	75925	3.5	13.04276	2.52	2.08092	2.96	0.19684	1.55	0.52	1158	16	1143	20	1113
Lower Nankoweap-89	125	42480	2.1	12.97499	1.14	2.09924	2.32	0.19755	2.02	0.87	1162	21	1149	16	1123
Lower Nankoweap-75	60	14835	1.4	12.91216	1.01	1.93259	2.07	0.18098	1.81	0.87	1072	18	1092	14	1133
Lower Nankoweap-88	207	58315	5.9	12.90503	1.97	1.91302	2.43	0.17905	1.42	0.58	1062	14	1086	16	1134
Lower Nankoweap-49	145	81305	2.7	12.75297	1.81	2.23302	2.10	0.20654	1.07	0.51	1210	12	1191	15	1157
Lower Nankoweap-34	445	70930	1.8	12.69599	1.00	2.12398	1.49	0.19558	1.11	0.74	1152	12	1157	10	1166
Lower Nankoweap-40	54	26760	1.9	12.66964	2.89	2.20972	3.06	0.20305	1.00	0.33	1192	11	1184	21	1170
Lower Nankoweap-97	156	43220	1.9	12.62473	2.18	2.05137	2.85	0.18783	1.84	0.64	1110	19	1133	19	1177
Lower Nankoweap-4	125	29505	0.9	12.53750	1.20	2.20758	1.56	0.20074	1.00	0.64	1179	11	1183	11	1191
Lower Nankoweap-21	178	46605	1.0	12.52603	1.71	2.22143	2.10	0.20181	1.22	0.58	1185	13	1188	15	1193
Lower Nankoweap-3	181	49820	0.6	12.40832	1.97	2.20585	2.95	0.19851	2.20	0.74	1167	23	1183	21	1211
Lower Nankoweap-13	383	35200	1.5	12.39656	1.31	2.02509	2.36	0.18207	1.96	0.83	1078	19	1124	16	1213
Lower Nankoweap-36	67	38965	1.6	12.23207	2.45	2.41770	3.01	0.21449	1.74	0.58	1253	20	1248	22	1240
Lower Nankoweap-28	277	82840	2.1	12.20061	1.89	2.43608	2.48	0.21556	1.61	0.65	1258	18	1253	18	1245
Lower Nankoweap-18	404	31705	1.8	12.19655	1.30	2.28672	2.36	0.20228	1.97	0.83	1188	21	1208	17	1245

Lower Nankoweap-27	140	45100	2.8	12.17190	1.00	2.43498	1.64	0.21496	1.30	0.79	1255	15	1253	12	1249
Lower Nankoweap-70	389	35580	3.1	12.16860	2.15	2.36479	3.11	0.20870	2.24	0.72	1222	25	1232	22	1250
Lower Nankoweap-12	145	30105	0.4	12.16473	1.85	2.30202	2.11	0.20310	1.01	0.48	1192	11	1213	15	1250
Lower Nankoweap-16	314	45345	3.7	12.11912	2.44	2.26475	3.16	0.19906	2.01	0.64	1170	22	1201	22	1258
Lower Nankoweap-93	296	49095	1.6	11.89584	3.06	2.50070	3.22	0.21575	1.00	0.31	1259	11	1272	23	1294
Lower Nankoweap-57	304	31235	1.2	11.82029	2.67	2.55003	3.16	0.21861	1.69	0.53	1275	20	1286	23	1306
Lower Nankoweap-24	28	10205	0.9	11.71751	1.95	2.69388	2.49	0.22894	1.54	0.62	1329	18	1327	18	1323
Lower Nankoweap-77	138	52115	1.0	11.68034	1.51	2.81633	2.01	0.23858	1.33	0.66	1379	17	1360	15	1329
Lower Nankoweap-50	216	134995	3.9	11.57870	1.20	2.78199	1.85	0.23362	1.41	0.76	1353	17	1351	14	1346
Lower Nankoweap-26	277	123625	2.0	11.56442	1.58	2.82679	1.87	0.23709	1.00	0.53	1372	12	1363	14	1349
Lower Nankoweap-42	218	73295	1.1	11.56093	1.32	2.82955	2.38	0.23725	1.98	0.83	1372	24	1363	18	1349
Lower Nankoweap-8	368	25170	1.7	11.54833	1.56	2.36954	3.21	0.19846	2.80	0.87	1167	30	1233	23	1351
Lower Nankoweap-6	196	54540	2.3	11.50083	1.01	2.66665	2.40	0.22243	2.18	0.91	1295	26	1319	18	1359
Lower Nankoweap-74	617	9230	0.1	11.46158	1.85	2.80867	2.28	0.23348	1.33	0.58	1353	16	1358	17	1366
Lower Nankoweap-79	401	63680	1.7	11.29581	1.00	2.66010	1.71	0.21793	1.39	0.81	1271	16	1317	13	1394
Lower Nankoweap-46	127	18680	1.4	11.18033	2.79	2.79456	2.97	0.22660	1.00	0.34	1317	12	1354	22	1414
Lower Nankoweap-59	228	67220	1.6	11.14463	1.69	3.06904	2.21	0.24807	1.42	0.64	1428	18	1425	17	1420
Lower Nankoweap-65	173	46750	1.1	11.11419	1.62	3.22621	1.99	0.26006	1.15	0.58	1490	15	1463	15	1425
Lower Nankoweap-35	140	29850	1.5	11.07387	1.70	2.90961	3.31	0.23369	2.84	0.86	1354	35	1384	25	1432
Lower Nankoweap-53	171	26060	2.1	11.01906	3.26	2.65158	4.04	0.21191	2.39	0.59	1239	27	1315	30	1441
Lower Nankoweap-64	448	20120	1.7	11.00295	1.96	3.15399	2.40	0.25169	1.39	0.58	1447	18	1446	19	1444
Lower Nankoweap-15	128	29630	1.2	10.98330	1.45	3.02567	1.76	0.24102	1.00	0.57	1392	13	1414	13	1448
Lower Nankoweap-100	138	68020	1.6	10.97225	2.84	3.03426	4.15	0.24146	3.03	0.73	1394	38	1416	32	1449
Lower Nankoweap-56	159	61115	1.8	10.95795	1.79	3.14440	2.94	0.24990	2.33	0.79	1438	30	1444	23	1452
Lower Nankoweap-7	238	57100	1.4	10.95491	1.24	3.18555	2.27	0.25310	1.90	0.84	1454	25	1454	18	1453
Lower Nankoweap-94	128	42515	2.0	10.94842	1.80	3.22750	2.87	0.25628	2.23	0.78	1471	29	1464	22	1454
Lower Nankoweap-67	224	47240	1.6	10.94066	2.01	3.16826	2.48	0.25140	1.46	0.59	1446	19	1449	19	1455
Lower Nankoweap-45	74	37820	1.8	10.93684	2.12	3.23099	2.34	0.25629	1.00	0.43	1471	13	1465	18	1456
Lower Nankoweap-10	93	5945	1.6	10.91002	1.80	3.06172	2.09	0.24226	1.07	0.51	1398	13	1423	16	1460
Lower Nankoweap-86	151	120030	1.2	10.9	2.8	3.32393	2.97	0.26211	1.00	0.34	1501	13	1487	23	1467
Lower Nankoweap-9	90	13015	0.5	10.70966	2.84	2.70727	3.04	0.21028	1.10	0.36	1230	12	1330	23	1495
Lower Nankoweap-30	298	130215	1.8	10.45260	1.40	3.66985	1.72	0.27821	1.00	0.58	1582	14	1565	14	1541
Lower Nankoweap-23	55	23230	1.3	9.98842	2.49	3.93707	3.74	0.28521	2.79	0.75	1618	40	1621	30	1626
Lower Nankoweap-62	210	36315	0.9	9.90456	1.10	3.81236	2.08	0.27386	1.76	0.85	1560	24	1595	17	1642
Lower Nankoweap-87	205	146855	1.5	9.62373	1.69	4.38143	1.96	0.30581	1.00	0.51	1720	15	1709	16	1695
Lower Nankoweap-92	140	88530	1.7	9.47965	1.76	4.44827	2.02	0.30583	1.00	0.49	1720	15	1721	17	1723
Lower Nankoweap-61	222	56810	2.0	9.42437	1.47	4.41888	2.72	0.30204	2.29	0.84	1701	34	1716	23	1734

Lower Nankoweap-43	173	124785	1.6	9.36932	1.46	4.74118	1.77	0.32218	1.00	0.57	1800	16	1775	15	1744
Lower Nankoweap-80	166	62500	0.9	9.28677	1.14	4.75426	3.05	0.32022	2.83	0.93	1791	44	1777	26	1761
Lower Nankoweap-31	138	50875	1.1	9.28430	1.89	4.79696	2.39	0.32301	1.47	0.61	1804	23	1784	20	1761
Lower Nankoweap-63	45	20195	1.2	9.23828	1.95	4.42385	2.30	0.29641	1.22	0.53	1673	18	1717	19	1770
Lower Nankoweap-52	240	176815	4.3	9.22886	2.33	4.93319	3.14	0.33020	2.10	0.67	1839	34	1808	26	1772
Lower Nankoweap-51	85	32190	2.8	9.22833	2.88	4.49943	3.05	0.30115	1.00	0.33	1697	15	1731	25	1772
Lower Nankoweap-72	304	120465	1.9	9.20206	1.00	4.94794	1.52	0.33022	1.14	0.75	1839	18	1810	13	1777
Lower Nankoweap-69	215	47995	1.0	9.20083	1.76	4.60853	2.02	0.30753	1.00	0.49	1729	15	1751	17	1777
Lower Nankoweap-54	46	37710	1.4	9.19443	1.97	4.84311	2.21	0.32296	1.00	0.45	1804	16	1792	19	1779
Lower Nankoweap-95	170	203240	3.7	9.13903	1.19	4.80201	1.55	0.31829	1.00	0.64	1781	16	1785	13	1790
Lower Nankoweap-84	211	83370	1.7	9.11350	1.00	4.76694	1.84	0.31508	1.54	0.84	1766	24	1779	15	1795
Lower Nankoweap-22	99	33725	0.6	9.03090	1.21	4.97898	1.65	0.32611	1.12	0.68	1820	18	1816	14	1811
Lower Nankoweap-20	107	70825	1.4	8.88704	1.18	5.05543	2.07	0.32585	1.70	0.82	1818	27	1829	18	1841
Lower Nankoweap-11	690	11295	1.4	8.82125	1.22	4.95027	1.76	0.31671	1.27	0.72	1774	20	1811	15	1854
Lower Nankoweap-55	43	61660	1.4	8.69713	1.95	5.54850	2.19	0.34999	1.00	0.46	1935	17	1908	19	1880
Lower Nankoweap-66	194	41980	0.6	8.67938	2.53	5.17135	2.84	0.32553	1.28	0.45	1817	20	1848	24	1883
Lower Nankoweap-37	161	12235	2.6	8.64567	2.57	5.37256	3.35	0.33688	2.14	0.64	1872	35	1880	29	1890
Lower Nankoweap-76	345	185175	2.0	8.48665	1.78	5.77684	2.20	0.35557	1.29	0.59	1961	22	1943	19	1924
Lower Nankoweap-39	168	157590	1.5	8.13276	2.85	6.46394	3.02	0.38127	1.00	0.33	2082	18	2041	27	2000
Lower Nankoweap-78	85	35860	0.7	6.53646	1.75	9.07824	2.05	0.43037	1.06	0.52	2307	21	2346	19	2380
Lower Nankoweap-19	262	178250	3.3	6.03288	1.14	10.72752	1.68	0.46938	1.23	0.73	2481	25	2500	16	2515
Lower Nankoweap-2	113	62125	1.1	5.87014	1.84	11.51211	2.09	0.49012	1.00	0.48	2571	21	2566	20	2561
Lower Nankoweap-48	156	122020	1.2	5.59110	1.45	12.33580	1.76	0.50022	1.00	0.57	2615	21	2630	17	2642
Lower Nankoweap-98	409	9575	1.0	5.46308	3.12	11.79607	3.50	0.46738	1.58	0.45	2472	32	2588	33	2681
Lower Nankoweap-38	77	111635	1.5	5.37839	2.21	13.54798	2.55	0.52848	1.27	0.50	2735	28	2719	24	2706
Lower Nankoweap-17	95	92085	1.8	5.27117	1.03	13.83141	1.44	0.52878	1.00	0.70	2736	22	2738	14	2740
Lower Nankoweap set #2															
Lower Nankoweap-24	122	31281	1.7	15.25317	2.24	1.13507	3.69	0.12557	2.93	0.79	763	21	770	20	792
Lower Nankoweap-62	57	655	1.4	14.47654	6.18	1.26606	6.36	0.13293	1.49	0.23	805	11	831	36	901
Lower Nankoweap-56	107	43245	1.0	14.87796	2.97	1.23437	3.66	0.13319	2.15	0.59	806	16	816	21	844
Lower Nankoweap-23	93	43341	1.1	14.06404	3.46	1.63019	3.60	0.16628	1.01	0.28	992	9	982	23	960
Lower Nankoweap-81	98	35941	2.3	13.93433	3.12	1.65651	3.26	0.16741	0.93	0.29	998	9	992	21	979
Lower Nankoweap-18	213	59077	3.1	13.65873	1.66	1.80066	1.92	0.17838	0.98	0.51	1058	10	1046	13	1020
Lower Nankoweap-45	263	82091	4.8	13.65120	0.67	1.73163	1.13	0.17145	0.91	0.81	1020	9	1020	7	1021
Lower Nankoweap-7	368	100652	3.7	13.60658	0.57	1.74045	1.72	0.17176	1.62	0.94	1022	15	1024	11	1028

Lower Nankoweap-68	200	61673	2.6	13.59172	1.38	1.71982	1.54	0.16953	0.67	0.44	1010	6	1016	10	1030
Lower Nankoweap-53	103	36211	2.5	13.55911	1.11	1.81190	1.91	0.17818	1.56	0.82	1057	15	1050	13	1035
Lower Nankoweap-12	142	50170	2.2	13.55068	1.68	1.78813	2.02	0.17574	1.13	0.56	1044	11	1041	13	1036
Lower Nankoweap-30	36	14692	1.1	13.54609	4.24	1.77214	6.36	0.17410	4.74	0.75	1035	45	1035	41	1037
Lower Nankoweap-16	306	173967	2.9	13.51581	0.40	1.82271	1.13	0.17867	1.06	0.93	1060	10	1054	7	1041
Lower Nankoweap-79	372	65890	3.6	13.50788	0.92	1.80924	1.17	0.17725	0.72	0.61	1052	7	1049	8	1042
Lower Nankoweap-83	284	135763	3.3	13.49348	0.54	1.82511	0.73	0.17861	0.48	0.66	1059	5	1055	5	1044
Lower Nankoweap-70	436	6388	3.2	13.49279	1.22	1.72800	1.52	0.16910	0.90	0.59	1007	8	1019	10	1045
Lower Nankoweap-13	319	41909	2.6	13.49150	1.01	1.74852	1.33	0.17109	0.87	0.65	1018	8	1027	9	1045
Lower Nankoweap-51	153	218374	2.0	13.42749	1.32	1.82344	1.47	0.17758	0.64	0.43	1054	6	1054	10	1054
Lower Nankoweap-43	507	120706	4.0	13.42667	0.43	1.82802	0.87	0.17801	0.76	0.87	1056	7	1056	6	1054
Lower Nankoweap-50	77	33036	1.7	13.34980	1.49	1.89798	2.03	0.18377	1.39	0.68	1088	14	1080	14	1066
Lower Nankoweap-67	98	81966	2.0	13.29842	2.41	1.92792	2.72	0.18595	1.25	0.46	1099	13	1091	18	1074
Lower Nankoweap-95	131	36550	1.4	13.29633	1.56	1.88623	1.75	0.18190	0.80	0.46	1077	8	1076	12	1074
Lower Nankoweap-54	81	21412	2.3	13.28391	1.82	1.92307	2.08	0.18528	1.00	0.48	1096	10	1089	14	1076
Lower Nankoweap-39	77	43374	1.9	13.25239	2.82	1.97052	2.99	0.18940	1.01	0.34	1118	10	1105	20	1081
Lower Nankoweap-20	81	24506	1.7	13.22598	1.57	1.94965	2.12	0.18702	1.42	0.67	1105	14	1098	14	1085
Lower Nankoweap-58	145	46286	2.3	13.22588	1.66	1.89885	1.99	0.18214	1.11	0.56	1079	11	1081	13	1085
Lower Nankoweap-55	82	31479	1.3	13.21211	2.62	1.89255	2.99	0.18135	1.44	0.48	1074	14	1078	20	1087
Lower Nankoweap-27	365	12017	2.0	13.20739	0.47	1.83934	1.13	0.17619	1.03	0.91	1046	10	1060	7	1088
Lower Nankoweap-77	263	109134	1.5	13.14522	1.04	1.98818	1.33	0.18955	0.84	0.63	1119	9	1112	9	1097
Lower Nankoweap-102	36	14829	1.4	13.04128	5.75	2.05545	5.93	0.19441	1.46	0.25	1145	15	1134	41	1113
Lower Nankoweap-47	184	81464	1.0	13.02456	1.03	1.93475	1.22	0.18276	0.64	0.52	1082	6	1093	8	1115
Lower Nankoweap-1	21	9232	2.8	13.01049	6.35	2.11140	7.78	0.19923	4.49	0.58	1171	48	1153	54	1118
Lower Nankoweap-84	71	39043	1.3	12.98087	2.28	2.07060	2.47	0.19494	0.97	0.39	1148	10	1139	17	1122
Lower Nankoweap-25	49	15896	2.7	12.92523	4.07	2.10428	4.36	0.19726	1.55	0.36	1161	17	1150	30	1131
Lower Nankoweap-89	159	49079	1.2	12.86588	0.75	2.09667	1.43	0.19565	1.22	0.85	1152	13	1148	10	1140
Lower Nankoweap-15	81	45386	2.1	12.86030	2.22	2.12933	2.54	0.19861	1.24	0.49	1168	13	1158	18	1141
Lower Nankoweap-78	44	14888	1.8	12.83100	3.38	2.00398	3.53	0.18649	1.05	0.30	1102	11	1117	24	1145
Lower Nankoweap-64	70	43145	2.6	12.80291	2.24	2.11345	2.42	0.19625	0.90	0.37	1155	10	1153	17	1150
Lower Nankoweap-73	293	229900	3.3	12.80156	1.16	2.07128	1.41	0.19231	0.79	0.56	1134	8	1139	10	1150
Lower Nankoweap-48	303	120050	2.7	12.73551	0.57	2.14908	1.06	0.19850	0.89	0.84	1167	10	1165	7	1160
Lower Nankoweap-101	184	103059	2.9	12.73184	1.00	2.15544	1.82	0.19903	1.51	0.83	1170	16	1167	13	1161
Lower Nankoweap-97	70	36586	2.5	12.71004	3.66	2.13284	3.77	0.19661	0.90	0.24	1157	10	1160	26	1164

Lower Nankoweap-92	94	95436	2.1	12.69737	2.00	2.09817	3.91	0.19322	3.36	0.86	1139	35	1148	27	1166
Lower Nankoweap-57	127	48905	2.8	12.68857	1.63	2.16891	2.00	0.19960	1.15	0.58	1173	12	1171	14	1167
Lower Nankoweap-26	431	267565	3.1	12.66406	0.47	2.18057	0.87	0.20028	0.74	0.85	1177	8	1175	6	1171
Lower Nankoweap-46	87	29803	2.2	12.63473	1.35	2.17000	1.73	0.19885	1.08	0.63	1169	12	1171	12	1176
Lower Nankoweap-76	83	31459	3.2	12.60929	2.40	2.20753	2.53	0.20188	0.80	0.32	1185	9	1183	18	1180
Lower Nankoweap-94	92	168542	2.7	12.60786	1.36	2.18587	2.73	0.19988	2.37	0.87	1175	25	1177	19	1180
Lower Nankoweap-28	113	34735	2.8	12.59560	1.71	2.21291	1.88	0.20215	0.78	0.42	1187	8	1185	13	1182
Lower Nankoweap-104	287	60422	2.1	12.57834	0.82	2.21529	1.24	0.20209	0.93	0.75	1187	10	1186	9	1185
Lower Nankoweap-41	198	37568	1.7	12.56285	2.87	2.12335	4.69	0.19347	3.71	0.79	1140	39	1156	32	1187
Lower Nankoweap-66	280	220063	3.5	12.54090	0.64	2.16765	0.97	0.19716	0.73	0.75	1160	8	1171	7	1191
Lower Nankoweap-74	321	18750	3.4	12.53175	0.51	2.02281	3.13	0.18385	3.09	0.99	1088	31	1123	21	1192
Lower Nankoweap-87	240	90294	1.8	12.52637	0.85	2.25762	1.07	0.20510	0.65	0.61	1203	7	1199	8	1193
Lower Nankoweap-38	63	6364	2.0	12.49809	5.10	2.21810	5.20	0.20106	1.02	0.20	1181	11	1187	36	1197
Lower Nankoweap-61	71	27770	1.5	12.40706	3.09	2.19450	3.27	0.19747	1.07	0.33	1162	11	1179	23	1212
Lower Nankoweap-88	269	6203	2.3	12.38172	0.85	2.12312	4.75	0.19066	4.67	0.98	1125	48	1156	33	1216
Lower Nankoweap-65	327	68894	4.4	12.33556	0.79	2.34690	2.28	0.20997	2.13	0.94	1229	24	1227	16	1223
Lower Nankoweap-98	60	47541	1.8	12.27173	2.13	2.46764	2.61	0.21963	1.50	0.58	1280	17	1263	19	1233
Lower Nankoweap-31	164	87923	1.6	12.24567	1.02	2.35877	2.06	0.20949	1.79	0.87	1226	20	1230	15	1237
Lower Nankoweap-49	312	128884	2.7	12.16541	0.74	2.52590	2.02	0.22287	1.88	0.93	1297	22	1280	15	1250
Lower Nankoweap-5	95	32211	2.3	12.16044	1.70	2.35650	1.89	0.20783	0.81	0.43	1217	9	1230	13	1251
Lower Nankoweap-36	71	63242	2.5	11.74229	2.90	2.66578	3.07	0.22703	1.02	0.33	1319	12	1319	23	1319
Lower Nankoweap-40	175	82148	1.9	11.68318	0.57	2.68444	1.04	0.22746	0.86	0.83	1321	10	1324	8	1329
Lower Nankoweap-82	288	98605	2.6	11.67499	0.67	2.71983	0.93	0.23030	0.65	0.70	1336	8	1334	7	1330
Lower Nankoweap-10	254	103284	2.1	11.65514	0.57	2.68695	1.45	0.22713	1.33	0.92	1319	16	1325	11	1334
Lower Nankoweap-71	193	26884	2.4	11.50909	1.06	2.91869	4.87	0.24363	4.75	0.98	1406	60	1387	37	1358
Lower Nankoweap-105	169	83614	3.2	11.45245	1.00	2.87218	1.95	0.23857	1.68	0.86	1379	21	1375	15	1367
Lower Nankoweap-52	71	35268	2.6	11.44743	1.25	2.96990	1.76	0.24657	1.25	0.71	1421	16	1400	13	1368
Lower Nankoweap-11	75	54242	1.0	11.35385	2.29	2.90880	2.59	0.23953	1.21	0.47	1384	15	1384	20	1384
Lower Nankoweap-19	140	12113	1.1	11.28819	1.11	2.70640	1.53	0.22157	1.05	0.69	1290	12	1330	11	1395
Lower Nankoweap-42	106	47617	2.5	11.11955	1.11	3.07820	1.73	0.24825	1.33	0.77	1429	17	1427	13	1424
Lower Nankoweap-2	206	74020	2.3	11.02317	0.39	3.06122	1.35	0.24474	1.29	0.96	1411	16	1423	10	1441
Lower Nankoweap-29	209	127926	3.0	10.98821	0.61	3.17351	1.33	0.25291	1.18	0.89	1453	15	1451	10	1447
Lower Nankoweap-100	105	86420	1.9	10.98410	1.14	3.24577	3.90	0.25857	3.73	0.96	1483	49	1468	30	1447
Lower Nankoweap-33	80	27990	1.1	10.96044	1.59	3.15808	2.03	0.25104	1.26	0.62	1444	16	1447	16	1452
Lower Nankoweap-32	158	123142	3.1	10.93410	0.64	3.20327	1.21	0.25402	1.03	0.85	1459	13	1458	9	1456
Lower Nankoweap-6	169	85739	1.3	10.92994	0.81	3.26545	2.67	0.25886	2.54	0.95	1484	34	1473	21	1457
Lower Nankoweap-63	148	76601	2.4	10.86596	0.98	3.25714	1.19	0.25669	0.68	0.57	1473	9	1471	9	1468

Lower Nankoweap-34	204	126159	2.2	10.85382	0.56	3.21937	1.76	0.25343	1.67	0.95	1456	22	1462	14	1470
Lower Nankoweap-85	182	112530	1.5	10.84011	0.54	3.19601	1.04	0.25127	0.89	0.86	1445	12	1456	8	1473
Lower Nankoweap-96	62	31238	0.8	10.25078	2.03	3.79481	2.26	0.28213	1.00	0.44	1602	14	1592	18	1578
Lower Nankoweap-17	110	19423	1.7	10.06652	1.15	3.97594	4.24	0.29028	4.08	0.96	1643	59	1629	34	1612
Lower Nankoweap-91	241	17831	1.3	9.68066	0.33	3.90829	2.72	0.27440	2.70	0.99	1563	38	1615	22	1684
Lower Nankoweap-86	177	27839	2.0	9.55406	0.66	4.26562	1.88	0.29558	1.76	0.94	1669	26	1687	15	1708
Lower Nankoweap-4	506	2034	1.1	8.97435	1.17	3.93417	6.78	0.25607	6.68	0.99	1470	88	1621	55	1823
Lower Nankoweap-103	192	129725	5.2	8.93754	1.68	4.97992	9.66	0.32280	9.52	0.98	1803	150	1816	82	1830
Lower Nankoweap-14	120	110852	1.8	8.79917	0.62	5.25179	1.05	0.33516	0.85	0.81	1863	14	1861	9	1859
Lower Nankoweap-69	129	88700	0.7	8.73154	0.59	5.28722	1.11	0.33482	0.94	0.85	1862	15	1867	10	1872
Lower Nankoweap-35	190	176154	2.7	8.35472	0.33	5.82388	0.85	0.35289	0.78	0.92	1948	13	1950	7	1952
Lower Nankoweap-8	222	22706	3.1	5.83536	0.24	10.05963	3.87	0.42574	3.87	1.00	2287	74	2440	36	2571
Lower Nankoweap-3	82	28138	0.9	5.48207	0.51	11.22505	1.50	0.44631	1.41	0.94	2379	28	2542	14	2675
Lower Nankoweap-44	45	54354	0.9	5.30591	0.86	13.47588	1.56	0.51858	1.29	0.83	2693	28	2714	15	2729
K1252NAN1 (Nankoweap)															
K1252NAN1-44	51	31208	0.8	15.6045	3.1	1.13414	3.19	0.12836	0.86	0.27	778	6	770	17	744
K1252NAN1-86	130	64291	2.1	13.9920	1.1	1.60578	1.95	0.16295	1.63	0.84	973	15	972	12	971
K1252NAN1-65	72	35754	1.9	13.9197	1.9	1.64459	3.05	0.16603	2.42	0.79	990	22	987	19	981
K1252NAN1-52	38	24327	0.9	13.8565	3.6	1.73530	4.09	0.17439	1.92	0.47	1036	18	1022	26	991
K1252NAN1-6	60	36718	1.0	13.8530	2.4	1.73204	2.84	0.17402	1.55	0.55	1034	15	1021	18	991
K1252NAN1-86	38	26829	0.6	13.7784	3.8	1.72543	4.50	0.17242	2.38	0.53	1025	23	1018	29	1002
K1252NAN1-102	36	18631	1.1	13.7665	4.0	1.69071	4.69	0.16881	2.45	0.52	1006	23	1005	30	1004
K1252NAN1-48	46	45158	2.1	13.6721	3.7	1.69717	3.81	0.16829	1.07	0.28	1003	10	1007	24	1018
K1252NAN1-32	58	57150	1.7	13.6671	2.6	1.78029	2.78	0.17647	1.06	0.38	1048	10	1038	18	1019
K1252NAN1-73	203	148749	2.0	13.6546	1.1	1.78686	1.39	0.17696	0.84	0.61	1050	8	1041	9	1020
K1252NAN1-56	90	35903	4.3	13.6483	1.3	1.78097	2.31	0.17629	1.93	0.83	1047	19	1039	15	1021
K1252NAN1-14	33	31664	1.2	13.6388	6.8	1.72312	7.24	0.17045	2.38	0.33	1015	22	1017	47	1023
K1252NAN1-87	189	267264	2.0	13.6222	0.6	1.77659	1.13	0.17552	0.93	0.83	1042	9	1037	7	1025
K1252NAN1-104	142	65275	2.8	13.6144	0.5	1.75606	1.10	0.17339	0.99	0.90	1031	9	1029	7	1026
K1252NAN1-3	185	87832	3.0	13.5995	0.9	1.80881	1.82	0.17841	1.59	0.88	1058	16	1049	12	1029
K1252NAN1-30	111	64085	2.6	13.5477	1.7	1.84435	2.10	0.18122	1.15	0.55	1074	11	1061	14	1036
K1252NAN1-108	111	151335	2.2	13.5429	1.6	1.77647	2.02	0.17449	1.24	0.61	1037	12	1037	13	1037
K1252NAN1-84	177	170748	2.2	13.5038	0.6	1.78810	1.04	0.17512	0.87	0.83	1040	8	1041	7	1043
K1252NAN1-81	79	66135	1.6	13.4650	2.4	1.79355	2.59	0.17515	0.91	0.35	1040	9	1043	17	1049

K1252NAN1-47	31	14720	1.2	13.4610	3.1	1.82519	3.59	0.17819	1.87	0.52	1057	18	1055	24	1049
K1252NAN1-82	107	68964	0.8	13.4400	1.3	1.75397	1.46	0.17097	0.58	0.40	1017	5	1029	9	1052
K1252NAN1-68	87	93330	1.7	13.4252	1.9	1.76149	2.13	0.17151	0.91	0.43	1020	9	1031	14	1055
K1252NAN1-100	56	33569	1.6	13.4071	2.6	1.81801	2.95	0.17678	1.35	0.46	1049	13	1052	19	1057
K1252NAN1-61	82	58787	1.7	13.3944	1.8	1.79824	1.96	0.17469	0.77	0.39	1038	7	1045	13	1059
K1252NAN1-78	107	72754	1.6	13.3883	1.7	1.81261	2.08	0.17601	1.19	0.57	1045	11	1050	14	1060
K1252NAN1-93	75	51315	1.4	13.3137	1.7	1.91719	1.91	0.18512	0.78	0.41	1095	8	1087	13	1071
K1252NAN1-60	91	41574	30.6	13.3123	1.3	1.80697	1.83	0.17446	1.30	0.71	1037	12	1048	12	1072
K1252NAN1-22	73	35806	1.6	13.3078	2.6	1.87746	2.87	0.18121	1.11	0.39	1074	11	1073	19	1072
K1252NAN1-91	77	55235	2.0	13.2726	1.5	1.91527	1.81	0.18437	0.95	0.52	1091	10	1086	12	1078
K1252NAN1-63	63	84232	1.7	13.2552	2.0	1.88494	2.50	0.18121	1.53	0.61	1074	15	1076	17	1080
K1252NAN1-62	69	23742	1.6	13.2342	1.7	1.88970	1.83	0.18138	0.61	0.33	1075	6	1077	12	1083
K1252NAN1-45	39	39288	2.0	13.2194	3.0	1.87014	3.55	0.17930	1.96	0.55	1063	19	1071	24	1086
K1252NAN1-7	52	19017	1.5	13.2182	2.4	1.88892	2.92	0.18109	1.64	0.56	1073	16	1077	19	1086
K1252NAN1-70	52	31082	2.3	13.2116	1.7	1.88908	2.37	0.18101	1.63	0.69	1072	16	1077	16	1087
K1252NAN1-55	108	65183	2.1	13.1915	1.4	1.93660	1.87	0.18528	1.27	0.68	1096	13	1094	13	1090
K1252NAN1-106	23	16919	1.2	13.1725	6.9	1.88278	7.04	0.17987	1.42	0.20	1066	14	1075	47	1093
K1252NAN1-13	33	20390	1.2	13.1353	4.3	2.01191	4.62	0.19167	1.62	0.35	1130	17	1120	31	1099
K1252NAN1-66	60	63717	1.1	13.0286	2.0	1.95957	2.63	0.18516	1.68	0.64	1095	17	1102	18	1115
K1252NAN1-105	37	20830	1.8	13.0013	2.1	2.00669	2.75	0.18922	1.79	0.65	1117	18	1118	19	1119
K1252NAN1-58	48	50976	2.1	12.9794	2.0	2.07638	2.31	0.19546	1.15	0.50	1151	12	1141	16	1122
K1252NAN1-94	33	34780	2.8	12.9783	4.7	1.86619	5.01	0.17566	1.77	0.35	1043	17	1069	33	1123
K1252NAN1-23	48	54085	2.0	12.9628	1.9	2.09758	2.16	0.19720	0.96	0.45	1160	10	1148	15	1125
K1252NAN1-39	42	23480	2.1	12.9407	2.1	2.07982	2.55	0.19520	1.37	0.54	1149	14	1142	17	1128
K1252NAN1-77	46	26223	1.3	12.9315	3.1	2.01364	3.45	0.18886	1.51	0.44	1115	15	1120	23	1130
K1252NAN1-98	62	102991	2.3	12.8956	1.9	2.09503	2.16	0.19594	1.09	0.50	1153	11	1147	15	1135
K1252NAN1-95	49	30320	1.4	12.8809	2.0	2.17233	2.37	0.20294	1.32	0.56	1191	14	1172	16	1138
K1252NAN1-51	12	8951	1.9	12.8652	9.7	2.06679	10.18	0.19285	3.03	0.30	1137	32	1138	70	1140
K1252NAN1-12	104	72613	1.9	12.8170	1.1	2.12402	1.18	0.19744	0.49	0.42	1162	5	1157	8	1147
K1252NAN1-17	95	65614	1.9	12.8104	1.2	2.14695	1.43	0.19947	0.83	0.58	1172	9	1164	10	1148
K1252NAN1-41	27	16095	1.1	12.7910	5.6	2.11460	5.85	0.19617	1.55	0.27	1155	16	1154	40	1151
K1252NAN1-21	33	31968	1.4	12.7830	4.3	2.13424	4.60	0.19787	1.49	0.32	1164	16	1160	32	1153
K1252NAN1-72	44	34446	0.8	12.7810	2.6	2.16151	2.90	0.20036	1.20	0.41	1177	13	1169	20	1153
K1252NAN1-18	91	63650	2.3	12.7684	1.7	2.11557	2.46	0.19591	1.74	0.71	1153	18	1154	17	1155
K1252NAN1-92	50	55340	2.7	12.7503	2.5	2.10990	2.80	0.19511	1.28	0.46	1149	13	1152	19	1158
K1252NAN1-53	56	59058	1.0	12.7409	2.0	2.14793	2.18	0.19848	0.82	0.38	1167	9	1164	15	1159
K1252NAN1-46	184	128499	2.7	12.7191	0.4	2.18721	1.27	0.20177	1.20	0.94	1185	13	1177	9	1163

K1252NAN1-83	209	158253	2.0	12.7097	0.4	2.16625	0.86	0.19968	0.74	0.86	1174	8	1170	6	1164
K1252NAN1-75	58	39197	0.9	12.6922	1.2	2.21545	2.26	0.20394	1.95	0.86	1196	21	1186	16	1167
K1252NAN1-15	54	38120	2.0	12.6872	3.0	2.13673	3.35	0.19661	1.48	0.44	1157	16	1161	23	1168
K1252NAN1-26	73	47542	2.9	12.6738	2.4	2.17128	2.79	0.19958	1.46	0.52	1173	16	1172	19	1170
K1252NAN1-10	80	70005	2.5	12.6486	2.2	2.18191	2.29	0.20016	0.79	0.35	1176	9	1175	16	1174
K1252NAN1-59	124	107049	1.3	12.6082	1.0	2.11309	1.68	0.19323	1.36	0.81	1139	14	1153	12	1180
K1252NAN1-99	119	81456	1.4	12.5894	0.8	2.26668	2.03	0.20696	1.87	0.93	1213	21	1202	14	1183
K1252NAN1-97	73	51942	2.6	12.5132	1.3	2.24897	1.57	0.20410	0.86	0.55	1197	9	1196	11	1195
K1252NAN1-87	132	173035	1.6	12.5005	0.9	2.25269	1.29	0.20423	0.95	0.73	1198	10	1198	9	1197
K1252NAN1-85	35	14158	0.6	12.4696	4.6	2.29332	4.85	0.20740	1.40	0.29	1215	15	1210	34	1202
K1252NAN1-16	36	27785	1.4	12.3852	3.7	2.05862	5.00	0.18492	3.35	0.67	1094	34	1135	34	1215
K1252NAN1-96	35	21792	2.7	12.3629	4.6	2.06014	5.47	0.18472	2.89	0.53	1093	29	1136	37	1219
K1252NAN1-42	116	84459	2.7	12.3409	0.7	2.32541	1.04	0.20813	0.76	0.73	1219	8	1220	7	1222
K1252NAN1-34	74	96430	0.6	12.1718	1.3	2.36885	1.50	0.20912	0.73	0.49	1224	8	1233	11	1249
K1252NAN1-54	205	101670	3.0	12.1584	0.6	2.40047	2.24	0.21168	2.16	0.97	1238	24	1243	16	1251
K1252NAN1-79	159	159513	2.7	12.0411	0.9	2.53266	1.76	0.22118	1.48	0.84	1288	17	1281	13	1270
K1252NAN1-101	61	45458	1.4	11.7717	0.9	2.61437	1.34	0.22321	0.96	0.72	1299	11	1305	10	1314
K1252NAN1-40	82	72856	1.6	11.6921	0.8	2.69011	1.93	0.22812	1.76	0.91	1325	21	1326	14	1328
K1252NAN1-109	22	60077	0.7	11.4109	2.7	2.83742	2.91	0.23482	1.03	0.36	1360	13	1365	22	1374
K1252NAN1-38	56	59618	2.3	11.3577	1.0	2.86924	2.66	0.23635	2.49	0.93	1368	31	1374	20	1383
K1252NAN1-80	76	44620	2.3	11.3392	1.2	2.94735	1.88	0.24239	1.41	0.75	1399	18	1394	14	1387
K1252NAN1-24	31	38763	1.0	11.3332	2.5	2.88799	3.35	0.23738	2.18	0.65	1373	27	1379	25	1388
K1252NAN1-33	38	30529	1.0	11.2044	3.1	2.94056	3.45	0.23896	1.47	0.42	1381	18	1392	26	1410
K1252NAN1-5	52	56054	1.9	11.2009	1.5	2.98886	1.84	0.24280	1.08	0.58	1401	14	1405	14	1410
K1252NAN1-1	54	38899	1.8	11.1807	1.6	3.05591	2.24	0.24780	1.58	0.71	1427	20	1422	17	1414
K1252NAN1-29	133	100336	1.8	10.9842	0.6	3.19870	1.20	0.25482	1.03	0.86	1463	13	1457	9	1447
K1252NAN1-107	80	73982	2.4	10.9444	1.1	3.23547	1.42	0.25682	0.84	0.59	1474	11	1466	11	1454
K1252NAN1-2	68	25608	2.3	10.8663	1.5	3.34337	1.88	0.26349	1.13	0.60	1508	15	1491	15	1468
K1252NAN1-57	232	355293	2.3	10.8062	0.3	3.30335	1.02	0.25890	0.97	0.95	1484	13	1482	8	1478
K1252NAN1-64	81	76648	1.6	10.7804	1.2	3.28044	1.68	0.25649	1.22	0.73	1472	16	1476	13	1483
K1252NAN1-9	57	2443	1.2	10.6659	6.4	3.13447	7.09	0.24247	3.09	0.44	1400	39	1441	55	1503
K1252NAN1-88	45	51708	1.0	9.9234	1.4	4.04285	1.87	0.29097	1.25	0.67	1646	18	1643	15	1638
K1252NAN1-67	155	156990	1.4	9.8979	0.9	3.92084	1.46	0.28146	1.16	0.79	1599	16	1618	12	1643
K1252NAN1-76	42	55451	1.6	9.8759	1.8	4.22306	2.49	0.30248	1.74	0.70	1704	26	1679	20	1647
K1252NAN1-19	10	11920	0.9	9.6581	4.7	4.10142	5.85	0.28729	3.46	0.59	1628	50	1655	48	1689
K1252NAN1-11	52	65391	1.1	9.0776	0.7	5.00324	1.27	0.32940	1.04	0.82	1835	17	1820	11	1802
K1252NAN1-110	57	108143	0.9	8.9047	0.7	5.12567	1.73	0.33103	1.59	0.92	1843	25	1840	15	1837

K1252NAN1-4	116	160794	1.2	8.8960	0.5	5.21329	1.04	0.33636	0.89	0.85	1869	14	1855	9	1839
K1252NAN1-37	25	50476	0.6	8.8222	1.7	5.38928	2.77	0.34483	2.16	0.78	1910	36	1883	24	1854
K1252NAN1-50	68	74877	1.5	8.2265	0.7	6.04598	1.12	0.36073	0.86	0.77	1986	15	1982	10	1979
K1252NAN1-31	72	220343	1.3	5.5081	0.5	12.96678	1.24	0.51800	1.15	0.92	2691	25	2677	12	2667
K1252NAN1-69	26	55788	0.8	5.4980	0.7	12.89879	1.44	0.51434	1.26	0.88	2675	28	2672	14	2670
K1252NAN1-27	76	137264	0.3	5.4323	0.3	13.50590	3.22	0.53212	3.20	1.00	2750	72	2716	30	2690
K1252NAN1-43	121	14311	1.4	5.3624	0.6	13.15623	1.05	0.51167	0.85	0.81	2664	18	2691	10	2711
K1252NAN1-35	51	214128	0.7	5.3205	0.6	13.69974	1.30	0.52864	1.17	0.90	2736	26	2729	12	2724
K1252NAN2 (Nankoweap)															
K1252NAN2-108	46	29988	2.2	14.0294	2.7	1.60759	3.26	0.16357	1.77	0.54	977	16	973	20	965
K1252NAN2-27	70	53979	1.8	14.0052	2.5	1.61042	2.84	0.16358	1.39	0.49	977	13	974	18	969
K1252NAN2-106	16	11876	0.7	13.9941	9.4	1.67674	9.84	0.17018	2.93	0.30	1013	27	1000	63	971
K1252NAN2-42	154	128411	1.9	13.9785	1.2	1.58935	1.50	0.16113	0.86	0.58	963	8	966	9	973
K1252NAN2-29	67	38686	1.8	13.8276	2.1	1.68296	3.66	0.16878	2.97	0.81	1005	28	1002	23	995
K1252NAN2-58	27	17416	1.6	13.8112	6.3	1.74064	6.79	0.17436	2.47	0.36	1036	24	1024	44	997
K1252NAN2-28	125	65556	2.1	13.7570	1.4	1.70602	2.03	0.17022	1.44	0.71	1013	14	1011	13	1005
K1252NAN2-50	102	60808	1.8	13.7410	2.1	1.69987	2.69	0.16941	1.68	0.63	1009	16	1008	17	1008
K1252NAN2-63	33	24075	2.2	13.7405	6.2	1.72941	6.46	0.17235	1.64	0.25	1025	16	1020	42	1008
K1252NAN2-60	96	40780	1.5	13.7311	1.0	1.69642	1.32	0.16894	0.83	0.63	1006	8	1007	8	1009
K1252NAN2-15	64	36688	0.7	13.6884	2.8	1.72485	3.87	0.17124	2.64	0.68	1019	25	1018	25	1015
K1252NAN2-110	70	57846	1.1	13.6237	2.9	1.74834	3.14	0.17275	1.14	0.36	1027	11	1027	20	1025
K1252NAN2-3	63	25962	1.6	13.5994	4.6	1.78100	5.77	0.17566	3.55	0.62	1043	34	1039	38	1029
K1252NAN2-86	153	149360	2.1	13.5460	0.8	1.75218	1.63	0.17214	1.40	0.86	1024	13	1028	11	1037
K1252NAN2-103	132	56603	3.8	13.5386	1.6	1.79392	2.00	0.17615	1.16	0.58	1046	11	1043	13	1038
K1252NAN2-94	29	14765	1.6	13.4805	4.8	1.82037	5.11	0.17798	1.73	0.34	1056	17	1053	34	1046
K1252NAN2-78	76	49671	2.4	13.4050	2.4	1.83805	2.69	0.17870	1.14	0.42	1060	11	1059	18	1058
K1252NAN2-8	91	88484	1.9	13.3898	1.4	1.89098	2.24	0.18364	1.74	0.78	1087	17	1078	15	1060
K1252NAN2-56	43	63918	1.6	13.3426	4.3	1.86911	4.73	0.18087	1.98	0.42	1072	20	1070	31	1067
K1252NAN2-85	112	64669	2.2	13.3348	1.0	1.86582	1.40	0.18045	0.98	0.70	1069	10	1069	9	1068
K1252NAN2-44	79	49764	1.4	13.3247	2.3	1.86164	2.50	0.17991	1.00	0.40	1066	10	1068	16	1070
K1252NAN2-72	58	43268	0.8	13.3115	2.7	1.86184	3.04	0.17975	1.30	0.43	1066	13	1068	20	1072
K1252NAN2-43	120	20856	2.0	13.2974	1.6	1.80203	1.92	0.17379	1.06	0.55	1033	10	1046	13	1074
K1252NAN2-104	186	147121	1.6	13.2959	0.4	1.90005	0.80	0.18322	0.69	0.86	1085	7	1081	5	1074
K1252NAN2-13	137	69654	2.2	13.2958	0.8	1.89775	1.99	0.18300	1.81	0.91	1083	18	1080	13	1074

K1252NAN2-65	192	98477	2.0	13.2911	0.8	1.86110	1.31	0.17940	1.02	0.78	1064	10	1067	9	1075
K1252NAN2-67	144	150042	3.1	13.2894	1.2	1.82397	1.75	0.17580	1.30	0.74	1044	13	1054	11	1075
K1252NAN2-25	101	43609	2.2	13.2856	1.2	1.84225	1.46	0.17751	0.90	0.61	1053	9	1061	10	1076
K1252NAN2-105	67	39220	1.2	13.2848	1.5	1.90763	1.86	0.18380	1.10	0.59	1088	11	1084	12	1076
K1252NAN2-75	35	24539	1.4	13.2747	4.5	1.87322	4.88	0.18035	1.99	0.41	1069	20	1072	32	1077
K1252NAN2-5	126	86521	1.3	13.2699	1.0	1.91937	2.92	0.18472	2.73	0.94	1093	27	1088	19	1078
K1252NAN2-18	126	83826	1.1	13.2556	1.3	1.90128	2.03	0.18279	1.59	0.78	1082	16	1082	14	1080
K1252NAN2-107	123	97685	2.1	13.2043	1.5	1.92736	1.77	0.18458	0.93	0.52	1092	9	1091	12	1088
K1252NAN2-88	40	5579	1.0	13.2035	4.7	1.88566	8.18	0.18057	6.71	0.82	1070	66	1076	54	1088
K1252NAN2-53	207	123036	1.7	13.1065	1.0	1.96200	1.64	0.18650	1.28	0.78	1102	13	1103	11	1103
K1252NAN2-55	127	92888	0.9	13.1052	1.8	1.91730	2.52	0.18224	1.77	0.70	1079	18	1087	17	1103
K1252NAN2-35	88	60821	0.9	13.0987	0.8	1.96080	2.38	0.18628	2.23	0.93	1101	23	1102	16	1104
K1252NAN2-22	99	85164	0.8	13.0555	1.4	1.94369	1.79	0.18404	1.12	0.62	1089	11	1096	12	1111
K1252NAN2-69	77	36968	0.7	13.0446	2.9	1.85734	3.96	0.17572	2.67	0.67	1044	26	1066	26	1112
K1252NAN2-33	53	44580	1.3	13.0330	3.0	1.90830	3.75	0.18038	2.20	0.59	1069	22	1084	25	1114
K1252NAN2-11	20	9569	1.2	12.9676	6.6	2.02017	6.71	0.19000	1.30	0.19	1121	13	1122	46	1124
K1252NAN2-32	52	42297	1.6	12.9570	3.1	2.06262	3.15	0.19383	0.75	0.24	1142	8	1136	22	1126
K1252NAN2-47	39	44103	2.4	12.9518	5.9	1.90745	6.25	0.17918	2.07	0.33	1062	20	1084	42	1127
K1252NAN2-101	72	33566	1.8	12.9478	1.9	2.04183	2.07	0.19174	0.76	0.37	1131	8	1130	14	1127
K1252NAN2-109	66	11608	1.4	12.9381	2.6	1.95274	3.91	0.18324	2.90	0.74	1085	29	1099	26	1129
K1252NAN2-16	84	53804	1.1	12.9235	2.3	2.10331	2.58	0.19714	1.18	0.46	1160	13	1150	18	1131
K1252NAN2-79	43	30426	1.0	12.9167	2.8	2.09904	2.96	0.19664	0.86	0.29	1157	9	1148	20	1132
K1252NAN2-93	82	89958	2.4	12.9009	1.7	2.11439	2.32	0.19783	1.57	0.68	1164	17	1154	16	1134
K1252NAN2-46	117	137747	2.7	12.8767	1.0	2.08579	1.34	0.19479	0.85	0.64	1147	9	1144	9	1138
K1252NAN2-23	68	30511	0.6	12.8334	1.7	2.10755	4.40	0.19616	4.05	0.92	1155	43	1151	30	1145
K1252NAN2-36	126	75141	2.4	12.7748	0.7	2.12193	1.63	0.19660	1.45	0.89	1157	15	1156	11	1154
K1252NAN2-24	49	33895	1.4	12.7588	3.1	1.95672	3.88	0.18107	2.30	0.59	1073	23	1101	26	1156
K1252NAN2-95	171	92287	2.7	12.7524	0.6	2.15231	2.96	0.19907	2.90	0.98	1170	31	1166	21	1157
K1252NAN2-37	57	55198	0.9	12.6612	3.7	2.12282	3.99	0.19493	1.57	0.39	1148	17	1156	28	1172
K1252NAN2-76	96	92442	0.9	12.6219	0.6	2.19788	0.91	0.20120	0.68	0.75	1182	7	1180	6	1178
K1252NAN2-83	179	133418	1.0	12.6148	0.7	2.18652	1.20	0.20005	0.99	0.82	1176	11	1177	8	1179
K1252NAN2-7	85	36051	3.0	12.6066	1.4	2.22372	2.38	0.20332	1.91	0.80	1193	21	1189	17	1180
K1252NAN2-68	121	66515	1.4	12.5873	1.0	2.18169	1.19	0.19917	0.60	0.51	1171	6	1175	8	1183
K1252NAN2-97	43	23829	1.9	12.5806	3.9	2.15340	4.49	0.19648	2.25	0.50	1156	24	1166	31	1184
K1252NAN2-52	112	62017	1.6	12.5349	1.4	2.24535	1.67	0.20413	0.97	0.58	1197	11	1195	12	1191
K1252NAN2-99	123	54031	1.3	12.5021	1.5	2.25564	1.98	0.20453	1.24	0.63	1200	14	1199	14	1197
K1252NAN2-10	65	39661	1.4	12.4747	2.6	2.20936	3.25	0.19989	2.00	0.62	1175	22	1184	23	1201

K1252NAN2-64	205	336313	5.2	12.3911	0.7	2.29620	1.50	0.20636	1.35	0.90	1209	15	1211	11	1214
K1252NAN2-98	156	2002	1.5	12.3828	3.1	2.15274	3.22	0.19333	0.82	0.26	1139	9	1166	22	1216
K1252NAN2-81	61	33491	0.5	12.3817	1.9	2.24111	2.18	0.20125	1.15	0.53	1182	12	1194	15	1216
K1252NAN2-61	100	67417	2.1	12.3713	0.7	2.33658	1.56	0.20965	1.37	0.88	1227	15	1223	11	1217
K1252NAN2-12	28	28427	0.5	12.2565	4.1	2.32135	4.48	0.20635	1.85	0.41	1209	20	1219	32	1236
K1252NAN2-31	57	47998	1.4	12.1990	1.9	2.40568	2.36	0.21284	1.34	0.57	1244	15	1244	17	1245
K1252NAN2-48	120	140878	1.8	12.1673	0.8	2.37825	1.34	0.20987	1.08	0.81	1228	12	1236	10	1250
K1252NAN2-91	42	50200	1.2	11.3342	1.7	2.88742	2.54	0.23736	1.88	0.74	1373	23	1379	19	1387
K1252NAN2-4	29	17823	1.9	11.2154	1.7	2.93122	2.29	0.23843	1.59	0.69	1379	20	1390	17	1408
K1252NAN2-77	121	83377	1.6	11.1971	1.1	3.04008	2.55	0.24688	2.28	0.89	1422	29	1418	19	1411
K1252NAN2-40	132	74182	2.0	11.1831	0.9	2.98888	2.05	0.24242	1.86	0.91	1399	23	1405	16	1413
K1252NAN2-102	108	293986	2.4	10.9937	0.7	3.16134	1.14	0.25207	0.87	0.76	1449	11	1448	9	1446
K1252NAN2-70	36	44235	1.0	10.9924	2.8	3.04746	2.88	0.24296	0.55	0.19	1402	7	1420	22	1446
K1252NAN2-9	33	29305	1.7	10.9794	3.9	3.17784	4.33	0.25305	1.79	0.41	1454	23	1452	33	1448
K1252NAN2-41	94	73430	1.2	10.9725	0.6	3.07957	1.30	0.24507	1.15	0.88	1413	15	1428	10	1449
K1252NAN2-80	72	51355	1.1	10.9612	1.0	3.16161	2.30	0.25134	2.04	0.89	1445	26	1448	18	1451
K1252NAN2-17	52	31111	1.0	10.9351	2.3	3.11786	2.62	0.24727	1.25	0.48	1424	16	1437	20	1456
K1252NAN2-38	45	38629	1.4	10.8478	1.1	3.24072	2.26	0.25497	1.98	0.88	1464	26	1467	18	1471
K1252NAN2-1	152	98727	2.4	10.7845	0.7	3.32906	1.21	0.26039	1.01	0.84	1492	13	1488	9	1482
K1252NAN2-2	77	45705	1.0	10.7738	2.2	3.25036	3.10	0.25398	2.15	0.69	1459	28	1469	24	1484
K1252NAN2-19	70	72954	0.9	10.7629	1.2	3.23781	2.01	0.25274	1.60	0.79	1453	21	1466	16	1486
K1252NAN2-26	101	28304	1.1	10.0913	0.9	3.79428	2.11	0.27770	1.91	0.90	1580	27	1592	17	1607
K1252NAN2-74	112	129420	0.7	10.0048	0.9	3.92937	1.17	0.28512	0.70	0.60	1617	10	1620	9	1623
K1252NAN2-73	83	103869	1.0	9.9591	0.7	4.01805	1.09	0.29022	0.83	0.76	1643	12	1638	9	1632
K1252NAN2-71	68	104964	1.0	9.6587	0.6	4.18275	2.61	0.29301	2.54	0.97	1657	37	1671	21	1688
K1252NAN2-39	99	71536	1.0	9.6247	1.1	4.03068	2.36	0.28136	2.07	0.87	1598	29	1640	19	1695
K1252NAN2-21	132	104952	3.3	9.4021	0.5	4.47738	1.45	0.30532	1.36	0.93	1718	20	1727	12	1738
K1252NAN2-49	46	52463	0.9	9.3386	1.4	4.57031	2.45	0.30955	2.02	0.82	1738	31	1744	20	1750
K1252NAN2-100	53	65918	0.5	8.9537	0.8	5.12086	1.82	0.33254	1.65	0.91	1851	26	1840	15	1827
K1252NAN2-87	24	30779	0.9	8.9527	1.8	4.99476	2.96	0.32431	2.37	0.80	1811	37	1818	25	1827
K1252NAN2-90	88	80656	2.9	8.8390	0.5	5.18181	0.90	0.33219	0.76	0.85	1849	12	1850	8	1850
K1252NAN2-30	88	102030	1.6	8.8259	0.7	5.26375	2.23	0.33694	2.12	0.95	1872	34	1863	19	1853
K1252NAN2-34	40	31380	2.5	8.8207	1.5	5.26178	2.22	0.33662	1.66	0.75	1870	27	1863	19	1854
K1252NAN2-45	100	102927	0.9	8.6945	0.5	5.25521	0.94	0.33138	0.80	0.85	1845	13	1862	8	1880
K1252NAN2-84	60	198156	0.7	8.6846	1.3	5.28373	1.42	0.33280	0.56	0.39	1852	9	1866	12	1882
K1252NAN2-89	60	71744	0.8	8.6830	1.0	5.34755	2.70	0.33676	2.48	0.92	1871	40	1876	23	1882
K1252NAN2-14	70	96262	0.5	8.6445	0.7	5.42228	3.75	0.33995	3.69	0.98	1886	60	1888	32	1890

K1252NAN2-57	110	112329	0.6	8.5369	0.4	5.59674	1.69	0.34652	1.65	0.98	1918	27	1916	15	1913
K1252NAN2-6	64	101799	0.9	8.1125	0.8	6.29454	2.47	0.37035	2.33	0.94	2031	41	2018	22	2004
K1252NAN2-51	95	202045	1.6	8.0750	0.7	6.22248	1.05	0.36442	0.79	0.75	2003	14	2008	9	2012
K1252NAN2-82	62	124161	1.1	8.0474	0.8	6.24551	1.43	0.36452	1.21	0.85	2004	21	2011	12	2018
K1252NAN2-92	41	69457	1.8	7.3416	0.7	7.40997	1.32	0.39455	1.11	0.84	2144	20	2162	12	2180
K1252NAN2-62	65	163677	0.8	5.6272	0.4	12.15558	2.09	0.49610	2.05	0.98	2597	44	2616	20	2632
K1252NAN2-54	96	135308	1.1	5.5083	0.5	12.54201	2.01	0.50105	1.96	0.97	2618	42	2646	19	2667
K1252NAN2-96	104	183254	0.7	5.4201	0.2	13.36242	1.13	0.52528	1.10	0.98	2722	24	2706	11	2694
K1252NAN2-20	83	181570	0.8	5.3384	0.3	13.52386	0.99	0.52361	0.96	0.97	2714	21	2717	9	2719
K00-53-3 Nankoweap Formation (Timmons et al., 2005)															
	12	2999	2.2			1.77883	4.96	0.17878	0.74	0.15	1060	9	1038	86	991
	24	4410	1.8			1.58437	1.66	0.15801	0.90	0.54	946	9	964	26	1006
	20	6517	1.5			1.70776	2.03	0.16881	0.69	0.34	1006	8	1011	35	1024
	17	5724	3.0			1.76141	3.06	0.17249	0.90	0.29	1026	10	1031	53	1043
	23	12588	1.2			1.85061	2.69	0.18118	0.67	0.25	1073	8	1064	49	1044
	5	1542	1.3			1.50297	8.33	0.14630	1.42	0.17	880	13	932	120	1055
	46	16771	3.2			1.79796	1.68	0.17504	0.85	0.51	1040	10	1045	30	1055
	29	138712	2.8			1.75763	2.70	0.17031	0.95	0.35	1014	10	1030	47	1064
	46	1328	3.8			1.55234	1.62	0.15029	1.01	0.62	903	10	951	25	1066
	9	4141	2.3			1.85246	5.54	0.17913	1.11	0.20	1062	13	1064	99	1069
	18	4421	3.3			1.84959	2.67	0.17812	1.37	0.51	1057	16	1063	49	1077
	12	2337	1.7			1.84157	2.79	0.17717	0.85	0.30	1052	10	1060	51	1079
	9	2349	3.8			1.75797	5.68	0.16883	2.12	0.37	1006	23	1030	97	1082
	19	2310	2.8			1.84989	3.25	0.17762	0.65	0.20	1054	7	1063	59	1083
	23	6650	2.7			1.67056	2.21	0.16013	1.05	0.47	958	11	997	37	1086
	22	2515	4.3			1.79896	3.62	0.17199	2.17	0.60	1023	24	1045	64	1091
	17	4281	4.0			1.91983	4.35	0.18346	2.94	0.68	1086	35	1088	81	1092
	50	6979	4.2			1.88378	1.06	0.17975	0.63	0.60	1066	7	1075	20	1095
	57	24666	3.3			1.81720	0.93	0.17338	0.72	0.78	1031	8	1052	17	1095
	34	10526	2.7			1.80434	1.31	0.17224	0.51	0.39	1024	6	1047	24	1095
	6	15986	2.0			1.78597	7.13	0.17014	1.57	0.22	1013	17	1040	122	1098
	27	34459	1.5			1.83446	1.57	0.17426	1.14	0.73	1036	13	1058	29	1104
	10	4855	1.2			1.94965	4.67	0.18484	1.49	0.32	1093	18	1098	89	1108
	8	11633	1.5			1.92282	3.37	0.18221	0.82	0.24	1079	10	1089	64	1109

	9	4248	2.3			1.98455	4.71	0.18794	0.72	0.15	1110	9	1110	91	1110
	25	2307	10.7			1.98810	2.79	0.18804	1.88	0.67	1111	23	1112	55	1113
	42	2420	2.0			1.81192	2.08	0.17064	0.75	0.36	1016	8	1050	38	1122
	5	2537	4.3			2.02783	6.42	0.19080	4.08	0.64	1126	50	1125	124	1123
	9	6147	1.5			2.02479	5.48	0.18971	1.03	0.19	1120	13	1124	107	1132
	11	806	4.3			1.85207	4.14	0.17267	2.42	0.59	1027	27	1064	75	1142
	23	8375	1.0			1.97716	1.81	0.18426	0.55	0.30	1090	7	1108	36	1142
	8	3772	1.8			2.11928	3.65	0.19693	1.80	0.49	1159	23	1155	76	1148
	37	3597	4.5			1.67788	2.06	0.15582	1.37	0.66	934	14	1000	35	1149
	61	6416	6.0			1.89413	0.96	0.17549	0.55	0.57	1042	6	1079	18	1154
	30	1553	5.7			2.12963	2.36	0.19652	0.91	0.39	1157	12	1159	50	1162
	22	28531	1.5			1.92026	1.35	0.17665	0.82	0.61	1049	9	1088	26	1168
	64	13281	2.2			1.99360	1.12	0.18328	0.66	0.59	1085	8	1113	22	1169
	45	30412	2.0			2.08602	1.03	0.19166	0.80	0.78	1130	10	1144	22	1171
	53	5649	5.3			2.03473	1.42	0.18680	1.15	0.81	1104	14	1127	29	1172
	60	42013	4.0			1.93149	1.07	0.17727	0.85	0.79	1052	10	1092	21	1173
	71	4062	4.2			2.19091	1.41	0.20097	0.74	0.52	1181	10	1178	31	1174
	20	3852	1.5			1.85760	2.77	0.17040	0.76	0.28	1014	8	1066	51	1174
	14	4758	2.0			1.96087	3.99	0.17973	1.38	0.35	1066	16	1102	77	1175
	36	29948	2.2			2.06553	1.51	0.18928	0.84	0.56	1118	10	1138	31	1176
	13	4990	3.0			2.21739	3.85	0.20268	1.59	0.41	1190	21	1187	83	1181
	47	4540	2.8			1.94707	1.39	0.17787	0.83	0.60	1055	10	1097	27	1182
	29	23458	3.7			2.15797	2.01	0.19689	1.46	0.73	1159	19	1168	43	1184
	10	5399	2.7			2.14652	3.03	0.19585	1.25	0.41	1153	16	1164	64	1184
	16	5206	0.8			2.04381	2.47	0.18637	0.84	0.34	1102	10	1130	50	1185
	12	11937	2.3			2.15810	1.83	0.19677	0.74	0.41	1158	9	1168	39	1186
	13	4549	1.8			2.26837	2.73	0.20573	0.90	0.33	1206	12	1203	61	1196
	32	46298	1.5			2.14663	1.56	0.19459	1.25	0.80	1146	16	1164	34	1197
	16	3442	4.2			1.88592	2.82	0.17097	1.37	0.49	1018	15	1076	53	1197
	27	19523	2.0			2.22064	1.92	0.20085	0.97	0.51	1180	13	1188	42	1202
	31	4359	3.0			2.24140	1.40	0.20110	0.81	0.58	1181	11	1194	32	1217
	9	91620	3.0			2.38325	2.99	0.21014	0.88	0.29	1230	12	1238	70	1252
	13	10292	1.7			2.41604	4.37	0.21276	1.38	0.32	1244	19	1247	102	1254
	11	8935	4.7			2.39376	3.03	0.21021	0.48	0.16	1230	7	1241	71	1260
	38	2250	1.3			2.16600	1.17	0.18979	0.65	0.56	1120	8	1170	25	1264
	13	3040	4.0			2.45264	5.14	0.21408	2.61	0.51	1251	36	1258	121	1271
	35	14672	1.7			2.65857	1.10	0.22464	0.72	0.65	1306	10	1317	29	1334

	74	6419	3.0			2.45231	0.88	0.20468	0.64	0.73	1200	8	1258	22	1358
	17	9272	6.3			2.61727	2.15	0.21343	1.18	0.55	1247	16	1306	56	1403
	9	7948	1.5			2.69601	3.46	0.21970	1.36	0.39	1280	19	1327	91	1404
	16	10060	2.2			2.69008	1.47	0.21795	0.97	0.66	1271	14	1326	39	1415
	15	11669	2.8			2.95029	2.36	0.23859	1.24	0.53	1379	19	1395	68	1419
	46	19016	1.5			2.92561	0.84	0.23573	0.70	0.83	1365	11	1389	25	1426
	6	60447	1.7			2.93142	5.90	0.23513	1.14	0.19	1361	17	1390	162	1434
	27	17207	1.7			2.71732	2.45	0.21635	1.67	0.68	1263	23	1333	66	1449
	49	3205	2.3			2.79671	0.87	0.22214	0.70	0.81	1293	10	1355	24	1453
	13	2590	0.8			3.83759	2.10	0.27306	0.92	0.44	1556	16	1601	79	1660
	9	11495	0.8			3.97799	2.67	0.28183	0.62	0.23	1601	11	1630	103	1668
	35	1260	0.7			4.04818	2.43	0.28645	0.83	0.34	1624	15	1644	95	1670
	16	21448	2.0			3.75546	1.80	0.26282	1.01	0.56	1504	17	1583	67	1690
	16	7564	1.8			3.93004	1.31	0.27209	0.69	0.53	1551	12	1620	51	1710
	23	34651	1.2			4.50705	1.08	0.30371	0.86	0.80	1710	17	1732	48	1760
	11	7124	1.3			4.69070	1.67	0.31574	0.68	0.41	1769	14	1766	77	1762
	18	7994	2.5			4.74093	1.39	0.31683	0.84	0.60	1774	17	1775	65	1775
	31	11029	1.8			4.52259	1.05	0.29996	0.88	0.84	1691	17	1735	47	1789
	24	30700	2.3			5.54387	1.05	0.33617	0.86	0.82	1868	19	1907	58	1950
	10	21028	1.5			6.47046	1.29	0.36920	0.66	0.51	2026	16	2042	81	2058
	7	7229	0.7			12.46534	1.41	0.49198	1.02	0.72	2579	32	2640	164	2687
	19	17818	2.3			12.31735	0.66	0.47974	0.58	0.88	2526	18	2629	80	2709
	22	27999	1.3			14.34762	1.08	0.52206	0.96	0.89	2708	32	2773	147	2821
	13	18197	2.5			15.21016	1.55	0.52810	1.21	0.78	2734	41	2829	215	2897
Upper Nankoweap															
Upper Nankoweap-52	61	10800	1.1	15.42511	1.64	1.14012	2.40	0.12755	1.76	0.73	774	13	773	13	769
Upper Nankoweap-15	604	7990	1.1	15.57698	2.53	1.13212	4.14	0.12790	3.28	0.79	776	24	769	22	748
Upper Nankoweap-31	39	6490	2.0	15.30554	2.32	1.15773	2.56	0.12851	1.07	0.42	779	8	781	14	785
Upper Nankoweap-63	30	5235	1.1	13.92333	2.23	1.63942	3.54	0.16555	2.75	0.78	988	25	985	22	981
Upper Nankoweap-93	109	30600	2.1	13.81668	1.84	1.66856	3.15	0.16720	2.56	0.81	997	24	997	20	997
Upper Nankoweap-77	93	24085	1.0	13.79218	4.52	1.69044	5.11	0.16910	2.39	0.47	1007	22	1005	33	1000
Upper Nankoweap-37	175	29520	3.8	13.50877	2.11	1.75782	2.52	0.17222	1.38	0.55	1024	13	1030	16	1042
Upper Nankoweap-43	286	45715	2.0	13.49818	3.08	1.80028	3.32	0.17624	1.24	0.37	1046	12	1046	22	1044
Upper Nankoweap-1	261	288890	3.1	13.49789	1.88	1.74660	2.13	0.17098	1.00	0.47	1018	9	1026	14	1044
Upper Nankoweap-36	211	39205	1.8	13.47912	2.47	1.82114	2.72	0.17803	1.13	0.42	1056	11	1053	18	1047

Upper Nankoweap-21	241	58945	2.9	13.46844	1.85	1.75133	2.10	0.17107	1.00	0.48	1018	9	1028	14	1048
Upper Nankoweap-55	132	30470	3.1	13.45658	2.54	1.80866	2.73	0.17652	1.00	0.37	1048	10	1049	18	1050
Upper Nankoweap-57	165	47095	3.0	13.39858	2.22	1.66112	2.62	0.16142	1.39	0.53	965	12	994	17	1059
Upper Nankoweap-80	38	8030	1.8	13.30251	2.69	1.75282	4.11	0.16911	3.11	0.76	1007	29	1028	27	1073
Upper Nankoweap-60	173	31105	1.9	13.28541	1.95	1.83688	2.56	0.17699	1.65	0.65	1051	16	1059	17	1076
Upper Nankoweap-58	135	32430	2.1	13.26442	2.26	1.92923	2.99	0.18560	1.96	0.66	1097	20	1091	20	1079
Upper Nankoweap-26	146	36260	1.3	13.21506	2.44	1.92941	2.64	0.18492	1.00	0.38	1094	10	1091	18	1086
Upper Nankoweap-73	219	34675	2.2	13.19202	1.65	1.83464	2.03	0.17553	1.19	0.58	1043	11	1058	13	1090
Upper Nankoweap-92	133	37190	1.9	13.17852	2.14	1.89631	2.42	0.18125	1.12	0.46	1074	11	1080	16	1092
Upper Nankoweap-59	332	83670	2.7	13.16865	1.22	1.86629	4.17	0.17825	3.99	0.96	1057	39	1069	28	1093
Upper Nankoweap-42	145	22075	2.0	13.15628	2.35	1.92653	3.42	0.18383	2.48	0.73	1088	25	1090	23	1095
Upper Nankoweap-95	318	53165	1.4	13.12524	2.04	1.65551	3.08	0.15759	2.31	0.75	943	20	992	20	1100
Upper Nankoweap-71	44	12425	2.2	13.11489	2.39	1.99807	2.65	0.19005	1.14	0.43	1122	12	1115	18	1102
Upper Nankoweap-82	146	43200	1.4	13.10753	2.45	1.88391	3.21	0.17909	2.07	0.65	1062	20	1075	21	1103
Upper Nankoweap-33	314	62385	3.4	13.10671	1.88	1.88902	2.58	0.17957	1.77	0.69	1065	17	1077	17	1103
Upper Nankoweap-79	286	80420	2.7	13.07960	3.56	1.83102	3.72	0.17369	1.09	0.29	1032	10	1057	24	1107
Upper Nankoweap-65	94	18075	0.6	13.07581	1.61	1.87800	2.60	0.17810	2.05	0.79	1057	20	1073	17	1108
Upper Nankoweap-76	162	40005	7.6	12.98697	2.30	1.94052	2.56	0.18278	1.12	0.44	1082	11	1095	17	1121
Upper Nankoweap-44	53	7430	0.8	12.97178	3.83	1.98002	4.73	0.18628	2.78	0.59	1101	28	1109	32	1124
Upper Nankoweap-14	102	26635	1.4	12.95652	2.18	1.97035	2.39	0.18515	1.00	0.42	1095	10	1105	16	1126
Upper Nankoweap-97	68	19450	2.1	12.94621	1.54	1.90619	2.81	0.17898	2.35	0.84	1061	23	1083	19	1127
Upper Nankoweap-85	152	29480	1.9	12.92804	2.74	1.98871	3.03	0.18647	1.29	0.43	1102	13	1112	20	1130
Upper Nankoweap-20	60	27585	2.6	12.89615	2.37	1.81722	2.74	0.16997	1.38	0.50	1012	13	1052	18	1135
Upper Nankoweap-68	204	124590	2.8	12.80977	1.28	2.13008	1.91	0.19790	1.42	0.74	1164	15	1159	13	1149
Upper Nankoweap-45	27	6020	1.7	12.76068	2.80	2.11842	2.98	0.19606	1.00	0.34	1154	11	1155	21	1156
Upper Nankoweap-9	33	47455	1.7	12.72044	2.27	2.17734	2.58	0.20088	1.21	0.47	1180	13	1174	18	1162
Upper Nankoweap-28	264	73080	1.9	12.71554	1.50	2.16016	2.45	0.19921	1.93	0.79	1171	21	1168	17	1163
Upper Nankoweap-7	36	40035	2.1	12.70209	2.85	2.09043	3.71	0.19258	2.37	0.64	1135	25	1146	25	1165
Upper Nankoweap-35	170	34700	2.3	12.69292	2.27	2.06316	4.45	0.18993	3.83	0.86	1121	39	1137	30	1167
Upper Nankoweap-67	276	75970	2.0	12.69161	1.00	2.17058	1.78	0.19980	1.47	0.83	1174	16	1172	12	1167
Upper Nankoweap-39	234	39725	2.2	12.67802	1.72	2.12361	2.07	0.19526	1.15	0.56	1150	12	1157	14	1169
Upper Nankoweap-17	64	23025	1.7	12.65982	3.79	2.06875	4.01	0.18995	1.30	0.32	1121	13	1139	27	1172
Upper Nankoweap-50	229	64065	2.5	12.60824	1.50	2.07290	2.05	0.18955	1.39	0.68	1119	14	1140	14	1180
Upper Nankoweap-27	183	52845	3.1	12.59876	2.89	2.13060	3.62	0.19468	2.18	0.60	1147	23	1159	25	1181
Upper Nankoweap-11	137	50390	2.7	12.57632	2.22	2.30335	2.45	0.21009	1.04	0.42	1229	12	1213	17	1185
Upper Nankoweap-47	100	24985	1.9	12.56986	2.66	2.19807	2.84	0.20039	1.00	0.35	1177	11	1180	20	1186
Upper Nankoweap-53	53	10260	2.3	12.51268	2.23	2.14623	3.03	0.19477	2.06	0.68	1147	22	1164	21	1195

Upper Nankoweap-81	316	75680	2.4	12.49062	1.20	2.24974	1.56	0.20381	1.00	0.64	1196	11	1197	11	1198
Upper Nankoweap-84	64	16905	1.7	12.46261	3.31	2.20333	3.55	0.19915	1.29	0.36	1171	14	1182	25	1203
Upper Nankoweap-86	253	55105	1.8	12.45830	1.51	2.08975	2.64	0.18882	2.16	0.82	1115	22	1145	18	1204
Upper Nankoweap-5	53	18825	2.3	12.45338	2.40	2.39797	2.62	0.21659	1.04	0.40	1264	12	1242	19	1204
Upper Nankoweap-56	476	17445	3.4	12.40342	2.11	2.27016	3.09	0.20422	2.26	0.73	1198	25	1203	22	1212
Upper Nankoweap-12	230	34980	2.7	12.39297	1.42	2.16787	1.74	0.19485	1.00	0.57	1148	11	1171	12	1214
Upper Nankoweap-48	229	8915	1.2	12.38644	1.97	2.28148	3.22	0.20496	2.54	0.79	1202	28	1207	23	1215
Upper Nankoweap-40	25	5345	1.8	12.38010	2.17	2.21171	2.82	0.19859	1.80	0.64	1168	19	1185	20	1216
Upper Nankoweap-75	261	48300	3.4	12.36235	2.32	2.27338	4.28	0.20383	3.60	0.84	1196	39	1204	30	1219
Upper Nankoweap-19	240	92395	1.5	12.34717	2.46	2.22854	2.78	0.19957	1.29	0.46	1173	14	1190	19	1221
Upper Nankoweap-22	278	74850	4.8	12.32362	1.62	2.21274	3.00	0.19777	2.52	0.84	1163	27	1185	21	1225
Upper Nankoweap-25	106	24770	1.1	12.30490	1.63	2.33503	2.21	0.20839	1.49	0.67	1220	17	1223	16	1228
Upper Nankoweap-87	161	28505	2.6	12.29479	2.18	2.33373	2.42	0.20810	1.05	0.43	1219	12	1223	17	1230
Upper Nankoweap-72	111	26455	1.7	12.20400	3.18	2.20061	3.37	0.19478	1.10	0.33	1147	12	1181	24	1244
Upper Nankoweap-34	126	26525	0.9	12.18791	2.15	2.47834	2.37	0.21907	1.00	0.42	1277	12	1266	17	1247
Upper Nankoweap-100	203	18530	0.9	12.13424	2.39	1.96614	2.71	0.17303	1.27	0.47	1029	12	1104	18	1255
Upper Nankoweap-89	377	60635	2.1	12.12336	1.58	2.27641	2.60	0.20016	2.06	0.79	1176	22	1205	18	1257
Upper Nankoweap-29	142	30925	2.8	12.08610	2.32	2.47993	2.53	0.21738	1.00	0.40	1268	12	1266	18	1263
Upper Nankoweap-18	21	14395	3.3	12.07946	2.72	2.30289	3.57	0.20175	2.31	0.65	1185	25	1213	25	1264
Upper Nankoweap-61	605	11740	2.4	12.06035	2.10	2.19074	3.47	0.19162	2.76	0.80	1130	29	1178	24	1267
Upper Nankoweap-88	394	63360	1.9	12.02412	2.18	2.36677	2.91	0.20640	1.93	0.66	1210	21	1233	21	1273
Upper Nankoweap-46	86	33245	2.3	11.83512	2.69	2.58625	2.87	0.22199	1.00	0.35	1292	12	1297	21	1304
Upper Nankoweap-78	181	68965	2.2	11.77157	1.65	2.63372	2.67	0.22486	2.10	0.79	1307	25	1310	20	1314
Upper Nankoweap-41	66	14585	1.0	11.73113	1.95	2.64790	2.36	0.22529	1.33	0.56	1310	16	1314	17	1321
Upper Nankoweap-4	331	45810	2.5	11.72018	2.59	2.35420	3.91	0.20011	2.93	0.75	1176	31	1229	28	1323
Upper Nankoweap-54	102	32780	3.8	11.58797	2.88	2.71687	4.30	0.22834	3.19	0.74	1326	38	1333	32	1345
Upper Nankoweap-6	209	712915	1.9	11.53473	3.99	2.57651	4.26	0.21555	1.50	0.35	1258	17	1294	31	1354
Upper Nankoweap-16	158	57585	1.3	11.40694	1.91	2.84889	2.89	0.23569	2.17	0.75	1364	27	1369	22	1375
Upper Nankoweap-3	315	383325	3.5	11.38801	3.50	2.81993	4.03	0.23291	1.99	0.49	1350	24	1361	30	1378
Upper Nankoweap-24	313	70465	2.0	11.15806	1.00	3.14104	2.28	0.25419	2.05	0.90	1460	27	1443	18	1417
Upper Nankoweap-49	90	35460	3.1	11.14100	2.68	3.02087	3.71	0.24409	2.57	0.69	1408	33	1413	28	1420
Upper Nankoweap-38	172	14720	1.8	11.12209	2.53	3.05771	3.48	0.24665	2.39	0.69	1421	30	1422	27	1424
Upper Nankoweap-74	129	31330	1.5	11.05308	1.54	3.07790	3.08	0.24674	2.67	0.87	1422	34	1427	24	1436
Upper Nankoweap-90	98	11455	1.2	11.03336	2.18	2.91013	2.47	0.23287	1.17	0.47	1350	14	1385	19	1439
Upper Nankoweap-32	288	35375	1.7	11.02393	3.32	3.04312	4.29	0.24331	2.72	0.63	1404	34	1419	33	1441
Upper Nankoweap-94	276	76670	2.9	10.84594	2.24	3.23729	2.67	0.25465	1.45	0.54	1462	19	1466	21	1471
Upper Nankoweap-96	247	67295	0.9	10.52730	1.49	3.50745	1.79	0.26780	1.00	0.56	1530	14	1529	14	1528

Upper Nankoweap-10	165	1033995	1.2	9.71847	1.60	4.11575	1.89	0.29010	1.00	0.53	1642	14	1657	15	1677
Upper Nankoweap-13	337	5675	1.1	9.39274	1.62	4.60626	3.26	0.31379	2.83	0.87	1759	44	1750	27	1740
Upper Nankoweap-91	494	2245	0.9	9.38157	2.64	4.39636	2.83	0.29914	1.00	0.35	1687	15	1712	23	1742
Upper Nankoweap-23	130	29985	1.7	9.19707	1.96	4.66000	2.67	0.31084	1.81	0.68	1745	28	1760	22	1778
Upper Nankoweap-66	194	107125	1.1	9.12309	1.13	4.89959	3.17	0.32419	2.96	0.93	1810	47	1802	27	1793
Upper Nankoweap-64	17	6730	0.8	9.08976	3.84	5.15528	4.21	0.33986	1.73	0.41	1886	28	1845	36	1800
Upper Nankoweap-69	265	16055	2.5	8.78827	1.49	4.42938	2.17	0.28232	1.58	0.73	1603	22	1718	18	1861
Upper Nankoweap-30	43	16560	0.5	8.75793	2.18	5.28841	3.11	0.33591	2.21	0.71	1867	36	1867	27	1867
Upper Nankoweap-2	196	197805	1.6	8.74074	2.58	5.13333	3.03	0.32542	1.59	0.52	1816	25	1842	26	1871
Upper Nankoweap-62	166	59825	1.2	8.71986	1.75	5.14432	2.38	0.32534	1.62	0.68	1816	26	1843	20	1875
Upper Nankoweap-51	191	85580	2.6	8.55947	2.46	5.48224	2.74	0.34033	1.21	0.44	1888	20	1898	24	1908
Upper Nankoweap-8	73	804015	0.8	8.54381	3.20	5.61963	3.39	0.34822	1.13	0.33	1926	19	1919	29	1912
Upper Nankoweap-98	111	39950	0.9	8.40752	2.03	5.01892	3.05	0.30604	2.27	0.75	1721	34	1823	26	1940
Upper Nankoweap-70	82	156250	0.8	8.39823	2.00	5.71260	2.24	0.34795	1.00	0.45	1925	17	1933	19	1942
Upper Nankoweap-99	163	164160	1.2	5.87660	2.18	11.17754	2.57	0.47640	1.37	0.53	2512	28	2538	24	2559
Upper Nankoweap-83	113	69825	1.7	5.15300	1.27	14.13088	1.85	0.52811	1.35	0.73	2734	30	2759	18	2777
Upper Nankoweap set #2															
Upper Nankoweap-12	100	37466	3.5	13.77736	2.67	1.75465	3.02	0.17533	1.41	0.47	1041	14	1029	20	1002
Upper Nankoweap-68	237	3557	2.7	13.63428	1.56	1.48612	2.31	0.14696	1.70	0.74	884	14	925	14	1023
Upper Nankoweap-23	398	1923	2.4	13.57369	1.37	1.26240	4.51	0.12428	4.30	0.95	755	31	829	26	1032
Upper Nankoweap-3	107	13248	1.4	13.44276	3.29	1.43441	4.73	0.13985	3.40	0.72	844	27	903	28	1052
Upper Nankoweap-77	76	50684	2.1	13.42202	1.91	1.78380	2.09	0.17365	0.85	0.40	1032	8	1040	14	1055
Upper Nankoweap-9	246	84730	3.2	13.39975	1.26	1.87181	1.79	0.18191	1.28	0.71	1077	13	1071	12	1059
Upper Nankoweap-2	112	12713	1.0	13.34826	2.42	1.54113	4.01	0.14920	3.19	0.80	896	27	947	25	1066
Upper Nankoweap-45	71	31937	1.6	13.33644	4.11	1.89639	4.40	0.18343	1.56	0.35	1086	16	1080	29	1068
Upper Nankoweap-80	353	47917	3.8	13.32889	0.43	1.83618	1.15	0.17750	1.06	0.93	1053	10	1058	8	1069
Upper Nankoweap-51	290	33248	2.9	13.31041	1.02	1.80653	1.47	0.17440	1.05	0.72	1036	10	1048	10	1072
Upper Nankoweap-32	153	139511	1.2	13.28196	2.34	1.83507	2.88	0.17677	1.69	0.59	1049	16	1058	19	1076
Upper Nankoweap-38	279	17127	1.1	13.25849	1.76	1.95714	6.86	0.18820	6.63	0.97	1112	68	1101	46	1080
Upper Nankoweap-59	106	58884	3.1	13.22612	2.05	1.85251	2.41	0.17770	1.26	0.53	1054	12	1064	16	1085
Upper Nankoweap-28	323	4275	3.2	13.16322	1.73	1.79020	2.84	0.17091	2.26	0.79	1017	21	1042	19	1094
Upper Nankoweap-34	161	4340	0.9	13.14312	2.69	1.94676	5.05	0.18557	4.28	0.85	1097	43	1097	34	1097
Upper Nankoweap-17	271	4594	1.1	13.07030	1.14	1.80524	6.16	0.17113	6.05	0.98	1018	57	1047	40	1108
Upper Nankoweap-66	201	1164	1.4	13.06428	3.14	1.65384	3.25	0.15670	0.85	0.26	938	7	991	21	1109

Upper Nankoweap-50	303	71951	2.8	13.05086	0.91	1.97019	1.17	0.18649	0.74	0.63	1102	7	1105	8	1111
Upper Nankoweap-78	88	47969	1.7	13.04929	3.79	1.89707	4.58	0.17954	2.57	0.56	1064	25	1080	30	1112
Upper Nankoweap-63	113	60135	2.2	12.96385	3.31	2.11275	17.13	0.19865	16.81	0.98	1168	180	1153	119	1125
Upper Nankoweap-46	123	35274	4.5	12.89841	1.90	1.99499	2.80	0.18663	2.05	0.73	1103	21	1114	19	1135
Upper Nankoweap-70	50	13678	1.9	12.84736	5.35	2.10946	5.51	0.19656	1.32	0.24	1157	14	1152	38	1143
Upper Nankoweap-7	257	3870	0.4	12.83606	7.26	1.78140	9.09	0.16584	5.46	0.60	989	50	1039	59	1144
Upper Nankoweap-75	321	190137	2.7	12.81493	1.08	2.12636	1.23	0.19763	0.60	0.48	1163	6	1157	9	1148
Upper Nankoweap-67	252	80149	5.2	12.71414	0.94	2.13244	1.55	0.19664	1.23	0.79	1157	13	1159	11	1163
Upper Nankoweap-14	136	69046	3.4	12.70820	1.52	2.16672	1.73	0.19970	0.82	0.48	1174	9	1170	12	1164
Upper Nankoweap-74	123	69450	1.3	12.68377	2.12	2.14926	2.46	0.19771	1.24	0.51	1163	13	1165	17	1168
Upper Nankoweap-48	163	3566	3.5	12.65854	0.75	2.03241	1.64	0.18659	1.46	0.89	1103	15	1126	11	1172
Upper Nankoweap-39	189	152539	2.2	12.58545	0.89	2.20858	1.31	0.20160	0.96	0.73	1184	10	1184	9	1184
Upper Nankoweap-71	129	55426	3.4	12.56389	1.59	2.23584	1.77	0.20373	0.78	0.44	1195	8	1192	12	1187
Upper Nankoweap-11	269	18110	2.6	12.55426	1.15	2.23140	1.40	0.20317	0.81	0.58	1192	9	1191	10	1188
Upper Nankoweap-41	87	41424	0.9	12.55346	2.21	2.29061	2.65	0.20855	1.47	0.55	1221	16	1209	19	1189
Upper Nankoweap-64	55	45585	0.9	12.51225	3.17	2.33844	3.59	0.21221	1.69	0.47	1241	19	1224	26	1195
Upper Nankoweap-18	55	17897	1.1	12.47235	3.70	2.31022	3.98	0.20898	1.46	0.37	1223	16	1215	28	1201
Upper Nankoweap-37	224	31428	2.1	12.38418	1.13	2.26117	3.43	0.20309	3.24	0.94	1192	35	1200	24	1215
Upper Nankoweap-56	118	95233	2.6	12.38357	2.46	2.40066	2.55	0.21561	0.66	0.26	1259	8	1243	18	1215
Upper Nankoweap-47	289	292952	2.5	12.37457	0.51	2.29865	0.88	0.20630	0.71	0.81	1209	8	1212	6	1217
Upper Nankoweap-79	127	30547	3.0	12.20515	1.23	2.41958	1.42	0.21418	0.69	0.49	1251	8	1248	10	1244
Upper Nankoweap-65	431	1141	1.7	12.06390	6.66	1.84109	7.02	0.16109	2.23	0.32	963	20	1060	46	1267
Upper Nankoweap-19	150	49189	1.6	12.00414	1.62	2.36644	2.36	0.20603	1.72	0.73	1208	19	1233	17	1276
Upper Nankoweap-58	300	7818	3.3	11.80326	0.97	2.59658	1.35	0.22228	0.94	0.69	1294	11	1300	10	1309
Upper Nankoweap-24	186	3407	4.0	11.75555	6.69	2.17745	9.16	0.18565	6.26	0.68	1098	63	1174	64	1317
Upper Nankoweap-27	191	6504	0.9	11.64991	0.95	2.31566	4.54	0.19566	4.44	0.98	1152	47	1217	32	1335
Upper Nankoweap-73	163	5868	2.5	11.64307	1.89	2.35146	7.52	0.19857	7.27	0.97	1168	78	1228	54	1336
Upper Nankoweap-62	411	2712	1.4	11.51270	10.05	2.35229	11.73	0.19641	6.05	0.52	1156	64	1228	84	1357
Upper Nankoweap-13	419	4158	1.9	11.46484	0.68	2.57117	1.49	0.21380	1.32	0.89	1249	15	1292	11	1365
Upper Nankoweap-36	265	790	1.2	11.43947	3.49	2.22406	3.96	0.18452	1.88	0.47	1092	19	1189	28	1370
Upper Nankoweap-76	97	76238	2.1	11.21488	1.69	2.98145	2.12	0.24251	1.27	0.60	1400	16	1403	16	1408
Upper Nankoweap-30	85	28685	3.4	11.00951	1.40	3.26596	1.58	0.26078	0.71	0.45	1494	10	1473	12	1443
Upper Nankoweap-35	126	12336	2.0	10.96987	1.78	3.17553	2.59	0.25265	1.88	0.73	1452	24	1451	20	1450
Upper Nankoweap-8	270	14491	0.6	10.86097	0.54	2.85203	5.62	0.22466	5.59	1.00	1306	66	1369	42	1469
Upper Nankoweap-72	114	21276	2.1	10.83733	0.89	3.24799	3.06	0.25529	2.93	0.96	1466	38	1469	24	1473
Upper Nankoweap-57	102	72714	2.2	9.11429	1.30	4.90493	2.17	0.32423	1.73	0.80	1810	27	1803	18	1795

Upper Nankoweap-69	89	72795	0.9	8.86591	1.14	5.18139	1.75	0.33317	1.34	0.76	1854	22	1850	15	1845
Upper Nankoweap-6	111	76088	3.9	8.83872	0.94	5.17739	1.56	0.33189	1.25	0.80	1848	20	1849	13	1850
Upper Nankoweap-5	132	58382	2.9	8.82837	0.66	5.29685	1.15	0.33915	0.94	0.82	1883	15	1868	10	1853
Upper Nankoweap-53	236	37406	2.6	8.76745	0.48	5.21026	1.07	0.33131	0.96	0.89	1845	15	1854	9	1865
Upper Nankoweap-60	209	3038	1.6	8.76568	4.88	4.04243	5.93	0.25700	3.37	0.57	1474	44	1643	48	1865
Upper Nankoweap-1	191	103716	1.6	8.53318	0.47	5.32475	1.25	0.32954	1.16	0.93	1836	19	1873	11	1914
Upper Nankoweap-15	65	49649	3.3	8.17883	1.61	6.27399	1.79	0.37216	0.79	0.44	2040	14	2015	16	1990
Upper Nankoweap-29	165	5679	1.3	5.89184	0.26	9.79819	3.53	0.41869	3.52	1.00	2255	67	2416	32	2555
Upper Nankoweap-49	81	18129	1.5	4.47320	0.43	18.67537	10.37	0.60588	10.36	1.00	3053	252	3025	100	3006
CDGC5 (Nankoweap)															
CDGC5-62	40	18510	0.6	15.6120	8.1	1.13511	8.27	0.12853	1.49	0.18	779	11	770	45	743
CDGC5-17	89	65944	1.0	15.1120	2.6	1.18477	2.72	0.12985	0.77	0.28	787	6	794	15	812
CDGC5-21	74	30276	3.1	13.7108	2.1	1.73940	2.52	0.17297	1.37	0.54	1028	13	1023	16	1012
CDGC5-63	112	121743	3.0	13.6093	1.9	1.82059	2.25	0.17970	1.14	0.51	1065	11	1053	15	1027
CDGC5-2	24	19192	1.3	13.6052	5.9	1.80461	6.32	0.17807	2.25	0.36	1056	22	1047	41	1028
CDGC5-55	109	112406	1.9	13.5701	0.9	1.75089	1.66	0.17232	1.40	0.84	1025	13	1027	11	1033
CDGC5-73	38	24799	2.1	13.5427	5.5	1.78526	5.80	0.17535	1.73	0.30	1042	17	1040	38	1037
CDGC5-6	21	13154	1.2	13.5373	4.6	1.74474	4.80	0.17130	1.41	0.29	1019	13	1025	31	1038
CDGC5-9	49	46829	2.7	13.5314	2.6	1.80135	3.64	0.17678	2.58	0.71	1049	25	1046	24	1039
CDGC5-41	31	27693	2.8	13.4487	3.3	1.72527	3.99	0.16828	2.29	0.57	1003	21	1018	26	1051
CDGC5-70	96	37206	1.4	13.4138	1.6	1.87729	2.30	0.18263	1.70	0.74	1081	17	1073	15	1056
CDGC5-7	39	195738	####	13.3721	2.1	1.87962	2.45	0.18229	1.34	0.55	1079	13	1074	16	1063
CDGC5-46	80	66061	1.7	13.3496	2.0	1.84640	2.49	0.17877	1.48	0.59	1060	14	1062	16	1066
CDGC5-59	124	59884	1.2	13.3120	1.0	1.87338	1.96	0.18087	1.66	0.85	1072	16	1072	13	1072
CDGC5-5	160	184287	2.7	13.1843	0.8	1.94415	1.37	0.18590	1.12	0.81	1099	11	1096	9	1091
CDGC5-77	91	61731	1.4	13.1452	1.8	1.94787	2.03	0.18571	0.93	0.46	1098	9	1098	14	1097
CDGC5-45	255	4273	3.7	13.1436	1.0	1.64061	1.98	0.15639	1.73	0.87	937	15	986	12	1097
CDGC5-65	170	27376	2.0	13.1228	0.8	1.93486	1.07	0.18415	0.70	0.66	1090	7	1093	7	1100
CDGC5-48	40	8412	1.1	12.9074	6.0	1.96214	6.45	0.18368	2.46	0.38	1087	25	1103	43	1133
CDGC5-36	47	37477	0.9	12.7955	3.0	2.13112	3.39	0.19777	1.61	0.48	1163	17	1159	23	1151
CDGC5-76	58	66016	1.3	12.7786	1.9	2.18800	2.26	0.20278	1.17	0.52	1190	13	1177	16	1153
CDGC5-100	200	188659	1.8	12.7044	0.7	2.17159	1.15	0.20009	0.87	0.76	1176	9	1172	8	1165
CDGC5-22	104	167153	1.9	12.6460	1.1	2.20240	1.85	0.20200	1.50	0.81	1186	16	1182	13	1174
CDGC5-25	81	21322	1.4	12.6260	1.3	2.19809	2.38	0.20128	1.99	0.83	1182	21	1180	17	1177

CDGC5-33	75	17797	2.6	12.5919	2.0	2.04325	3.45	0.18660	2.81	0.82	1103	29	1130	24	1183
CDGC5-49	152	3401	2.3	12.5381	0.9	1.98421	2.01	0.18043	1.81	0.90	1069	18	1110	14	1191
CDGC5-43	197	23862	1.2	12.4951	0.6	2.16045	1.13	0.19579	0.93	0.82	1153	10	1168	8	1198
CDGC5-86	19	30448	3.6	12.4241	7.1	2.25468	7.37	0.20317	1.86	0.25	1192	20	1198	52	1209
CDGC5-28	63	29142	1.6	12.3981	4.7	2.24948	5.16	0.20227	2.03	0.39	1188	22	1197	36	1213
CDGC5-50	123	57905	2.2	12.3750	0.8	2.34955	1.15	0.21088	0.80	0.70	1233	9	1227	8	1217
CDGC5-1	53	57305	0.2	12.2863	3.2	2.27590	3.47	0.20280	1.36	0.39	1190	15	1205	24	1231
CDGC5-89	115	113262	1.8	12.2058	1.3	2.42104	1.72	0.21432	1.13	0.66	1252	13	1249	12	1244
CDGC5-52	20	40945	1.0	12.2044	4.6	2.50861	5.22	0.22205	2.38	0.46	1293	28	1275	38	1244
CDGC5-3	61	68516	2.8	12.1783	2.2	2.41553	3.46	0.21335	2.67	0.77	1247	30	1247	25	1248
CDGC5-92	122	10154	1.8	12.1246	2.1	2.49281	8.25	0.21921	7.97	0.97	1278	92	1270	60	1257
CDGC5-96	132	16817	1.7	12.0562	1.0	2.37843	3.78	0.20797	3.63	0.96	1218	40	1236	27	1268
CDGC5-80	147	91192	3.9	11.7762	0.5	2.68343	1.67	0.22919	1.59	0.95	1330	19	1324	12	1314
CDGC5-90	155	151570	1.9	11.6975	0.8	2.72839	1.58	0.23147	1.39	0.88	1342	17	1336	12	1327
CDGC5-11	77	81782	1.6	11.6210	1.1	2.75244	1.39	0.23199	0.89	0.64	1345	11	1343	10	1339
CDGC5-44	36	35253	1.7	11.5117	1.6	2.91541	2.19	0.24341	1.54	0.70	1404	19	1386	17	1358
CDGC5-67	129	207606	1.3	11.4180	0.7	2.94358	0.98	0.24376	0.71	0.73	1406	9	1393	7	1373
CDGC5-23	101	80988	1.7	11.4032	1.5	2.84575	1.71	0.23535	0.77	0.45	1362	9	1368	13	1376
CDGC5-83	76	64163	2.2	11.3557	0.8	2.94246	1.48	0.24234	1.23	0.83	1399	15	1393	11	1384
CDGC5-18	84	137900	1.3	11.3356	2.3	2.49220	5.26	0.20489	4.75	0.90	1202	52	1270	38	1387
CDGC5-54	99	55291	0.9	11.1907	0.9	2.97922	1.40	0.24180	1.07	0.76	1396	13	1402	11	1412
CDGC5-97	103	28468	1.9	11.0754	0.6	3.02689	2.07	0.24314	1.97	0.95	1403	25	1414	16	1432
CDGC5-38	83	37273	2.2	11.0437	1.7	2.80180	2.61	0.22441	1.94	0.74	1305	23	1356	20	1437
CDGC5-71	111	105820	1.4	10.9979	1.2	3.25496	1.74	0.25963	1.29	0.74	1488	17	1470	14	1445
CDGC5-99	98	54906	1.8	10.9554	1.1	3.27228	1.66	0.26000	1.22	0.73	1490	16	1474	13	1452
CDGC5-81	109	166161	2.1	10.8989	0.9	3.29786	1.31	0.26068	0.95	0.73	1493	13	1481	10	1462
CDGC5-85	94	17490	1.8	10.8560	1.1	3.18370	3.99	0.25067	3.83	0.96	1442	49	1453	31	1470
CDGC5-64	52	50973	2.0	10.6509	1.3	3.45342	1.73	0.26677	1.13	0.65	1524	15	1517	14	1506
CDGC5-32	62	89196	1.4	10.6049	1.2	3.43386	1.75	0.26411	1.27	0.73	1511	17	1512	14	1514
CDGC5-10	74	103317	1.2	10.1227	1.4	3.80632	2.44	0.27945	1.98	0.81	1589	28	1594	20	1601
CDGC5-51	63	99577	1.9	9.8264	1.6	4.28049	2.28	0.30506	1.58	0.69	1716	24	1690	19	1657
CDGC5-60	70	167270	1.3	9.7539	1.7	4.20758	3.09	0.29765	2.55	0.83	1680	38	1675	25	1670
CDGC5-40	87	176651	3.2	9.4712	1.0	4.47308	1.53	0.30726	1.18	0.77	1727	18	1726	13	1724
CDGC5-57	199	1275	1.2	9.4375	2.3	2.48516	3.65	0.17010	2.82	0.77	1013	26	1268	26	1731
CDGC5-95	93	24273	0.8	9.1912	0.9	4.53886	4.08	0.30256	3.99	0.98	1704	60	1738	34	1779
CDGC5-66	88	7981	1.2	8.7389	1.0	5.36772	1.67	0.34021	1.35	0.81	1888	22	1880	14	1871
CDGC5-84	105	251738	0.9	8.7013	0.5	5.49316	1.96	0.34666	1.90	0.97	1919	31	1900	17	1879

CDGC5-42	50	29934	0.6	8.4753	0.8	5.47979	1.70	0.33684	1.50	0.88	1871	24	1897	15	1926
CDGC5-61	38	71258	1.8	8.2851	1.5	6.10026	1.96	0.36656	1.20	0.61	2013	21	1990	17	1967
CDGC5-47	82	214617	1.4	7.8450	0.5	6.76783	0.94	0.38507	0.78	0.83	2100	14	2082	8	2063
CDGC5-19	65	90337	1.3	6.6624	0.8	8.95969	1.59	0.43293	1.38	0.87	2319	27	2334	15	2347
CDGC5-12	184	26529	1.6	6.2185	0.2	10.23306	1.62	0.46152	1.61	0.99	2446	33	2456	15	2464
CDGC5-34	66	5325	2.4	6.1338	1.4	8.10368	4.73	0.36050	4.53	0.96	1985	77	2243	43	2487
CDGC5-87	29	73884	1.1	5.8555	0.8	11.55150	1.78	0.49057	1.60	0.90	2573	34	2569	17	2565
CDGC5-14	126	153122	0.9	5.6405	0.3	12.20638	1.00	0.49934	0.95	0.96	2611	20	2620	9	2628
CDGC5-15	52	186900	0.8	5.6355	0.5	12.65399	1.28	0.51720	1.18	0.92	2687	26	2654	12	2629
CDGC5-8	72	163752	1.7	5.5809	0.4	12.23861	1.41	0.49537	1.36	0.96	2594	29	2623	13	2645
CDGC5-37	52	19125	1.1	5.5641	1.3	11.57887	4.00	0.46726	3.78	0.94	2472	78	2571	37	2650
CDGC5-75	92	39718	0.9	5.3101	0.3	13.54751	3.59	0.52175	3.58	1.00	2707	79	2719	34	2728
CDGC6 (Nankoweap)															
CDGC6-5	33	20840	0.4	15.2843	5.6	1.18248	6.17	0.13108	2.54	0.41	794	19	792	34	788
CDGC6-37	42	50455	1.8	14.1308	3.4	1.60346	3.70	0.16433	1.50	0.41	981	14	972	23	951
CDGC6-39	88	82077	1.4	13.7669	2.5	1.75495	2.66	0.17523	1.02	0.38	1041	10	1029	17	1004
CDGC6-22	32	2437	1.7	13.6032	7.4	1.77626	7.45	0.17524	0.96	0.13	1041	9	1037	48	1028
CDGC6-87	86	56224	2.0	13.5956	2.0	1.78165	2.05	0.17568	0.62	0.30	1043	6	1039	13	1029
CDGC6-66	41	56965	0.9	13.5829	3.3	1.77325	3.38	0.17469	0.82	0.24	1038	8	1036	22	1031
CDGC6-44	181	136285	4.3	13.5812	0.7	1.74062	1.39	0.17145	1.18	0.84	1020	11	1024	9	1031
CDGC6-8	113	58921	1.2	13.5774	0.9	1.78183	1.27	0.17546	0.93	0.73	1042	9	1039	8	1032
CDGC6-56	57	39804	0.9	13.5281	2.6	1.85316	3.44	0.18182	2.19	0.64	1077	22	1065	23	1039
CDGC6-95	90	48170	2.4	13.5173	2.2	1.82538	3.01	0.17895	2.04	0.68	1061	20	1055	20	1041
CDGC6-79	65	53985	2.1	13.4874	2.2	1.80473	2.38	0.17654	0.87	0.36	1048	8	1047	16	1045
CDGC6-81	128	58516	2.6	13.4840	1.4	1.79307	1.98	0.17535	1.36	0.69	1042	13	1043	13	1046
CDGC6-67	37	20767	1.5	13.4496	5.2	1.83723	5.24	0.17921	0.75	0.14	1063	7	1059	34	1051
CDGC6-7	122	7868	1.1	13.4451	2.1	1.68623	3.32	0.16443	2.60	0.78	981	24	1003	21	1052
CDGC6-30	210	264902	1.9	13.4443	0.7	1.82776	0.97	0.17822	0.69	0.71	1057	7	1055	6	1052
CDGC6-2	46	78278	1.5	13.4398	3.2	1.79473	3.38	0.17494	1.03	0.30	1039	10	1044	22	1053
CDGC6-82	71	41967	2.5	13.4350	1.2	1.77402	1.62	0.17286	1.13	0.69	1028	11	1036	11	1053
CDGC6-98	72	48474	2.1	13.4007	3.9	1.81015	4.00	0.17593	1.07	0.27	1045	10	1049	26	1058
CDGC6-91	47	48988	1.9	13.3632	2.3	1.79798	2.69	0.17426	1.39	0.51	1036	13	1045	18	1064
CDGC6-19	79	62003	1.4	13.3193	1.9	1.89567	2.09	0.18312	0.84	0.40	1084	8	1080	14	1071
CDGC6-55	92	72878	2.0	13.3132	1.3	1.90848	1.60	0.18428	0.88	0.55	1090	9	1084	11	1072

CDGC6-99	178	112876	2.1	13.3070	0.8	1.85941	1.12	0.17945	0.76	0.68	1064	7	1067	7	1072
CDGC6-76	58	30738	1.1	13.2993	2.0	1.84443	2.26	0.17791	1.12	0.50	1056	11	1061	15	1074
CDGC6-41	46	20957	2.0	13.2966	3.1	1.83757	3.40	0.17721	1.48	0.43	1052	14	1059	22	1074
CDGC6-53	38	62673	1.7	13.2372	1.5	2.00059	1.90	0.19207	1.17	0.62	1133	12	1116	13	1083
CDGC6-35	60	76856	1.7	13.2348	1.1	2.00875	3.54	0.19282	3.35	0.95	1137	35	1118	24	1083
CDGC6-11	108	9814	2.0	13.2295	2.7	1.84831	2.85	0.17734	0.90	0.31	1052	9	1063	19	1084
CDGC6-64	143	9433	1.4	13.1678	1.9	1.87542	4.84	0.17911	4.46	0.92	1062	44	1072	32	1094
CDGC6-4	33	18429	2.5	13.1597	1.3	1.98166	2.85	0.18914	2.52	0.88	1117	26	1109	19	1095
CDGC6-83	45	30914	1.5	13.1562	3.2	1.91135	3.42	0.18238	1.22	0.36	1080	12	1085	23	1095
CDGC6-12	29	18502	1.6	13.1477	5.3	1.87806	5.38	0.17909	1.09	0.20	1062	11	1073	36	1097
CDGC6-20	37	25542	1.5	13.1228	4.0	1.99072	4.98	0.18947	3.03	0.61	1118	31	1112	34	1100
CDGC6-38	25	20872	1.2	13.1199	5.7	1.94872	5.99	0.18543	1.70	0.28	1097	17	1098	40	1101
CDGC6-14	28	19823	2.3	13.0864	5.1	2.04782	5.36	0.19436	1.53	0.29	1145	16	1132	37	1106
CDGC6-88	65	37289	1.8	13.0703	2.0	2.02832	2.18	0.19227	0.95	0.44	1134	10	1125	15	1108
CDGC6-52	108	76336	1.7	13.0436	1.1	2.01098	1.87	0.19024	1.51	0.81	1123	16	1119	13	1112
CDGC6-36	91	78995	1.2	13.0151	1.0	2.02440	1.41	0.19109	1.00	0.71	1127	10	1124	10	1117
CDGC6-62	77	17541	0.9	12.9401	2.4	1.94198	2.45	0.18226	0.69	0.28	1079	7	1096	16	1128
CDGC6-59	50	49531	1.2	12.9102	2.7	2.09225	3.22	0.19591	1.83	0.57	1153	19	1146	22	1133
CDGC6-6	96	50649	1.4	12.8446	1.3	2.07401	1.91	0.19321	1.36	0.71	1139	14	1140	13	1143
CDGC6-28	87	101769	2.9	12.8182	1.9	2.08151	2.04	0.19351	0.81	0.40	1140	8	1143	14	1147
CDGC6-63	50	45682	2.2	12.8118	3.3	2.13610	3.58	0.19849	1.44	0.40	1167	15	1161	25	1148
CDGC6-43	56	57546	2.5	12.8028	1.7	2.03122	2.52	0.18861	1.90	0.75	1114	19	1126	17	1150
CDGC6-92	23	16086	2.8	12.7904	5.0	2.12669	5.44	0.19728	2.02	0.37	1161	21	1158	38	1152
CDGC6-15	103	92113	1.6	12.7600	0.8	2.17562	1.29	0.20134	1.03	0.79	1183	11	1173	9	1156
CDGC6-31	115	34135	1.8	12.7412	1.4	2.04039	1.84	0.18855	1.20	0.65	1114	12	1129	13	1159
CDGC6-57	57	49313	1.5	12.7404	1.8	2.12941	2.25	0.19676	1.36	0.60	1158	14	1158	16	1159
CDGC6-10	47	32039	1.6	12.7356	1.9	2.14982	3.37	0.19857	2.79	0.83	1168	30	1165	23	1160
CDGC6-3	78	61165	2.5	12.7169	1.9	2.18477	2.07	0.20150	0.71	0.34	1183	8	1176	14	1163
CDGC6-69	92	206738	1.6	12.7147	2.2	2.21282	3.01	0.20406	2.05	0.68	1197	22	1185	21	1163
CDGC6-17	36	20279	1.3	12.7006	4.5	2.11295	4.68	0.19463	1.32	0.28	1146	14	1153	32	1165
CDGC6-93	142	140126	3.2	12.6890	0.6	2.14731	1.45	0.19762	1.32	0.91	1162	14	1164	10	1167
CDGC6-42	21	39406	2.1	12.6617	6.9	2.10211	7.16	0.19304	1.93	0.27	1138	20	1149	49	1172
CDGC6-32	186	123100	3.0	12.6604	0.7	2.10882	1.74	0.19364	1.61	0.93	1141	17	1152	12	1172
CDGC6-90	107	87944	1.1	12.6502	1.3	2.16224	1.56	0.19838	0.85	0.54	1167	9	1169	11	1173
CDGC6-75	36	40106	1.7	12.5231	3.3	2.19718	3.68	0.19956	1.65	0.45	1173	18	1180	26	1193
CDGC6-72	193	6589	1.4	12.5166	0.6	2.09388	1.21	0.19008	1.06	0.87	1122	11	1147	8	1194
CDGC6-27	28	35963	1.4	12.3869	4.8	2.20997	4.99	0.19854	1.52	0.30	1167	16	1184	35	1215

CDGC6-46	68	121274	1.3	12.3081	1.4	2.37533	1.60	0.21204	0.84	0.52	1240	9	1235	11	1227
CDGC6-33	33	21811	0.5	12.2328	3.9	2.29211	4.43	0.20336	2.13	0.48	1193	23	1210	31	1239
CDGC6-71	21	16267	0.4	12.2198	2.9	2.37318	3.48	0.21033	1.93	0.56	1231	22	1235	25	1242
CDGC6-70	24	16110	2.3	12.2076	5.3	2.51236	5.61	0.22244	1.74	0.31	1295	20	1276	41	1244
CDGC6-68	36	24293	1.6	12.0771	1.9	2.46921	3.96	0.21628	3.45	0.87	1262	40	1263	29	1265
CDGC6-34	66	45881	1.6	11.7713	1.5	2.67976	2.00	0.22878	1.29	0.64	1328	15	1323	15	1314
CDGC6-18	50	11579	1.8	11.5980	6.5	2.52969	7.14	0.21279	2.96	0.41	1244	33	1281	52	1343
CDGC6-100	64	115881	1.8	11.4739	1.7	2.80960	1.84	0.23380	0.81	0.44	1354	10	1358	14	1364
CDGC6-26	59	62187	1.2	11.0814	1.7	3.09637	2.14	0.24885	1.31	0.61	1433	17	1432	16	1431
CDGC6-13	50	45312	1.4	11.0424	1.0	3.21187	1.81	0.25723	1.50	0.83	1476	20	1460	14	1437
CDGC6-1	80	5924	1.2	11.0117	2.9	2.91650	3.71	0.23292	2.32	0.63	1350	28	1386	28	1443
CDGC6-77	99	95396	1.8	10.9797	0.8	3.11715	1.13	0.24823	0.78	0.70	1429	10	1437	9	1448
CDGC6-51	54	31808	1.7	10.9434	1.4	3.15538	2.29	0.25044	1.77	0.78	1441	23	1446	18	1454
CDGC6-50	59	74480	1.5	10.9312	1.6	3.25114	1.95	0.25775	1.11	0.57	1478	15	1469	15	1457
CDGC6-78	60	80940	1.2	10.8700	1.2	3.17953	1.46	0.25066	0.86	0.59	1442	11	1452	11	1467
CDGC6-21	98	193759	2.8	10.8638	0.9	3.20109	1.72	0.25222	1.43	0.84	1450	19	1457	13	1468
CDGC6-86	57	3914	1.4	10.7159	2.7	3.27105	2.86	0.25422	1.00	0.35	1460	13	1474	22	1494
CDGC6-25	9	1910	0.6	10.4451	9.8	3.60428	10.20	0.27304	2.79	0.27	1556	39	1550	81	1543
CDGC6-74	50	3513	1.1	10.2555	3.1	3.52267	4.04	0.26201	2.64	0.65	1500	35	1532	32	1577
CDGC6-58	16	19974	0.8	9.8657	4.3	3.91509	6.35	0.28013	4.63	0.73	1592	65	1617	51	1649
CDGC6-49	69	80621	1.7	9.3678	1.0	4.75900	2.07	0.32333	1.80	0.87	1806	28	1778	17	1745
CDGC6-9	17	9761	0.6	8.9382	3.0	5.07389	3.32	0.32892	1.31	0.39	1833	21	1832	28	1830
CDGC6-96	22	32593	2.5	8.9362	1.2	5.07526	1.61	0.32894	1.05	0.65	1833	17	1832	14	1831
CDGC6-40	113	161407	1.9	8.8808	0.5	5.13996	1.13	0.33106	1.00	0.89	1844	16	1843	10	1842
CDGC6-45	36	80923	0.8	8.8036	2.0	5.26187	2.14	0.33597	0.87	0.40	1867	14	1863	18	1858
CDGC6-60	45	64273	0.7	8.6333	1.0	5.49322	1.40	0.34396	0.93	0.67	1906	15	1900	12	1893
CDGC6-80	138	257244	0.8	8.4952	0.5	5.52504	0.75	0.34041	0.60	0.80	1889	10	1905	6	1922
CDGC6-24	42	146163	1.7	8.2873	1.1	5.98893	3.40	0.35997	3.23	0.95	1982	55	1974	30	1966
CDGC6-85	42	94664	1.1	6.0459	0.6	10.84415	1.80	0.47551	1.69	0.94	2508	35	2510	17	2512
CDGC6-94	52	111174	2.2	5.5618	0.6	12.60108	1.39	0.50831	1.26	0.91	2649	27	2650	13	2651
CDGC6-65	27	69077	1.2	5.2003	1.1	14.30232	1.46	0.53943	0.93	0.63	2781	21	2770	14	2762
Lower Carbon Canyon															
Lower Carb Canyon-10	118	40500	4.3	13.87962	2.68	1.63018	3.34	0.16410	1.99	0.60	980	18	982	21	987
Lower Carb Canyon-9	165	320870	5.2	13.77090	3.64	1.71247	3.78	0.17104	1.03	0.27	1018	10	1013	24	1003
Lower Carb Canyon-51	167	40168	1.4	13.69965	2.82	1.63957	3.23	0.16291	1.57	0.49	973	14	986	20	1014

Lower Carb Canyon-13	202	43010	3.8	13.67539	1.85	1.71455	2.18	0.17005	1.15	0.53	1012	11	1014	14	1017
Lower Carb Canyon-8	169	136730	3.0	13.61599	2.09	1.70413	2.53	0.16829	1.42	0.56	1003	13	1010	16	1026
Lower Carb Canyon-81	381	568918	5.4	13.59385	2.76	1.75181	2.97	0.17271	1.10	0.37	1027	10	1028	19	1029
Lower Carb Canyon-29	84	14706	2.3	13.55389	1.25	1.77655	2.61	0.17464	2.29	0.88	1038	22	1037	17	1035
Lower Carb Canyon-90	48	68428	1.8	13.53129	2.03	1.79378	2.96	0.17604	2.15	0.73	1045	21	1043	19	1039
Lower Carb Canyon-57	358	45030	2.9	13.50337	2.22	1.74540	2.50	0.17094	1.15	0.46	1017	11	1025	16	1043
Lower Carb Canyon-37	213	30462	3.1	13.49700	1.23	1.76626	2.14	0.17290	1.75	0.82	1028	17	1033	14	1044
Lower Carb Canyon-27	184	63182	1.0	13.38674	2.58	1.84193	3.04	0.17883	1.60	0.53	1061	16	1061	20	1060
Lower Carb Canyon-55	48	5954	1.5	13.31390	1.57	1.84614	2.40	0.17827	1.81	0.76	1057	18	1062	16	1071
Lower Carb Canyon-89	335	299222	2.6	13.27575	3.24	1.85777	3.77	0.17887	1.93	0.51	1061	19	1066	25	1077
Lower Carb Canyon-96	45	20990	1.9	13.25728	2.09	1.88883	3.14	0.18161	2.35	0.75	1076	23	1077	21	1080
Lower Carb Canyon-4	157	64668	2.6	13.25590	5.08	1.86920	5.20	0.17971	1.10	0.21	1065	11	1070	34	1080
Lower Carb Canyon-88	340	77774	4.4	13.20625	2.09	1.92611	2.15	0.18448	0.50	0.23	1091	5	1090	14	1088
Lower Carb Canyon-48	568	300942	2.6	13.16488	1.00	1.87591	1.76	0.17911	1.45	0.82	1062	14	1073	12	1094
Lower Carb Canyon-64	68	23190	2.1	13.14052	2.56	1.96702	2.74	0.18746	0.97	0.35	1108	10	1104	18	1098
Lower Carb Canyon-71	114	32986	1.3	13.08912	1.24	1.98269	2.59	0.18822	2.27	0.88	1112	23	1110	17	1106
Lower Carb Canyon-98	78	48320	1.8	13.06744	2.23	2.00407	2.93	0.18993	1.91	0.65	1121	20	1117	20	1109
Lower Carb Canyon-99	87	47484	2.3	13.00963	2.35	1.97574	2.67	0.18642	1.25	0.47	1102	13	1107	18	1118
Lower Carb Canyon-31	52	13054	1.9	12.95169	2.87	2.00586	3.38	0.18842	1.80	0.53	1113	18	1117	23	1127
Lower Carb Canyon-92	145	26570	2.6	12.89382	2.04	1.82832	2.65	0.17098	1.68	0.63	1017	16	1056	17	1136
Lower Carb Canyon-5	46	30906	2.6	12.75992	2.75	1.87578	3.66	0.17359	2.42	0.66	1032	23	1073	24	1156
Lower Carb Canyon-91	167	32748	1.8	12.75203	3.14	2.10042	3.98	0.19426	2.44	0.61	1144	26	1149	27	1157
Lower Carb Canyon-16	287	90308	1.8	12.70827	1.00	2.17884	2.56	0.20082	2.36	0.92	1180	25	1174	18	1164
Lower Carb Canyon-2	44	26952	2.0	12.70466	2.78	1.98070	2.98	0.18251	1.09	0.37	1081	11	1109	20	1165
Lower Carb Canyon-82	407	476182	2.7	12.69848	1.35	2.07259	1.82	0.19088	1.22	0.67	1126	13	1140	12	1166
Lower Carb Canyon-6	159	190732	4.5	12.65390	3.04	2.13893	3.71	0.19630	2.12	0.57	1155	22	1161	26	1173
Lower Carb Canyon-44	177	39168	4.3	12.62019	2.35	2.16617	2.81	0.19827	1.54	0.55	1166	16	1170	20	1178
Lower Carb Canyon-68	257	31652	0.5	12.61195	2.48	2.12422	3.34	0.19430	2.23	0.67	1145	23	1157	23	1179
Lower Carb Canyon-69	91	10310	1.9	12.56057	3.93	2.06878	4.78	0.18846	2.73	0.57	1113	28	1139	33	1187
Lower Carb Canyon-86	85	66456	2.3	12.55425	1.80	2.25728	2.42	0.20553	1.62	0.67	1205	18	1199	17	1188
Lower Carb Canyon-24	103	22630	1.4	12.45727	2.18	2.16503	3.15	0.19561	2.28	0.72	1152	24	1170	22	1204
Lower Carb Canyon-20	152	28504	2.4	12.38787	3.32	2.12053	3.86	0.19052	1.97	0.51	1124	20	1156	27	1215
Lower Carb Canyon-43	218	21186	2.0	12.29296	1.44	2.38184	2.03	0.21236	1.43	0.70	1241	16	1237	15	1230
Lower Carb Canyon-21	143	21866	1.1	12.24873	2.81	2.32212	3.98	0.20629	2.81	0.71	1209	31	1219	28	1237
Lower Carb Canyon-95	403	38980	4.9	12.19946	2.04	2.35999	3.43	0.20881	2.75	0.80	1222	31	1231	24	1245
Lower Carb Canyon-62	71	46952	0.4	12.17669	1.82	2.34553	2.82	0.20714	2.16	0.77	1214	24	1226	20	1248

Lower Carb Canyon-73	344	6236	2.3	12.09105	2.60	2.09147	2.97	0.18341	1.45	0.49	1086	14	1146	20	1262
Lower Carb Canyon-100	108	40596	2.2	11.83902	2.89	2.63624	3.40	0.22636	1.79	0.53	1315	21	1311	25	1303
Lower Carb Canyon-12	73	30420	2.1	11.78693	1.88	2.69243	2.27	0.23017	1.27	0.56	1335	15	1326	17	1312
Lower Carb Canyon-33	40	9874	1.5	11.43617	5.68	2.78282	6.10	0.23082	2.21	0.36	1339	27	1351	46	1370
Lower Carb Canyon-47	83	57952	1.2	11.11607	2.77	3.08514	3.27	0.24873	1.74	0.53	1432	22	1429	25	1425
Lower Carb Canyon-38	112	33120	2.0	11.09236	3.23	3.11955	3.44	0.25097	1.18	0.34	1443	15	1438	26	1429
Lower Carb Canyon-19	130	16286	1.1	11.07335	2.44	3.08183	2.49	0.24751	0.50	0.20	1426	6	1428	19	1432
Lower Carb Canyon-85	97	163294	1.0	10.98294	2.33	3.22417	2.81	0.25682	1.57	0.56	1474	21	1463	22	1448
Lower Carb Canyon-46	140	109088	1.7	10.91017	2.36	3.26169	2.80	0.25809	1.51	0.54	1480	20	1472	22	1460
Lower Carb Canyon-67	265	44400	1.0	10.85939	1.52	3.12401	1.96	0.24605	1.24	0.63	1418	16	1439	15	1469
Lower Carb Canyon-11	78	81166	1.7	10.68234	7.12	3.28369	7.15	0.25441	0.68	0.10	1461	9	1477	56	1500
Lower Carb Canyon-77	245	38396	1.2	10.58379	1.01	3.37503	2.11	0.25907	1.85	0.88	1485	25	1499	17	1518
Lower Carb Canyon-94	82	24800	1.9	10.51610	2.42	3.36358	3.01	0.25654	1.78	0.59	1472	23	1496	24	1530
Lower Carb Canyon-66	145	33208	1.5	10.47617	1.95	3.44282	2.13	0.26159	0.86	0.40	1498	11	1514	17	1537
Lower Carb Canyon-17	60	22352	1.0	10.17201	2.84	3.83370	3.02	0.28283	1.01	0.33	1606	14	1600	24	1592
Lower Carb Canyon-7	137	109254	2.1	10.13759	2.54	3.78329	3.98	0.27817	3.07	0.77	1582	43	1589	32	1599
Lower Carb Canyon-70	190	36796	1.2	10.13310	1.47	3.69168	2.32	0.27131	1.79	0.77	1547	25	1570	19	1599
Lower Carb Canyon-87	59	141682	1.0	10.08044	1.60	3.92662	1.90	0.28708	1.03	0.54	1627	15	1619	15	1609
Lower Carb Canyon-18	195	57076	1.3	10.01807	1.90	3.96876	2.33	0.28836	1.35	0.58	1633	19	1628	19	1621
Lower Carb Canyon-65	95	24478	1.2	10.01016	1.52	3.94608	2.74	0.28649	2.28	0.83	1624	33	1623	22	1622
Lower Carb Canyon-30	281	14306	0.8	9.77680	2.52	4.19400	2.57	0.29739	0.50	0.19	1678	7	1673	21	1666
Lower Carb Canyon-23	102	20644	1.5	9.73498	1.97	4.11489	2.28	0.29053	1.15	0.50	1644	17	1657	19	1674
Lower Carb Canyon-34	150	84268	1.8	9.71575	2.07	4.20831	3.11	0.29654	2.32	0.75	1674	34	1676	26	1678
Lower Carb Canyon-41	186	119506	3.6	9.55463	2.07	4.31007	2.49	0.29867	1.38	0.55	1685	20	1695	21	1708
Lower Carb Canyon-83	303	561842	2.1	9.53711	2.24	4.38443	2.36	0.30327	0.74	0.31	1707	11	1709	20	1712
Lower Carb Canyon-76	437	45100	2.7	9.51330	1.07	4.30694	1.37	0.29717	0.86	0.63	1677	13	1695	11	1716
Lower Carb Canyon-42	22	7052	23.0	9.47816	1.46	4.47386	1.92	0.30754	1.24	0.65	1729	19	1726	16	1723
Lower Carb Canyon-3	153	62774	2.1	9.44575	1.68	4.41656	2.01	0.30257	1.10	0.55	1704	16	1715	17	1729
Lower Carb Canyon-52	71	25494	0.9	9.40415	1.82	4.43647	2.19	0.30259	1.22	0.56	1704	18	1719	18	1738
Lower Carb Canyon-80	457	74102	1.1	9.37061	1.47	4.57711	1.78	0.31107	1.01	0.57	1746	15	1745	15	1744
Lower Carb Canyon-97	257	127018	4.4	9.33904	2.56	4.68302	3.11	0.31720	1.77	0.57	1776	27	1764	26	1750
Lower Carb Canyon-28	96	42744	0.9	9.31652	2.04	4.66662	2.77	0.31532	1.87	0.68	1767	29	1761	23	1755
Lower Carb Canyon-84	167	199318	2.4	9.28321	1.39	4.67655	1.62	0.31486	0.84	0.52	1765	13	1763	14	1761
Lower Carb Canyon-26	319	164636	1.9	9.25564	1.36	4.67767	3.47	0.31400	3.19	0.92	1760	49	1763	29	1767
Lower Carb Canyon-40	204	47986	2.1	9.15522	1.30	4.76902	2.03	0.31666	1.56	0.77	1773	24	1779	17	1787
Lower Carb Canyon-54	141	34830	1.0	9.08701	2.11	4.67342	2.43	0.30800	1.21	0.50	1731	18	1762	20	1800
Lower Carb Canyon-15	98	39218	7.8	9.08070	2.55	4.83366	2.86	0.31834	1.30	0.45	1782	20	1791	24	1801

Lower Carb Canyon-49	370	19692	1.5	9.06224	0.88	4.14031	3.97	0.27212	3.87	0.98	1552	53	1662	32	1805
Lower Carb Canyon-35	83	87744	2.3	8.99822	3.59	4.81739	3.96	0.31439	1.68	0.42	1762	26	1788	33	1818
Lower Carb Canyon-58	288	55942	1.8	8.71509	2.05	5.24294	2.22	0.33139	0.85	0.38	1845	14	1860	19	1876
Lower Carb Canyon-50	173	184454	0.7	8.57508	2.69	5.21120	2.91	0.32410	1.12	0.38	1810	18	1854	25	1905
Lower Carb Canyon-32	575	7462	3.7	8.56396	1.84	5.41267	2.89	0.33619	2.23	0.77	1868	36	1887	25	1907
Lower Carb Canyon-36	283	64666	2.0	8.32602	1.51	5.70985	2.55	0.34479	2.06	0.81	1910	34	1933	22	1958
Lower Carb Canyon-22	405	77044	4.0	7.94386	3.32	6.46753	3.75	0.37262	1.75	0.47	2042	31	2041	33	2041
Lower Carb Canyon-39	445	40190	1.9	6.26875	0.95	9.97868	1.93	0.45368	1.68	0.87	2412	34	2433	18	2451
Lower Carb Canyon-75	207	132826	2.6	6.23612	1.29	10.01288	1.56	0.45287	0.88	0.56	2408	18	2436	14	2459
Lower Carb Canyon-60	211	55118	2.3	6.23595	1.44	9.90789	3.08	0.44811	2.72	0.88	2387	54	2426	28	2459
Lower Carb Canyon-56	157	40422	3.7	6.22083	2.83	9.91344	3.65	0.44727	2.30	0.63	2383	46	2427	34	2464
Lower Carb Canyon-74	214	185938	3.0	6.15175	2.73	10.17536	3.29	0.45399	1.83	0.56	2413	37	2451	30	2482
Lower Carb Canyon-63	213	111374	3.3	6.11196	0.84	10.43975	2.03	0.46277	1.85	0.91	2452	38	2475	19	2493
Lower Carb Canyon-79	176	65032	1.6	6.11040	1.89	10.63047	2.56	0.47111	1.73	0.68	2488	36	2491	24	2494
Lower Carb Canyon-78	187	24532	1.7	6.06226	1.44	10.72182	2.42	0.47141	1.95	0.80	2490	40	2499	23	2507
Lower Carb Canyon-14	73	48918	2.1	6.00723	1.20	10.98148	2.53	0.47845	2.23	0.88	2520	47	2522	24	2522
Lower Carb Canyon-53	176	91286	2.1	5.86950	0.99	11.02133	1.61	0.46917	1.27	0.79	2480	26	2525	15	2561
Lower Carb Canyon-1	226	164270	2.6	5.71573	3.74	12.13128	4.17	0.50290	1.84	0.44	2626	40	2615	39	2606
Lower Carb Canyon-72	142	93228	1.5	5.45639	2.38	12.99692	2.68	0.51433	1.24	0.46	2675	27	2679	25	2683
Lower Carb Canyon-61	147	35320	1.4	5.35109	1.38	13.22031	2.25	0.51308	1.78	0.79	2670	39	2696	21	2715
Lower Carb Canyon-25	42	23942	0.6	5.24515	1.36	14.01358	2.00	0.53310	1.47	0.73	2754	33	2751	19	2748
Lower Carb Canyon-59	265	73406	1.0	5.16676	1.70	14.01831	2.06	0.52531	1.16	0.56	2722	26	2751	20	2773
Lower Carb Canyon-93	268	80176	2.4	4.01385	2.44	22.22963	3.29	0.64713	2.21	0.67	3217	56	3194	32	3179
Lower Carb Canyon-45	36	21478	1.4	3.46755	1.48	27.32881	1.89	0.68729	1.18	0.62	3372	31	3395	19	3409
CDGC7 (Middle Carbon Canyon)															
CDGC7-2	33	23873	1.7	13.8022	2.8	1.61756	3.38	0.16192	1.85	0.55	967	17	977	21	999
CDGC7-88	149	67386	2.2	13.5507	1.2	1.81134	1.37	0.17802	0.67	0.49	1056	7	1050	9	1036
CDGC7-51	131	75358	1.7	13.5230	1.4	1.81107	1.87	0.17763	1.25	0.67	1054	12	1049	12	1040
CDGC7-8	146	105955	3.4	13.4801	1.2	1.80666	2.20	0.17663	1.88	0.85	1049	18	1048	14	1046
CDGC7-62	226	234957	2.1	13.4633	0.9	1.79464	1.18	0.17524	0.72	0.61	1041	7	1044	8	1049
CDGC7-76	145	231314	4.0	13.3980	1.1	1.84859	1.54	0.17963	1.12	0.72	1065	11	1063	10	1059
CDGC7-46	243	175795	2.2	13.3927	1.0	1.84480	1.21	0.17919	0.70	0.58	1063	7	1062	8	1060
CDGC7-83	78	72369	1.7	13.2914	1.7	1.84990	3.02	0.17833	2.47	0.82	1058	24	1063	20	1075
CDGC7-71	77	44387	2.7	13.2792	2.6	1.78826	2.90	0.17223	1.26	0.43	1024	12	1041	19	1077

CDGC7-54	86	126969	0.9	13.1548	1.1	1.90403	1.47	0.18166	1.02	0.69	1076	10	1083	10	1096
CDGC7-63	44	21436	1.7	13.1051	4.5	1.84207	4.79	0.17508	1.51	0.31	1040	14	1061	32	1103
CDGC7-12	60	60653	1.5	13.0517	1.7	2.02459	2.50	0.19165	1.84	0.73	1130	19	1124	17	1111
CDGC7-64	95	45893	1.3	13.0451	1.0	1.94741	1.11	0.18425	0.42	0.37	1090	4	1098	7	1112
CDGC7-9	41	35692	1.4	12.9578	3.2	1.92606	3.34	0.18101	0.81	0.24	1072	8	1090	22	1126
CDGC7-58	70	49873	1.0	12.8886	2.1	2.07452	2.42	0.19392	1.16	0.48	1143	12	1140	17	1136
CDGC7-16	112	71230	2.0	12.7456	1.1	2.17667	1.37	0.20121	0.87	0.64	1182	9	1174	10	1158
CDGC7-90	77	148779	4.7	12.6475	2.6	2.17245	2.77	0.19928	1.01	0.36	1171	11	1172	19	1174
CDGC7-20	177	116342	1.7	12.6337	0.6	2.21756	0.86	0.20319	0.65	0.75	1192	7	1187	6	1176
CDGC7-15	52	35442	1.7	12.6166	3.2	2.20912	3.50	0.20214	1.40	0.40	1187	15	1184	24	1179
CDGC7-37	21	15989	0.4	12.5853	8.5	2.31539	9.42	0.21134	4.05	0.43	1236	46	1217	67	1184
CDGC7-67	174	148201	1.4	12.5554	0.8	2.18747	1.04	0.19919	0.68	0.65	1171	7	1177	7	1188
CDGC7-99	84	72797	1.2	12.5380	1.3	2.27191	1.59	0.20659	0.84	0.53	1211	9	1204	11	1191
CDGC7-42	141	91242	1.6	12.4957	1.3	2.27263	1.39	0.20596	0.54	0.39	1207	6	1204	10	1198
CDGC7-96	23	22833	2.4	12.4252	6.7	2.24478	6.82	0.20229	1.43	0.21	1188	15	1195	48	1209
CDGC7-53	63	57181	1.7	12.4222	1.6	2.30744	1.92	0.20789	1.01	0.53	1218	11	1215	14	1209
CDGC7-52	281	346188	1.6	12.3913	0.6	2.30563	1.29	0.20721	1.15	0.89	1214	13	1214	9	1214
CDGC7-30	40	40014	0.8	12.3364	3.0	2.31819	3.36	0.20741	1.55	0.46	1215	17	1218	24	1223
CDGC7-89	127	53321	0.6	12.3083	0.7	2.34015	1.17	0.20890	0.93	0.80	1223	10	1225	8	1227
CDGC7-22	117	83065	0.9	12.1964	0.8	2.40932	1.27	0.21312	1.03	0.81	1245	12	1245	9	1245
CDGC7-25	50	37435	1.0	12.0286	4.0	2.39069	4.15	0.20856	1.14	0.27	1221	13	1240	30	1272
CDGC7-23	38	23239	0.8	11.6885	3.1	2.70437	3.76	0.22926	2.20	0.58	1331	26	1330	28	1328
CDGC7-4	65	44355	1.0	11.6480	1.5	2.77933	2.04	0.23480	1.39	0.68	1360	17	1350	15	1335
CDGC7-85	70	50315	1.2	11.5437	0.8	2.74075	1.31	0.22946	1.02	0.78	1332	12	1340	10	1352
CDGC7-34	63	69543	1.8	11.3225	1.1	2.93636	3.71	0.24113	3.53	0.95	1393	44	1391	28	1389
CDGC7-33	62	27947	1.5	11.1569	1.9	3.02270	2.32	0.24459	1.35	0.58	1411	17	1413	18	1418
CDGC7-80	26	24167	1.5	11.0788	2.9	3.15710	4.14	0.25368	2.94	0.71	1457	38	1447	32	1431
CDGC7-10	129	67856	1.4	11.0773	0.9	3.14229	1.03	0.25245	0.41	0.40	1451	5	1443	8	1431
CDGC7-73	148	149634	1.4	10.9500	0.7	3.13266	1.40	0.24879	1.20	0.85	1432	15	1441	11	1453
CDGC7-43	20	15926	0.6	10.9311	5.4	3.14527	5.93	0.24936	2.51	0.42	1435	32	1444	46	1457
CDGC7-40	44	41791	0.8	10.8882	1.2	3.20780	1.70	0.25332	1.21	0.71	1456	16	1459	13	1464
CDGC7-19	125	70775	1.7	10.8862	0.9	3.28077	1.56	0.25903	1.26	0.81	1485	17	1477	12	1464
CDGC7-69	78	86092	1.0	10.8031	1.5	3.30017	2.09	0.25857	1.42	0.68	1483	19	1481	16	1479
CDGC7-1	73	111587	0.9	10.2526	0.8	3.67754	3.90	0.27346	3.81	0.98	1558	53	1567	31	1578
CDGC7-66	25	31204	0.7	10.2268	2.1	3.80648	3.15	0.28233	2.34	0.75	1603	33	1594	25	1582
CDGC7-57	41	41455	1.0	10.1224	1.2	3.76470	1.44	0.27638	0.83	0.58	1573	12	1585	12	1601

CDGC7-97	383	261884	17.8	9.9472	0.3	4.09491	0.66	0.29542	0.57	0.86	1669	8	1653	5	1634
CDGC7-84	151	222825	2.2	9.7732	0.4	4.23652	1.99	0.30029	1.95	0.98	1693	29	1681	16	1667
CDGC7-56	76	71851	0.9	9.7573	0.6	4.09761	1.04	0.28997	0.83	0.79	1641	12	1654	9	1670
CDGC7-86	71	71657	1.4	9.5857	1.3	4.50426	3.13	0.31315	2.86	0.91	1756	44	1732	26	1702
CDGC7-35	96	218656	2.0	9.5512	0.9	4.46100	1.36	0.30902	1.04	0.77	1736	16	1724	11	1709
CDGC7-98	120	159742	2.3	9.5415	0.6	4.50515	1.32	0.31176	1.18	0.90	1749	18	1732	11	1711
CDGC7-78	186	150291	2.3	9.5382	0.3	4.36854	1.08	0.30220	1.04	0.96	1702	15	1706	9	1712
CDGC7-36	34	33487	2.3	9.5041	1.2	4.55347	1.50	0.31387	0.95	0.63	1760	15	1741	12	1718
CDGC7-13	50	47302	1.1	9.4816	1.3	4.57087	1.67	0.31433	0.98	0.59	1762	15	1744	14	1722
CDGC7-24	31	16485	1.2	9.4787	3.8	4.23584	5.77	0.29120	4.35	0.75	1648	63	1681	47	1723
CDGC7-91	102	95156	1.6	9.4563	0.7	4.51551	1.57	0.30969	1.43	0.91	1739	22	1734	13	1727
CDGC7-17	436	533306	5.4	9.4506	0.3	4.54382	0.94	0.31144	0.89	0.95	1748	14	1739	8	1728
CDGC7-81	77	71262	1.0	9.4371	0.9	4.52598	1.16	0.30978	0.67	0.58	1740	10	1736	10	1731
CDGC7-26	116	250125	0.7	9.4096	0.7	4.59586	1.02	0.31364	0.76	0.74	1759	12	1749	9	1736
CDGC7-74	176	277161	1.0	9.3616	0.3	4.48939	0.74	0.30481	0.67	0.89	1715	10	1729	6	1746
CDGC7-79	81	221739	2.0	9.3524	0.6	4.55233	2.69	0.30879	2.63	0.98	1735	40	1741	22	1748
CDGC7-50	100	82195	1.4	9.3471	0.9	4.63691	1.10	0.31434	0.62	0.56	1762	10	1756	9	1749
CDGC7-47	72	86768	1.1	9.2224	1.9	4.70231	2.15	0.31452	0.99	0.46	1763	15	1768	18	1773
CDGC7-92	215	325181	3.3	9.2030	0.3	4.80898	0.67	0.32098	0.61	0.91	1795	10	1786	6	1777
CDGC7-59	81	72432	1.4	9.1443	1.0	4.71441	1.89	0.31266	1.58	0.84	1754	24	1770	16	1789
CDGC7-60	196	215587	3.0	9.1377	0.6	4.77318	0.91	0.31633	0.70	0.77	1772	11	1780	8	1790
CDGC7-28	107	127766	1.5	9.1325	0.6	4.91615	0.88	0.32562	0.59	0.68	1817	9	1805	7	1791
CDGC7-27	101	207896	1.8	9.0841	0.8	4.99560	1.08	0.32913	0.67	0.62	1834	11	1819	9	1801
CDGC7-55	110	210195	2.2	9.0635	0.7	4.91766	0.91	0.32326	0.59	0.65	1806	9	1805	8	1805
CDGC7-45	187	159170	1.8	9.0601	0.4	5.01354	1.03	0.32944	0.95	0.92	1836	15	1822	9	1806
CDGC7-68	90	28660	1.5	9.0246	0.7	4.90391	1.35	0.32097	1.13	0.83	1794	18	1803	11	1813
CDGC7-5	102	306721	1.4	8.9411	0.8	5.05753	1.21	0.32797	0.88	0.73	1829	14	1829	10	1830
CDGC7-32	148	136344	1.9	8.9252	0.4	5.24968	1.01	0.33982	0.92	0.91	1886	15	1861	9	1833
CDGC7-48	41	99930	3.8	8.8861	1.5	5.13404	2.16	0.33088	1.53	0.71	1843	25	1842	18	1841
CDGC7-100	73	57540	2.1	8.8493	1.0	5.24631	1.44	0.33671	1.06	0.74	1871	17	1860	12	1848
CDGC7-49	113	111659	1.4	8.8410	0.7	5.18711	1.10	0.33260	0.88	0.80	1851	14	1851	9	1850
CDGC7-87	72	73290	2.3	8.8217	0.9	5.23158	1.20	0.33472	0.81	0.67	1861	13	1858	10	1854
CDGC7-95	137	184012	1.4	8.7999	0.4	5.28553	1.90	0.33734	1.86	0.98	1874	30	1867	16	1858
CDGC7-21	74	112738	1.6	8.4586	0.6	5.89752	2.57	0.36180	2.50	0.97	1991	43	1961	22	1930
CDGC7-31	120	307244	2.8	8.0074	0.5	6.52938	1.50	0.37919	1.42	0.95	2073	25	2050	13	2027
CDGC7-29	136	141911	1.7	7.7159	0.4	7.06660	2.85	0.39546	2.83	0.99	2148	52	2120	25	2093
CDGC7-93	67	87254	2.4	6.9395	0.9	8.28868	4.57	0.41717	4.49	0.98	2248	85	2263	41	2277

CDGC7-94	55	60214	1.9	6.8580	1.1	8.51861	3.06	0.42371	2.87	0.94	2277	55	2288	28	2297
CDGC7-14	119	145946	1.2	6.4824	0.7	9.26908	1.24	0.43578	1.01	0.81	2332	20	2365	11	2394
CDGC7-41	142	40652	1.9	6.3299	0.4	10.00429	1.09	0.45929	1.02	0.94	2436	21	2435	10	2434
CDGC7-7	114	190184	1.9	6.1932	0.8	10.58296	2.37	0.47536	2.25	0.95	2507	47	2487	22	2471
CDGC7-72	143	437416	1.9	6.1711	0.4	10.24217	0.91	0.45841	0.83	0.92	2433	17	2457	8	2477
CDGC7-6	101	6802	1.7	6.1543	0.5	10.69872	1.53	0.47754	1.43	0.94	2517	30	2497	14	2482
CDGC7-82	154	251271	2.1	6.1519	0.3	10.48430	1.31	0.46778	1.27	0.97	2474	26	2479	12	2482
CDGC7-44	129	232268	1.7	6.1345	0.2	10.72811	0.91	0.47731	0.89	0.98	2516	19	2500	8	2487
CDGC7-38	142	198871	1.6	6.1255	0.2	10.88155	0.56	0.48343	0.52	0.94	2542	11	2513	5	2490
CDGC7-61	29	72904	0.5	6.1057	1.0	10.64600	3.28	0.47144	3.11	0.95	2490	64	2493	30	2495
CDGC7-65	97	159195	1.2	6.0386	0.2	11.17826	1.70	0.48957	1.69	0.99	2569	36	2538	16	2514
CDGC7-77	68	100356	0.8	5.4498	0.4	13.17577	3.54	0.52078	3.52	0.99	2702	78	2692	33	2685
Middle Carbon Canyon															
K065712-56	73	8985	1.1	14.97740	3.02	1.23615	3.18	0.13428	1.00	0.31	812	8	817	18	831
K065712-57	69	8875	0.9	14.92286	2.27	1.27300	2.82	0.13778	1.68	0.60	832	13	834	16	838
K065712-69	52	6245	2.0	13.59518	1.37	1.64970	2.03	0.16266	1.50	0.74	972	14	989	13	1029
K065712-2	68	13540	0.9	13.31732	1.26	1.91474	1.61	0.18494	1.00	0.62	1094	10	1086	11	1071
K065712-71	53	60650	1.0	13.15688	3.79	1.91512	3.99	0.18275	1.24	0.31	1082	12	1086	27	1095
K065712-89	106	22390	0.8	13.12826	2.51	1.91595	3.45	0.18243	2.36	0.68	1080	23	1087	23	1100
K065712-45	270	56605	3.1	12.93683	2.39	1.96000	2.59	0.18390	1.00	0.39	1088	10	1102	17	1129
K065712-63	500	33060	2.2	12.88566	2.26	1.73002	3.73	0.16168	2.96	0.79	966	27	1020	24	1137
K065712-8	122	17655	1.7	12.87001	2.73	2.01812	2.91	0.18838	1.00	0.34	1113	10	1122	20	1139
K065712-37	476	60860	2.5	12.83463	1.94	2.03499	2.34	0.18943	1.31	0.56	1118	13	1127	16	1145
K065712-88	140	29795	1.0	12.80736	1.46	1.98358	2.26	0.18425	1.72	0.76	1090	17	1110	15	1149
K065712-70	35	6375	2.2	12.79261	2.95	2.07972	3.46	0.19296	1.81	0.52	1137	19	1142	24	1151
K065712-68	76	15045	3.2	12.71355	1.19	2.07576	1.55	0.19140	1.00	0.64	1129	10	1141	11	1163
K065712-44	85	14480	1.4	12.70832	2.60	2.06971	2.79	0.19076	1.00	0.36	1126	10	1139	19	1164
K065712-16	123	25395	1.7	12.69309	2.43	2.10524	2.73	0.19381	1.25	0.46	1142	13	1151	19	1167
K065712-36	515	58375	3.5	12.68134	1.58	2.13567	2.23	0.19643	1.58	0.71	1156	17	1160	15	1169
K065712-10	92	15345	2.6	12.56353	2.31	2.22716	3.01	0.20294	1.93	0.64	1191	21	1190	21	1187
K065712-95	84	14275	1.5	12.51369	2.84	2.18618	3.01	0.19841	1.00	0.33	1167	11	1177	21	1195
K065712-80	394	60510	3.2	12.47431	2.30	2.16340	2.98	0.19573	1.90	0.64	1152	20	1169	21	1201
K065712-25	42	6385	2.6	12.44707	3.64	2.27676	4.10	0.20553	1.89	0.46	1205	21	1205	29	1205
K065712-66	25	97155	2.2	12.42783	2.40	2.25547	2.60	0.20330	1.00	0.38	1193	11	1198	18	1208
K065712-24	44	6420	2.7	12.39119	1.64	2.23506	2.67	0.20086	2.11	0.79	1180	23	1192	19	1214

K065712-14	244	59720	2.2	12.38283	1.83	2.29797	2.47	0.20638	1.66	0.67	1209	18	1212	17	1216
K065712-51	92	10580	1.9	12.36368	3.03	2.18370	4.05	0.19581	2.69	0.66	1153	28	1176	28	1219
K065712-86	196	48545	2.3	12.32720	1.91	2.22189	2.61	0.19865	1.77	0.68	1168	19	1188	18	1224
K065712-84	195	27800	2.4	12.29590	1.00	2.29872	1.59	0.20500	1.23	0.78	1202	13	1212	11	1229
K065712-90	24	5655	0.5	12.29106	2.61	2.40194	3.78	0.21412	2.74	0.72	1251	31	1243	27	1230
K065712-52	91	12525	1.8	12.25437	1.20	2.36119	1.56	0.20986	1.00	0.64	1228	11	1231	11	1236
K065712-59	117	22050	0.7	12.24723	2.46	2.33450	3.20	0.20736	2.04	0.64	1215	23	1223	23	1237
K065712-67	41	7860	2.2	12.19274	1.97	2.31135	2.20	0.20439	1.00	0.45	1199	11	1216	16	1246
K065712-42	52	7705	2.4	12.18485	2.72	2.24855	2.90	0.19871	1.00	0.34	1168	11	1196	20	1247
K065712-65	1420	94150	2.5	12.15079	1.73	2.36069	2.36	0.20804	1.61	0.68	1218	18	1231	17	1253
K065712-60	127	27515	0.8	12.09578	1.18	2.39937	2.36	0.21049	2.04	0.86	1231	23	1242	17	1261
K065712-74	16	17155	1.1	12.03494	3.96	2.48124	5.56	0.21658	3.91	0.70	1264	45	1267	40	1271
K065712-13	127	31170	5.0	11.83976	1.92	2.57216	3.14	0.22087	2.48	0.79	1286	29	1293	23	1303
K065712-17	181	43155	1.9	11.79117	2.30	2.48450	3.22	0.21247	2.25	0.70	1242	25	1268	23	1311
K065712-23	125	18295	1.2	11.76973	2.34	2.54204	2.78	0.21699	1.50	0.54	1266	17	1284	20	1315
K065712-76	46	4165	1.4	11.65224	2.01	2.46663	2.25	0.20846	1.00	0.45	1221	11	1262	16	1334
K065712-6	59	10170	0.7	11.59740	1.89	2.66665	2.26	0.22430	1.23	0.55	1305	15	1319	17	1343
K065712-26	40	7545	2.7	11.47875	3.38	2.51715	3.70	0.20956	1.50	0.41	1226	17	1277	27	1363
K065712-34	219	37650	2.0	11.22879	1.56	2.96256	2.41	0.24127	1.84	0.76	1393	23	1398	18	1405
K065712-4	488	15660	3.2	11.21936	2.61	3.01962	2.89	0.24571	1.22	0.42	1416	16	1413	22	1407
K065712-58	35	7620	1.7	11.12053	1.96	3.11975	3.30	0.25162	2.66	0.81	1447	34	1438	25	1424
K065712-7	483	60830	1.6	10.95970	3.37	3.23447	3.79	0.25710	1.73	0.46	1475	23	1465	29	1452
K065712-61	167	18580	1.0	10.94441	1.65	2.40248	3.76	0.19070	3.38	0.90	1125	35	1243	27	1454
K065712-49	73	16770	1.8	10.93109	2.34	3.13932	3.21	0.24888	2.20	0.68	1433	28	1442	25	1457
K065712-53	181	25295	0.6	10.91756	2.03	3.17260	2.61	0.25121	1.64	0.63	1445	21	1451	20	1459
K065712-54	207	26975	0.6	10.88345	1.25	3.17838	2.09	0.25088	1.67	0.80	1443	22	1452	16	1465
K065712-35	78	13325	1.8	10.83563	2.40	3.28674	2.71	0.25830	1.26	0.46	1481	17	1478	21	1473
K065712-27	179	136340	0.4	10.60587	2.88	3.38911	3.06	0.26069	1.02	0.33	1493	14	1502	24	1514
K065712-40	142	26960	1.3	10.52768	2.97	3.22058	3.70	0.24590	2.20	0.60	1417	28	1462	29	1528
K065712-19	310	22225	2.0	10.33261	1.48	3.45261	2.52	0.25874	2.04	0.81	1483	27	1516	20	1563
K065712-47	204	22160	1.2	10.24269	1.85	2.96556	2.67	0.22030	1.93	0.72	1283	22	1399	20	1579
K065712-31	113	157125	1.0	10.14412	1.38	3.82556	2.39	0.28145	1.95	0.82	1599	28	1598	19	1597
K065712-28	115	37660	1.1	10.14163	2.25	3.82011	3.29	0.28098	2.40	0.73	1596	34	1597	26	1598
K065712-72	167	41695	0.6	10.03135	1.88	3.93971	2.13	0.28663	1.00	0.47	1625	14	1622	17	1618
K065712-29	179	123135	1.0	10.02036	1.99	3.92430	2.30	0.28520	1.16	0.50	1617	17	1619	19	1620
K065712-30	117	16880	1.1	10.00263	2.01	3.79555	3.13	0.27535	2.40	0.77	1568	33	1592	25	1624
K065712-62	384	77620	1.5	9.98552	1.94	3.89048	4.22	0.28176	3.75	0.89	1600	53	1612	34	1627

K065712-93	77	19945	0.7	9.98169	1.57	3.91162	1.97	0.28318	1.19	0.60	1607	17	1616	16	1627
K065712-11	52	16040	0.8	9.94402	2.78	3.96453	3.12	0.28593	1.41	0.45	1621	20	1627	25	1635
K065712-3	41	15080	0.7	9.91804	2.00	3.89495	2.24	0.28017	1.00	0.45	1592	14	1613	18	1639
K065712-38	673	4860	2.5	9.90275	2.55	3.97157	3.44	0.28524	2.31	0.67	1618	33	1628	28	1642
K065712-92	40	9825	0.8	9.86285	2.53	4.07369	2.98	0.29140	1.58	0.53	1649	23	1649	24	1650
K065712-94	62	16970	0.7	9.77609	2.10	3.92439	2.38	0.27825	1.11	0.47	1583	16	1619	19	1666
K065712-32	90	54025	1.1	9.75788	1.04	4.04263	1.69	0.28610	1.33	0.79	1622	19	1643	14	1670
K065712-41	143	29005	0.9	9.72578	1.33	3.75375	2.48	0.26478	2.09	0.84	1514	28	1583	20	1676
K065712-1	130	41180	0.9	9.69445	1.68	4.04379	1.96	0.28432	1.00	0.51	1613	14	1643	16	1682
K065712-83	183	30405	1.1	9.69013	1.00	3.79783	1.41	0.26691	1.00	0.71	1525	14	1592	11	1682
K065712-48	55	14515	1.4	9.64307	2.71	3.92094	2.98	0.27422	1.23	0.41	1562	17	1618	24	1691
K065712-39	60	14385	1.4	9.42330	2.46	4.08155	3.21	0.27895	2.06	0.64	1586	29	1651	26	1734
K065712-12	196	61770	1.8	9.34401	2.06	4.30443	2.40	0.29171	1.23	0.51	1650	18	1694	20	1749
K065712-82	452	6015	1.3	9.31565	1.50	3.76992	3.86	0.25471	3.55	0.92	1463	46	1586	31	1755
K065712-77	83	13160	0.9	9.12148	2.35	4.82936	3.27	0.31949	2.27	0.69	1787	35	1790	27	1793
K065712-75	141	165795	1.5	9.08857	1.68	4.76802	2.96	0.31429	2.44	0.82	1762	38	1779	25	1800
K065712-21	61	10865	1.1	8.95402	2.71	5.04954	3.32	0.32792	1.92	0.58	1828	31	1828	28	1827
K065712-20	64	17815	0.9	8.94822	1.52	4.92595	1.82	0.31969	1.00	0.55	1788	16	1807	15	1828
K065712-50	70	18110	0.7	8.94719	2.92	5.03760	4.19	0.32690	3.00	0.72	1823	48	1826	35	1828
K065712-85	187	41125	1.0	8.88040	1.02	4.88948	3.22	0.31492	3.05	0.95	1765	47	1800	27	1842
K065712-22	136	42410	2.1	8.85903	1.23	5.20388	3.18	0.33436	2.93	0.92	1859	47	1853	27	1846
K065712-5	586	7170	2.8	8.85863	2.87	4.87000	3.91	0.31289	2.66	0.68	1755	41	1797	33	1846
K065712-33	571	41450	2.3	8.85806	2.79	4.93274	3.22	0.31690	1.61	0.50	1775	25	1808	27	1846
K065712-91	412	6210	2.2	8.81609	3.23	3.84509	3.44	0.24586	1.20	0.35	1417	15	1602	28	1855
K065712-55	222	55115	1.1	8.79111	1.86	5.09168	2.53	0.32464	1.71	0.68	1812	27	1835	21	1860
K065712-18	77	26505	1.1	8.72957	1.93	5.34295	2.62	0.33828	1.77	0.68	1878	29	1876	22	1873
K065712-64	232	48280	1.8	8.58198	1.73	5.45782	2.00	0.33971	1.00	0.50	1885	16	1894	17	1904
K065712-15	186	70765	1.2	8.50674	1.94	5.56021	2.18	0.34305	1.00	0.46	1901	16	1910	19	1919
K065712-79	119	33705	1.1	8.44194	1.81	5.65323	2.83	0.34613	2.18	0.77	1916	36	1924	24	1933
K065712-78	180	17225	1.3	8.43065	2.52	5.40536	4.65	0.33051	3.91	0.84	1841	63	1886	40	1935
K065712-46	29	5660	2.3	8.30127	2.80	5.85684	3.08	0.35262	1.29	0.42	1947	22	1955	27	1963
K065712-81	717	4840	3.3	8.26906	2.42	5.61672	3.66	0.33685	2.75	0.75	1872	45	1919	32	1970
K065712-43	341	45820	3.1	8.13094	1.65	5.51221	2.49	0.32506	1.86	0.75	1814	29	1903	21	2000
K065712-73	226	2400	1.1	7.66965	2.10	5.01131	2.70	0.27876	1.69	0.63	1585	24	1821	23	2103
K065712-9	68	30715	1.1	5.18976	1.01	14.14068	1.86	0.53225	1.56	0.84	2751	35	2759	18	2765
Carbon Canyon															

Carbon Canyon-17	108	26280	0.6	13.48996	1.74	1.74878	3.69	0.17110	3.25	0.88	1018	31	1027	24	1045
Carbon Canyon-75	242	65260	1.6	13.32716	1.15	1.84765	1.53	0.17859	1.01	0.66	1059	10	1063	10	1069
Carbon Canyon-4	78	7660	0.9	13.24127	2.39	1.89707	2.69	0.18218	1.22	0.45	1079	12	1080	18	1082
Carbon Canyon-65	97	30690	0.6	13.22822	3.71	1.92526	3.97	0.18471	1.41	0.36	1093	14	1090	27	1084
Carbon Canyon-48	112	25310	0.6	13.21160	3.54	1.89885	3.82	0.18195	1.44	0.38	1078	14	1081	25	1087
Carbon Canyon-3	126	26125	1.0	13.01221	2.78	1.92507	3.37	0.18168	1.91	0.57	1076	19	1090	23	1117
Carbon Canyon-58	204	53645	0.8	12.86716	1.74	2.08371	2.02	0.19445	1.02	0.51	1145	11	1143	14	1140
Carbon Canyon-63	56	11520	0.6	12.85297	1.69	1.93676	1.96	0.18054	1.00	0.51	1070	10	1094	13	1142
Carbon Canyon-30	202	78555	2.2	12.80215	1.88	2.17557	3.31	0.20200	2.72	0.82	1186	29	1173	23	1150
Carbon Canyon-99	195	27925	1.7	12.79033	2.85	1.95916	3.13	0.18174	1.30	0.42	1076	13	1102	21	1152
Carbon Canyon-57	252	78395	0.9	12.78113	1.50	2.10613	1.96	0.19523	1.26	0.64	1150	13	1151	13	1153
Carbon Canyon-29	317	112225	2.2	12.59819	2.50	2.18774	2.76	0.19989	1.16	0.42	1175	12	1177	19	1182
Carbon Canyon-53	48	14450	1.0	12.53904	2.67	2.16592	2.97	0.19697	1.31	0.44	1159	14	1170	21	1191
Carbon Canyon-21	177	52075	2.6	12.50994	2.49	2.14809	3.44	0.19490	2.37	0.69	1148	25	1164	24	1195
Carbon Canyon-100	246	90410	1.1	12.48310	2.03	2.25561	2.45	0.20421	1.38	0.56	1198	15	1199	17	1200
Carbon Canyon-37	62	37360	1.5	12.43146	1.66	2.23857	1.93	0.20183	1.00	0.52	1185	11	1193	14	1208
Carbon Canyon-84	100	34525	4.0	12.28317	3.25	2.30818	4.37	0.20563	2.91	0.67	1205	32	1215	31	1231
Carbon Canyon-11	150	55390	1.0	12.24148	2.57	2.27555	3.88	0.20203	2.91	0.75	1186	32	1205	27	1238
Carbon Canyon-74	119	42120	1.3	12.16852	2.43	2.39174	3.12	0.21108	1.96	0.63	1235	22	1240	22	1250
Carbon Canyon-55	473	42555	1.6	12.09974	1.93	2.06952	3.48	0.18161	2.89	0.83	1076	29	1139	24	1261
Carbon Canyon-22	28	9185	1.3	12.09540	2.40	2.54864	2.61	0.22358	1.04	0.40	1301	12	1286	19	1262
Carbon Canyon-51	152	37000	1.4	12.07855	2.10	2.46495	2.36	0.21593	1.07	0.45	1260	12	1262	17	1264
Carbon Canyon-33	128	73960	1.5	11.37165	1.76	2.88465	2.35	0.23791	1.55	0.66	1376	19	1378	18	1381
Carbon Canyon-59	96	35330	1.3	11.15076	1.59	3.02384	2.64	0.24455	2.10	0.80	1410	27	1414	20	1419
Carbon Canyon-35	92	86195	1.9	11.13952	2.02	3.06612	2.86	0.24772	2.03	0.71	1427	26	1424	22	1421
Carbon Canyon-10	77	30695	1.2	11.13195	2.86	3.05982	3.68	0.24704	2.32	0.63	1423	30	1423	28	1422
Carbon Canyon-1	495	69835	0.8	10.92949	1.73	2.73900	3.74	0.21712	3.31	0.89	1267	38	1339	28	1457
Carbon Canyon-73	281	84275	1.1	10.92489	1.00	3.06705	2.56	0.24302	2.36	0.92	1402	30	1424	20	1458
Carbon Canyon-97	434	63875	0.9	10.87466	1.54	2.77795	4.07	0.21910	3.77	0.93	1277	44	1350	30	1466
Carbon Canyon-24	122	43930	0.8	10.76497	2.29	3.41476	2.88	0.26661	1.75	0.61	1524	24	1508	23	1486
Carbon Canyon-27	76	31450	1.7	10.76217	2.85	2.89320	3.83	0.22583	2.55	0.67	1313	30	1380	29	1486
Carbon Canyon-23	157	30355	0.8	10.70154	2.80	2.50005	3.15	0.19404	1.45	0.46	1143	15	1272	23	1497
Carbon Canyon-20	182	58185	0.8	10.65814	2.59	3.35959	3.01	0.25970	1.53	0.51	1488	20	1495	24	1505
Carbon Canyon-92	270	81790	1.4	9.93322	1.80	3.82708	2.06	0.27571	1.00	0.49	1570	14	1598	17	1637
Carbon Canyon-7	60	25055	0.7	9.82438	2.25	4.21518	2.58	0.30034	1.27	0.49	1693	19	1677	21	1657
Carbon Canyon-9	264	91530	1.0	9.81334	1.00	4.14750	1.47	0.29519	1.08	0.73	1667	16	1664	12	1659

Carbon Canyon-67	40	16870	0.7	9.74710	2.18	4.17922	2.76	0.29544	1.69	0.61	1669	25	1670	23	1672
Carbon Canyon-83	327	131675	0.7	9.67278	1.33	4.20776	3.25	0.29519	2.97	0.91	1667	44	1676	27	1686
Carbon Canyon-96	119	64165	0.8	9.67150	2.19	4.33802	2.87	0.30429	1.86	0.65	1713	28	1701	24	1686
Carbon Canyon-98	78	36980	0.8	9.64484	2.30	4.39030	3.65	0.30711	2.84	0.78	1726	43	1711	30	1691
Carbon Canyon-15	85	59160	0.6	9.62798	2.48	4.29595	4.40	0.29998	3.63	0.83	1691	54	1693	36	1694
Carbon Canyon-78	106	40110	0.9	9.61432	2.52	4.25264	3.90	0.29653	2.98	0.76	1674	44	1684	32	1697
Carbon Canyon-14	79	68990	1.0	9.58245	2.99	4.30982	3.48	0.29953	1.78	0.51	1689	26	1695	29	1703
Carbon Canyon-71	57	25915	0.5	9.56684	1.87	4.32346	2.47	0.29998	1.62	0.65	1691	24	1698	20	1706
Carbon Canyon-89	43	21720	0.8	9.55665	2.38	4.39466	3.62	0.30460	2.73	0.75	1714	41	1711	30	1708
Carbon Canyon-31	212	93185	1.1	9.55168	1.89	4.41889	3.02	0.30612	2.35	0.78	1722	36	1716	25	1709
Carbon Canyon-32	301	147910	1.4	9.54677	1.73	4.57048	2.81	0.31646	2.21	0.79	1772	34	1744	23	1710
Carbon Canyon-64	163	81140	1.2	9.54118	1.46	4.38942	3.63	0.30374	3.32	0.92	1710	50	1710	30	1711
Carbon Canyon-13	81	66000	1.0	9.53072	2.31	4.38538	2.60	0.30313	1.19	0.46	1707	18	1710	21	1713
Carbon Canyon-45	59	31290	0.6	9.50415	1.13	4.42136	2.80	0.30477	2.56	0.91	1715	39	1716	23	1718
Carbon Canyon-93	218	90775	1.6	9.45690	1.99	4.28838	3.21	0.29413	2.52	0.78	1662	37	1691	26	1727
Carbon Canyon-85	239	163765	0.7	9.42208	2.11	4.45947	2.41	0.30474	1.16	0.48	1715	17	1723	20	1734
Carbon Canyon-25	193	46840	0.9	9.40739	2.55	4.27465	3.47	0.29165	2.36	0.68	1650	34	1688	29	1737
Carbon Canyon-62	71	30890	0.6	9.40651	2.76	4.28431	3.46	0.29229	2.08	0.60	1653	30	1690	28	1737
Carbon Canyon-18	74	27050	0.6	9.39970	2.70	4.33377	3.58	0.29545	2.35	0.66	1669	35	1700	30	1738
Carbon Canyon-95	68	20950	0.8	9.39740	1.82	4.34134	2.22	0.29589	1.27	0.57	1671	19	1701	18	1739
Carbon Canyon-81	46	41150	1.0	9.39703	1.46	4.48128	1.77	0.30542	1.00	0.56	1718	15	1728	15	1739
Carbon Canyon-43	75	38680	0.5	9.39593	2.49	4.42451	2.73	0.30151	1.12	0.41	1699	17	1717	23	1739
Carbon Canyon-44	260	110015	1.6	9.39355	2.33	4.55187	2.55	0.31011	1.04	0.41	1741	16	1741	21	1740
Carbon Canyon-26	302	140410	1.3	9.39240	1.72	4.62986	2.37	0.31539	1.63	0.69	1767	25	1755	20	1740
Carbon Canyon-8	346	64445	0.7	9.38773	1.72	3.99919	2.77	0.27229	2.17	0.78	1552	30	1634	22	1741
Carbon Canyon-86	152	102880	2.0	9.38681	1.53	4.55459	2.72	0.31007	2.25	0.83	1741	34	1741	23	1741
Carbon Canyon-77	64	34305	0.7	9.36862	3.23	4.55372	3.43	0.30941	1.16	0.34	1738	18	1741	29	1744
Carbon Canyon-60	472	125185	2.1	9.36423	3.08	4.51454	3.38	0.30661	1.39	0.41	1724	21	1734	28	1745
Carbon Canyon-50	178	92010	1.0	9.35461	1.44	4.42372	1.90	0.30013	1.24	0.65	1692	18	1717	16	1747
Carbon Canyon-28	273	102095	1.3	9.34435	1.08	4.63322	3.03	0.31400	2.83	0.93	1760	44	1755	25	1749
Carbon Canyon-16	69	59995	0.7	9.28845	2.95	4.49188	3.38	0.30260	1.64	0.49	1704	25	1729	28	1760
Carbon Canyon-2	208	70085	0.8	9.28210	1.29	4.72296	2.62	0.31795	2.28	0.87	1780	35	1771	22	1761
Carbon Canyon-5	115	53715	0.5	9.26446	1.06	4.65968	1.46	0.31309	1.00	0.69	1756	15	1760	12	1765
Carbon Canyon-42	353	140915	1.0	9.26267	1.49	4.59687	3.03	0.30881	2.64	0.87	1735	40	1749	25	1765
Carbon Canyon-56	197	69675	0.9	9.24302	1.14	4.70334	2.06	0.31530	1.72	0.83	1767	27	1768	17	1769
Carbon Canyon-79	154	66865	0.8	9.20219	2.59	4.63010	3.06	0.30902	1.63	0.53	1736	25	1755	26	1777
Carbon Canyon-94	190	26145	1.3	9.19280	1.76	4.69198	2.20	0.31283	1.32	0.60	1755	20	1766	18	1779

Carbon Canyon-69	36	22235	0.7	9.18534	1.37	4.56318	1.90	0.30399	1.31	0.69	1711	20	1743	16	1781
Carbon Canyon-87	293	122215	1.2	9.18514	1.16	4.78563	2.29	0.31880	1.98	0.86	1784	31	1782	19	1781
Carbon Canyon-66	163	64655	1.0	9.18175	1.43	4.51117	2.82	0.30041	2.43	0.86	1693	36	1733	23	1781
Carbon Canyon-88	136	39740	2.2	9.17830	1.31	4.84557	1.89	0.32256	1.36	0.72	1802	21	1793	16	1782
Carbon Canyon-47	144	61120	0.6	9.16273	2.09	4.82832	2.43	0.32086	1.24	0.51	1794	19	1790	20	1785
Carbon Canyon-54	110	51860	0.9	9.14806	2.68	4.77450	2.89	0.31678	1.07	0.37	1774	17	1780	24	1788
Carbon Canyon-49	107	23910	1.2	9.14273	2.31	4.70920	2.77	0.31226	1.53	0.55	1752	23	1769	23	1789
Carbon Canyon-80	197	103530	3.2	9.12745	1.34	4.91209	2.40	0.32517	1.99	0.83	1815	31	1804	20	1792
Carbon Canyon-61	138	59280	0.9	9.07623	1.40	4.97797	3.28	0.32769	2.97	0.90	1827	47	1816	28	1802
Carbon Canyon-36	143	45885	1.0	9.07586	2.19	4.73851	2.41	0.31191	1.00	0.42	1750	15	1774	20	1802
Carbon Canyon-6	68	19125	0.5	9.06313	2.07	4.85315	4.24	0.31901	3.70	0.87	1785	58	1794	36	1805
Carbon Canyon-38	80	73840	1.0	9.05351	2.66	4.90175	2.84	0.32186	1.00	0.35	1799	16	1803	24	1807
Carbon Canyon-91	139	66485	0.9	8.98045	1.65	5.02812	1.93	0.32749	1.00	0.52	1826	16	1824	16	1822
Carbon Canyon-82	149	106530	1.0	8.95474	2.34	4.98027	2.54	0.32345	1.00	0.39	1807	16	1816	22	1827
Carbon Canyon-76	121	46575	0.7	8.95055	2.84	4.98611	3.05	0.32368	1.10	0.36	1808	17	1817	26	1828
Carbon Canyon-90	142	55470	0.9	8.89490	1.43	5.07453	1.77	0.32737	1.04	0.59	1826	17	1832	15	1839
Carbon Canyon-12	200	110335	1.0	8.81194	3.22	5.23833	7.10	0.33478	6.33	0.89	1862	102	1859	61	1856
Carbon Canyon-40	85	91220	0.8	8.80909	2.52	5.23056	2.71	0.33418	1.00	0.37	1859	16	1858	23	1856
Carbon Canyon-41	99	72725	0.9	8.68957	1.19	5.31256	1.55	0.33481	1.00	0.64	1862	16	1871	13	1881
Carbon Canyon-39	155	108155	0.8	8.59813	1.88	5.52319	2.13	0.34442	1.00	0.47	1908	17	1904	18	1900
Carbon Canyon-46	195	92605	0.5	8.30600	1.37	5.89133	2.34	0.35490	1.90	0.81	1958	32	1960	20	1962
Carbon Canyon-72	344	107545	1.2	6.98481	2.75	7.74356	3.06	0.39228	1.35	0.44	2133	25	2202	28	2266
Carbon Canyon-19	294	36075	0.6	6.12039	3.50	8.11706	8.27	0.36031	7.49	0.91	1984	128	2244	75	2491
Carbon Canyon-70	519	293485	1.3	5.46075	1.18	12.80906	1.93	0.50730	1.53	0.79	2645	33	2666	18	2681
Carbon Canyon-68	422	229760	1.3	5.38198	1.00	13.44018	2.52	0.52462	2.31	0.92	2719	51	2711	24	2705
Carbon Canyon-34	139	99095	1.2	4.95223	1.75	15.10574	2.02	0.54255	1.00	0.50	2794	23	2822	19	2842
K06-57-11 = Upper Carbon Canyon Formation															
K065711-76	42	1496	0.7			1.55266	3.46	0.15966	1.89	0.55	955	17	952	21	944
K065711-61	141	6026	2.0			1.52842	2.83	0.15698	1.58	0.56	940	14	942	17	946
K065711-55	156	1635	1.3			1.69684	5.37	0.17076	2.41	0.45	1016	23	1007	34	988
K065711-11	144	6159	2.2			1.56078	2.03	0.15702	1.35	0.67	940	12	955	13	989
K065711-34	51	675	0.5			1.77062	5.72	0.17791	2.33	0.41	1056	23	1035	37	991
K065711-43	67	927	0.9			1.89075	6.50	0.18916	2.43	0.37	1117	25	1078	43	1000
K065711-60	14	853	0.6			1.70292	10.19	0.16902	7.69	0.75	1007	72	1010	65	1016
K065711-93	54	2307	0.9			1.62465	2.50	0.16083	1.93	0.77	961	17	980	16	1021

K065711-27	30	2371	1.1			1.77144	4.57	0.17478	2.70	0.59	1038	26	1035	30	1028
K065711-18	87	2958	1.7			1.73122	4.05	0.17037	2.53	0.63	1014	24	1020	26	1033
K065711-26	132	5059	1.1			1.69503	2.00	0.16570	1.21	0.60	988	11	1007	13	1047
K065711-50	101	3812	0.6			1.80227	2.04	0.17610	1.51	0.74	1046	15	1046	13	1048
K065711-74	164	5767	1.2			1.74205	2.84	0.17015	2.16	0.76	1013	20	1024	18	1048
K065711-87	108	4180	1.5			1.75232	3.28	0.17098	2.84	0.86	1018	27	1028	21	1050
K065711-29	122	918	0.8			1.97479	9.03	0.19264	7.49	0.83	1136	78	1107	61	1051
K065711-14	362	11458	3.2			1.68131	2.63	0.16400	2.42	0.92	979	22	1001	17	1051
K065711-6	303	17160	5.4			1.67571	2.51	0.16303	2.21	0.88	974	20	999	16	1056
K065711-20	292	10665	2.3			1.69636	3.62	0.16504	2.70	0.75	985	25	1007	23	1056
K065711-100	91	1844	0.9			1.75037	4.69	0.16893	2.98	0.64	1006	28	1027	30	1073
K065711-98	136	3410	1.1			1.84964	2.26	0.17791	1.98	0.88	1056	19	1063	15	1079
K065711-83	98	2025	1.1			1.92386	4.43	0.18476	2.98	0.67	1093	30	1089	30	1082
K065711-79	154	2556	1.8			1.85816	3.03	0.17671	1.75	0.58	1049	17	1066	20	1102
K065711-41	113	5443	0.6			1.93497	1.56	0.18309	1.05	0.68	1084	11	1093	10	1112
K065711-44	37	1647	0.7			1.92132	2.29	0.18063	1.52	0.67	1070	15	1089	15	1125
K065711-86	39	1782	1.1			1.96550	3.90	0.18406	2.40	0.62	1089	24	1104	26	1133
K065711-42	223	3643	0.8			2.03538	2.49	0.19019	1.43	0.58	1122	15	1127	17	1137
K065711-52	13	791	0.4			2.12675	3.70	0.19826	2.31	0.63	1166	25	1158	26	1142
K065711-13	151	6174	0.8			1.95710	2.73	0.18242	1.70	0.62	1080	17	1101	18	1142
K065711-62	55	2525	1.1			1.99700	2.49	0.18543	1.06	0.43	1097	11	1114	17	1150
K065711-22	58	2670	0.3			2.12137	2.32	0.19652	1.37	0.59	1157	14	1156	16	1154
K065711-48	104	3477	0.7			2.04631	1.88	0.18954	1.34	0.71	1119	14	1131	13	1155
K065711-73	92	3836	0.4			2.11377	3.35	0.19551	2.02	0.60	1151	21	1153	23	1157
K065711-31	41	1097	0.6			2.15317	2.51	0.19867	1.32	0.52	1168	14	1166	17	1162
K065711-4	151	7477	1.4			2.06491	2.07	0.18991	1.80	0.87	1121	19	1137	14	1169
K065711-25	119	6607	1.9			1.93825	2.75	0.17777	2.48	0.90	1055	24	1094	18	1174
K065711-70	46	1873	0.5			2.28114	3.33	0.20624	2.97	0.89	1209	33	1206	24	1202
K065711-21	90	1763	0.3			2.03482	4.72	0.18284	1.70	0.36	1082	17	1127	32	1215
K065711-56	81	3875	1.1			2.29651	2.48	0.20630	2.17	0.88	1209	24	1211	18	1215
K065711-39	116	805	0.4			2.39542	5.29	0.21517	4.58	0.87	1256	52	1241	38	1215
K065711-80	31	1335	1.0			2.31936	2.80	0.20735	1.94	0.69	1215	21	1218	20	1224
K065711-66	117	3959	0.6			2.29677	2.84	0.20453	2.51	0.89	1200	27	1211	20	1232
K065711-32	96	4523	0.7			2.46856	1.77	0.21802	1.09	0.62	1271	13	1263	13	1248
K065711-17	148	1296	0.7			2.45768	4.96	0.21528	3.02	0.61	1257	35	1260	36	1264
K065711-30	74	916	1.0			2.29226	5.02	0.19965	4.17	0.83	1173	45	1210	36	1276
K065711-69	118	3735	0.9			2.58268	4.03	0.22452	3.77	0.94	1306	45	1296	30	1279

K065711-92	135	2858	1.2			2.37826	4.98	0.20652	4.76	0.96	1210	53	1236	36	1281
K065711-57	12	801	0.6			2.74961	4.78	0.23461	2.63	0.55	1359	32	1342	36	1316
K065711-82	21	1231	1.1			2.54887	4.15	0.21684	2.41	0.58	1265	28	1286	30	1321
K065711-88	96	3812	1.4			2.59843	3.99	0.21890	3.65	0.91	1276	42	1300	29	1340
K065711-19	91	4346	1.1			2.60583	3.58	0.21913	2.95	0.82	1277	34	1302	26	1344
K065711-38	76	2944	0.7			2.68944	2.74	0.22571	2.37	0.86	1312	28	1326	20	1348
K065711-95	42	2234	0.9			2.76483	2.91	0.23198	1.19	0.41	1345	14	1346	22	1348
K065711-97	45	1409	0.8			2.61149	2.53	0.21908	1.00	0.39	1277	12	1304	19	1348
K065711-64	51	989	0.5			2.58233	6.25	0.21439	4.63	0.74	1252	53	1296	46	1368
K065711-24	11	705	0.5			3.01233	6.69	0.24955	3.86	0.58	1436	50	1411	51	1373
K065711-65	133	2843	0.9			2.73129	3.53	0.22504	3.05	0.87	1308	36	1337	26	1383
K065711-72	88	1174	0.5			2.95014	5.12	0.24198	4.60	0.90	1397	58	1395	39	1392
K065711-51	48	1359	0.9			3.00861	5.09	0.24665	4.84	0.95	1421	62	1410	39	1393
K065711-91	43	2317	0.8			2.80619	2.77	0.22987	2.44	0.88	1334	29	1357	21	1394
K065711-46	63	3134	1.4			2.85493	2.23	0.23361	1.96	0.88	1353	24	1370	17	1396
K065711-81	33	2063	1.6			2.81469	4.37	0.22854	3.29	0.75	1327	39	1359	33	1411
K065711-53	60	1882	0.3			2.91209	4.57	0.23599	4.01	0.88	1366	49	1385	35	1415
K065711-10	238	14269	1.9			2.77958	2.98	0.22516	2.24	0.75	1309	27	1350	22	1416
K065711-59	118	3355	0.7			3.02542	3.05	0.24491	2.46	0.80	1412	31	1414	23	1417
K065711-12	70	4877	1.5			2.89566	2.90	0.23435	2.54	0.88	1357	31	1381	22	1417
K065711-67	35	2020	0.8			2.82339	3.26	0.22838	2.24	0.69	1326	27	1362	24	1418
K065711-5	103	4462	1.0			2.80086	1.69	0.22555	1.16	0.68	1311	14	1356	13	1427
K065711-78	95	3923	1.9			2.69518	2.13	0.21656	1.76	0.82	1264	20	1327	16	1431
K065711-75	230	4639	1.1			2.97260	1.92	0.23851	1.54	0.80	1379	19	1401	15	1434
K065711-49	133	5836	0.3			3.08530	2.41	0.24752	2.09	0.87	1426	27	1429	18	1434
K065711-37	70	3442	0.7			3.16559	1.76	0.25331	1.35	0.76	1456	18	1449	14	1439
K065711-77	96	3993	0.7			2.83946	2.97	0.22712	2.70	0.91	1319	32	1366	22	1440
K065711-54	126	5259	0.5			3.13871	2.13	0.25085	1.38	0.65	1443	18	1442	16	1441
K065711-84	159	4190	0.8			2.80103	2.37	0.22369	1.98	0.83	1301	23	1356	18	1443
K065711-15	79	4437	2.0			2.91021	3.07	0.23228	2.56	0.84	1346	31	1385	23	1444
K065711-23	132	3945	0.8			2.99374	3.32	0.23811	3.00	0.90	1377	37	1406	25	1451
K065711-2	105	6924	2.0			3.03265	3.01	0.24015	2.66	0.89	1387	33	1416	23	1459
K065711-94	61	3962	0.6			2.95262	2.67	0.23350	2.28	0.85	1353	28	1396	20	1461
K065711-28	50	2845	0.7			3.28930	4.11	0.25937	2.96	0.72	1487	39	1479	32	1467
K065711-58	89	5647	0.4			3.26809	1.58	0.25360	1.17	0.74	1457	15	1473	12	1497
K065711-89	124	5618	1.0			3.02146	3.49	0.23126	3.10	0.89	1341	38	1413	27	1523
K065711-47	96	6468	0.5			3.59852	1.54	0.26835	1.06	0.69	1532	14	1549	12	1572

K065711-96	78	4908	0.8			3.82188	2.13	0.27736	1.66	0.78	1578	23	1597	17	1623
K065711-1	115	8023	0.8			3.70718	1.97	0.26727	1.69	0.86	1527	23	1573	16	1635
K065711-45	123	3545	0.8			3.98417	3.81	0.28581	3.47	0.91	1621	50	1631	31	1644
K065711-90	64	496	0.6			4.10050	3.87	0.29030	2.04	0.53	1643	30	1654	32	1669
K065711-16	245	7022	1.4			4.15604	4.65	0.28927	3.93	0.84	1638	57	1665	38	1700
K065711-68	95	6306	1.0			4.22749	9.83	0.29024	9.61	0.98	1643	139	1679	81	1725
K065711-85	208	9957	0.9			4.27629	3.58	0.28342	2.26	0.63	1609	32	1689	29	1790
K065711-63	44	3932	0.8			4.77972	2.54	0.31083	2.00	0.79	1745	31	1781	21	1824
K065711-71	42	3443	0.9			4.70480	2.32	0.30245	2.05	0.88	1703	31	1768	19	1845
K065711-3	29	2616	0.8			4.83472	2.27	0.30662	1.85	0.82	1724	28	1791	19	1870
K065711-35	48	4517	0.6			5.28419	2.18	0.33415	1.90	0.87	1858	31	1866	19	1875
K065711-40	68	2150	0.4			5.70154	2.19	0.35062	1.78	0.81	1938	30	1932	19	1925
K065711-99	84	7654	0.9			8.52271	2.94	0.41537	2.77	0.94	2239	52	2288	27	2332
K065711-9	113	12845	1.4			8.76443	2.14	0.40451	1.64	0.76	2190	30	2314	20	2425
K065711-8	191	19443	1.4			9.39204	2.58	0.42421	2.38	0.92	2280	46	2377	24	2462
K065711-36	84	7876	1.1			10.36126	1.81	0.46195	1.31	0.72	2448	27	2468	17	2484
K065711-33	35	3175	0.4			12.98254	1.90	0.50371	1.00	0.53	2630	22	2678	18	2715
K065711-7	35	5834	0.6			18.92891	2.09	0.56241	1.83	0.88	2877	42	3038	20	3147
K06-57-15 = Lower Carbon Butte															
K065715-49	39	1591	1.0			1.08506	6.11	0.12726	3.47	0.57	772	25	746	32	669
K065715-39	57	3377	1.6			1.60451	2.08	0.16150	1.00	0.48	965	9	972	13	987
K065715-84	84	4977	3.1			1.71702	1.69	0.17058	1.00	0.59	1015	9	1015	11	1014
K065715-18	131	7647	3.2			1.81472	1.46	0.17642	1.00	0.68	1047	10	1051	10	1058
K065715-1	41	1800	1.0			1.92727	2.76	0.18698	1.03	0.37	1105	11	1091	18	1062
K065715-82	163	7032	1.7			1.78616	1.55	0.17293	1.15	0.74	1028	11	1040	10	1066
K065715-71	20	1363	0.8			1.91581	6.01	0.18508	4.99	0.83	1095	50	1087	40	1071
K065715-95	187	11074	3.8			1.91262	2.81	0.18423	2.46	0.88	1090	25	1085	19	1076
K065715-75	54	3333	3.5			1.87012	2.23	0.17943	1.47	0.66	1064	14	1071	15	1084
K065715-2	221	9510	1.8			2.04876	1.69	0.19221	1.00	0.59	1133	10	1132	12	1129
K065715-56	74	4147	2.3			1.94040	2.09	0.18195	1.38	0.66	1078	14	1095	14	1130
K065715-34	122	9558	2.7			1.99588	1.63	0.18690	1.26	0.78	1105	13	1114	11	1133
K065715-9	127	2890	2.0			2.20234	3.07	0.20144	2.52	0.82	1183	27	1182	21	1179
K065715-23	239	13473	2.9			2.08865	3.32	0.19031	2.75	0.83	1123	28	1145	23	1187
K065715-77	110	5778	1.2			2.25415	1.94	0.20500	1.13	0.58	1202	12	1198	14	1191

K065715-22	105	5991	1.4			2.15298	2.05	0.19538	1.53	0.75	1150	16	1166	14	1195
K065715-68	124	7057	0.9			2.25276	1.71	0.20364	1.13	0.66	1195	12	1198	12	1203
K065715-6	31	2152	0.6			2.23406	2.34	0.20151	1.79	0.76	1183	19	1192	16	1207
K065715-24	22	1844	0.7			2.21628	3.29	0.19957	1.54	0.47	1173	16	1186	23	1210
K065715-42	56	3980	0.5			2.35254	1.84	0.21169	1.23	0.67	1238	14	1228	13	1212
K065715-78	86	4064	1.1			2.28260	1.59	0.20511	1.17	0.74	1203	13	1207	11	1214
K065715-40	161	17821	3.0			2.23274	2.30	0.19895	2.03	0.88	1170	22	1191	16	1231
K065715-16	91	8006	1.3			2.38626	1.70	0.21201	1.27	0.74	1240	14	1238	12	1237
K065715-14	181	8689	1.5			2.37246	2.19	0.21075	1.93	0.88	1233	22	1234	16	1237
K065715-32	43	2659	1.8			2.36810	3.46	0.20980	1.48	0.43	1228	17	1233	25	1242
K065715-99	122	8049	1.2			2.40516	4.10	0.21287	1.57	0.38	1244	18	1244	29	1244
K065715-53	49	4624	1.2			2.44820	5.68	0.21522	5.18	0.91	1257	59	1257	41	1257
K065715-7	80	5357	4.8			2.51126	4.59	0.22024	4.35	0.95	1283	51	1275	33	1262
K065715-54	82	10227	2.2			2.49040	5.63	0.21770	5.08	0.90	1270	59	1269	41	1268
K065715-45	126	10791	2.1			2.48490	2.61	0.21607	2.40	0.92	1261	27	1268	19	1279
K065715-97	113	5765	2.4			2.50696	1.81	0.21787	1.26	0.70	1271	15	1274	13	1280
K065715-73	154	7729	3.2			2.57010	2.33	0.22130	1.97	0.84	1289	23	1292	17	1298
K065715-30	134	10175	1.3			2.68933	2.03	0.22838	1.76	0.87	1326	21	1326	15	1325
K065715-76	65	663	1.0			2.23132	19.93	0.18683	4.34	0.22	1104	44	1191	141	1352
K065715-59	107	7423	1.1			2.78210	1.74	0.23163	1.36	0.78	1343	16	1351	13	1363
K065715-20	107	2531	0.7			2.46875	3.43	0.20500	3.15	0.92	1202	35	1263	25	1368
K065715-91	106	8483	1.6			2.94114	2.18	0.24263	1.56	0.71	1400	20	1393	17	1381
K065715-51	30	3778	1.2			2.88714	6.81	0.23428	5.00	0.73	1357	61	1379	51	1412
K065715-74	106	7597	2.2			3.03504	3.20	0.24572	2.75	0.86	1416	35	1416	24	1417
K065715-47	33	5336	0.9			3.07700	6.04	0.24881	4.69	0.78	1432	60	1427	46	1419
K065715-31	24	2497	2.0			2.94890	2.01	0.23750	1.25	0.62	1374	15	1395	15	1427
K065715-8	76	3164	1.0			2.67235	4.16	0.21509	3.64	0.88	1256	42	1321	31	1428
K065715-100	143	17299	3.0			3.14465	1.96	0.25234	1.00	0.51	1451	13	1444	15	1434
K065715-21	190	14776	2.7			3.07024	1.45	0.24614	1.03	0.71	1419	13	1425	11	1435
K065715-98	146	9511	1.8			3.12292	2.55	0.24914	1.91	0.75	1434	25	1438	20	1445
K065715-17	299	11300	2.4			3.27548	1.67	0.25906	1.00	0.60	1485	13	1475	13	1461
K065715-87	160	8114	1.6			3.26198	1.51	0.25752	1.11	0.73	1477	15	1472	12	1465
K065715-79	221	12732	1.8			3.24504	1.51	0.25564	1.12	0.75	1467	15	1468	12	1469
K065715-12	168	9982	1.6			3.20915	1.45	0.25258	1.00	0.69	1452	13	1459	11	1470
K065715-28	85	4936	1.8			3.28905	2.13	0.25718	1.87	0.87	1475	25	1478	17	1483
K065715-96	169	12027	1.4			3.35222	1.72	0.26161	1.39	0.81	1498	19	1493	13	1487
K065715-38	55	6680	1.4			3.44431	3.61	0.26571	3.19	0.88	1519	43	1515	28	1508

K065715-43	95	6125	1.9			3.30214	9.20	0.25441	6.09	0.66	1461	80	1482	72	1511
K065715-90	110	7294	0.9			3.55465	1.65	0.26904	1.04	0.63	1536	14	1539	13	1544
K065715-26	123	13772	1.9			3.56286	1.47	0.26678	1.00	0.68	1524	14	1541	12	1565
K065715-86	78	4292	1.3			3.85983	1.66	0.28384	1.27	0.77	1611	18	1605	13	1598
K065715-50	24	7857	1.2			3.76160	4.10	0.27196	3.34	0.82	1551	46	1585	33	1630
K065715-67	93	8069	0.7			4.05772	1.69	0.29208	1.33	0.78	1652	19	1646	14	1638
K065715-29	147	8514	1.7			4.05358	3.42	0.28777	3.17	0.93	1630	46	1645	28	1664
K065715-63	177	15424	13.4			4.22812	2.10	0.29751	1.84	0.88	1679	27	1679	17	1680
K065715-89	118	9560	1.8			4.25215	1.85	0.29872	1.50	0.81	1685	22	1684	15	1683
K065715-83	155	7167	1.6			4.20638	1.60	0.29547	1.20	0.75	1669	18	1675	13	1683
K065715-33	233	2599	2.0			3.67578	5.28	0.25419	5.02	0.95	1460	66	1566	42	1712
K065715-4	200	6997	1.0			4.34273	4.38	0.29784	4.22	0.96	1681	62	1702	36	1727
K065715-25	159	16008	1.9			4.27226	1.91	0.29171	1.41	0.73	1650	20	1688	16	1736
K065715-62	213	14106	2.6			4.53833	1.96	0.30854	1.68	0.86	1734	25	1738	16	1743
K065715-46	66	9871	2.2			4.65225	3.30	0.31604	2.54	0.77	1770	39	1759	28	1745
K065715-3	199	8637	0.7			4.53457	2.72	0.30385	2.49	0.91	1710	37	1737	23	1770
K065715-35	130	16185	1.4			4.71104	1.62	0.31334	1.24	0.76	1757	19	1769	14	1783
K065715-65	226	14680	1.5			4.81805	1.90	0.31995	1.61	0.85	1789	25	1788	16	1786
K065715-36	188	9477	3.1			4.71539	5.22	0.31267	4.91	0.94	1754	75	1770	44	1789
K065715-66	166	14645	1.4			4.87776	1.65	0.32316	1.31	0.79	1805	21	1798	14	1791
K065715-55	120	15834	2.3			4.92695	4.37	0.32491	3.83	0.88	1814	61	1807	37	1799
K065715-92	173	13464	1.9			4.86522	1.42	0.31976	1.00	0.71	1789	16	1796	12	1805
K065715-69	246	10735	6.7			4.99107	4.31	0.32623	3.89	0.90	1820	62	1818	37	1815
K065715-11	168	6662	1.2			4.93543	2.15	0.32177	1.74	0.81	1798	27	1808	18	1820
K065715-93	154	12144	1.8			5.11311	2.89	0.33165	2.37	0.82	1846	38	1838	25	1829
K065715-37	74	11700	1.6			5.23272	4.03	0.33892	2.86	0.71	1881	47	1858	34	1832
K065715-27	153	15116	1.4			4.88309	1.50	0.31576	1.11	0.74	1769	17	1799	13	1835
K065715-13	116	7685	1.6			5.14794	1.73	0.33148	1.34	0.77	1846	21	1844	15	1842
K065715-81	71	5681	1.4			5.09734	2.91	0.32805	2.57	0.89	1829	41	1836	25	1843
K065715-80	230	19254	1.8			5.08895	1.84	0.32704	1.54	0.84	1824	24	1834	16	1846
K065715-5	177	17303	1.5			5.12323	1.42	0.32909	1.00	0.71	1834	16	1840	12	1847
K065715-88	70	5636	0.9			5.16614	2.15	0.33008	1.33	0.62	1839	21	1847	18	1856
K065715-61	200	18198	2.5			5.21323	2.14	0.33245	1.85	0.86	1850	30	1855	18	1860
K065715-60	52	5418	1.5			5.25260	2.04	0.33447	1.64	0.81	1860	27	1861	17	1862
K065715-64	115	13092	2.9			5.33064	1.47	0.33700	1.00	0.68	1872	16	1874	13	1876
K065715-44	137	9768	1.9			5.35235	3.18	0.33817	2.74	0.86	1878	45	1877	27	1877
K065715-72	200	22202	3.0			5.28970	1.45	0.33358	1.00	0.69	1856	16	1867	12	1880

K065715-48	87	4113	3.0			4.22897	7.27	0.26648	6.16	0.85	1523	84	1680	60	1881
K065715-52	73	14501	2.7			5.42738	2.61	0.34049	2.01	0.77	1889	33	1889	22	1889
K065715-41	105	9714	1.5			6.34634	2.26	0.36955	2.02	0.89	2027	35	2025	20	2022
K065715-15	148	16803	1.6			8.98512	2.29	0.42934	2.05	0.90	2303	40	2336	21	2366
K065715-58	144	16765	2.5			10.30588	2.36	0.46497	2.01	0.85	2461	41	2463	22	2464
K065715-19	196	29892	2.4			10.97705	1.90	0.47820	1.62	0.85	2519	34	2521	18	2523
K065715-10	161	29608	1.4			12.61535	1.56	0.50995	1.03	0.66	2656	22	2651	15	2648
K065715-70	56	3046	1.6			12.79393	1.78	0.50568	1.26	0.71	2638	27	2665	17	2685
K065715-85	124	3778	2.2			11.92143	4.61	0.46561	4.49	0.97	2464	92	2598	43	2704
K065715-94	91	9651	1.0			15.45900	2.72	0.55516	2.53	0.93	2847	58	2844	26	2842
K065715-57	75	16859	1.0			23.79365	1.50	0.64790	1.12	0.74	3220	28	3260	15	3285
06K-57-14 upper unit of Carbon Butte Formation															
06K5714-50	124	64210	1.1	13.53650	1.00	1.78180	2.10	0.17490	1.90	0.88	1039	18	1039	14	1038
06K5714-8	47	43960	1.5	13.44430	3.20	1.79870	3.50	0.17540	1.40	0.40	1042	14	1045	23	1052
06K5714-48	21	26980	3.0	13.33390	4.10	1.86460	4.30	0.18030	1.50	0.34	1069	14	1069	29	1068
06K5714-44	380	233870	2.4	13.27090	1.10	1.85830	1.50	0.17890	1.10	0.69	1061	10	1066	10	1078
06K5714-82	107	64530	2.1	13.21220	1.40	1.91300	1.70	0.18330	1.00	0.60	1085	10	1086	11	1087
06K5714-60	127	76180	1.6	13.16970	1.70	1.93160	2.10	0.18450	1.10	0.53	1092	11	1092	14	1093
06K5714-72	64	48600	3.1	13.08670	1.60	1.91620	3.20	0.18190	2.80	0.87	1077	27	1087	21	1106
06K5714-83	81	46470	1.9	13.07740	1.80	1.94500	2.10	0.18450	1.00	0.48	1091	10	1097	14	1107
06K5714-1	48	67480	1.3	12.89970	2.20	2.02050	2.40	0.18900	1.00	0.41	1116	10	1122	17	1135
06K5714-34	96	98920	3.0	12.76590	2.30	2.13030	2.50	0.19720	1.00	0.40	1161	11	1159	17	1155
06K5714-90	241	172210	3.2	12.68060	1.80	2.14730	2.30	0.19750	1.50	0.63	1162	16	1164	16	1169
06K5714-21	27	35940	4.2	12.59160	3.10	2.18410	3.30	0.19950	1.20	0.35	1172	13	1176	23	1183
06K5714-47	73	61880	1.8	12.58260	2.00	2.20200	3.00	0.20100	2.30	0.76	1180	25	1182	21	1184
06K5714-40	115	92030	1.4	12.45450	1.00	2.24100	1.40	0.20240	1.00	0.71	1188	11	1194	10	1204
06K5714-11	74	92150	1.0	12.37450	1.20	2.31250	1.60	0.20750	1.00	0.63	1216	11	1216	11	1217
06K5714-18	73	46450	0.8	12.18890	1.40	2.43090	1.80	0.21490	1.10	0.62	1255	13	1252	13	1247
06K5714-30	56	28890	2.2	12.06200	2.50	2.47730	2.70	0.21670	1.10	0.42	1265	13	1265	20	1267
06K5714-23	87	139160	1.6	11.62910	2.30	2.71160	2.50	0.22870	1.00	0.40	1328	12	1332	19	1338
06K5714-37	56	47490	1.6	11.32780	1.00	2.83860	1.90	0.23320	1.60	0.85	1351	20	1366	14	1389
06K5714-85	152	114750	1.9	11.02330	1.00	3.17100	1.40	0.25350	1.00	0.71	1457	13	1450	11	1441
06K5714-43	241	198380	1.8	11.00020	1.80	3.15630	2.10	0.25180	1.00	0.48	1448	13	1447	16	1445
06K5714-6	244	529650	2.2	10.98680	1.50	3.13010	1.90	0.24940	1.10	0.59	1436	14	1440	15	1447

06K5714-88	76	106000	1.2	10.98670	3.00	2.98420	3.20	0.23780	1.00	0.32	1375	12	1404	24	1447
06K5714-89	135	350520	2.5	10.98130	2.30	3.19090	2.50	0.25410	1.00	0.40	1460	13	1455	19	1448
06K5714-58	148	125420	1.3	10.96070	1.50	3.17350	3.00	0.25230	2.70	0.88	1450	35	1451	24	1452
06K5714-91	77	47950	0.6	10.59440	1.50	3.43010	2.50	0.26360	2.10	0.82	1508	28	1511	20	1516
06K5714-68	120	31340	1.1	10.21470	1.40	2.94990	3.00	0.21850	2.70	0.89	1274	31	1395	23	1584
06K5714-32	61	82210	0.9	10.01110	1.60	3.90840	1.90	0.28380	1.00	0.54	1610	14	1615	15	1622
06K5714-42	53	56520	1.4	9.95060	1.60	3.93030	1.90	0.28360	1.10	0.56	1610	15	1620	16	1633
06K5714-5	53	65670	0.9	9.94270	1.80	4.01420	2.40	0.28950	1.60	0.68	1639	24	1637	20	1635
06K5714-28	155	180250	1.2	9.87050	1.60	4.11000	2.20	0.29420	1.50	0.70	1663	22	1656	18	1648
06K5714-31	55	113530	3.0	9.79900	1.70	4.14770	2.20	0.29480	1.30	0.60	1665	19	1664	18	1662
06K5714-93	88	64790	0.8	9.62110	1.30	4.27700	1.70	0.29840	1.00	0.60	1684	15	1689	14	1696
06K5714-80	28	83820	1.1	9.61520	2.50	4.25510	2.80	0.29670	1.20	0.42	1675	17	1685	23	1697
06K5714-15	75	98960	1.6	9.58710	1.10	4.31510	2.10	0.30000	1.80	0.86	1692	27	1696	18	1702
06K5714-26	85	116580	1.1	9.56930	1.40	4.34660	1.80	0.30170	1.00	0.57	1700	15	1702	15	1706
06K5714-62	128	136210	1.2	9.56800	1.60	4.29220	2.00	0.29790	1.20	0.62	1681	18	1692	16	1706
06K5714-59	57	43150	0.7	9.56240	2.90	4.28970	3.10	0.29750	1.00	0.33	1679	15	1691	25	1707
06K5714-56	49	52650	0.7	9.53650	1.00	4.35310	1.70	0.30110	1.40	0.81	1697	20	1704	14	1712
06K5714-63	73	102100	0.8	9.52220	1.70	4.45190	2.00	0.30750	1.20	0.57	1728	18	1722	17	1715
06K5714-65	320	417720	4.4	9.51370	1.10	4.42320	2.60	0.30520	2.40	0.90	1717	36	1717	22	1716
06K5714-54	74	90530	0.6	9.51360	1.10	4.44610	2.00	0.30680	1.70	0.83	1725	26	1721	17	1716
06K5714-52	40	40570	0.9	9.50030	1.70	4.47270	3.10	0.30820	2.60	0.83	1732	39	1726	25	1719
06K5714-95	32	34530	2.3	9.49870	1.10	4.44800	2.30	0.30640	2.10	0.89	1723	31	1721	19	1719
06K5714-77	191	259760	1.8	9.48520	1.90	4.49990	2.20	0.30960	1.10	0.51	1739	17	1731	19	1722
06K5714-13	141	234120	2.0	9.45760	1.30	4.48850	2.10	0.30790	1.70	0.80	1730	26	1729	18	1727
06K5714-10	163	303610	1.1	9.43180	1.00	4.57610	1.60	0.31300	1.20	0.77	1756	19	1745	13	1732
06K5714-67	125	148750	1.1	9.42630	1.20	4.38700	2.30	0.29990	2.00	0.87	1691	30	1710	19	1733
06K5714-64	98	119460	1.5	9.42430	1.70	4.54420	3.20	0.31060	2.70	0.85	1744	42	1739	27	1734
06K5714-7	59	91200	0.7	9.41350	1.20	4.48260	1.50	0.30600	1.00	0.65	1721	15	1728	13	1736
06K5714-70	166	170820	1.6	9.40210	1.00	4.33710	1.50	0.29570	1.10	0.73	1670	16	1700	12	1738
06K5714-9	94	142060	1.0	9.39690	1.60	4.50240	1.90	0.30680	1.00	0.53	1725	15	1731	16	1739
06K5714-61	175	140550	1.1	9.38810	1.40	4.53090	2.50	0.30850	2.10	0.83	1733	32	1737	21	1741
06K5714-16	130	200150	1.9	9.38300	1.40	4.54260	1.80	0.30910	1.00	0.57	1736	15	1739	15	1742
06K5714-17	83	107090	0.8	9.37880	1.00	4.56970	1.40	0.31080	1.00	0.71	1745	15	1744	12	1743
06K5714-22	60	95380	2.4	9.31580	1.30	4.59980	1.80	0.31080	1.30	0.69	1745	20	1749	15	1755
06K5714-96	182	218670	1.7	9.30090	2.20	4.65930	2.40	0.31430	1.00	0.41	1762	15	1760	20	1758
06K5714-69	98	57510	2.8	9.30050	1.20	4.58210	4.00	0.30910	3.80	0.96	1736	58	1746	34	1758
06K5714-84	176	106330	1.7	9.28340	3.60	4.68220	3.70	0.31530	1.00	0.27	1767	16	1764	31	1761

06K5714-4	101	205880	2.0	9.28080	1.70	4.69100	2.20	0.31580	1.40	0.62	1769	21	1766	19	1762
06K5714-74	49	54260	0.8	9.27960	1.70	4.65610	2.10	0.31340	1.30	0.60	1757	20	1759	18	1762
06K5714-66	91	88990	2.1	9.25220	1.20	4.73900	1.90	0.31800	1.40	0.75	1780	22	1774	16	1767
06K5714-27	50	69170	0.9	9.25090	2.10	4.65760	2.40	0.31250	1.20	0.49	1753	18	1760	20	1768
06K5714-33	91	162220	2.8	9.23960	2.40	4.72490	2.70	0.31660	1.40	0.50	1773	21	1772	23	1770
06K5714-57	246	258710	1.9	9.23080	1.00	4.67410	1.50	0.31290	1.10	0.73	1755	16	1763	12	1772
06K5714-36	135	255440	1.6	9.21900	1.90	4.72240	2.40	0.31570	1.50	0.60	1769	23	1771	20	1774
06K5714-24	41	76680	1.6	9.21740	1.70	4.72190	2.00	0.31570	1.00	0.51	1769	16	1771	17	1774
06K5714-35	64	94900	2.3	9.21750	1.40	4.75370	2.70	0.31780	2.30	0.86	1779	36	1777	22	1774
06K5714-98	339	87580	3.0	9.21410	7.60	4.28300	7.80	0.28620	1.90	0.25	1623	28	1690	65	1775
06K5714-46	153	212200	1.6	9.20030	1.00	4.73500	1.50	0.31600	1.10	0.72	1770	16	1774	12	1778
06K5714-25	108	205510	1.6	9.19390	1.50	4.75000	1.80	0.31670	1.00	0.55	1774	16	1776	15	1779
06K5714-76	131	149960	2.1	9.18440	1.00	4.78030	1.40	0.31840	1.00	0.71	1782	16	1781	12	1781
06K5714-86	115	157470	1.1	9.17250	1.30	4.82680	2.20	0.32110	1.80	0.80	1795	27	1790	18	1783
06K5714-38	189	224820	1.4	9.17140	1.30	4.70470	1.70	0.31290	1.00	0.60	1755	15	1768	14	1783
06K5714-92	132	111530	2.3	9.16120	1.00	4.81040	1.40	0.31960	1.00	0.69	1788	16	1787	12	1785
06K5714-53	102	122080	1.8	9.15690	1.00	4.77110	2.30	0.31690	2.10	0.90	1774	32	1780	19	1786
06K5714-19	73	263610	2.2	9.13820	1.60	4.85480	1.90	0.32180	1.00	0.53	1798	16	1794	16	1790
06K5714-97	77	123760	2.0	9.12870	1.80	4.81960	2.20	0.31910	1.30	0.59	1785	20	1788	18	1792
06K5714-94	85	101910	1.4	9.11650	1.10	4.86600	1.50	0.32170	1.10	0.71	1798	17	1796	13	1794
06K5714-49	138	192970	3.0	9.10340	1.00	4.82280	1.40	0.31840	1.00	0.70	1782	16	1789	12	1797
06K5714-45	133	159350	2.7	9.10130	1.60	4.89750	2.50	0.32330	1.90	0.77	1806	30	1802	21	1797
06K5714-51	29	38070	0.9	9.08660	4.20	4.78610	4.30	0.31540	1.00	0.23	1767	16	1783	36	1800
06K5714-39	67	77280	5.2	9.06310	1.00	4.91910	3.10	0.32330	2.90	0.95	1806	46	1806	26	1805
06K5714-87	199	393400	4.0	9.02790	2.50	4.93810	2.70	0.32330	1.10	0.42	1806	18	1809	23	1812
06K5714-20	272	304080	3.3	8.95620	1.40	4.99030	2.60	0.32420	2.20	0.83	1810	34	1818	22	1827
06K5714-100	226	222070	0.9	8.85640	3.10	5.19780	3.50	0.33390	1.70	0.48	1857	27	1852	30	1847
06K5714-78	136	223610	1.5	8.72750	1.30	5.21820	1.70	0.33030	1.00	0.60	1840	16	1856	14	1873
06K5714-79	33	86150	1.3	8.72180	1.50	5.22210	2.20	0.33030	1.50	0.70	1840	24	1856	18	1875
06K5714-14	82	195880	1.7	8.60070	1.00	5.52970	1.40	0.34490	1.00	0.71	1910	17	1905	12	1900
06K5714-71	163	196820	2.1	8.53400	1.00	5.60260	1.40	0.34680	1.00	0.71	1919	17	1917	12	1914
06K5714-12	65	247160	2.2	8.42860	1.70	5.67140	2.00	0.34670	1.00	0.51	1919	17	1927	17	1936
06K5714-41	185	299240	1.5	8.02400	1.00	6.38750	1.70	0.37170	1.40	0.81	2038	24	2031	15	2024
06K5714-81	155	202810	1.1	7.80670	1.50	6.71960	2.40	0.38050	1.90	0.78	2078	33	2075	21	2072
06K5714-75	155	263890	2.5	6.18100	1.10	10.52530	1.80	0.47180	1.50	0.81	2492	31	2482	17	2474
06K5714-55	56	86210	0.7	5.76270	1.40	11.42120	2.80	0.47740	2.50	0.87	2516	52	2558	27	2592
06K5714-99	103	192690	0.4	5.40560	1.90	13.31670	2.20	0.52210	1.20	0.54	2708	27	2702	21	2698

J10-60-2abcd Carbon Butte															
	11	5626	2.0			1.47822	4.20	0.15110	1.88	0.45	907	18	922	61	956
	18	2999	1.5			1.85384	3.48	0.17602	1.18	0.34	1045	13	1065	64	1105
	17	3245	2.5			1.97766	3.02	0.18662	0.97	0.32	1103	12	1108	59	1117
	32	1291	2.5			2.03702	1.85	0.19001	1.38	0.74	1121	17	1128	38	1141
	9	1421	2.0			1.92680	12.13	0.17912	3.73	0.31	1062	43	1090	213	1147
	23	7345	2.0			2.13599	1.92	0.19706	0.88	0.46	1160	11	1161	41	1162
	29	2499	3.0			2.14377	2.32	0.19716	0.65	0.28	1160	8	1163	49	1169
	18	3472	1.5			2.15781	2.96	0.19744	2.22	0.75	1162	28	1168	63	1179
	33	5435	2.0			2.04674	2.82	0.18671	2.50	0.89	1104	30	1131	57	1185
	27	2430	2.0			2.22650	2.10	0.20178	1.33	0.63	1185	17	1189	47	1198
	20	13468	2.0			2.36119	1.90	0.21176	0.75	0.40	1238	10	1231	45	1218
	41	5461	1.5			1.86899	2.11	0.16720	0.89	0.42	997	10	1070	39	1223
	33	3348	1.0			2.08918	2.68	0.18507	2.16	0.81	1095	26	1145	55	1242
	10	11024	1.0			2.45598	4.64	0.21729	0.83	0.18	1268	12	1259	110	1245
	17	24718	2.5			2.20420	3.45	0.19475	0.78	0.23	1147	10	1182	74	1248
	29	15471	2.0			2.44302	1.81	0.21533	1.05	0.58	1257	15	1255	44	1252
	25	18529	2.0			2.46110	1.79	0.21637	1.15	0.64	1263	16	1261	44	1257
	20	48534	1.5			2.41271	1.59	0.21196	0.75	0.47	1239	10	1246	38	1259
	38	33159	3.5			2.31877	1.30	0.20344	0.63	0.48	1194	8	1218	30	1261
	37	8455	2.0			2.32848	1.95	0.20317	1.55	0.79	1192	20	1221	45	1272
	12	3064	3.0			2.47859	3.33	0.21606	1.84	0.55	1261	26	1266	81	1274
	9	12784	2.0			2.45773	4.33	0.21412	1.16	0.27	1251	16	1260	103	1275
	14	23316	1.5			2.34635	2.85	0.20297	0.59	0.21	1191	8	1227	66	1289
	10	57560	3.0			2.57641	3.88	0.21978	0.93	0.24	1281	13	1294	97	1316
	23	1023	3.5			2.26508	1.92	0.19186	1.18	0.62	1132	15	1202	43	1330
	23	39074	3.5			2.31623	2.96	0.19570	0.84	0.28	1152	11	1217	67	1335
	12	9858	2.5			2.73045	2.91	0.22228	1.32	0.46	1294	19	1337	78	1406
	34	9188	2.0			2.87487	1.32	0.23381	0.98	0.74	1354	15	1375	38	1408
	15	7852	3.5			2.81582	3.53	0.22823	2.25	0.64	1325	33	1360	96	1414
	26	4814	2.0			2.92341	2.43	0.23705	1.79	0.74	1371	27	1388	70	1414
	26	15729	1.5			2.77867	1.99	0.22448	1.28	0.64	1306	19	1350	55	1421
	20	37963	2.0			3.00344	1.38	0.24257	0.83	0.60	1400	13	1409	41	1421
	14	1542	4.5			3.04367	4.49	0.24573	0.81	0.18	1416	13	1419	130	1422

	28	5188	1.0			2.56610	1.73	0.20609	0.85	0.49	1208	11	1291	44	1432
	12	3588	2.0			3.15581	1.66	0.25302	0.62	0.38	1454	10	1446	52	1435
	23	19103	2.0			3.04487	1.41	0.24321	0.53	0.37	1403	8	1419	43	1442
	16	12710	1.5			3.12697	2.19	0.24966	1.16	0.53	1437	19	1439	67	1443
	30	16636	2.0			2.81475	1.69	0.22432	1.55	0.92	1305	22	1360	47	1447
	14	58797	3.0			3.11592	1.94	0.24803	0.74	0.38	1428	12	1437	60	1449
	28	39652	4.5			2.86689	2.38	0.22772	1.77	0.74	1323	26	1373	67	1453
	22	21964	2.0			3.19428	2.71	0.25188	2.00	0.74	1448	32	1456	84	1467
	11	86957	4.0			3.32672	2.14	0.24279	0.64	0.30	1401	10	1487	70	1612
	8	71932	1.0			3.51327	3.00	0.25603	0.84	0.28	1470	14	1530	102	1615
	30	12953	2.0			3.33358	1.32	0.24249	1.01	0.76	1400	16	1489	44	1619
	11	3416	3.0			3.36137	3.06	0.24397	0.75	0.25	1407	12	1495	99	1623
	41	10548	4.0			3.09742	2.16	0.22337	1.50	0.70	1300	22	1432	66	1635
	28	10141	2.0			3.32315	1.16	0.23957	0.77	0.66	1385	12	1487	38	1635
	17	98631	2.0			3.63535	1.92	0.26136	0.71	0.37	1497	12	1557	69	1640
	15	4343	1.5			3.28828	2.45	0.23648	1.58	0.64	1368	24	1478	79	1640
	15	51820	1.5			3.55946	3.40	0.25566	0.87	0.26	1468	14	1541	116	1642
	17	22818	1.5			3.48222	2.24	0.24967	0.93	0.42	1437	15	1523	76	1645
	44	8621	2.0			3.41344	1.94	0.24160	1.76	0.91	1395	27	1508	65	1669
	26	20126	1.5			3.58570	1.06	0.25361	0.38	0.36	1457	6	1546	38	1671
	39	6453	1.0			4.07289	1.32	0.28580	1.19	0.90	1621	22	1649	53	1685
	9	1951	2.5			3.76822	5.77	0.26394	1.62	0.28	1510	28	1586	200	1689
	9	62523	3.0			3.96249	2.96	0.27418	1.62	0.55	1562	29	1627	113	1711
	22	11151	2.0			3.89676	2.04	0.26873	1.77	0.87	1534	31	1613	78	1717
	15	53453	2.5			3.69761	3.25	0.25344	1.73	0.53	1456	28	1571	115	1729
	20	11826	1.5			4.43061	1.69	0.30315	1.24	0.74	1707	24	1718	73	1732
	31	9463	2.0			4.32609	3.73	0.29600	3.49	0.93	1671	66	1698	152	1732
	33	990	4.0			3.83882	3.60	0.26231	1.27	0.35	1502	21	1601	131	1734
	7	3788	3.0			3.89559	3.61	0.26461	0.88	0.24	1513	15	1613	134	1745
	14	53834	1.5			3.78517	2.49	0.25673	0.96	0.39	1473	16	1590	92	1748
	31	6190	1.0			3.93091	1.75	0.26585	1.60	0.91	1520	27	1620	68	1753
	21	9836	1.0			4.60917	2.26	0.31041	2.11	0.94	1743	42	1751	101	1761
	23	78576	2.0			4.70023	1.38	0.31595	0.77	0.56	1770	16	1767	64	1764
	6	12984	0.5			4.26065	5.51	0.28593	1.30	0.24	1621	24	1686	214	1767
	16	47083	2.5			4.73954	1.60	0.31758	0.98	0.61	1778	20	1774	74	1770
	25	41283	1.5			4.63502	1.31	0.30987	0.60	0.46	1740	12	1756	60	1774
	36	4258	1.0			4.20565	1.52	0.28083	1.32	0.87	1596	24	1675	63	1776

	25	4824	1.0			4.34699	3.52	0.28934	3.17	0.90	1638	59	1702	145	1782
	11	39777	1.5			4.80141	2.61	0.31960	1.27	0.49	1788	26	1785	120	1782
	27	43198	3.0			4.48163	1.07	0.29818	0.46	0.43	1682	9	1728	48	1783
	14	42291	1.5			5.04911	2.59	0.32780	2.34	0.90	1828	49	1828	125	1827
	24	32718	3.0			5.10474	1.03	0.32887	0.71	0.68	1833	15	1837	52	1841
	17	18655	1.0			5.23991	1.67	0.33095	0.87	0.52	1843	19	1859	85	1877
	14	36890	1.0			5.75850	1.32	0.34934	0.52	0.40	1931	12	1940	74	1950
	14	63236	3.0			10.34237	1.31	0.44019	1.23	0.94	2352	35	2466	129	2562
	28	16127	1.5			12.52471	1.95	0.51040	1.91	0.98	2658	63	2645	222	2634
	7	20719	1.0			11.82514	1.47	0.46735	1.07	0.73	2472	32	2591	163	2685
	13	24484	2.5			14.75258	1.10	0.53632	0.94	0.85	2768	32	2799	153	2822
SixtyMile Formation															
K065713-66	148	58445	1.6	13.46532	3.53	1.74690	4.26	0.17060	2.38	0.56	1015	22	1026	27	1049
K065713-61	78	24025	2.6	13.40492	2.71	1.88172	2.89	0.18294	1.00	0.35	1083	10	1075	19	1058
K065713-46	302	75445	3.1	12.85811	1.18	2.07890	1.55	0.19387	1.00	0.65	1142	10	1142	11	1141
K065713-5	168	27445	1.5	12.84464	2.18	2.08113	2.67	0.19387	1.54	0.58	1142	16	1143	18	1143
K065713-85	115	67970	2.4	12.31460	2.29	2.27121	3.33	0.20285	2.41	0.72	1191	26	1203	23	1226
K065713-26	63	27840	2.4	11.87643	1.98	2.66671	3.24	0.22970	2.56	0.79	1333	31	1319	24	1297
K065713-64	53	25135	1.8	11.43096	3.26	2.97619	3.67	0.24674	1.67	0.46	1422	21	1402	28	1371
K065713-29	115	57955	2.4	11.38427	2.22	2.85949	2.80	0.23610	1.70	0.61	1366	21	1371	21	1379
K065713-38	215	68820	3.2	11.15846	1.44	3.08298	2.26	0.24950	1.74	0.77	1436	22	1428	17	1417
K065713-32	166	39505	1.2	11.12593	1.58	2.93305	2.26	0.23668	1.61	0.71	1369	20	1390	17	1423
K065713-90	185	50025	1.7	11.12199	1.08	3.05524	1.78	0.24645	1.41	0.79	1420	18	1422	14	1424
K065713-36	174	33180	1.0	11.11490	1.71	2.78306	2.07	0.22435	1.16	0.56	1305	14	1351	15	1425
K065713-8	200	55045	3.7	11.10684	2.12	3.12302	2.38	0.25157	1.08	0.45	1447	14	1438	18	1426
K065713-54	288	56445	2.0	11.10589	1.80	2.69754	2.15	0.21728	1.17	0.54	1267	13	1328	16	1426
K065713-56	271	72945	1.8	11.08687	2.30	3.13229	2.51	0.25187	1.00	0.40	1448	13	1441	19	1430
K065713-59	387	124410	1.9	11.06988	2.07	3.08518	2.74	0.24770	1.80	0.66	1427	23	1429	21	1433
K065713-27	225	71430	2.2	11.06786	1.67	3.03631	2.10	0.24373	1.28	0.61	1406	16	1417	16	1433
K065713-48	309	96900	1.9	11.06413	1.65	2.99606	3.24	0.24042	2.79	0.86	1389	35	1407	25	1434
K065713-2	199	74190	1.6	11.05527	2.00	3.10043	2.37	0.24859	1.28	0.54	1431	16	1433	18	1435
K065713-42	303	113430	2.2	11.05006	1.52	3.09040	2.98	0.24767	2.56	0.86	1426	33	1430	23	1436
K065713-40	259	40105	2.2	11.01950	1.20	3.03964	1.65	0.24293	1.13	0.69	1402	14	1418	13	1441
K065713-67	180	91410	2.9	11.01333	2.04	3.12788	3.66	0.24984	3.04	0.83	1438	39	1440	28	1442

K065713-41	334	80290	3.1	10.99683	1.00	2.93071	3.24	0.23374	3.08	0.95	1354	38	1390	25	1445
K065713-30	148	51335	2.9	10.98598	2.26	3.17268	2.91	0.25279	1.83	0.63	1453	24	1451	22	1447
K065713-33	187	39315	1.4	10.97819	2.64	3.08608	2.99	0.24572	1.40	0.47	1416	18	1429	23	1448
K065713-25	234	96200	1.6	10.97618	2.43	3.19052	2.63	0.25399	1.00	0.38	1459	13	1455	20	1449
K065713-16	281	32070	2.5	10.94679	1.21	3.03973	2.36	0.24133	2.02	0.86	1394	25	1418	18	1454
K065713-73	69	15345	1.5	10.94328	1.75	3.07009	3.08	0.24367	2.53	0.82	1406	32	1425	24	1455
K065713-69	84	47350	1.6	10.92411	2.86	3.33482	3.58	0.26421	2.16	0.60	1511	29	1489	28	1458
K065713-49	43	15365	1.2	10.90473	3.25	3.18962	3.63	0.25226	1.61	0.44	1450	21	1455	28	1461
K065713-51	231	53035	0.9	10.90337	1.56	3.20506	1.85	0.25345	1.00	0.54	1456	13	1458	14	1461
K065713-72	161	72320	3.3	10.89837	1.50	3.27837	1.85	0.25913	1.08	0.58	1485	14	1476	14	1462
K065713-35	110	29840	0.8	10.89583	1.51	3.18842	1.81	0.25196	1.00	0.55	1449	13	1454	14	1463
K065713-57	379	22600	1.0	10.85868	2.01	2.26765	3.25	0.17859	2.56	0.79	1059	25	1202	23	1469
K065713-37	264	94270	4.8	10.84000	1.17	3.25533	2.66	0.25593	2.39	0.90	1469	31	1470	21	1473
K065713-22	197	65160	1.5	10.80010	1.68	3.34977	2.25	0.26239	1.49	0.66	1502	20	1493	18	1480
K065713-84	118	48415	1.4	10.73337	1.06	3.32437	3.74	0.25879	3.59	0.96	1484	48	1487	29	1491
K065713-52	260	30920	1.7	10.72580	3.68	2.89085	4.43	0.22488	2.47	0.56	1308	29	1380	33	1493
K065713-39	486	20775	4.2	10.72528	1.00	2.30377	1.58	0.17920	1.22	0.77	1063	12	1213	11	1493
K065713-78	231	24630	1.3	10.67449	1.28	2.65733	2.58	0.20573	2.24	0.87	1206	25	1317	19	1502
K065713-71	35	16040	0.6	10.55524	3.06	3.34433	3.22	0.25602	1.00	0.31	1469	13	1491	25	1523
K065713-21	91	23945	1.4	10.52184	2.08	3.53778	2.69	0.26997	1.71	0.63	1541	23	1536	21	1529
K065713-88	160	37550	0.5	10.36326	2.61	3.53234	2.80	0.26550	1.00	0.36	1518	14	1534	22	1557
K065713-9	212	57680	2.7	9.85848	1.85	4.17531	3.55	0.29854	3.03	0.85	1684	45	1669	29	1651
K065713-94	117	35065	1.2	9.84311	1.77	4.11565	2.17	0.29381	1.26	0.58	1661	18	1657	18	1653
K065713-47	226	67420	1.5	9.80903	1.07	3.93751	2.08	0.28012	1.78	0.86	1592	25	1621	17	1660
K065713-14	222	55300	2.9	9.74931	1.00	3.62621	7.73	0.25640	7.66	0.99	1471	101	1555	62	1671
K065713-82	179	48510	1.3	9.68014	1.43	3.71075	1.75	0.26052	1.00	0.57	1493	13	1574	14	1684
K065713-74	90	42330	1.2	9.67948	1.96	4.27131	2.20	0.29986	1.00	0.45	1691	15	1688	18	1684
K065713-95	249	126585	2.3	9.67483	1.97	4.27797	3.15	0.30018	2.46	0.78	1692	37	1689	26	1685
K065713-96	369	180110	4.4	9.67393	1.94	4.33634	2.88	0.30425	2.13	0.74	1712	32	1700	24	1685
K065713-77	155	86180	2.0	9.66068	2.05	4.26155	2.94	0.29859	2.11	0.72	1684	31	1686	24	1688
K065713-91	89	50810	2.1	9.65535	2.36	4.29260	2.66	0.30060	1.23	0.46	1694	18	1692	22	1689
K065713-97	120	58700	2.7	9.63305	1.67	4.35027	2.16	0.30393	1.37	0.63	1711	21	1703	18	1693
K065713-80	172	68395	2.0	9.62964	1.90	4.24568	2.25	0.29652	1.21	0.54	1674	18	1683	19	1694
K065713-11	369	17570	2.6	9.60035	2.26	4.36011	3.22	0.30359	2.29	0.71	1709	34	1705	27	1700
K065713-43	202	59345	2.5	9.58209	2.95	4.16230	3.11	0.28926	1.00	0.32	1638	14	1667	26	1703
K065713-58	141	57345	1.2	9.57532	1.79	4.32752	2.35	0.30053	1.52	0.65	1694	23	1699	19	1704
K065713-1	268	34900	1.4	9.57219	1.81	3.73277	3.04	0.25914	2.44	0.80	1485	32	1578	24	1705

K065713-93	256	104265	2.7	9.52242	2.16	4.32014	3.16	0.29836	2.30	0.73	1683	34	1697	26	1715
K065713-70	226	151110	3.8	9.52008	1.62	4.26041	3.75	0.29416	3.38	0.90	1662	50	1686	31	1715
K065713-55	346	182955	4.3	9.51721	1.48	4.37157	3.46	0.30175	3.13	0.90	1700	47	1707	29	1716
K065713-6	56	15650	1.5	9.50802	1.38	4.27692	2.31	0.29493	1.85	0.80	1666	27	1689	19	1717
K065713-63	279	183795	2.4	9.49702	2.36	4.48715	2.56	0.30907	1.00	0.39	1736	15	1729	21	1719
K065713-92	88	35110	2.5	9.48700	3.29	4.33254	3.58	0.29811	1.41	0.39	1682	21	1700	30	1721
K065713-50	135	70750	3.0	9.48119	3.86	4.15903	4.85	0.28599	2.94	0.61	1621	42	1666	40	1723
K065713-4	203	36255	1.5	9.46293	2.38	3.49821	3.16	0.24009	2.08	0.66	1387	26	1527	25	1726
K065713-3	426	146610	4.3	9.43587	1.70	4.47595	2.63	0.30631	2.01	0.76	1723	30	1727	22	1731
K065713-98	143	48825	1.6	9.42092	1.00	4.56217	3.40	0.31172	3.25	0.96	1749	50	1742	28	1734
K065713-99	249	54985	1.8	9.40104	1.30	4.38926	2.14	0.29927	1.70	0.79	1688	25	1710	18	1738
K065713-89	305	110815	3.6	9.38511	1.00	4.55117	3.56	0.30979	3.42	0.96	1740	52	1740	30	1741
K065713-86	152	97740	2.5	9.37110	2.48	4.64671	3.27	0.31582	2.13	0.65	1769	33	1758	27	1744
K065713-65	240	91830	2.9	9.36159	2.36	4.45005	2.56	0.30214	1.00	0.39	1702	15	1722	21	1746
K065713-34	64	33605	4.1	9.35530	1.51	4.56510	2.36	0.30975	1.81	0.77	1739	28	1743	20	1747
K065713-28	129	66555	1.7	9.34983	1.40	4.53647	1.72	0.30762	1.00	0.58	1729	15	1738	14	1748
K065713-75	178	105915	4.2	9.34546	1.15	4.59223	2.44	0.31126	2.15	0.88	1747	33	1748	20	1749
K065713-12	196	42735	1.7	9.34416	2.77	4.01337	4.95	0.27199	4.10	0.83	1551	57	1637	40	1749
K065713-18	44	8175	37.6	9.32965	1.45	4.61889	3.05	0.31254	2.68	0.88	1753	41	1753	25	1752
K065713-76	108	76965	2.3	9.32355	1.61	4.62272	1.90	0.31259	1.00	0.53	1753	15	1753	16	1753
K065713-79	251	49285	2.0	9.32147	1.59	3.53300	3.86	0.23885	3.52	0.91	1381	44	1535	31	1754
K065713-60	171	80105	1.8	9.32135	1.42	4.64026	2.27	0.31370	1.77	0.78	1759	27	1757	19	1754
K065713-87	180	47630	1.3	9.31908	1.43	4.01857	2.93	0.27161	2.56	0.87	1549	35	1638	24	1754
K065713-7	176	58220	3.0	9.29806	1.64	4.64593	2.26	0.31330	1.56	0.69	1757	24	1758	19	1758
K065713-10	79	30810	3.9	9.25421	1.93	4.72364	2.17	0.31704	1.00	0.46	1775	16	1771	18	1767
K065713-83	243	121075	3.0	9.23797	1.00	4.66179	1.41	0.31234	1.00	0.71	1752	15	1760	12	1770
K065713-23	247	97230	3.9	9.19884	1.46	4.79120	2.57	0.31965	2.12	0.82	1788	33	1783	22	1778
K065713-62	195	72085	2.6	9.19869	1.97	4.80560	2.21	0.32061	1.00	0.45	1793	16	1786	19	1778
K065713-81	89	57075	3.2	9.15750	1.23	4.78562	2.22	0.31784	1.85	0.83	1779	29	1782	19	1786
K065713-24	46	22535	3.6	9.14427	2.25	4.86513	2.58	0.32266	1.25	0.49	1803	20	1796	22	1789
K065713-20	36	26435	1.7	9.07297	2.02	4.62747	4.28	0.30450	3.77	0.88	1714	57	1754	36	1803
K065713-15	265	18955	1.7	9.00040	3.22	4.58042	3.37	0.29900	1.00	0.30	1686	15	1746	28	1818
K065713-44	255	85020	2.9	8.99816	1.00	4.93752	2.26	0.32223	2.03	0.90	1801	32	1809	19	1818
K065713-31	799	6915	2.1	8.90719	2.73	5.08055	3.64	0.32821	2.40	0.66	1830	38	1833	31	1836
K065713-45	26	12655	6.6	8.46141	3.49	5.79180	3.87	0.35543	1.66	0.43	1960	28	1945	34	1929
K065713-68	135	145160	4.8	5.38250	1.95	13.11278	2.61	0.51189	1.73	0.66	2665	38	2688	25	2705
K065713-13	139	106585	1.5	5.34129	1.20	13.61155	1.69	0.52729	1.19	0.70	2730	26	2723	16	2718

Sixtymile #2															
K10-53-14-99	121	58365	2.2	13.66306	2.25	1.75200	2.73	0.17361	1.55	0.57	1032	15	1028	18	1019
K10-53-14-35	137	144768	3.1	13.52302	2.15	1.82170	2.22	0.17867	0.58	0.26	1060	6	1053	15	1040
K10-53-14-72	114	35306	1.6	13.35991	2.99	1.79780	3.15	0.17420	0.99	0.31	1035	9	1045	21	1065
K10-53-14-74	109	47827	2.3	13.25644	2.83	1.91090	2.93	0.18372	0.78	0.27	1087	8	1085	20	1080
K10-53-14-17	154	111683	2.0	12.99716	1.16	2.00098	2.01	0.18862	1.65	0.82	1114	17	1116	14	1120
K10-53-14-05	58	21930	1.2	12.76903	2.48	2.19622	2.85	0.20339	1.40	0.49	1194	15	1180	20	1155
K10-53-14-07	67	13990	1.0	12.39281	2.47	2.21795	2.99	0.19935	1.67	0.56	1172	18	1187	21	1214
K10-53-14-19	112	61914	2.9	11.46965	1.26	2.90289	1.37	0.24148	0.55	0.40	1394	7	1383	10	1365
K10-53-14-40	198	6669	2.0	11.35512	0.71	2.44280	1.39	0.20118	1.19	0.86	1182	13	1255	10	1384
K10-53-14-45	82	63674	1.9	11.32153	1.74	2.87953	1.79	0.23644	0.42	0.23	1368	5	1377	13	1390
K10-53-14-01	74	55061	2.7	11.29382	1.85	2.98745	2.17	0.24470	1.14	0.53	1411	14	1404	17	1394
K10-53-14-77	62	32995	1.5	11.09174	2.28	3.14659	2.54	0.25313	1.11	0.44	1455	14	1444	20	1429
K10-53-14-69	148	195185	1.3	11.05872	0.98	3.21370	1.35	0.25776	0.93	0.69	1478	12	1460	10	1435
K10-53-14-92	91	65979	1.5	11.05556	1.24	3.15987	1.60	0.25337	1.01	0.63	1456	13	1447	12	1435
K10-53-14-79	97	34161	1.7	11.05317	1.78	3.19271	1.97	0.25594	0.83	0.42	1469	11	1455	15	1435
K10-53-14-22	150	46535	2.4	11.05292	0.71	3.12450	1.78	0.25047	1.63	0.92	1441	21	1439	14	1436
K10-53-14-23	120	50096	1.1	11.02811	1.42	3.20622	1.55	0.25644	0.63	0.40	1472	8	1459	12	1440
K10-53-14-20	135	100660	2.0	11.02547	1.04	3.18377	1.28	0.25459	0.74	0.58	1462	10	1453	10	1440
K10-53-14-87	142	66587	2.6	11.01378	1.16	3.20279	1.82	0.25584	1.40	0.77	1469	18	1458	14	1442
K10-53-14-61	81	48332	1.6	11.01301	1.65	3.28963	2.17	0.26276	1.40	0.65	1504	19	1479	17	1442
K10-53-14-25	255	116817	1.7	11.01282	0.52	3.18064	1.16	0.25405	1.04	0.90	1459	14	1452	9	1442
K10-53-14-65	144	74360	1.1	11.01203	0.92	3.12294	1.18	0.24942	0.75	0.63	1435	10	1438	9	1443
K10-53-14-41	315	368726	5.3	11.00917	0.61	3.11435	0.97	0.24867	0.75	0.77	1432	10	1436	7	1443
K10-53-14-33	102	69341	2.1	11.00523	0.84	3.14983	1.02	0.25141	0.59	0.57	1446	8	1445	8	1444
K10-53-14-89	241	144487	3.7	10.99185	0.64	3.21747	1.42	0.25650	1.27	0.89	1472	17	1461	11	1446
K10-53-14-27	83	33010	1.6	10.97426	1.99	3.23173	5.06	0.25722	4.65	0.92	1476	61	1465	39	1449
K10-53-14-84	97	79538	2.0	10.96813	1.25	3.18305	1.50	0.25321	0.83	0.55	1455	11	1453	12	1450
K10-53-14-52	50	37049	0.9	10.74188	1.91	3.22131	2.36	0.25096	1.37	0.58	1443	18	1462	18	1490
K10-53-14-75	25	13516	2.0	9.96819	3.47	4.16436	4.43	0.30107	2.76	0.62	1697	41	1667	36	1630
K10-53-14-71	45	28582	1.4	9.70102	2.73	4.31767	3.37	0.30378	1.98	0.59	1710	30	1697	28	1680
K10-53-14-02	48	23634	1.4	9.69610	1.83	4.20342	2.08	0.29560	0.98	0.47	1669	14	1675	17	1681
K10-53-14-58	186	9555	1.2	9.68246	0.99	3.20593	3.25	0.22513	3.10	0.95	1309	37	1459	25	1684
K10-53-14-09	155	63896	4.8	9.66299	1.01	4.41442	1.29	0.30937	0.80	0.62	1738	12	1715	11	1688
K10-53-14-90	114	28062	1.0	9.64238	0.91	3.33764	3.78	0.23341	3.67	0.97	1352	45	1490	30	1692

K10-53-14-32	151	95145	1.5	9.63078	0.76	4.28454	1.60	0.29927	1.41	0.88	1688	21	1690	13	1694
K10-53-14-97	86	70654	1.9	9.62271	0.99	4.44323	1.50	0.31010	1.12	0.75	1741	17	1720	12	1695
K10-53-14-80	153	103336	3.4	9.62203	0.57	4.15881	1.77	0.29022	1.67	0.95	1643	24	1666	14	1695
K10-53-14-39	143	84973	1.6	9.61708	0.88	4.33139	1.79	0.30211	1.56	0.87	1702	23	1699	15	1696
K10-53-14-04	123	127692	1.6	9.61672	1.56	4.40424	1.85	0.30718	1.01	0.54	1727	15	1713	15	1696
K10-53-14-03	56	26484	3.9	9.60232	1.44	4.36378	1.94	0.30390	1.30	0.67	1711	20	1706	16	1699
K10-53-14-47	137	61319	1.9	9.60148	0.93	4.34524	1.27	0.30259	0.87	0.69	1704	13	1702	11	1699
K10-53-14-24	28	24075	1.6	9.58007	4.07	4.26035	4.45	0.29601	1.80	0.40	1672	26	1686	37	1703
K10-53-14-66	96	78052	3.9	9.57461	1.13	4.45226	2.20	0.30917	1.89	0.86	1737	29	1722	18	1705
K10-53-14-30	93	99689	4.3	9.56804	1.11	4.40715	1.42	0.30583	0.89	0.63	1720	13	1714	12	1706
K10-53-14-64	63	28564	2.1	9.56722	0.95	4.49048	1.66	0.31159	1.36	0.82	1749	21	1729	14	1706
K10-53-14-82	150	115784	2.4	9.56437	0.69	4.49313	1.08	0.31168	0.84	0.77	1749	13	1730	9	1706
K10-53-14-62	82	67744	2.7	9.55539	0.91	4.49356	1.64	0.31141	1.36	0.83	1748	21	1730	14	1708
K10-53-14-73	173	64750	2.3	9.54862	0.79	4.45793	1.33	0.30873	1.07	0.80	1734	16	1723	11	1710
K10-53-14-15	125	9641	4.4	9.53943	1.63	4.34201	2.05	0.30041	1.24	0.61	1693	18	1701	17	1711
K10-53-14-43	149	69239	1.4	9.53614	0.59	4.44935	0.80	0.30773	0.55	0.68	1730	8	1722	7	1712
K10-53-14-100	71	34451	1.1	9.52896	1.56	4.48887	1.77	0.31023	0.83	0.47	1742	13	1729	15	1713
K10-53-14-21	251	159051	2.3	9.52152	0.57	4.46489	1.15	0.30833	0.99	0.87	1732	15	1724	10	1715
K10-53-14-37	25	24122	4.6	9.50671	3.90	4.48178	4.15	0.30901	1.43	0.34	1736	22	1728	34	1718
K10-53-14-59	75	35869	1.9	9.50522	1.69	4.56559	4.15	0.31474	3.79	0.91	1764	59	1743	35	1718
K10-53-14-67	47	25202	4.3	9.50503	2.09	4.44090	2.65	0.30614	1.64	0.62	1722	25	1720	22	1718
K10-53-14-83	161	137969	1.2	9.49846	0.66	4.54958	1.05	0.31342	0.83	0.78	1758	13	1740	9	1719
K10-53-14-08	81	49030	2.9	9.49647	1.25	4.37859	1.93	0.30158	1.46	0.76	1699	22	1708	16	1720
K10-53-14-31	174	362666	3.0	9.49220	0.50	4.42346	0.79	0.30453	0.61	0.78	1714	9	1717	7	1720
K10-53-14-54	97	78575	2.9	9.49153	1.03	4.44783	2.07	0.30618	1.79	0.87	1722	27	1721	17	1721
K10-53-14-10	118	83960	2.5	9.48728	0.93	4.39849	1.25	0.30265	0.84	0.67	1704	13	1712	10	1721
K10-53-14-51	198	215440	3.8	9.47441	0.52	4.33813	0.75	0.29809	0.54	0.72	1682	8	1701	6	1724
K10-53-14-11	34	24890	3.5	9.47359	4.72	4.42088	5.73	0.30375	3.25	0.57	1710	49	1716	48	1724
K10-53-14-68	33	27752	2.7	9.43934	2.17	4.55653	2.51	0.31194	1.27	0.51	1750	20	1741	21	1731
K10-53-14-55	169	23956	3.1	9.43669	0.86	4.15534	1.86	0.28440	1.65	0.89	1613	24	1665	15	1731
K10-53-14-98	51	32601	2.0	9.42616	1.36	4.57231	1.90	0.31259	1.32	0.70	1753	20	1744	16	1733
K10-53-14-57	59	34959	4.5	9.41015	1.91	4.65266	2.23	0.31754	1.16	0.52	1778	18	1759	19	1736
K10-53-14-46	258	21678	1.5	9.40843	0.45	3.89366	3.10	0.26569	3.07	0.99	1519	42	1612	25	1737
K10-53-14-88	97	85663	3.5	9.38555	0.53	4.65170	1.14	0.31664	1.01	0.88	1773	16	1759	10	1741
K10-53-14-26	203	337256	2.2	9.37559	0.64	4.64559	1.36	0.31589	1.20	0.88	1770	19	1758	11	1743
K10-53-14-12	55	82228	3.6	9.37378	1.50	4.44999	1.92	0.30253	1.20	0.62	1704	18	1722	16	1743
K10-53-14-93	34	35980	1.6	9.36693	1.39	4.58039	2.63	0.31117	2.22	0.85	1746	34	1746	22	1745

K10-53-14-94	100	96238	2.0	9.36045	0.62	4.28721	1.01	0.29105	0.79	0.78	1647	11	1691	8	1746
K10-53-14-50	61	53706	2.5	9.34533	0.95	4.60663	1.54	0.31223	1.22	0.79	1752	19	1750	13	1749
K10-53-14-91	41	40409	3.9	9.34350	2.42	4.75785	2.71	0.32242	1.22	0.45	1802	19	1777	23	1749
K10-53-14-13	46	40814	4.1	9.32630	2.88	4.61419	3.20	0.31211	1.39	0.44	1751	21	1752	27	1753
K10-53-14-86	39	26556	3.5	9.31791	2.16	4.60970	3.07	0.31152	2.18	0.71	1748	33	1751	26	1754
K10-53-14-78	64	60089	4.2	9.31473	1.05	4.71619	1.58	0.31861	1.17	0.74	1783	18	1770	13	1755
K10-53-14-36	65	57126	2.8	9.30933	2.62	4.48192	2.83	0.30261	1.06	0.38	1704	16	1728	23	1756
K10-53-14-81	53	25523	3.2	9.29613	1.45	4.72062	1.88	0.31827	1.20	0.64	1781	19	1771	16	1759
K10-53-14-42	207	16102	2.3	9.29493	0.78	4.14780	3.95	0.27962	3.87	0.98	1589	55	1664	32	1759
K10-53-14-53	178	57112	2.4	9.29000	0.59	4.36038	2.75	0.29379	2.69	0.98	1660	39	1705	23	1760
K10-53-14-29	78	2725	2.1	9.28704	2.80	4.24812	3.38	0.28614	1.91	0.56	1622	27	1683	28	1760
K10-53-14-63	13	10186	4.0	9.26982	6.96	4.76683	7.24	0.32048	2.02	0.28	1792	32	1779	61	1764
K10-53-14-28	56	29600	2.2	9.25560	1.62	4.62977	2.22	0.31079	1.52	0.68	1745	23	1755	19	1767
K10-53-14-18	30	19939	3.6	9.25238	2.85	4.54618	3.52	0.30507	2.06	0.59	1716	31	1739	29	1767
K10-53-14-95	93	1106	2.8	9.24179	2.60	4.11466	3.33	0.27580	2.07	0.62	1570	29	1657	27	1769
K10-53-14-60	53	30927	2.6	9.23251	1.45	4.71165	2.03	0.31549	1.42	0.70	1768	22	1769	17	1771
K10-53-14-70	105	159973	4.2	9.22916	0.62	4.85740	1.44	0.32514	1.31	0.90	1815	21	1795	12	1772
K10-53-14-85	16	13452	4.4	9.22652	4.21	4.65126	4.86	0.31125	2.43	0.50	1747	37	1759	41	1772
K10-53-14-14	14	19401	5.3	9.20756	5.06	4.67430	5.54	0.31215	2.26	0.41	1751	35	1763	46	1776
K10-53-14-56	50	50522	2.7	9.14272	2.19	4.70571	2.67	0.31203	1.53	0.57	1751	23	1768	22	1789
K10-53-14-44	326	82338	2.2	9.12008	3.35	4.60642	5.03	0.30469	3.75	0.75	1715	56	1750	42	1794
K10-53-14-49	214	152858	2.8	9.08792	0.76	4.83799	1.27	0.31888	1.01	0.80	1784	16	1792	11	1800
K10-53-14-76	55	37064	1.0	8.73745	1.41	5.50999	1.67	0.34917	0.90	0.54	1931	15	1902	14	1871
Sixtymile #3															
K1252100-34	108	98195	2.4	11.14145	0.88	3.06576	1.11	0.24773	0.67	0.61	1427	9	1424	8	1420
K1252100-50	34	27500	0.9	11.09899	1.14	3.13306	1.76	0.25220	1.34	0.76	1450	17	1441	14	1428
K12252100-12	149	137811	3.4	11.07797	0.70	3.03863	1.57	0.24414	1.40	0.89	1408	18	1417	12	1431
K1252100-96	123	206549	2.1	11.07702	0.74	3.09374	1.34	0.24855	1.11	0.83	1431	14	1431	10	1431
K1252100-42	223	712230	4.2	11.06464	0.30	3.07851	1.35	0.24705	1.32	0.98	1423	17	1427	10	1434
K12252100-2	64	146142	1.3	11.06061	1.57	3.09607	1.85	0.24836	0.97	0.52	1430	12	1432	14	1434
K1252100-58	107	149212	2.5	11.05608	1.01	3.01031	1.25	0.24139	0.74	0.59	1394	9	1410	10	1435
K1252100-41	201	45057	1.7	11.05095	0.47	3.11403	2.42	0.24959	2.38	0.98	1436	31	1436	19	1436
K1252100-43	205	228049	3.6	11.04961	0.38	3.08715	1.19	0.24740	1.13	0.95	1425	14	1430	9	1436
K1252100-57	116	104006	1.4	11.04025	0.77	3.10678	2.88	0.24876	2.77	0.96	1432	36	1434	22	1438
K1252100-72	213	207079	4.0	11.03574	0.47	3.15796	0.92	0.25276	0.80	0.86	1453	10	1447	7	1438

K12252100-13	166	41618	2.0	11.01602	0.58	3.08173	2.19	0.24622	2.11	0.96	1419	27	1428	17	1442
K1252100-73	186	76821	3.8	11.01541	0.55	3.13382	1.01	0.25036	0.85	0.84	1440	11	1441	8	1442
K1252100-52	186	619612	3.5	11.00743	0.77	3.10348	1.21	0.24776	0.94	0.77	1427	12	1434	9	1443
K1252100-76	140	143900	2.3	11.00679	0.79	3.20562	4.97	0.25590	4.91	0.99	1469	64	1459	38	1444
K12252100-11	107	96634	3.1	10.99860	1.03	3.13026	3.34	0.24970	3.18	0.95	1437	41	1440	26	1445
K12252100-1	133	367021	0.9	10.99855	0.51	3.11111	0.96	0.24817	0.82	0.85	1429	10	1435	7	1445
K1252100-78	100	261573	1.4	10.98799	0.68	3.16380	1.08	0.25213	0.83	0.77	1449	11	1448	8	1447
K12252100-23	94	62710	1.5	10.98445	0.84	3.07461	1.93	0.24494	1.74	0.90	1412	22	1426	15	1447
K12252100-18	140	26515	2.4	10.96831	0.66	3.14708	1.86	0.25035	1.74	0.94	1440	22	1444	14	1450
K1252100-53	178	10420	2.0	10.95866	0.75	2.71780	2.40	0.21601	2.28	0.95	1261	26	1333	18	1452
K1252100-75	56	90837	1.5	10.93888	0.95	3.21263	1.60	0.25488	1.29	0.81	1464	17	1460	12	1455
K1252100-30	32	41188	1.2	9.88378	2.27	4.13002	3.57	0.29606	2.75	0.77	1672	41	1660	29	1646
K1252100-89	78	87043	0.8	9.87236	0.90	4.06695	1.96	0.29120	1.74	0.89	1648	25	1648	16	1648
K1252100-77	34	1182	0.6	9.86465	7.97	3.63809	8.38	0.26029	2.59	0.31	1491	34	1558	67	1649
K1252100-69	63	109623	1.1	9.83791	1.56	4.28587	2.20	0.30580	1.55	0.70	1720	23	1691	18	1654
K1252100-48	75	75621	2.7	9.67127	1.40	4.18206	1.61	0.29334	0.79	0.49	1658	12	1671	13	1686
K12252100-25	81	80801	3.1	9.63044	0.69	4.15811	1.50	0.29043	1.33	0.89	1644	19	1666	12	1694
K1252100-45	178	40982	2.5	9.61220	0.59	4.13504	0.89	0.28827	0.66	0.74	1633	10	1661	7	1697
K1252100-29	140	197781	2.4	9.59906	0.36	4.29229	1.38	0.29882	1.34	0.97	1685	20	1692	11	1700
K12252100-6	105	66498	1.4	9.59188	0.90	4.42376	3.12	0.30775	2.99	0.96	1730	45	1717	26	1701
K1252100-70	63	64838	1.6	9.55557	1.32	4.37771	2.81	0.30339	2.48	0.88	1708	37	1708	23	1708
K1252100-97	73	52366	1.1	9.55302	0.96	3.93281	1.35	0.27248	0.95	0.70	1553	13	1620	11	1709
K1252100-90	183	245853	4.1	9.51830	0.38	4.41988	2.38	0.30512	2.35	0.99	1717	35	1716	20	1715
K12252100-14	149	17753	2.3	9.51270	1.56	4.58831	9.75	0.31656	9.62	0.99	1773	149	1747	81	1716
K1252100-33	186	364917	2.9	9.48837	0.23	4.38751	0.53	0.30193	0.48	0.90	1701	7	1710	4	1721
K12252100-9	143	27384	2.2	9.48187	0.60	4.22002	2.32	0.29021	2.25	0.97	1643	33	1678	19	1722
K1252100-86	138	196171	3.7	9.47985	0.63	4.53733	1.29	0.31196	1.12	0.87	1750	17	1738	11	1723
K1252100-47	205	36126	2.7	9.47972	0.52	4.34060	0.90	0.29843	0.73	0.82	1684	11	1701	7	1723
K1252100-88	144	104293	3.0	9.47790	0.66	4.48200	1.60	0.30809	1.45	0.91	1731	22	1728	13	1723
K1252100-98	21	7011	2.4	9.45349	5.03	4.29429	5.50	0.29443	2.22	0.40	1664	33	1692	45	1728
K1252100-99	21	24189	3.9	9.44299	4.67	4.34431	4.94	0.29753	1.59	0.32	1679	24	1702	41	1730
K1252100-44	70	48223	4.5	9.43357	1.02	4.49140	1.35	0.30730	0.88	0.65	1727	13	1729	11	1732
K12252100-5	138	54357	2.5	9.42921	0.49	4.50411	0.83	0.30802	0.67	0.81	1731	10	1732	7	1733
K1252100-36	81	215850	3.1	9.41970	0.85	4.59181	1.24	0.31370	0.91	0.73	1759	14	1748	10	1734
K1252100-81	94	136526	1.9	9.39938	0.87	4.68613	1.91	0.31946	1.70	0.89	1787	27	1765	16	1738
K1252100-49	106	268991	2.1	9.39252	0.83	4.58065	3.67	0.31204	3.58	0.97	1751	55	1746	31	1740
K12252100-16	116	104098	3.0	9.35411	0.70	4.64476	2.61	0.31511	2.51	0.96	1766	39	1757	22	1747

K1252100-79	46	55659	2.4	9.33110	1.88	4.03713	3.52	0.27321	2.98	0.85	1557	41	1642	29	1752
K1252100-60	46	49632	3.0	9.31514	2.03	4.42957	2.70	0.29926	1.78	0.66	1688	26	1718	22	1755
K1252100-54	244	43588	2.7	9.31048	1.91	4.70090	6.08	0.31743	5.78	0.95	1777	90	1767	51	1756
K1252100-26	70	33888	2.5	9.24022	3.44	4.57973	3.73	0.30692	1.44	0.39	1726	22	1746	31	1770
K1252100-38	133	14308	0.7	9.23905	3.19	4.71628	7.29	0.31603	6.55	0.90	1770	101	1770	61	1770
K1252100-85	105	185160	2.2	9.21052	0.54	4.85205	1.28	0.32412	1.16	0.91	1810	18	1794	11	1776
K1252100-93	13	14716	3.6	9.15042	3.47	4.63384	3.99	0.30753	1.97	0.49	1729	30	1755	33	1788
K1252100-37	116	424640	2.0	9.14550	0.27	4.80170	0.89	0.31849	0.85	0.95	1782	13	1785	7	1788
K1252100-83	157	463574	1.8	8.76580	0.28	5.33120	1.32	0.33893	1.29	0.98	1882	21	1874	11	1865
Notes:															
Analyses with >10% uncertainty (1-sigma) in 206Pb/238U age are not included.															
Analyses with >10% uncertainty (1-sigma) in 206Pb/207Pb age are not included, unless 206Pb/238U age is <500 Ma.															
Best age is determined from 206Pb/238U age for analyses with 206Pb/238U age < 900 Ma and from 206Pb/207Pb age for analyses with 206Pb/238U															
Concordance is based on 206Pb/238U age / 206Pb/207Pb age. Value is not reported for 206Pb/238U ages <500 Ma because of large uncertainty in															
Analyses with 206Pb/238U age > 500 Ma and with >20% discordance (<80% concordance) are not included.															
Analyses with 206Pb/238U age > 500 Ma and with >5% reverse discordance (<105% concordance) are not included.															
All uncertainties are reported at the 1-sigma level, and include only measurement errors.															
Systematic errors are shown as 206Pb/238U uncertainty, 206Pb/207Pb uncertainty to the right of each sample (at 2-sigma level).															
U concentration and U/Th are calibrated relative to Sri Lanka zircon and are accurate to ~20%.															
Common Pb correction is from 204Pb, with composition interpreted from Stacey and Kramers (1975).															
Uncertainties of 1.5 for 206Pb/ 204Pb, 0.3 for 207Pb/ 204Pb, and 2.0 for 208Pb/ 204Pb are applied to common Pb composition.															
U/Pb and 206Pb/207Pb fractionation is calibrated relative to fragments of a large Sri Lanka zircon of 563.5 ± 3.2 Ma (2-sigma).															
U decay constants and composition as follows: 238U = 9.8485 x 10-10, 235U = 1.55125 x 10-10, 238U/235U = 137.88															
Analytical methods as described by Gehrels et al. (2008).															
For DZ age table to the right of each sample:															
	Min age and Max age refer to an age range that contains age-probability from at least 3 analyses.														
		# grains is the number of grains with an age within this range.													
	Peak age refers to a peak in age probability that contains age-probability from at least three analyses.														
		# grains is the number of grains that contribute age-probability to this peak.													
		Age in red is the youngest peak made up of at least three overlapping analyses, and is interpreted as the maximum d													
	Calculated with "AgePick" routine at http://docs.google.com/View?id=dcbpr8b2_7c3s6pxft														
For K-S table to the right of each set of samples:															
	K-S P-values calculated with the "K-S Test" routine of J. Guynn at http://docs.google.com/View?id=dcbpr8b2_7c3s6pxft														
	P-values indicate the degree to which two age-probability distributions differ. See text for explanation.														

	concordance		
±		Best age	±
(Ma)		(Ma)	(Ma)
23	0.98	956	18
47	0.98	979	47
45	1.01	993	45
56	0.99	1009	56
44	1.00	1012	44
31	0.94	1013	31
52	1.00	1014	52
22	1.00	1018	22
48	1.04	1023	48
26	0.96	1024	26
30	1.00	1026	30
54	1.00	1046	54
45	0.99	1048	45
29	0.95	1049	29
62	0.97	1049	62
33	0.97	1050	33
31	0.97	1053	31
46	0.96	1060	46
26	1.00	1060	26
43	0.96	1061	43
20	0.98	1065	20
86	0.92	1066	86
66	0.98	1071	66
36	0.96	1072	36
33	0.97	1073	33
31	1.00	1075	31
22	0.95	1077	22
20	0.99	1085	20
51	0.90	1088	51

DZ AGES				
MIN AGE	**MAX AGE**	**# GRAINS**	**PEAK AGE**	**# GRAINS**
897	1507	78	**1064**	**33**
1566	1741	6	1167	33
1767	2039	11	1430	14
			1642	6
			1668	6
			1855	5
			1987	5

48	1.00	1089	48
46	0.97	1090	46
47	0.99	1113	47
20	1.01	1136	20
34	1.03	1139	34
35	1.03	1140	35
32	0.99	1145	32
34	0.96	1151	34
35	0.98	1151	35
25	0.97	1155	25
39	0.96	1158	39
43	0.84	1162	43
37	0.90	1165	37
24	0.94	1167	24
20	0.94	1169	20
37	0.98	1177	37
28	0.97	1179	28
109	0.86	1186	109
44	0.99	1186	44
115	1.00	1186	115
20	0.98	1190	20
28	0.97	1192	28
37	0.84	1197	37
26	0.98	1198	26
40	0.93	1217	40
25	0.97	1227	25
104	0.88	1228	104
57	0.84	1245	57
56	0.92	1248	56
30	0.91	1253	30
60	0.93	1269	60
24	0.98	1279	24
26	0.95	1280	26
30	0.92	1311	30
30	0.99	1318	30
55	0.87	1357	55
28	0.97	1371	28

49	0.99	1389	49
43	0.96	1403	43
43	0.96	1403	43
40	0.99	1405	40
39	0.94	1409	39
43	1.00	1421	43
36	0.97	1429	36
21	1.01	1432	21
27	0.99	1439	27
46	0.99	1457	46
24	0.97	1458	24
35	0.96	1491	35
27	0.96	1620	27
40	0.95	1632	40
39	0.97	1637	39
40	0.95	1654	40
25	0.99	1691	25
37	0.95	1695	37
44	1.01	1767	44
25	0.97	1820	25
18	0.93	1855	18
49	0.94	1865	49
42	0.96	1877	42
18	1.00	1895	18
41	1.04	1966	41
23	0.97	1969	23
29	0.98	1981	29
18	0.99	1994	18
34	1.02	2025	34
27	0.93	2202	27
18	0.96	2338	18
40	0.97	2721	40
16	0.96	2750	16
18	0.98	2915	18
57	0.97	811	19

DZ AGES

33	1.04	985	33
55	0.99	987	55
21	1.04	993	21
29	1.00	1005	29
28	0.99	1006	28
30	1.04	1010	30
48	0.98	1015	48
44	1.01	1024	44
48	0.97	1032	48
49	0.96	1037	49
53	0.96	1038	53
25	0.99	1038	25
20	1.03	1040	20
74	0.93	1050	74
28	1.02	1062	28
32	1.01	1063	32
43	0.98	1074	43
70	0.90	1084	70
65	0.99	1086	65
40	0.99	1092	40
41	1.01	1105	41
50	1.04	1113	50
23	1.03	1123	23
20	0.95	1133	20
39	0.94	1134	39
36	1.05	1157	36
20	0.99	1166	20
57	1.02	1170	57
43	0.94	1177	43
24	0.99	1191	24
34	0.99	1193	34
39	0.96	1211	39
26	0.89	1213	26
48	1.01	1240	48
37	1.01	1245	37
25	0.95	1245	25

MIN AGE	MAX AGE	# GRAINS	PEAK AGE	# GRAINS
919	1593	68	**1035**	**22**
1633	1982	22	1132	17
2594	2623	0	1237	15
2634	2690	2	1354	14
2706	2774	2	1445	16
			1646	3
			1779	14
			2649	3
			2737	3

20	1.00	1249	20
42	0.98	1250	42
36	0.95	1250	36
48	0.93	1258	48
60	0.97	1294	60
52	0.98	1306	52
38	1.00	1323	38
29	1.04	1329	29
23	1.01	1346	23
31	1.02	1349	31
25	1.02	1349	25
30	0.86	1351	30
19	0.95	1359	19
36	0.99	1366	36
19	0.91	1394	19
53	0.93	1414	53
32	1.01	1420	32
31	1.05	1425	31
32	0.95	1432	32
62	0.86	1441	62
37	1.00	1444	37
28	0.96	1448	28
54	0.96	1449	54
34	0.99	1452	34
24	1.00	1453	24
34	1.01	1454	34
38	0.99	1455	38
40	1.01	1456	40
34	0.96	1460	34
53	1.02	1467	53
54	0.82	1495	54
26	1.03	1541	26
46	0.99	1626	46
20	0.95	1642	20
31	1.01	1695	31
32	1.00	1723	32
27	0.98	1734	27

27	1.03	1744	27
21	1.02	1761	21
35	1.02	1761	35
36	0.95	1770	36
43	1.04	1772	43
53	0.96	1772	53
18	1.04	1777	18
32	0.97	1777	32
36	1.01	1779	36
22	1.00	1790	22
18	0.98	1795	18
22	1.00	1811	22
21	0.99	1841	21
22	0.96	1854	22
35	1.03	1880	35
46	0.96	1883	46
46	0.99	1890	46
32	1.02	1924	32
51	1.04	2000	51
30	0.97	2380	30
19	0.99	2515	19
31	1.00	2561	31
24	0.99	2642	24
52	0.92	2681	52
36	1.01	2706	36
17	1.00	2740	17
47	96.2	763	21
128	89.3	805	11
62	95.5	806	16
71	103.2	960	71
64	101.9	979	64
34	103.8	1020	34
14	99.9	1021	14
12	99.4	1028	12

DZ AGES				
MIN AGE	**MAX AGE**	**# GRAINS**	**PEAK AGE**	**# GRAINS**
783	805	1	**805**	**3**
818	827	0	1043	31
865	1493	78	1087	30
1502	1506	0	1172	29
1837	1881	2	1333	12
			1445	9

28	98.0	1030	28
22	102.2	1035	22
34	100.7	1036	34
86	99.8	1037	86
8	101.8	1041	8
19	100.9	1042	19
11	101.4	1044	11
25	96.4	1045	25
20	97.5	1045	20
27	99.9	1054	27
9	100.2	1054	9
30	102.0	1066	30
48	102.4	1074	48
31	100.3	1074	31
37	101.8	1076	37
57	103.5	1081	57
32	101.9	1085	32
33	99.4	1085	33
52	98.9	1087	52
9	96.2	1088	9
21	102.0	1097	21
115	102.9	1113	115
21	97.0	1115	21
127	104.8	1118	127
45	102.3	1122	45
81	102.6	1131	81
15	101.1	1140	15
44	102.4	1141	44
67	96.3	1145	67
45	100.5	1150	45
23	98.6	1150	23
11	100.6	1160	11
20	100.8	1161	20
73	99.4	1164	73

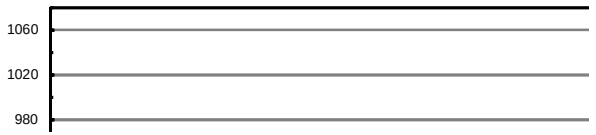
			1462	10
			1864	4

set #1 and set #2 combined:

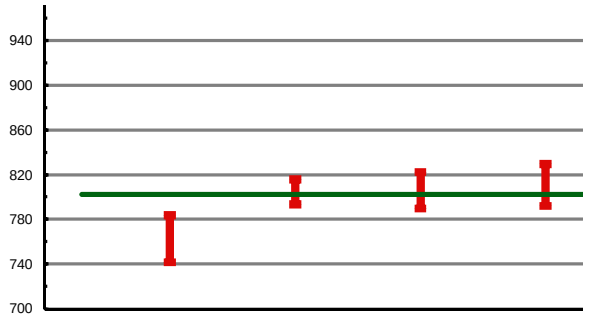
DZ AGES				
MIN AGE	**MAX AGE**	**# GRAINS**	**PEAK AGE**	**# GRAINS**
774	838	3	**806**	**3**
865	1982	178	1043	52
2594	2623	0	1086	51
2634	2691	3	1172	49
2701	2774	3	1335	25
			1445	25
			1626	4
			1685	7
			1715	12
			1783	16
			1861	11
			1952	5
			2675	4
			2731	4

762.5	21.0
804.5	11.3
806.1	16.3
810.8	18.7
960.4	70.7
979.3	63.6
984.8	33.0
1019.8	33.5

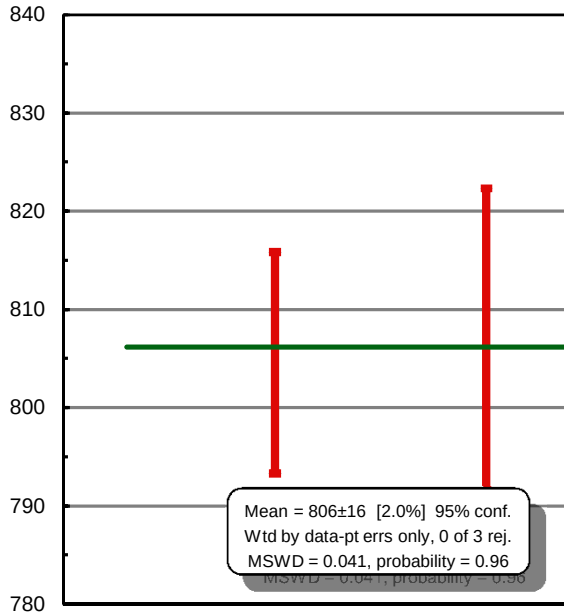
with all 5 selected



40	97.7	1166	40
32	100.5	1167	32
9	100.5	1171	9
27	99.4	1176	27
47	100.5	1180	47
27	99.5	1180	27
34	100.4	1182	34
16	100.2	1185	16
57	96.0	1187	57
13	97.4	1191	13
10	91.3	1192	10
17	100.8	1193	17
101	98.6	1197	101
61	95.9	1212	61
17	92.5	1216	17
16	100.5	1223	16
42	103.8	1233	42
20	99.1	1237	20
14	103.7	1250	14
33	97.3	1251	33
56	100.0	1319	56
11	99.4	1329	11
13	100.4	1330	13
11	98.9	1334	11
20	103.5	1358	20
19	100.9	1367	19
24	103.8	1368	24
44	100.0	1384	44
21	92.5	1395	21
21	100.4	1424	21
7	98.0	1441	7
12	100.5	1447	12
22	102.4	1447	22
30	99.5	1452	30
12	100.2	1456	12
15	101.9	1457	15
19	100.3	1468	19



with cluster of 3 selected: age = 806 ±18 M



11	99.0	1470	11
10	98.1	1473	10
38	101.5	1578	38
21	101.9	1612	21
6	92.8	1684	6
12	97.7	1708	12
21	80.6	1823	21
30	98.5	1830	30
11	100.3	1859	11
11	99.4	1872	11
6	99.8	1952	6
4	88.9	2571	4
8	88.9	2675	8
14	98.7	2729	14
65	104.6	778	6
22	100.2	971	22
38	100.9	981	38
73	104.6	991	73
48	104.3	991	48
78	102.3	1002	78
81	100.2	1004	81
74	98.5	1018	74
52	102.9	1019	52
22	102.9	1020	22
26	102.5	1021	26
138	99.2	1023	138
13	101.7	1025	13
10	100.4	1026	10
18	102.9	1029	18
35	103.6	1036	35
32	100.0	1037	32
12	99.7	1043	12
49	99.2	1049	49

1.0,0.8

DZ AGES				
MIN AGE	**MAX AGE**	**# GRAINS**	**PEAK AGE**	**# GRAINS**
845	1530	86	**1033**	**40**
1581	1713	4	1163	41
1792	1863	4	1248	19
2680	2683	0	1324	12
			1390	9
			1447	10
			1477	8
			1643	5
			1805	3
			1838	4

62	100.7	1049	62
27	96.7	1052	27
39	96.8	1055	39
53	99.2	1057	53
36	98.0	1059	36
34	98.6	1060	34
35	102.2	1071	35
26	96.7	1072	26
53	100.1	1072	53
31	101.2	1078	31
40	99.4	1080	40
34	99.2	1083	34
59	97.9	1086	59
48	98.8	1086	48
35	98.7	1087	35
28	100.5	1090	28
138	97.6	1093	138
87	102.9	1099	87
40	98.2	1115	40
42	99.8	1119	42
40	102.5	1122	40
94	92.9	1123	94
39	103.1	1125	39
43	101.9	1128	43
62	98.7	1130	62
37	101.6	1135	37
39	104.7	1138	39
194	99.7	1140	194
21	101.2	1147	21
23	102.1	1148	23
112	100.3	1151	112
86	101.0	1153	86
52	102.1	1153	52
34	99.9	1155	34
49	99.2	1158	49
40	100.7	1159	40
8	101.9	1163	8

9	100.8	1164	9
23	102.5	1167	23
59	99.1	1168	59
47	100.3	1170	47
43	100.2	1174	43
20	96.5	1180	20
15	102.5	1183	15
26	100.2	1195	26
17	100.1	1197	17
92	101.1	1202	92
73	90.0	1215	73
91	89.7	1219	91
14	99.7	1222	14
26	98.0	1249	26
11	98.9	1251	11
19	101.4	1270	19
18	98.8	1314	18
15	99.8	1328	15
52	98.9	1374	52
18	98.9	1383	18
24	100.9	1387	24
49	99.0	1388	49
60	98.0	1410	60
29	99.4	1410	29
30	101.0	1414	30
12	101.1	1447	12
22	101.3	1454	22
29	102.7	1468	29
6	100.4	1478	6
22	99.2	1483	22
121	93.1	1503	121
26	100.5	1638	26
16	97.3	1643	16
33	103.4	1647	33
87	96.4	1689	87
13	101.9	1802	13
13	100.3	1837	13

10	101.7	1839	10
31	103.0	1854	31
13	100.3	1979	13
8	100.9	2667	8
11	100.2	2670	11
5	102.2	2690	5
10	98.2	2711	10
9	100.4	2724	9
56	101.2	965	56
51	100.8	969	51
192	104.4	971	192
25	99.0	973	25
43	101.0	995	43
129	103.9	997	129
29	100.8	1005	29
42	100.1	1008	42
127	101.7	1008	127
21	99.7	1009	21
57	100.3	1015	57
59	100.2	1025	59
92	101.4	1029	92
17	98.8	1037	17
33	100.8	1038	33
97	100.9	1046	97
49	100.2	1058	49
28	102.5	1060	28
86	100.4	1067	86
20	100.1	1068	20
46	99.7	1070	46
55	99.4	1072	55
32	96.2	1074	32
8	101.0	1074	8
16	100.9	1074	16

1.1,0.8

DZ AGES				
MIN AGE	**MAX AGE**	**# GRAINS**	**PEAK AGE**	**# GRAINS**
806	1554	83	**1075**	**46**
1589	1598	0	1167	37
1606	1641	3	1449	12
1653	1657	0	1626	3
1700	1710	0	1851	7
1720	1737	0	1881	6
1799	1920	10	1912	4
1992	2034	3	2012	3

16	99.0	1075	16
23	97.1	1075	23
23	97.9	1076	23
30	101.1	1076	30
89	99.2	1077	89
20	101.4	1078	20
25	100.2	1080	25
30	100.4	1088	30
94	98.3	1088	94
21	100.0	1103	21
36	97.8	1103	36
17	99.7	1104	17
28	98.1	1111	28
58	93.8	1112	58
61	96.0	1114	61
131	99.8	1124	131
61	101.4	1126	61
118	94.3	1127	118
38	100.3	1127	38
52	96.1	1129	52
46	102.6	1131	46
56	102.2	1132	56
34	102.6	1134	34
20	100.8	1138	20
34	100.9	1145	34
15	100.3	1154	15
62	92.8	1156	62
12	101.1	1157	12
73	98.0	1172	73
12	100.3	1178	12
13	99.7	1179	13
28	101.1	1180	28
20	99.0	1183	20
77	97.6	1184	77
27	100.5	1191	27
30	100.2	1197	30
51	97.8	1201	51

13	99.6	1214	13
61	93.7	1216	61
37	97.2	1216	37
15	100.8	1217	15
80	97.9	1236	80
38	99.9	1245	38
15	98.3	1250	15
33	99.0	1387	33
32	97.9	1408	32
22	100.8	1411	22
17	99.0	1413	17
14	100.2	1446	14
54	97.0	1446	54
75	100.4	1448	75
12	97.5	1449	12
20	99.6	1451	20
44	97.8	1456	44
20	99.5	1471	20
13	100.6	1482	13
42	98.3	1484	42
23	97.7	1486	23
17	98.3	1607	17
17	99.6	1623	17
13	100.7	1632	13
11	98.1	1688	11
21	94.3	1695	21
9	98.8	1738	9
25	99.3	1750	25
14	101.3	1827	14
32	99.1	1827	32
9	99.9	1850	9
12	101.0	1853	12
27	100.9	1854	27
9	98.1	1880	9
24	98.4	1882	24
19	99.4	1882	19
12	99.8	1890	12

6	100.3	1913	6
15	101.3	2004	15
12	99.5	2012	12
13	99.3	2018	13
12	98.4	2180	12
7	98.7	2632	7
8	98.2	2667	8
4	101.0	2694	4
4	99.8	2719	4
50	1.07	991	50
14	0.94	1006	14
19	0.98	1024	19
30	0.98	1043	30
26	1.03	1044	26
83	0.83	1055	83
15	0.99	1055	15
25	0.95	1064	25
13	0.85	1066	13
55	0.99	1069	55
23	0.98	1077	23
27	0.97	1079	27
53	0.93	1082	53
32	0.97	1083	32
20	0.88	1086	20
29	0.94	1091	29
32	0.99	1092	32
8	0.97	1095	8
6	0.94	1095	6
12	0.94	1095	12
70	0.92	1098	70
11	0.94	1104	11
44	0.99	1108	44
33	0.97	1109	33

DZ AGES				
MIN AGE	**MAX AGE**	**# GRAINS**	**PEAK AGE**	**# GRAINS**
958	1464	70	**1095**	**26**
1628	1716	5	1172	33
1755	1772	2	1263	5
1779	1790	1	1334	4
			1358	3
			1426	7
			1453	5
			1677	4
			1703	4
			1761	3
			1788	3

47	1.00	1110	47
21	1.00	1113	21
19	0.91	1122	19
49	1.00	1123	49
54	0.99	1132	54
33	0.90	1142	33
17	0.95	1142	17
31	1.01	1148	31
15	0.81	1149	15
8	0.90	1154	8
22	1.00	1162	22
11	0.90	1168	11
9	0.93	1169	9
6	0.97	1171	6
8	0.94	1172	8
6	0.90	1173	6
12	1.01	1174	12
26	0.86	1174	26
37	0.91	1175	37
12	0.95	1176	12
35	1.01	1181	35
11	0.89	1182	11
14	0.98	1184	14
27	0.97	1184	27
23	0.93	1185	23
16	0.98	1186	16
25	1.01	1196	25
9	0.96	1197	9
24	0.85	1197	24
16	0.98	1202	16
11	0.97	1217	11
28	0.98	1252	28
41	0.99	1254	41
29	0.98	1260	29
10	0.89	1264	10
43	0.98	1271	43
8	0.98	1334	8

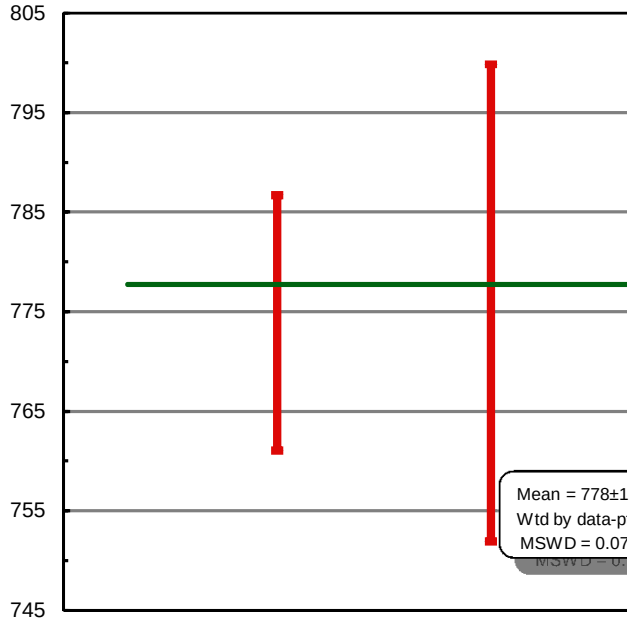
6	0.88	1358	6
17	0.89	1403	17
30	0.91	1404	30
11	0.90	1415	11
19	0.97	1419	19
4	0.96	1426	4
55	0.95	1434	55
17	0.87	1449	17
5	0.89	1453	5
18	0.94	1660	18
24	0.96	1668	24
21	0.97	1670	21
14	0.89	1690	14
10	0.91	1710	10
6	0.97	1760	6
14	1.00	1762	14
10	1.00	1775	10
5	0.95	1789	5
5	0.96	1950	5
10	0.98	2058	10
8	0.96	2687	8
3	0.93	2709	3
4	0.96	2821	4
8	0.94	2897	8
35	1.01	774	13
54	1.04	776	24
49	0.99	779	8
45	1.01	981	45
37	1.00	997	37
92	1.01	1000	92
43	0.98	1042	43
62	1.00	1044	62
38	0.97	1044	38
50	1.01	1047	50

DZ AGES				
MIN AGE	**MAX AGE**	**# GRAINS**	**PEAK AGE**	**# GRAINS**
763	795	3	**778**	**3**
920	1557	81	1182	45
1660	2012	14	1418	12
			1790	7
			1875	9

37	0.97	1048	37
51	1.00	1050	51
45	0.91	1059	45
54	0.94	1073	54
39	0.98	1076	39
45	1.02	1079	45
49	1.01	1086	49
33	0.96	1090	33
43	0.98	1092	43
24	0.97	1093	24
47	0.99	1095	47
41	0.86	1100	41
48	1.02	1102	48
49	0.96	1103	49
38	0.97	1103	38
71	0.93	1107	71
32	0.95	1108	32
46	0.97	1121	46
76	0.98	1124	76
43	0.97	1126	43
31	0.94	1127	31
55	0.98	1130	55
47	0.89	1135	47
25	1.01	1149	25
56	1.00	1156	56
45	1.02	1162	45
30	1.01	1163	30
57	0.97	1165	57
45	0.96	1167	45
20	1.01	1167	20
34	0.98	1169	34
75	0.96	1172	75
30	0.95	1180	30
57	0.97	1181	57
44	1.04	1185	44
53	0.99	1186	53
44	0.96	1195	44

773.9	12.8
775.9	24.0
779.4	7.9
980.9	45.5
996.5	37.3
1000.1	91.9

age = 778 ± 15 Ma (2-sigma)



24	1.00	1198	24
65	0.97	1203	65
30	0.93	1204	30
47	1.05	1204	47
42	0.99	1212	42
28	0.95	1214	28
39	0.99	1215	39
43	0.96	1216	43
46	0.98	1219	46
48	0.96	1221	48
32	0.95	1225	32
32	0.99	1228	32
43	0.99	1230	43
62	0.92	1244	62
42	1.02	1247	42
47	0.82	1255	47
31	0.94	1257	31
45	1.00	1263	45
53	0.94	1264	53
41	0.89	1267	41
43	0.95	1273	43
52	0.99	1304	52
32	0.99	1314	32
38	0.99	1321	38
50	0.89	1323	50
56	0.99	1345	56
77	0.93	1354	77
37	0.99	1375	37
67	0.98	1378	67
19	1.03	1417	19
51	0.99	1420	51
48	1.00	1424	48
29	0.99	1436	29
41	0.94	1439	41
63	0.97	1441	63
43	0.99	1471	43
28	1.00	1528	28

30	0.98	1677	30
30	1.01	1740	30
48	0.97	1742	48
36	0.98	1778	36
21	1.01	1793	21
70	1.05	1800	70
27	0.86	1861	27
39	1.00	1867	39
47	0.97	1871	47
32	0.97	1875	32
44	0.99	1908	44
57	1.01	1912	57
36	0.89	1940	36
36	0.99	1942	36
36	0.98	2559	36
21	0.98	2777	21
54	103.9	1002	54
32	86.4	1023	32
28	73.1	1032	28
66	80.2	1052	66
39	97.8	1055	39
25	101.8	1059	25
49	84.1	1066	49
83	101.7	1068	83
9	98.5	1069	9
20	96.7	1072	20
47	97.5	1076	47
35	102.9	1080	35
41	97.2	1085	41
35	92.9	1094	35
54	100.0	1097	54
23	91.9	1108	23
63	84.6	1109	63

DZ AGES				
MIN AGE	**MAX AGE**	**# GRAINS**	**PEAK AGE**	**# GRAINS**
916	1521	52	**1070**	**26**
1803	1884	5	1171	25
			1212	22
			1321	12
			1361	9
			1468	9
			1860	5

sets #1 and #2 combined

DZ AGES				
MIN AGE	**MAX AGE**	**# GRAINS**	**PEAK AGE**	**# GRAINS**
763	795	3	**778**	**3**
894	1577	133	1074	60

18	99.2	1111	18
76	95.8	1112	76
66	103.9	1125	66
38	97.2	1135	38
106	101.2	1143	106
145	86.4	1144	145
21	101.3	1148	21
19	99.5	1163	19
30	100.8	1164	30
42	99.6	1168	42
15	94.1	1172	15
18	100.0	1184	18
31	100.7	1187	31
23	100.3	1188	23
44	102.7	1189	44
63	103.8	1195	63
73	101.8	1201	73
22	98.1	1215	22
48	103.6	1215	48
10	99.4	1217	10
24	100.6	1244	24
130	76.0	1267	130
32	94.6	1276	32
19	98.8	1309	19
130	83.4	1317	130
18	86.3	1335	18
37	87.4	1336	37
194	85.2	1357	194
13	91.5	1365	13
67	79.7	1370	67
32	99.4	1408	32
27	103.5	1443	27
34	100.2	1450	34
10	88.9	1469	10
17	99.5	1473	17
24	100.9	1795	24

1660	2026	22	1107	70
			1173	73
			1422	19
			1466	17
			1796	9
			1860	12
			1914	11

21	100.5	1845	21
17	99.8	1850	17
12	101.6	1853	12
9	98.9	1865	9
88	79.0	1865	88
8	95.9	1914	8
29	102.5	1990	29
4	88.2	2555	4
7	101.6	3006	7
172	104.9	779	11
54	96.9	787	6
43	101.6	1012	43
39	103.7	1027	39
119	102.8	1028	119
18	99.2	1033	18
112	100.4	1037	112
93	98.2	1038	93
52	101.0	1039	52
66	95.4	1051	66
31	102.4	1056	31
41	101.6	1063	41
40	99.5	1066	40
21	100.0	1072	21
16	100.7	1091	16
36	100.1	1097	36
19	85.4	1097	19
16	99.0	1100	16
119	95.9	1133	119
59	101.1	1151	59
38	103.2	1153	38
15	100.9	1165	15
22	101.0	1174	22
26	100.4	1177	26

1.0,0.8

DZ AGES				
MIN AGE	**MAX AGE**	**# GRAINS**	**PEAK AGE**	**# GRAINS**
852	1512	50	**1091**	**21**
1547	1556	0	1194	20
1606	1734	4	1318	13
1747	1760	0	1376	10
2618	2645	3	1436	9
			1664	3
			1721	3
			2629	3
			2644	3

39	93.3	1183	39
17	89.8	1191	17
13	96.2	1198	13
140	98.6	1209	140
93	97.9	1213	93
16	101.4	1217	16
63	96.7	1231	63
25	100.6	1244	25
91	103.9	1244	91
43	99.9	1248	43
41	101.7	1257	41
20	96.1	1268	20
10	101.3	1314	10
15	101.2	1327	15
21	100.4	1339	21
30	103.4	1358	30
13	102.4	1373	13
29	99.0	1376	29
16	101.1	1384	16
43	86.6	1387	43
17	98.9	1412	17
12	98.0	1432	12
33	90.8	1437	33
22	103.0	1445	22
22	102.6	1452	22
17	102.1	1462	17
21	98.1	1470	21
25	101.2	1506	25
23	99.8	1514	23
27	99.2	1601	27
30	103.6	1657	30
32	100.6	1670	32
18	100.2	1724	18
43	58.5	1731	43
16	95.8	1779	16
18	100.9	1871	18
9	102.1	1879	9

14	97.2	1926	14
28	102.4	1967	28
9	101.8	2063	9
13	98.8	2347	13
4	99.3	2464	4
23	79.8	2487	23
13	100.3	2565	13
5	99.4	2628	5
8	102.2	2629	8
6	98.1	2645	6
22	93.3	2650	22
5	99.2	2728	5
118	100.8	794	19
69	103.2	951	69
50	103.7	1004	50
150	101.3	1028	150
40	101.4	1029	40
66	100.7	1031	66
15	98.9	1031	15
17	101.0	1032	17
53	103.6	1039	53
45	102.0	1041	45
45	100.3	1045	45
29	99.6	1046	29
105	101.1	1051	105
42	93.3	1052	42
14	100.5	1052	14
65	98.7	1053	65
24	97.6	1053	24
78	98.7	1058	78
46	97.3	1064	46
39	101.3	1071	39
27	101.7	1072	27

1.2,0.8

DZ AGES				
MIN AGE	**MAX AGE**	**# GRAINS**	**PEAK AGE**	**# GRAINS**
822	832	0	**1066**	**42**
841	1691	77	1164	37
1707	1938	7	1452	12
			1745	4
			1842	5
			1886	3
			1921	4

16	99.2	1072	16
39	98.3	1074	39
62	97.9	1074	62
30	104.6	1083	30
23	104.9	1083	23
54	97.1	1084	54
38	97.1	1094	38
27	102.0	1095	27
64	98.6	1095	64
106	96.8	1097	106
79	101.6	1100	79
115	99.6	1101	115
103	103.5	1106	103
39	102.3	1108	39
22	100.9	1112	22
20	100.9	1117	20
47	95.6	1128	47
53	101.8	1133	53
27	99.6	1143	27
37	99.4	1147	37
65	101.6	1148	65
33	96.9	1150	33
100	100.8	1152	100
16	102.3	1156	16
28	96.1	1159	28
36	99.9	1159	36
37	100.7	1160	37
39	101.8	1163	39
44	102.9	1163	44
89	98.4	1165	89
12	99.6	1167	12
137	97.1	1172	137
13	97.4	1172	13
26	99.4	1173	26
65	98.3	1193	65
12	93.9	1194	12
94	96.1	1215	94

27	101.0	1227	27
76	96.3	1239	76
57	99.1	1242	57
104	104.1	1244	104
38	99.8	1265	38
30	101.0	1314	30
126	92.6	1343	126
32	99.3	1364	32
32	100.1	1431	32
19	102.7	1437	19
55	93.6	1443	55
15	98.7	1448	15
28	99.1	1454	28
31	101.5	1457	31
22	98.3	1467	22
18	98.7	1468	18
51	97.7	1494	51
185	100.9	1543	185
57	95.1	1577	57
81	96.5	1649	81
19	103.5	1745	19
55	100.2	1830	55
22	100.1	1831	22
9	100.1	1842	9
35	100.5	1858	35
19	100.7	1893	19
8	98.3	1922	8
19	100.8	1966	19
10	99.8	2512	10
10	99.9	2651	10
19	100.7	2762	19
55	0.99	987	55
74	1.01	1003	74
57	0.96	1014	57

DZ AGES				
MIN AGE	MAX AGE	# GRAINS	PEAK AGE	# GRAINS
877	2001	82	**1092**	**30**

38	1.00	1017	38
42	0.98	1026	42
56	1.00	1029	56
25	1.00	1035	25
41	1.01	1039	41
45	0.98	1043	45
25	0.98	1044	25
52	1.00	1060	52
32	0.99	1071	32
65	0.98	1077	65
42	1.00	1080	42
102	0.99	1080	102
42	1.00	1088	42
20	0.97	1094	20
51	1.01	1098	51
25	1.01	1106	25
44	1.01	1109	44
47	0.99	1118	47
57	0.99	1127	57
41	0.90	1136	41
55	0.89	1156	55
62	0.99	1157	62
20	1.01	1164	20
55	0.93	1165	55
27	0.97	1166	27
60	0.99	1173	60
47	0.99	1178	47
49	0.97	1179	49
78	0.94	1187	78
36	1.01	1188	36
43	0.96	1204	43
65	0.93	1215	65
28	1.01	1230	28
55	0.98	1237	55
40	0.98	1245	40
36	0.97	1248	36

2411	2574	10	1162	25
2669	2761	3	1464	10
			1513	13
			1615	11
			1735	18
			1893	5
			2461	7
			2492	9
			2739	4

51	0.86	1262	51
56	1.01	1303	56
36	1.02	1312	36
109	0.98	1370	109
53	1.01	1425	53
62	1.01	1429	62
46	1.00	1432	46
44	1.02	1448	44
45	1.01	1460	45
29	0.97	1469	29
135	0.97	1500	135
19	0.98	1518	19
46	0.96	1530	46
37	0.97	1537	37
53	1.01	1592	53
47	0.99	1599	47
27	0.97	1599	27
30	1.01	1609	30
35	1.01	1621	35
28	1.00	1622	28
47	1.01	1666	47
36	0.98	1674	36
38	1.00	1678	38
38	0.99	1708	38
41	1.00	1712	41
20	0.98	1716	20
27	1.00	1723	27
31	0.99	1729	31
33	0.98	1738	33
27	1.00	1744	27
47	1.01	1750	47
37	1.01	1755	37
25	1.00	1761	25
25	1.00	1767	25
24	0.99	1787	24
38	0.96	1800	38
46	0.99	1801	46

16	0.86	1805	16
65	0.97	1818	65
37	0.98	1876	37
48	0.95	1905	48
33	0.98	1907	33
27	0.98	1958	27
59	1.00	2041	59
16	0.98	2451	16
22	0.98	2459	22
24	0.97	2459	24
48	0.97	2464	48
46	0.97	2482	46
14	0.98	2493	14
32	1.00	2494	32
24	0.99	2507	24
20	1.00	2522	20
17	0.97	2561	17
62	1.01	2606	62
39	1.00	2683	39
23	0.98	2715	23
22	1.00	2748	22
28	0.98	2773	28
39	1.01	3179	39
23	0.99	3409	23
57	96.9	999	57
24	102.0	1036	24
28	101.3	1040	28
23	100.2	1046	23
19	99.2	1049	19
21	100.6	1059	21
20	100.3	1060	20
35	98.4	1075	35
52	95.1	1077	52

1.1,0.9

DZ AGES				
MIN AGE	**MAX AGE**	**# GRAINS**	**PEAK AGE**	**# GRAINS**
948	1541	42	**1055**	**17**
1546	1884	36	1179	17
2464	2497	7	1214	16
			1354	10
			1455	8
			1583	5
			1634	5

21	98.2	1096	21
91	94.3	1103	91
34	101.7	1111	34
21	98.0	1112	21
65	95.3	1126	65
42	100.5	1136	42
21	102.0	1158	21
51	99.8	1174	51
11	101.4	1176	11
63	100.7	1179	63
168	104.4	1184	168
15	98.5	1188	15
27	101.6	1191	27
25	100.8	1198	25
131	98.2	1209	131
32	100.7	1209	32
11	100.0	1214	11
59	99.4	1223	59
14	99.6	1227	14
15	100.0	1245	15
78	96.0	1272	78
59	100.2	1328	59
29	101.9	1335	29
16	98.5	1352	16
22	100.2	1389	22
36	99.5	1418	36
55	101.8	1431	55
18	101.4	1431	18
14	98.5	1453	14
102	98.5	1457	102
23	99.4	1464	23
17	101.4	1464	17
29	100.2	1479	29
16	98.8	1578	16
39	101.3	1582	39
22	98.2	1601	22

			1668	4
			1714	11
			1728	13
			1744	11
			1779	9
			1804	11
			1834	9
			1855	7
			2488	7

6	102.1	1634	6
8	101.6	1667	8
12	98.3	1670	12
23	103.2	1702	23
16	101.6	1709	16
11	102.2	1711	11
6	99.5	1712	6
21	102.4	1718	21
25	102.3	1722	25
70	95.6	1723	70
12	100.7	1727	12
5	101.1	1728	5
17	100.5	1731	17
13	101.3	1736	13
6	98.2	1746	6
10	99.3	1748	10
17	100.8	1749	17
35	99.4	1773	35
5	101.0	1777	5
19	98.0	1789	19
11	99.0	1790	11
12	101.5	1791	12
15	101.9	1801	15
13	100.0	1805	13
7	101.7	1806	7
14	99.0	1813	14
15	99.9	1830	15
7	102.9	1833	7
28	100.1	1841	28
18	101.2	1848	18
12	100.1	1850	12
16	100.4	1854	16
7	100.8	1858	7
10	103.2	1930	10
9	102.2	2027	9
7	102.7	2093	7
15	98.7	2277	15

18	99.1	2297	18
12	97.4	2394	12
6	100.1	2434	6
13	101.5	2471	13
6	98.2	2477	6
9	101.4	2482	9
5	99.7	2482	5
3	101.1	2487	3
3	102.1	2490	3
18	99.8	2495	18
3	102.2	2514	3
7	100.7	2685	7
63	0.98	812	8
47	0.99	832	13
28	0.94	1029	28
25	1.02	1071	25
76	0.99	1095	76
50	0.98	1100	50
48	0.96	1129	48
45	0.85	1137	45
54	0.98	1139	54
39	0.98	1145	39
29	0.95	1149	29
59	0.99	1151	59
24	0.97	1163	24
52	0.97	1164	52
48	0.98	1167	48
31	0.99	1169	31
46	1.00	1187	46
56	0.98	1195	56
45	0.96	1201	45
72	1.00	1205	72
47	0.99	1208	47
32	0.97	1214	32

DZ AGES				
MIN AGE	**MAX AGE**	**# GRAINS**	**PEAK AGE**	**# GRAINS**
1000	2058	90	**1228**	**26**
			1454	12
			1667	17
			1843	13

36	1.00	1216	36
60	0.95	1219	60
38	0.95	1224	38
20	0.98	1229	20
51	1.02	1230	51
23	0.99	1236	23
48	0.98	1237	48
38	0.96	1246	38
53	0.94	1247	53
34	0.97	1253	34
23	0.98	1261	23
77	0.99	1271	77
37	0.99	1303	37
45	0.95	1311	45
45	0.96	1315	45
39	0.91	1334	39
37	0.97	1343	37
65	0.90	1363	65
30	0.99	1405	30
50	1.01	1407	50
37	1.02	1424	37
64	1.02	1452	64
31	0.77	1454	31
45	0.98	1457	45
39	0.99	1459	39
24	0.99	1465	24
46	1.01	1473	46
54	0.99	1514	54
56	0.93	1528	56
28	0.95	1563	28
35	0.81	1579	35
26	1.00	1597	26
42	1.00	1598	42
35	1.00	1618	35
37	1.00	1620	37
37	0.97	1624	37
36	0.98	1627	36

29	0.99	1627	29
52	0.99	1635	52
37	0.97	1639	37
47	0.99	1642	47
47	1.00	1650	47
39	0.95	1666	39
19	0.97	1670	19
25	0.90	1676	25
31	0.96	1682	31
18	0.91	1682	18
50	0.92	1691	50
45	0.91	1734	45
38	0.94	1749	38
28	0.83	1755	28
43	1.00	1793	43
31	0.98	1800	31
49	1.00	1827	49
28	0.98	1828	28
53	1.00	1828	53
18	0.96	1842	18
22	1.01	1846	22
52	0.95	1846	52
51	0.96	1846	51
58	0.76	1855	58
34	0.97	1860	34
35	1.00	1873	35
31	0.99	1904	31
35	0.99	1919	35
32	0.99	1933	32
45	0.95	1935	45
50	0.99	1963	50
43	0.95	1970	43
29	0.91	2000	29
37	0.75	2103	37
17	0.99	2765	17

35	0.97	1045	35
23	0.99	1069	23
48	1.00	1082	48
74	1.01	1084	74
71	0.99	1087	71
56	0.96	1117	56
35	1.01	1140	35
34	0.94	1142	34
37	1.03	1150	37
57	0.93	1152	57
30	1.00	1153	30
49	0.99	1182	49
53	0.97	1191	53
49	0.96	1195	49
40	1.00	1200	40
33	0.98	1208	33
64	0.98	1231	64
50	0.96	1238	50
48	0.99	1250	48
38	0.85	1261	38
47	1.03	1262	47
41	1.00	1264	41
34	1.00	1381	34
30	0.99	1419	30
39	1.00	1421	39
55	1.00	1422	55
33	0.87	1457	33
19	0.96	1458	19
29	0.87	1466	29
43	1.03	1486	43
54	0.88	1486	54
53	0.76	1497	53
49	0.99	1505	49
33	0.96	1637	33
42	1.02	1657	42
19	1.01	1659	19

DZ AGES				
MIN AGE	**MAX AGE**	**# GRAINS**	**PEAK AGE**	**# GRAINS**
975	1968	94	**1163**	**17**
			1457	10
			1761	49

40	1.00	1672	40
25	0.99	1686	25
40	1.02	1686	40
42	1.02	1691	42
46	1.00	1694	46
46	0.99	1697	46
55	0.99	1703	55
34	0.99	1706	34
44	1.00	1708	44
35	1.01	1709	35
32	1.04	1710	32
27	1.00	1711	27
42	1.00	1713	42
21	1.00	1718	21
37	0.96	1727	37
39	0.99	1734	39
47	0.95	1737	47
51	0.95	1737	51
50	0.96	1738	50
33	0.96	1739	33
27	0.99	1739	27
46	0.98	1739	46
43	1.00	1740	43
32	1.02	1740	32
32	0.89	1741	32
28	1.00	1741	28
59	1.00	1744	59
56	0.99	1745	56
26	0.97	1747	26
20	1.01	1749	20
54	0.97	1760	54
24	1.01	1761	24
19	0.99	1765	19
27	0.98	1765	27
21	1.00	1769	21
47	0.98	1777	47
32	0.99	1779	32

25	0.96	1781	25
21	1.00	1781	21
26	0.95	1781	26
24	1.01	1782	24
38	1.00	1785	38
49	0.99	1788	49
42	0.98	1789	42
24	1.01	1792	24
25	1.01	1802	25
40	0.97	1802	40
38	0.99	1805	38
48	1.00	1807	48
30	1.00	1822	30
42	0.99	1827	42
52	0.99	1828	52
26	0.99	1839	26
58	1.00	1856	58
46	1.00	1856	46
21	0.99	1881	21
34	1.00	1900	34
24	1.00	1962	24
47	0.94	2266	47
59	0.80	2491	59
20	0.99	2681	20
17	1.00	2705	17
29	0.98	2842	29
59	1.01	944	59
48	0.99	946	48
98	1.03	988	98
31	0.95	989	31
106	1.07	991	106
123	1.12	1000	123
136	0.99	1016	136
32	0.94	1021	32

DZ AGES				
MIN AGE	**MAX AGE**	**# GRAINS**	**PEAK AGE**	**# GRAINS**
800	1801	89	**1058**	**27**
1805	1913	4	1164	28
2442	2471	1	1431	30
			1574	6
			1635	5
			1860	5

75	1.01	1028	75
64	0.98	1033	64
32	0.94	1047	32
28	1.00	1048	28
37	0.97	1048	37
33	0.97	1050	33
102	1.08	1051	102
21	0.93	1051	21
24	0.92	1056	24
48	0.93	1056	48
73	0.94	1073	73
22	0.98	1079	22
66	1.01	1082	66
50	0.95	1102	50
23	0.97	1112	23
34	0.95	1125	34
61	0.96	1133	61
40	0.99	1137	40
57	1.02	1142	57
42	0.95	1142	42
45	0.95	1150	45
37	1.00	1154	37
26	0.97	1155	26
53	0.99	1157	53
42	1.01	1162	42
20	0.96	1169	20
23	0.90	1174	23
30	1.01	1202	30
87	0.89	1215	87
24	1.00	1215	24
52	1.03	1215	52
40	0.99	1224	40
26	0.97	1232	26
27	1.02	1248	27
77	0.99	1264	77
54	0.92	1276	54
28	1.02	1279	28

			2465	3

28	0.94	1281	28
77	1.03	1316	77
65	0.96	1321	65
31	0.95	1340	31
39	0.95	1344	39
27	0.97	1348	27
51	1.00	1348	51
45	0.95	1348	45
81	0.92	1368	81
105	1.05	1373	105
34	0.95	1383	34
43	1.00	1392	43
30	1.02	1393	30
25	0.96	1394	25
21	0.97	1396	21
55	0.94	1411	55
42	0.97	1415	42
38	0.92	1416	38
35	1.00	1417	35
27	0.96	1417	27
45	0.93	1418	45
24	0.92	1427	24
23	0.88	1431	23
22	0.96	1434	22
23	0.99	1434	23
22	1.01	1439	22
24	0.92	1440	24
31	1.00	1441	31
25	0.90	1443	25
32	0.93	1444	32
27	0.95	1451	27
27	0.95	1459	27
26	0.93	1461	26
54	1.01	1467	54
20	0.97	1497	20
30	0.88	1523	30
21	0.97	1572	21

25	0.97	1623	25
19	0.93	1635	19
29	0.99	1644	29
61	0.98	1669	61
46	0.96	1700	46
38	0.95	1725	38
51	0.90	1790	51
28	0.96	1824	28
20	0.92	1845	20
24	0.92	1870	24
19	0.99	1875	19
23	1.01	1925	23
17	0.96	2332	17
23	0.90	2425	23
17	0.93	2462	17
21	0.99	2484	21
27	0.97	2715	27
16	0.91	3147	16
108	1.16	772	25
37	0.98	987	37
28	1.00	1014	28
21	0.99	1058	21
52	1.04	1062	52
21	0.96	1066	21
67	1.02	1071	67
27	1.01	1076	27
34	0.98	1084	34
27	1.00	1129	27
31	0.95	1130	31
20	0.98	1133	20
35	1.00	1179	35
37	0.95	1187	37
31	1.01	1191	31

DZ AGES				
MIN AGE	**MAX AGE**	**# GRAINS**	**PEAK AGE**	**# GRAINS**
958	1936	90	**1066**	**7**
2670	2688	1	1222	18
			1466	17
			1561	9
			1682	8
			1797	15
			1848	19

27	0.96	1195	27
25	0.99	1203	25
30	0.98	1207	30
57	0.97	1210	57
27	1.02	1212	27
21	0.99	1214	21
21	0.95	1231	21
22	1.00	1237	22
20	1.00	1237	20
61	0.99	1242	61
74	1.00	1244	74
46	1.00	1257	46
29	1.02	1262	29
48	1.00	1268	48
20	0.99	1279	20
25	0.99	1280	25
24	0.99	1298	24
20	1.00	1325	20
379	0.82	1352	379
21	0.99	1363	21
26	0.88	1368	26
29	1.01	1381	29
89	0.96	1412	89
31	1.00	1417	31
73	1.01	1419	73
30	0.96	1427	30
38	0.88	1428	38
32	1.01	1434	32
19	0.99	1435	19
32	0.99	1445	32
25	1.02	1461	25
19	1.01	1465	19
19	1.00	1469	19
20	0.99	1470	20
20	0.99	1483	20
19	1.01	1487	19
32	1.01	1508	32

130	0.97	1511	130
24	0.99	1544	24
20	0.97	1565	20
20	1.01	1598	20
44	0.95	1630	44
20	1.01	1638	20
23	0.98	1664	23
19	1.00	1680	19
20	1.00	1683	20
19	0.99	1683	19
30	0.85	1712	30
22	0.97	1727	22
24	0.95	1736	24
18	0.99	1743	18
39	1.01	1745	39
20	0.97	1770	20
19	0.99	1783	19
18	1.00	1786	18
32	0.98	1789	32
18	1.01	1791	18
38	1.01	1799	38
18	0.99	1805	18
34	1.00	1815	34
23	0.99	1820	23
30	1.01	1829	30
52	1.03	1832	52
18	0.96	1835	18
20	1.00	1842	20
24	0.99	1843	24
18	0.99	1846	18
18	0.99	1847	18
30	0.99	1856	30
19	0.99	1860	19
22	1.00	1862	22
19	1.00	1876	19
29	1.00	1877	29
19	0.99	1880	19

70	0.81	1881	70
30	1.00	1889	30
18	1.00	2022	18
17	0.97	2366	17
21	1.00	2464	21
17	1.00	2523	17
20	1.00	2648	20
21	0.98	2685	21
17	0.91	2704	17
16	1.00	2842	16
16	0.98	3285	16
20	1.00	1038	20
65	0.99	1052	65
82	1.00	1068	82
22	0.98	1078	22
27	1.00	1087	27
35	1.00	1093	35
32	0.97	1106	32
37	0.99	1107	37
44	0.98	1135	44
46	1.00	1155	46
36	0.99	1169	36
62	0.99	1183	62
39	1.00	1184	39
20	0.99	1204	20
24	1.00	1217	24
28	1.01	1247	28
48	1.00	1267	48
45	0.99	1338	45
19	0.97	1389	19
19	1.01	1441	19
35	1.00	1445	35
29	0.99	1447	29

DZ AGES				
MIN AGE	**MAX AGE**	**# GRAINS**	**PEAK AGE**	**# GRAINS**
998	1307	17	**1092**	**10**
1333	1959	74	1205	10
1988	1996	0	1444	6
2018	2051	1	1741	46
			1773	44
			1900	9
			2027	3

57	0.95	1447	57
44	1.01	1448	44
28	1.00	1452	28
28	0.99	1516	28
26	0.80	1584	26
29	0.99	1622	29
30	0.99	1633	30
33	1.00	1635	33
29	1.01	1648	29
32	1.00	1662	32
25	0.99	1696	25
47	0.99	1697	47
20	0.99	1702	20
27	1.00	1706	27
29	0.99	1706	29
53	0.98	1707	53
18	0.99	1712	18
31	1.01	1715	31
21	1.00	1716	21
21	1.00	1716	21
31	1.01	1719	31
20	1.00	1719	20
35	1.01	1722	35
24	1.00	1727	24
18	1.01	1732	18
21	0.98	1733	21
31	1.01	1734	31
22	0.99	1736	22
18	0.96	1738	18
29	0.99	1739	29
26	1.00	1741	26
26	1.00	1742	26
18	1.00	1743	18
24	0.99	1755	24
41	1.00	1758	41
22	0.99	1758	22
65	1.00	1761	65

32	1.00	1762	32
31	1.00	1762	31
23	1.01	1767	23
39	0.99	1768	39
43	1.00	1770	43
18	0.99	1772	18
35	1.00	1774	35
31	1.00	1774	31
25	1.00	1774	25
139	0.91	1775	139
18	1.00	1778	18
28	1.00	1779	28
18	1.00	1781	18
24	1.01	1783	24
24	0.98	1783	24
19	1.00	1785	19
18	0.99	1786	18
29	1.00	1790	29
32	1.00	1792	32
20	1.00	1794	20
18	0.99	1797	18
28	1.00	1797	28
77	0.98	1800	77
18	1.00	1805	18
45	1.00	1812	45
26	0.99	1827	26
56	1.01	1847	56
24	0.98	1873	24
28	0.98	1875	28
18	1.01	1900	18
18	1.00	1914	18
30	0.99	1936	30
18	1.01	2024	18
27	1.00	2072	27
18	1.01	2474	18
23	0.97	2592	23
31	1.00	2698	31

38	0.95	956	38
33	0.95	1105	33
28	0.99	1117	28
12	0.98	1141	12
115	0.93	1147	115
17	1.00	1162	17
22	0.99	1169	22
19	0.99	1179	19
13	0.93	1185	13
16	0.99	1198	16
17	1.02	1218	17
19	0.81	1223	19
16	0.88	1242	16
45	1.02	1245	45
33	0.92	1248	33
14	1.00	1252	14
13	1.00	1257	13
14	0.98	1259	14
11	0.95	1261	11
12	0.94	1272	12
27	0.99	1274	27
41	0.98	1275	41
27	0.92	1289	27
37	0.97	1316	37
15	0.85	1330	15
27	0.86	1335	27
25	0.92	1406	25
8	0.96	1408	8
26	0.94	1414	26
16	0.97	1414	16
15	0.92	1421	15
11	0.99	1421	11
42	1.00	1422	42

DZ AGES				
MIN AGE	**MAX AGE**	**# GRAINS**	**PEAK AGE**	**# GRAINS**
1061	1483	40	**1150**	**7**
1574	1824	32	1186	10
1827	1847	2	1259	14
1851	1855	0	1325	8
			1445	13
			1633	11
			1668	10
			1684	9
			1727	10
			1773	14
			1839	3

14	0.84	1432	14
15	1.01	1435	15
12	0.97	1442	12
18	1.00	1443	18
6	0.90	1447	6
17	0.99	1449	17
15	0.91	1453	15
17	0.99	1467	17
19	0.87	1612	19
27	0.91	1615	27
8	0.86	1619	8
28	0.87	1623	28
14	0.79	1635	14
8	0.85	1635	8
17	0.91	1640	17
17	0.83	1640	17
30	0.89	1642	30
19	0.87	1645	19
7	0.84	1669	7
9	0.87	1671	9
5	0.96	1685	5
51	0.89	1689	51
23	0.91	1711	23
9	0.89	1717	9
25	0.84	1729	25
11	0.99	1732	11
12	0.97	1732	12
31	0.87	1734	31
32	0.87	1745	32
21	0.84	1748	21
7	0.87	1753	7
7	0.99	1761	7
10	1.00	1764	10
49	0.92	1767	49
12	1.00	1770	12
11	0.98	1774	11
7	0.90	1776	7

14	0.92	1782	14
21	1.00	1782	21
9	0.94	1783	9
10	1.00	1827	10
7	1.00	1841	7
13	0.98	1877	13
11	0.99	1950	11
4	0.92	2562	4
3	1.01	2634	3
8	0.92	2685	8
5	0.98	2822	5
71	0.97	1049	71
55	1.02	1058	55
23	1.00	1141	23
43	1.00	1143	43
45	0.97	1226	45
39	1.03	1297	39
63	1.04	1371	63
43	0.99	1379	43
28	1.01	1417	28
30	0.96	1423	30
21	1.00	1424	21
33	0.92	1425	33
40	1.01	1426	40
34	0.89	1426	34
44	1.01	1430	44
40	1.00	1433	40
32	0.98	1433	32
31	0.97	1434	31
38	1.00	1435	38
29	0.99	1436	29
23	0.97	1441	23
39	1.00	1442	39

DZ AGES				
MIN AGE	**MAX AGE**	**# GRAINS**	**PEAK AGE**	**# GRAINS**
1057	1191	3	**1140**	**5**
1219	1229	1	1445	32
1245	1934	89	1740	43

19	0.94	1445	19
43	1.00	1447	43
50	0.98	1448	50
46	1.01	1449	46
23	0.96	1454	23
33	0.97	1455	33
54	1.04	1458	54
62	0.99	1461	62
30	1.00	1461	30
29	1.02	1462	29
29	0.99	1463	29
38	0.72	1469	38
22	1.00	1473	22
32	1.02	1480	32
20	0.99	1491	20
70	0.88	1493	70
19	0.71	1493	19
24	0.80	1502	24
58	0.96	1523	58
39	1.01	1529	39
49	0.97	1557	49
34	1.02	1651	34
33	1.00	1653	33
20	0.96	1660	20
18	0.88	1671	18
26	0.89	1684	26
36	1.00	1684	36
36	1.00	1685	36
36	1.02	1685	36
38	1.00	1688	38
44	1.00	1689	44
31	1.01	1693	31
35	0.99	1694	35
42	1.01	1700	42
54	0.96	1703	54
33	0.99	1704	33
33	0.87	1705	33

40	0.98	1715	40
30	0.97	1715	30
27	0.99	1716	27
25	0.97	1717	25
43	1.01	1719	43
60	0.98	1721	60
71	0.94	1723	71
44	0.80	1726	44
31	0.99	1731	31
18	1.01	1734	18
24	0.97	1738	24
18	1.00	1741	18
45	1.01	1744	45
43	0.97	1746	43
28	1.00	1747	28
26	0.99	1748	26
21	1.00	1749	21
51	0.89	1749	51
27	1.00	1752	27
29	1.00	1753	29
29	0.79	1754	29
26	1.00	1754	26
26	0.88	1754	26
30	1.00	1758	30
35	1.00	1767	35
18	0.99	1770	18
27	1.01	1778	27
36	1.01	1778	36
22	1.00	1786	22
41	1.01	1789	41
37	0.95	1803	37
58	0.93	1818	58
18	0.99	1818	18
50	1.00	1836	50
63	1.02	1929	63
32	0.99	2705	32
20	1.00	2718	20

46	101.3	1019	46
43	101.9	1040	43
60	97.2	1065	60
57	100.7	1080	57
23	99.5	1120	23
49	103.3	1155	49
49	96.5	1214	49
24	102.2	1365	24
14	85.4	1384	14
33	98.5	1390	33
35	101.2	1394	35
44	101.8	1429	44
19	103.1	1435	19
24	101.4	1435	24
34	102.3	1435	34
14	100.4	1436	14
27	102.2	1440	27
20	101.5	1440	20
22	101.8	1442	22
31	104.3	1442	31
10	101.2	1442	10
17	99.5	1443	17
12	99.2	1443	12
16	100.1	1444	16
12	101.8	1446	12
38	101.8	1449	38
24	100.3	1450	24
36	96.9	1490	36
64	104.1	1630	64
50	101.8	1680	50
34	99.3	1681	34
18	77.7	1684	18
19	103.0	1688	19
17	79.9	1692	17

DZ AGES				
MIN AGE	**MAX AGE**	**# GRAINS**	**PEAK AGE**	**# GRAINS**
954	1194	6	**1049**	**4**
1324	1926	87	1117	6
			1442	19
			1716	55

14	99.6	1694	14
18	102.7	1695	18
11	96.9	1695	11
16	100.3	1696	16
29	101.8	1696	29
27	100.7	1699	27
17	100.3	1699	17
75	98.1	1703	75
21	101.9	1705	21
20	100.8	1706	20
17	102.5	1706	17
13	102.5	1706	13
17	102.3	1708	17
15	101.5	1710	15
30	99.0	1711	30
11	101.0	1712	11
29	101.7	1713	29
10	101.0	1715	10
72	101.1	1718	72
31	102.7	1718	31
38	100.2	1718	38
12	102.2	1719	12
23	98.8	1720	23
9	99.6	1720	9
19	100.1	1721	19
17	99.0	1721	17
9	97.6	1724	9
87	99.2	1724	87
40	101.1	1731	40
16	93.2	1731	16
25	101.2	1733	25
35	102.4	1736	35
8	87.5	1737	8
10	101.8	1741	10
12	101.5	1743	12
28	97.7	1743	28
26	100.1	1745	26

11	94.3	1746	11
17	100.2	1749	17
44	103.0	1749	44
53	99.9	1753	53
40	99.6	1754	40
19	101.6	1755	19
48	97.0	1756	48
27	101.3	1759	27
14	90.4	1759	14
11	94.4	1760	11
51	92.1	1760	51
127	101.6	1764	127
30	98.8	1767	30
52	97.1	1767	52
48	88.7	1769	48
26	99.8	1771	26
11	102.4	1772	11
77	98.6	1772	77
92	98.6	1776	92
40	97.9	1789	40
61	95.6	1794	61
14	99.1	1800	14
25	103.2	1871	25
17	100.5	1420	17
22	101.6	1428	22
13	98.4	1431	13
14	100.0	1431	14
6	99.3	1434	6
30	99.7	1434	30
19	97.1	1435	19
9	100.0	1436	9
7	99.2	1436	7
15	99.6	1438	15
9	101.0	1438	9

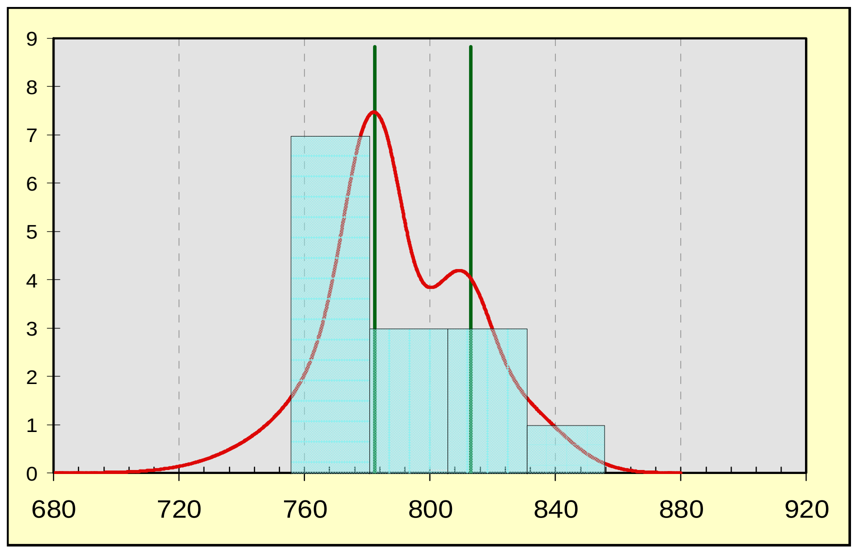
1.2,0.8

DZ AGES				
MIN AGE	**MAX AGE**	**# GRAINS**	**PEAK AGE**	**# GRAINS**
1384	1491	22	**1438**	**23**
1558	1912	35	1721	27
			1787	11
			1865	7

11	98.4	1442	11
10	99.9	1442	10
15	98.9	1443	15
15	101.8	1444	15
20	99.4	1445	20
10	98.9	1445	10
13	100.2	1447	13
16	97.6	1447	16
13	99.3	1450	13
14	86.8	1452	14
18	100.6	1455	18
42	101.6	1646	42
17	100.0	1648	17
148	90.4	1649	148
29	104.0	1654	29
26	98.4	1686	26
13	97.0	1694	13
11	96.2	1697	11
7	99.2	1700	7
17	101.7	1701	17
24	100.0	1708	24
18	90.9	1709	18
7	100.1	1715	7
29	103.3	1716	29
4	98.8	1721	4
11	95.4	1722	11
12	101.6	1723	12
9	97.7	1723	9
12	100.5	1723	12
92	96.3	1728	92
86	97.1	1730	86
19	99.7	1732	19
9	99.9	1733	9
16	101.4	1734	16
16	102.8	1738	16
15	100.6	1740	15
13	101.1	1747	13

34	88.9	1752	34
37	96.2	1755	37
35	101.2	1756	35
63	97.5	1770	63
58	100.0	1770	58
10	101.9	1776	10
63	96.7	1788	63
5	99.7	1788	5
5	100.9	1865	5
Jage > 900 Ma			
206Pb/207Pb age.			
depositional age.			

811	19	Nanko (ordered stratigraphically
806	16	
805	11	
763	21	
778	6	
774	13	
776	24	
779	8	
779	11	
787	6	
794	19	
812	8	Chuar
832	13	
772	25	



Age	±2σ	fraction	±2σ
782.4	6.8	0.69	0.48


```
782.4     0.8          0.69        0.48
812.9     12           0.31         ---
relative misfit = 0.901
```

Supplementary Data S3

$^{40}Ar/^{39}Ar$ marcasite geochronology and Electron Microprobe Characterization.

Methodology (cont'd)

Samples were step-heated (2 minutes per step) with a defocused CO2 laser beam. Reactive gases were removed during heating and additionally for 58 min with 2 SAES GP-50 getters, 1 operated at ~450°C and 1 at 20°C. Gas was also exposed to cold finger operated at -140°C and a W filament at ~2000°C. The long gettering time (1 hr) was used to ensure cleanup of hydrocarbons that could interfere with the small ^{39}Ar and ^{37}Ar intensities related to the low concentrations of K and Ca within the marcasite. Electron multiplier sensitivity was about $1.0x10^{-16}$ moles/pA. Total system blank and background were 150±2% 0.4±9%, 0.2±100%, 0.4±10%, 0.73±6% x 10^{-17} moles for masses 40, 39, 38, 37, 36, respectively. J-factors determined to ~± 0.1% precision by CO_2 laser-fusion of six single crystals from each of six radial positions around the irradiation tray.

Argon systematics of the marcasite

Based on ^{39}Ar yield, sample weight and mass spectrometer sensitivity, the marcasite has about 22 ppm K2O (DR3 Table 1). The climbing age spectrum likely results from older inherited K-bearing mineral inclusions. In order to better understand the siting of potassium and to characterize the sample in general, electron microprobe analyses were conducted (Supplementary Data S4 Figure 1 & Table 2). Chemical maps show an overall uniform distribution of Fe, Si in veins and/or cracks (secondary quartz veining) and K mostly within clay. Potassium is mainly in disseminated pods of clay and a single K-feldspar grain (~15μm x15 μm) was found while scanning approximately $3x10^6$ μm^2 of marcasite.

Even if volumetrically small, K-feldspar inclusions can profoundly affect the apparent age of the marcasite due to the exceedingly low total potassium content. Supplementary Data S4 Table 3 shows the change in apparent age caused by mixing a 1200 Ma, 16 wt.% K2O K-feldspar with a 750 Ma marcasite of variable K-content. Timmons et al. (2005) reported K-feldspar ages of about 1200 Ma from Grand Canyon basement rocks that would likely source the inherited material. The K-feldspar K-content is not important for the final mixing age calculation, but does affect the amount of contaminating K-feldspar required to shift the age of the marcasite away from 750 Ma. These mixing calculations show that only a minute amount of K-feldspar is required to shift the marcasite age. The fact that there is a well established plateau segment at 764 Ma with only minor age spectrum rise indicates that significant K-feldspar contamination is not a problem and this observation is also supported by the microprobe characterization.

Supplementary Data_S3:

Table 1. 40Ar/39Ar data and analytical methods.

	ID	Power (Watts)	$^{40}Ar/^{39}Ar$	$^{37}Ar/^{39}Ar$	$^{36}Ar/^{39}Ar$ (x 10^{-3})	$^{39}Ar_K$ (x 10^{-15} mol)	K/Ca	$^{40}Ar^*$ (%)	^{39}Ar (%)	Age (Ma)	±1σ (Ma)
	K01-56 Marcasite, 22.65 mg, J=0.0094518±0.11%, D=1.00712±0.00131, NM-145, Lab#=52748-02										
X	A	2	1394	0.5613	4710	0.057	0.91	0.1	4.5	36	148
	B	6	201.2	0.2347	492.2	0.277	2.2	27.7	26.6	776	14
	C	12	334.9	0.5847	953.0	0.130	0.87	16.0	37.0	750	27
	D	20	213.3	0.4547	539.8	0.201	1.1	25.4	53.1	756	17
	E	25	168.7	0.2834	386.3	0.197	1.8	32.4	68.8	763	14
X	F	30	163.7	0.2694	325.9	0.174	1.9	41.3	82.7	905	14
X	G	35	132.4	0.1823	212.8	0.216	2.8	52.6	100.0	926.0	9.9
	Integrated age ± 1σ			n=7		1.25	1.6	K2O=0.0022%		774.6	13.1
	Plateau ± 1σ	steps B-E		n=4	MSWD=0.40	0.81			64.3	764.5	8.3

Notes:
Isotopic ratios corrected for blank, radioactive decay, and mass discrimination, not corrected for interfering reactions.
Errors quoted for individual analyses include analytical error only, without interfering reaction or J uncertainties.
Integrated age calculated by summing isotopic measurements of all steps.
Integrated age error calculated by quadratically combining errors of isotopic measurements of all steps.
Plateau age is inverse-variance-weighted mean of selected steps.
Plateau error is weighted error of Taylor (1982).
Isotopic abundances after Steiger and Jäger (1977).
X preceding sample ID denotes analyses excluded from plateau age calculations.
Weight percent K_2O calculated from ^{39}Ar signal, sample weight, and instrument sensitivity.
Ages calculated relative to FC-2 Fish Canyon Tuff sanidine interlaboratory standard at 28.201 Ma (Kuiper et al., 2008).
Decay Constant (Lambda ^{40}K total) = 5.463e-10/a (Min et al., 2000).
Correction factors:
$(^{39}Ar/^{37}Ar)_{Ca}$ = 0.0007 ± 2e-05
$(^{36}Ar/^{37}Ar)_{Ca}$ = 0.00027 ± 5e-06
$(^{40}Ar/^{39}Ar)_K$ = 0.031 ± 0.001

Methods

Sample preparation and irradiation:
A ca. 2.5x2.5x2.5 cm nodule of marcasite was broken into multiple fragments, from which ~0.5 mm pieces were hand-picked to be free of visible mineral inclusions and/or alteration. Fragments were cleaned in DI water for 5 minutes within an ultrasonic bath.
Marcasite was loaded into machined Al discs and irradiated for 52.8 hours within the 5c position of the McMaster reactor, Hamilton, Ontario, Canada.
Neutron flux monitor Fish Canyon Tuff sanidine (FC-2). Assigned age = 28.201 Ma (Kuiper et al., 2008)

Instrumentation:
Mass Analyzer Products 215-50 mass spectrometer on line with automated all-metal extraction system.
Samples step-heated (2 minutes per step) with defocused CO_2 laser beam.
Reactive gases removed during heating and additionally for 58 min with 2 SAES GP-50 getters, 1 operated at ~450°C and 1 at 20°C.
Gas also exposed to cold finger operated at -140°C and a W filament at ~2000°C.
The long gettering time (1 hr) was used to ensure clean up of hydrocarbons the could interfere with the small ^{39}Ar and ^{37}Ar intensities related to the low concentrations of K and Ca within the marcasite.

Analytical parameters:
Electron multiplier sensitivity about $1.0x10^{-16}$ moles/pA
Total system blank and background: 150±2% 0.4±9%, 0.2±100%, 0.4±10%, 0.73±6% x 10^{-17} moles for masses 40, 39, 38, 37, 36, respectively.
J-factors determined to ~± 0.1% precision by CO_2 laser-fusion of 6 single crystals from each of 6 radial positions around the irradiation tray.

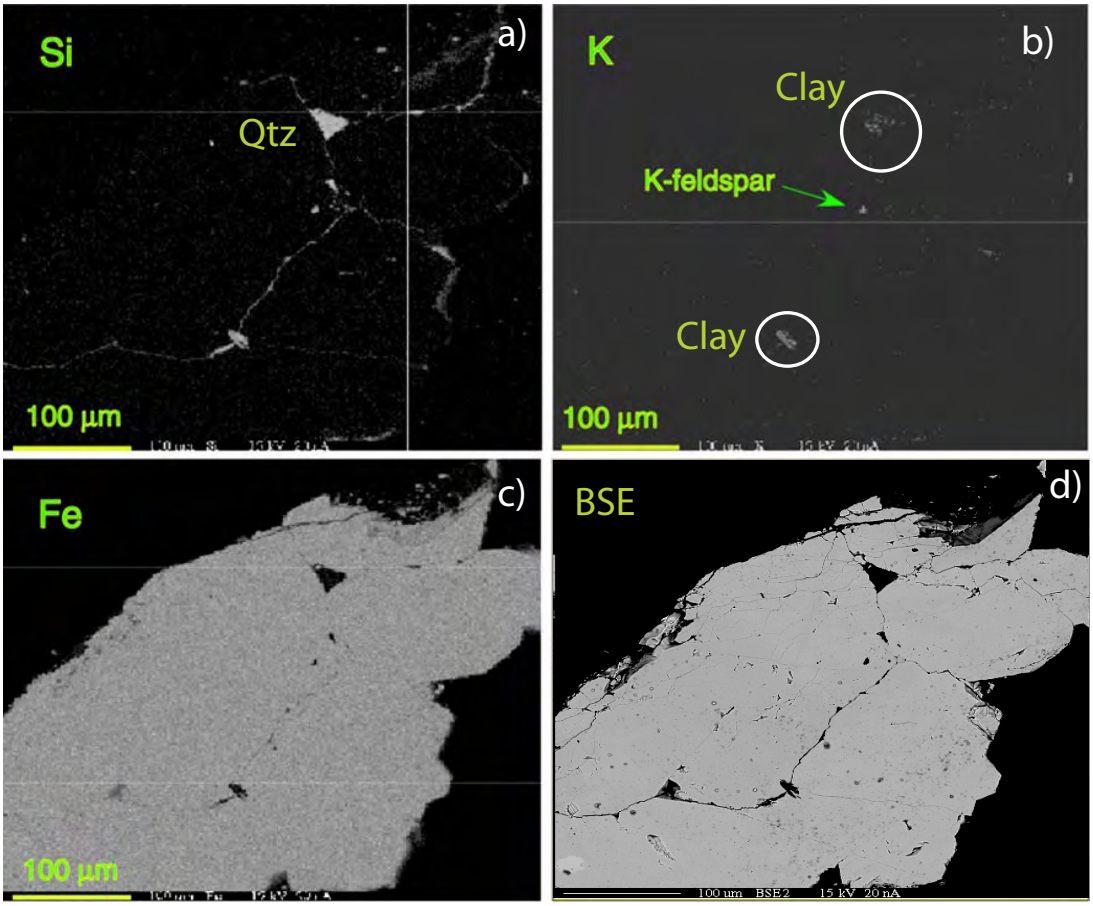


Figure 1. Electron microprobe chemical maps (Si –Silicon, K – Potassium, Fe-Iron) and a back scattered electron (BSE) image for a representative fragment of marcasite. A) Si images shows secondary quartz along fractures, B) K imaging identifies that clay (~ 1wt% K2O) hosts much of the total K associated with mineral inclusions and or authigenic phases. Chemical mapping of approximately 3 cm2 (3x106 µm2) of marcasite identified only one K-feldspar grain as well as a single rutile and two Na-rich plagioclase grains. The 15 x 15 micron K-feldspar represents about 75 ppm of the total area scanned for mineral inclusions.

Table 2. Quantitative potassium measurements for Marcasite.

Microprobe analysis of Marcasite					
		S	K	Fe	Total
Point #	Point Label	Wt%	Wt%	Wt%	Wt%
#1	K01-56-marc-01	51.03	0.001	44.48	95.5
#2	K01-56-marc-02	53.088	0.013	44.884	98.0
#3	K01-56-marc-03	53.177	0.015	45.262	98.5
#4	K01-56-marc-04	53.414	0.002	46.345	99.8
#5	K01-56-marc-05	52.609	0.005	44.756	97.4
#6	K01-56-marc-06	52.997	0	45.087	98.1
#7	K01-56-marc-07	53.861	0.003	46.104	100.0
#8	K01-56-marc-10	52.94	0.008	44.651	97.6
#9	K01-56-marc-11	53.961	0.003	46.276	100.2
#10	K01-56-marc-12	53.911	0.002	46.154	100.1
#12	K01-56-marc-14	53.152	0.004	44.737	97.9
#13	K01-56-marc-15	53.308	0.007	44.796	98.1
#14	K01-56-marc-16	53.233	0.008	45.114	98.4
#15	K01-56-marc-18	52.826	0.009	44.92	97.8
#17	K01-56-marc-19	53.235	0.001	45.291	98.5
#18	K01-56-marc-20	52.872	0.01	45.476	98.4
		Average K	**0.0057**		
		Stdev(±1σ)	**0.0045**		

Table 3. Mixing model between Marcasite of variable K-content with inherited K-feldspar.

Calculated age for mixtures of 750 Ma Marcasite with a 1200 Ma K-feldspar contaning 16 wt% K.			
Assumed K in Marcasite (PPM)	% ot total K from Marcasite	Wt. fraction of Marcasite to K-spar	K/Ar age of mixture (Ma)
0	0	0.9998625	1200
10	45.5	0.9999250	1009
11	50.0	0.9999310	989
15	68.2	0.9999562	906
20	90.9	0.9999875	795
21	95.5	0.9999937	773
22	100	1.0000000	750

References

Kuiper, K. F., Deino A., Hilgen, F. J., Krijgsman, W., Renne, P. R., and Wijbrans, J. R., 2008. Synchronizing the rock clocks of Earth history. Science 320, 500–504.

Min, K., Mundil, R., Renne, P. R. and Ludwig, K. R., 2000. A test for systematic errors in $^{40}Ar/^{39}Ar$ geochronology through comparison with U–Pb analysis of a 1.1 Ga rhyolite. Geochim. Cosmochim. Acta 64, 73–98.

Phillips, D., and Miller, J.M., 2006. $^{40}Ar/^{39}Ar$ dating of mica-bearing pyrite from thermally overprinted Archean gold deposits. Geology, v. 34, no. 5, 397-400.

Smith, P.E., Evensen, N.M., York, D., Szatmari, P., and de Oliveira , D.C., 2001. Singe-crystal ^{40}Ar-^{39}Ar dating of pyrite: No fool's clock. Geology, v. 29, 403-406.

Steiger, R.H., and Jäger, E., 1977. Subcommission on geochronology: Convention on the use of decay constants in geo- and cosmochronology. Earth and Planet. Sci. Lett., 36, 359-362.

Taylor, J.R., 1982. An Introduction to Error Analysis: The Study of Uncertainties in Physical Measurements, Univ. Sci. Books, Mill Valley, Calif., 270 p.

Timmons, J. M., Karlstrom, K. E., Heizler, M. T., Bowring, S. A., Gehrels, G. E., and Crossey, L. J., 2005. Tectonic inferences from the ca. 1254 -1100 Ma Unkar Group and Nankoweap Formation, Grand Canyon: Intracratonic deformation and basin formation during protracted Grenville orogenesis, Geol. Soc. of Am. Bull., 117, 11/12, 1573-1595.

Table 1. C-isotope compostion and TOC of Chuar Group mudrocks

Table S4a-Organic carbon isotope values for the Chuar Group (new data shown in red, otherwise from Dehler et al., 2005)

SAMPLE NUMBER	Member/ Formation	Stratigraphic height (meters)	Canyon/location	TOC ave. wt%	$\delta^{13}C_{org}$ (ave. PDB)
CMD14-65-7	Tanner	12.50	Lava Chuar	1.11	-27.95
CMD14-65-8	Tanner	17.00	Lava Chuar	2.26	-28.59
CMD14-65-9	Tanner	20.00	Lava Chuar	0.25	-27.14
CMD14-65-10	Tanner	27.00	Lava Chuar	0.90	-29.08
CMD14-65-11	Tanner	32.00	Lava Chuar	0.14	-26.47
CMD14-65-12	Tanner	35.00	Lava Chuar	0.12	-26.92
CMD14-65-13	Tanner	38.50	Lava Chuar	0.29	-27.66
CMD14-65-14	Tanner	44.00	Lava Chuar	0.25	-16.74
CMD14-65-15	Tanner	46.50	Lava Chuar	0.18	-18.80
CMD14-65-16	Tanner	54.00	Lava Chuar	0.08	-21.87
CMD14-65-17	Tanner	57.00	Lava Chuar	0.16	-24.33
CMD14-65-18	Tanner	62.00	Lava Chuar	0.19	-19.69
CMD14-65-19	Tanner	71.00	Lava Chuar	0.24	-24.52
CMD14-65-20	Tanner	78.00	Lava Chuar	0.25	-23.23
CMD14-65-21	Tanner	86.50	Lava Chuar	0.42	-21.91
CMD14-65-22	Tanner	89.00	Lava Chuar	0.29	-18.12
CMD14-65-23	Tanner	91.00	Lava Chuar	0.16	-16.18
CMD14-65-24	Tanner	94.00	Lava Chuar	0.23	-16.23
CMD14-65-25	Tanner	99.00	Lava Chuar	0.23	-15.78
CMD14-65-26	Tanner	103.50	Lava Chuar	0.16	-16.38
CMD14-65-27	Tanner	109.00	Lava Chuar	0.18	-24.08
CMD14-65-28	Tanner	115.50	Lava Chuar	0.38	-21.57
CMD14-65-29	Tanner	120.00	Lava Chuar	0.60	-20.37
CMD14-65-31	Tanner	123.00	Lava Chuar	0.44	-20.80
CMD14-65-32	Tanner	129.00	Lava Chuar	0.33	-19.80
CMD14-65-33	Tanner	130.00	Lava Chuar	0.71	-20.73
CMD14-65-34	Tanner	134.50	Lava Chuar	0.35	-18.54
CMD14-65-35	Tanner	138.00	Lava Chuar	0.32	-16.79
CMD14-65-36	Tanner	172.00	Lava Chuar	0.50	-27.85
CMD8-65-12A	Tanner	180.50	Lava Chuar	0.34	-28.32
CMD9-69-3	Nankoweap Fm.	-0.50	Basalt	0.20	-23.44
CMD11-69-1	Tanner	7.75	Basalt	0.83	-28.24
CMD12-69-3	Tanner	24.00	Basalt	0.31	-26.27
CMD12-69-4	Tanner	26.00	Basalt	0.13	-23.40
CMD12-69-5	Tanner	44.00	Basalt	0.34	-22.10
CMD12-69-6	Tanner	45.50	Basalt	0.25	-23.49
CMD12-69-7	Tanner	63.00	Basalt	0.45	-23.51
CMD12-69-8	Tanner	64.00	Basalt	0.25	-23.21
CMD12-69-9	Tanner	73.00	Basalt	0.26	-19.90
CMD12-69-10	Tanner	91.75	Basalt	0.22	-24.43
CMD12-69-11	Tanner	103.50	Basalt	0.29	-20.74
CMD12-69-12	Tanner	118.00	Basalt	0.43	-16.72
CMD12-69-13	Tanner	127.00	Basalt	0.39	-19.89
CMD12-69-14	Tanner	147.50	Basalt	0.24	-19.92
CMD12-69-15	Tanner	152.00	Basalt	0.27	-15.04
CMD12-69-17	Tanner	165.00	Basalt	0.31	-15.29
CMD12-69-18	Tanner	172.00	Basalt	0.54	-22.32
CMD12-69-21	Tanner	173.50	Basalt	0.38	-17.63
CMD11-69-5	Tanner	179.00	Basalt	0.57	-28.49
CMD12-65-6.5	Jupiter	217.50	Lava Chuar	0.28	-18.00
CMD12-65-7	Jupiter	229.50	Lava Chuar	0.18	-14.27
CMD12-65-8	Jupiter	239.00	Lava Chuar	0.29	-13.87
CMD12-65-9	Jupiter	243.00	Lava Chuar	0.07	-16.09

Table 1. C-isotope compostion and TOC of Chuar Group mudrocks

SAMPLE NUMBER	Member/ Formation	Stratigraphic height (meters)	Canyon/location	TOC ave. wt%	$\delta^{13}C_{org}$ (ave. PDB)
CMD12-65-10	Jupiter	245.50	Lava Chuar	0.09	-17.62
CMD12-65-14	Jupiter	261.00	Lava Chuar	0.45	-20.76
CMD12-65-15	Jupiter	273.15	Lava Chuar	0.03	-21.27
CMD12-65-16	Jupiter	283.00	Lava Chuar	0.17	-18.30
CMD12-65-19	Jupiter	303.00	Lava Chuar	0.03	-29.44
CMD12-65-20	Jupiter	312.00	Lava Chuar	0.01	-23.90
CMD12-65-20	Jupiter	312.00	Lava Chuar	0.24	-22.64
CMD12-65-23	Jupiter	356.00	Lava Chuar	0.17	-26.03
CMD12-65-24	Jupiter	374.50	Lava Chuar	0.42	-24.00
CMD12-65-24.5	Jupiter	381.50	Lava Chuar	1.03	-22.32
CMD12-65-28	Jupiter	407.50	Lava Chuar	0.63	-26.92
CMD12-65-30	Jupiter	443.00	Lava Chuar	0.15	-22.55
CMD12-65-31	Jupiter	449.00	Lava Chuar	0.34	-19.52
CMD15-65-2	Jupiter	214.00	Lava Chuar east	0.04	-25.49
CMD15-65-3	Jupiter	221.00	Lava Chuar east	0.30	-20.27
CMD15-65-4	Jupiter	229.00	Lava Chuar east	0.25	-16.02
CMD15-65-5	Jupiter	239.00	Lava Chuar east	0.31	-16.46
CMD15-65-6	Jupiter	249.00	Lava Chuar east	0.23	-15.49
CMD15-65-7	Jupiter	256.00	Lava Chuar east	0.32	-12.79
CMD15-65-8	Jupiter	283.00	Lava Chuar east	0.45	-20.54
CMD15-65-9	Jupiter	305.00	Lava Chuar east	0.15	-17.05
CMD15-65-10	Jupiter	318.00	Lava Chuar east	0.03	-22.14
CMD15-65-11	Jupiter	330.00	Lava Chuar east	0.02	-22.01
CMD15-65-12	Jupiter	342.00	Lava Chuar east	0.01	-21.15
CMD15-65-13	Jupiter	362.00	Lava Chuar east	0.23	-22.74
CMD15-65-14	Jupiter	378.00	Lava Chuar east	0.17	-25.20
CMD15-65-15	Jupiter	390.00	Lava Chuar east	0.69	-23.51
CMD15-65-16	Jupiter	399.00	Lava Chuar east	1.08	-23.49
CMD15-65-17	Jupiter	403.00	Lava Chuar east	0.22	-23.17
CMD15-65-18	Jupiter	408.00	Lava Chuar east	0.35	-24.47
CMD15-65-19	Jupiter	423.00	Lava Chuar east	0.01	-23.19
CMD15-65-20	Jupiter	453.00	Lava Chuar east	0.02	-22.17
CMD15-65-21	Jupiter	464.00	Lava Chuar east	0.07	-20.35
CMD15-65-22	Jupiter	476.00	Lava Chuar east	0.03	-21.71
CMD15-65-23	Jupiter	487.00	Lava Chuar east	0.61	-19.26
CMD15-65-24	Jupiter	503.00	Lava Chuar east	0.74	-19.97
CMD15-65-25	Jupiter	522.00	Lava Chuar east	0.85	-26.42
CMD15-65-26	Jupiter	526.00	Lava Chuar east	0.46	-19.68
CMD15-65-27	Jupiter	529.00	Lava Chuar east	0.86	-21.83
CMD15-65-28	Jupiter	560.00	Lava Chuar east	0.24	-22.44
LC9-63-1	Carbon Canyon/Duppa	457.00	Lava Chuar	0.62	-18.96
LC9-63-6	Carbon Canyon/Duppa	607.00	Lava Chuar	0.14	-27.14
CMD9-63-22	Carbon Canyon/Duppa	672.00	Lava Chuar	0.48	-26.98
CMD9-63-28	Carbon Canyon/Duppa	708.50	Lava Chuar	0.30	-26.74
CMD11-65-2	Carbon Canyon/Duppa	748.00	Lava Chuar	0.13	-26.33
CMD11-65-11	Carbon Canyon/Duppa	810.00	Lava Chuar	0.22	-26.49
CMD7-65-11	Carbon Canyon/Duppa	840.50	Lava Chuar	0.19	-24.65
CMD7-65-10	Carbon Canyon/Duppa	849.00	Lava Chuar	0.16	-27.19
CMD8-65-8	Carbon Canyon/Duppa	857.00	Lava Chuar	0.22	-25.61
CMD7-65-7	Carbon Canyon/Duppa	871.00	Lava Chuar	0.20	-24.56
CMD9-65-2	Carbon Canyon/Duppa	884.50	Lava Chuar	0.40	-25.58
CMD9-65-5	Carbon Canyon/Duppa	893.00	Lava Chuar	0.76	-24.17
CMD9-65-8	Carbon Canyon/Duppa	906.00	Lava Chuar	0.02	-23.77
CMD11-65-12	Carbon Canyon/Duppa	845.50	Lava Chuar west	0.33	-28.22
CMD11-65-13A	Carbon Canyon/Duppa	853.50	Lava Chuar west	0.25	-27.78
CMD11-65-14	Carbon Canyon/Duppa	861.50	Lava Chuar west	1.29	-26.58
CMD11-65-15	Carbon Canyon/Duppa	870.50	Lava Chuar west	0.60	-30.30

Table 1. C-isotope compostion and TOC of Chuar Group mudrocks

SAMPLE NUMBER	Member/ Formation	Stratigraphic height (meters)	Canyon/location	TOC ave. wt%	$\delta^{13}C_{org}$ (ave. PDB)
CMD11-53-51	Carbon Canyon/Duppa	814.00	Nankoweap	0.11	-24.79
CMD11-53-52B	Carbon Canyon/Duppa	817.00	Nankoweap	3.11	-27.20
CMD11-53-55	Carbon Canyon/Duppa	827.00	Nankoweap	0.33	-25.50
CMD11-53-56	Carbon Canyon/Duppa	855.00	Nankoweap	0.28	-24.48
CMD11-53-57	Carbon Canyon/Duppa	857.00	Nankoweap	0.84	-26.62
cmd11-53-58	Carbon Canyon/Duppa	864.50	Nankoweap	0.19	-25.36
CMD11-53-59	Carbon Canyon/Duppa	872.50	Nankoweap	0.26	-27.23
CMD11-53-12	Carbon Canyon/Duppa	905.00	Nankoweap	1.02	-26.09
CMD11-53-27	Carbon Canyon/Duppa	944.00	Nankoweap	1.01	-27.53
CMD11-53-29	Carbon Canyon/Duppa	950.00	Nankoweap	0.39	-28.86
CMD11-53-30	Carbon Canyon/Duppa	967.00	Nankoweap	1.92	-26.26
CMD11-53-36	Carbon Canyon/Duppa	995.00	Nankoweap	0.23	-25.58
CMD11-53-37	Carbon Canyon/Duppa	1016.00	Nankoweap	0.33	-26.52
CMD10-60-6	Awatubi	1204.00	Sixtymile	0.49	-17.73
CMD10-60-10	Awatubi	1239.00	Sixtymile	0.10	-18.78
CMD10-60-11	Awatubi	1241.00	Sixtymile	0.40	-14.44
CMD10-60-13	Awatubi	1244.50	Sixtymile	0.08	-14.84
CMD10-60-14	Awatubi	1270.00	Sixtymile	0.47	-26.08
CMD10-60-15	Awatubi	1274.00	Sixtymile	0.58	-15.23
CMD10-60-16	Awatubi	1277.00	Sixtymile	0.07	-17.74
CMD10-60-17	Awatubi	1280.00	Sixtymile	0.72	-19.59
CMD10-60-18	Awatubi	1285.00	Sixtymile	0.11	-16.12
CMD10-60-19	Awatubi	1288.00	Sixtymile	0.74	-15.63
CMD10-60-20	Awatubi	1290.00	Sixtymile	0.57	-16.29
CMD10-60-21	Awatubi	1294.50	Sixtymile	0.51	-15.57
CMD10-60-26	Awatubi	1331.00	Sixtymile	0.39	-15.44
CMD10-60-27	Awatubi	1335.50	Sixtymile	0.61	-24.41
LC-05-56-25	Awatubi	1150.50	Kwagunt	0.06	-20.90
CMD14-53-1	Awatubi	1150.50	Nankoweap	0.11	-26.99
LC-05-56-26	Awatubi	1151.50	Kwagunt	0.10	-29.25
LC-05-56-27	Awatubi	1152.50	Kwagunt	0.55	-29.09
LC-05-56-28	Awatubi	1153.50	Kwagunt	0.15	-30.94
LC-05-56-29	Awatubi	1154.00	Kwagunt	0.32	-14.21
LC-05-56-30	Awatubi	1154.50	Kwagunt	0.09	-28.45
LC-05-56-31	Awatubi	1155.00	Kwagunt	0.15	-30.45
LC-05-56-32	Awatubi	1155.50	Kwagunt	0.14	-30.19
LC-05-56-33	Awatubi	1156.00	Kwagunt	0.12	-30.05
LC-05-56-34	Awatubi	1156.50	Kwagunt	0.20	-30.55
LC-05-56-35	Awatubi	1157.00	Kwagunt	0.22	-30.70
LC-05-56-36	Awatubi	1157.50	Kwagunt	0.10	-29.95
LC-05-56-37	Awatubi	1158.00	Kwagunt	0.15	-31.47
LC-05-56-38	Awatubi	1158.50	Kwagunt	0.14	-31.30
LC-05-56-39	Awatubi	1159.00	Kwagunt	0.05	-19.76
LC-05-56-40	Awatubi	1160.00	Kwagunt	0.03	-26.37
LC-05-56-41	Awatubi	1161.50	Kwagunt	0.06	-29.15
LC-05-56-42	Awatubi	1163.00	Kwagunt	0.21	-29.41
LC-05-56-43	Awatubi	1164.50	Kwagunt	0.08	-28.33
LC-05-56-44	Awatubi	1166.00	Kwagunt	0.16	-31.68
LC-05-56-45	Awatubi	1167.50	Kwagunt	0.21	-32.02
LC-05-56-46	Awatubi	1169.00	Kwagunt	0.32	-28.09
LC-05-56-47	Awatubi	1170.50	Kwagunt	0.44	-32.04
LC-05-56-48	Awatubi	1172.00	Kwagunt	0.35	-28.14
LC-05-56-49	Awatubi	1173.50	Kwagunt	0.23	-25.76
LC-05-56-50	Awatubi	1175.00	Kwagunt	***1.00***	
LC-05-56-51	Awatubi	1176.50	Kwagunt	0.41	-22.11
LC-05-56-52	Awatubi	1178.00	Kwagunt	0.31	-20.05
CMD14-53-2	Awatubi	1151.50	Nankoweap	0.17	-29.71

Table 1. C-isotope compostion and TOC of Chuar Group mudrocks

SAMPLE NUMBER	Member/ Formation	Stratigraphic height (meters)	Canyon/location	TOC ave. wt%	$\delta^{13}C_{org}$ (ave. PDB)
CMD14-53-3	Awatubi	1152.50	Nankoweap	0.21	-30.77
CMD14-53-4	Awatubi	1154.50	Nankoweap	0.60	-32.37
CMD14-53-5	Awatubi	1159.50	Nankoweap	0.17	-30.44
CMD14-53-6	Awatubi	1160.50	Nankoweap	0.24	-30.98
CMD14-53-8	Awatubi	1165.50	Nankoweap	0.50	-20.15
CMD14-53-10	Awatubi	1204.50	Nankoweap	0.49	-16.59
CMD14-53-12	Awatubi	1172.50	Nankoweap	0.15	-20.32
CMD14-53-13	Awatubi	1180.50	Nankoweap	0.60	-21.78
CMD14-53-14	Awatubi	1186.50	Nankoweap	0.57	-18.19
CMD14-53-15	Awatubi	1195.50	Nankoweap	0.34	-15.94
CMD14-53-16	Awatubi	1207.50	Nankoweap	0.11	-16.57
CMD14-53-17	Awatubi	1213.50	Nankoweap	0.68	-16.19
CMD14-53-19	Awatubi	1218.50	Nankoweap	0.38	-17.76
CMD14-53-20	Awatubi	1220.50	Nankoweap	0.25	-19.25
CMD14-53-21	Awatubi	1223.50	Nankoweap	0.40	-16.59
CMD14-53-22	Awatubi	1234.50	Nankoweap	0.16	-16.32
CMD14-53-23	Awatubi	1241.50	Nankoweap	0.43	-15.66
CMD14-53-25	Awatubi	1248.50	Nankoweap	0.63	-13.30
CMD14-53-27	Awatubi	1255.50	Nankoweap	0.32	-18.11
CMD14-53-29	Awatubi	1258.50	Nankoweap	0.19	-14.32
CMD14-53-30	Awatubi	1262.50	Nankoweap	0.17	-14.66
CMD14-53-32	Awatubi	1265.50	Nankoweap	0.28	-16.43
CMD14-53-33	Awatubi	1270.50	Nankoweap	0.21	-13.83
CMD14-53-34	Awatubi	1277.50	Nankoweap	0.53	-15.89
CMD14-53-35	Awatubi	1279.00	Nankoweap	0.17	-16.60
CMD14-53-36	Awatubi	1285.50	Nankoweap	0.27	-13.58
LC-16-53-1	Awatubi	1287.50	Nankoweap	nm	-16.22
LC-16-53-2	Awatubi	1290.50	Nankoweap	nm	-21.05
CMD14-53-37	Awatubi	1292.50	Nankoweap	0.57	-17.38
LC-16-53-3	Awatubi	1293.50	Nankoweap	nm	-23.71
LC-16-53-4	Awatubi	1296.50	Nankoweap	nm	-17.11
CMD14-53-38	Awatubi	1297.50	Nankoweap	0.89	-15.36
LC-16-53-5	Awatubi	1299.50	Nankoweap	nm	-22.52
LC-16-53-6	Awatubi	1302.50	Nankoweap	nm	-15.96
LC-16-53-6	Awatubi	1305.50	Nankoweap	nm	-18.24
CMD14-53-39	Awatubi	1305.50	Nankoweap	0.71	-17.59
LC-16-53-8	Awatubi	1308.50	Nankoweap	nm	-20.60
CMD14-53-40	Awatubi	1310.50	Nankoweap	0.72	-19.63
LC-16-53-9	Awatubi	1311.50	Nankoweap	nm	-18.21
LC-16-53-10	Awatubi	1314.50	Nankoweap	nm	-20.42
LC-16-53-11	Awatubi	1317.50	Nankoweap	nm	-17.59
CMD14-53-41	Awatubi	1317.50	Nankoweap	0.98	-15.82
LC-16-53-12	Awatubi	1320.50	Nankoweap	nm	-22.08
CMD14-53-42	Awatubi	1322.00	Nankoweap	0.72	-16.50
LC-16-53-13	Awatubi	1323.50	Nankoweap	nm	-18.62
CMD14-53-43	Awatubi	1324.50	Nankoweap	1.00	-16.76
LC-16-53-14	Awatubi	1326.50	Nankoweap	nm	-15.46
LC-16-53-15	Awatubi	1329.50	Nankoweap	nm	-17.30
LC-16-53-16	Awatubi	1332.50	Nankoweap	nm	-23.55
LC-16-53-17	Awatubi	1335.50	Nankoweap	nm	-23.26
LC-16-53-18	Awatubi	1338.50	Nankoweap	nm	-24.22
LC-16-53-19	Awatubi	1341.50	Nankoweap	nm	-25.47
LC-16-53-20	Awatubi	1344.50	Nankoweap	nm	-24.78
CMD14-53-44	Awatubi	1344.50	Nankoweap	1.09	-24.21
CMD14-53-45	Awatubi	1347.50	Nankoweap	0.28	-24.90
LC-16-53-21	Awatubi	1347.50	Nankoweap	nm	-25.55
LC-16-53-22	Awatubi	1350.50	Nankoweap	nm	-24.93

Table 1. C-isotope compostion and TOC of Chuar Group mudrocks

SAMPLE NUMBER	Member/ Formation	Stratigraphic height (meters)	Canyon/location	TOC ave. wt%	$\delta^{13}C_{org}$ (ave. PDB)
CMD14-54-46	Awatubi	1352.00	Nankoweap	0.22	-24.17
LC-16-53-23	Awatubi	1353.50	Nankoweap	nm	-25.18
LC-16-53-24	Awatubi	1356.50	Nankoweap	nm	-26.36
CMD14-53-47	Awatubi	1356.50	Nankoweap	0.29	-24.57
LC-16-53-25	Awatubi	1358.50	Nankoweap	nm	-25.55
LC-16-53-31	Awatubi	1366.50	Nankoweap	nm	-26.61
CMD10-60-12	Awatubi	1242.50	Sixtymile	0.22	-18.47
CMD10-60-38	Walcott	1357.00	Sixtymile	0.79	-23.98
CMD10-60-39	Walcott	1360.00	Sixtymile	0.40	-23.96
CMD10-60-41	Walcott	1360.50	Sixtymile	1.22	-25.78
CMD10-60-40	Walcott	1363.50	Sixtymile	1.62	-25.19
CMD10-60-43	Walcott	1368.00	Sixtymile	3.42	-28.17
CMD10-60-44	Walcott	1387.50	Sixtymile	0.89	-26.13
CMD10-60-45	Walcott	1395.00	Sixtymile	0.48	-25.90
CMD10-60-46	Walcott	1402.50	Sixtymile	0.53	-16.23
CMD10-60-47	Walcott	1411.50	Sixtymile	2.12	-26.66
CMD10-60-48	Walcott	1420.50	Sixtymile	1.56	-26.06
CMD10-60-49	Walcott	1431.00	Sixtymile	0.51	-26.23
CMD10-60-50	Walcott	1444.50	Sixtymile	0.99	-25.22
CMD10-60-51	Walcott	1470.00	Sixtymile	1.45	-24.59
CMD10-60-52	Walcott	1479.00	Sixtymile	2.58	-24.60
CMD10-60-53	Walcott	1506.00	Sixtymile	2.42	-21.89
CMD10-60-54	Walcott	1514.00	Sixtymile	1.02	-26.44
CMD10-60-61	Walcott	1533.00	Sixtymile	3.76	-26.55
CMD10-60-64	Walcott	1539.50	Sixtymile	1.42	-26.55
CMD10-60-65	Walcott	1551.50	Sixtymile	1.69	-27.60
CMD10-60-67	Walcott	1568.00	Sixtymile	1.91	-27.29
CMD10-60-68	Walcott	1577.00	Sixtymile	2.00	-27.06
CMD10-60-69	Walcott	1587.00	Sixtymile	1.75	-27.43
CMD10-60-70	Walcott	1592.00	Sixtymile	1.58	-26.82
LC99-53-1	Walcott	1374.50	Nankoweap	1.00	-26.06
LC99-53-2	Walcott	1382.50	Nankoweap	1.61	-25.57
LC99-53-3	Walcott	1385.50	Nankoweap	0.74	-25.47
LC99-53-5	Walcott	1393.00	Nankoweap	0.99	-26.05
LC99-53-7	Walcott	1403.50	Nankoweap	1.18	-25.93
LC99-53-9	Walcott	1409.50	Nankoweap	0.35	-24.69
LC99-53-10	Walcott	1414.00	Nankoweap	2.51	-26.20
LC99-53-12	Walcott	1423.00	Nankoweap	1.07	-25.87
LC99-53-13	Walcott	1426.00	Nankoweap	2.82	-25.61
LC09-56-1	Walcott	1427.50	Nankoweap	2.05	-24.75
LC09-56-2	Walcott	1427.60	Nankoweap	2.21	-25.23
LC09-56-3	Walcott	1427.70	Nankoweap	3.43	-24.90
LC09-56-4	Walcott	1427.80	Nankoweap	2.44	-24.94
LC09-56-5	Walcott	1427.90	Nankoweap	3.68	-24.82
LC09-56-6	Walcott	1428.00	Nankoweap	3.19	-24.84
LC09-56-7	Walcott	1428.10	Nankoweap	2.48	-24.83
LC09-56-8	Walcott	1428.20	Nankoweap	2.58	-25.01
LC09-56-9	Walcott	1428.30	Nankoweap	2.52	-25.15
LC09-56-10	Walcott	1428.40	Nankoweap	2.25	-25.03
LC09-56-11	Walcott	1428.50	Nankoweap	2.50	-25.15
LC09-56-12	Walcott	1428.60	Nankoweap	2.39	-25.14
LC09-56-13	Walcott	1428.70	Nankoweap	2.59	-25.21
LC09-56-14	Walcott	1428.80	Nankoweap	2.58	-25.14
LC09-56-15	Walcott	1428.90	Nankoweap	2.86	-25.02
LC09-56-16	Walcott	1429.00	Nankoweap	2.82	-25.17
LC09-56-17	Walcott	1429.10	Nankoweap	2.67	-25.23
LC09-56-18	Walcott	1429.20	Nankoweap	2.48	-25.11
LC09-56-19	Walcott	1429.30	Nankoweap	2.83	-25.14

Table 1. C-isotope compostion and TOC of Chuar Group mudrocks

SAMPLE NUMBER	Member/ Formation	Stratigraphic height (meters)	Canyon/location	TOC ave. wt%	$\delta^{13}C_{org}$ (ave. PDB)
LC09-56-20	Walcott	1429.40	Nankoweap	2.74	-25.11
LC09-56-21	Walcott	1429.50	Nankoweap	2.96	-25.18
LC09-56-22	Walcott	1429.60	Nankoweap	2.99	-25.18
LC09-56-23	Walcott	1429.70	Nankoweap	2.76	-24.93
LC09-56-24	Walcott	1429.80	Nankoweap	2.21	-24.76
LC09-56-25	Walcott	1429.90	Nankoweap	2.35	-25.03
LC09-56-26	Walcott	1430.00	Nankoweap	***10.00***	-24.80
LC09-56-27	Walcott	1430.10	Nankoweap	2.88	-25.05
LC09-56-28	Walcott	1430.20	Nankoweap	2.07	-24.88
LC09-56-30	Walcott	1430.30	Nankoweap	1.20	-24.69
LC09-56-31	Walcott	1430.40	Nankoweap	1.00	-24.62
LC09-56-32	Walcott	1430.50	Nankoweap	1.49	-24.81
LC09-56-33	Walcott	1430.60	Nankoweap	1.57	-25.20
LC09-56-34	Walcott	1430.70	Nankoweap	1.82	-24.97
LC09-56-35	Walcott	1430.80	Nankoweap	2.00	-24.95
LC09-56-36	Walcott	1430.90	Nankoweap	1.82	-25.36
LC09-56-37	Walcott	1431.00	Nankoweap	1.63	-24.89
LC09-56-38	Walcott	1431.10	Nankoweap	1.69	-25.30
LC09-56-39	Walcott	1431.20	Nankoweap	1.52	-25.09
LC09-56-40	Walcott	1431.30	Nankoweap	1.65	-25.33
LC99-53-14	Walcott	1429.00	Nankoweap	0.90	-24.79
LC99-53-16	Walcott	1435.00	Nankoweap	0.80	-24.90
LC99-53-17	Walcott	1441.00	Nankoweap	1.80	-25.30
LC99-53-18	Walcott	1444.00	Nankoweap	1.24	-24.58
LC99-53-20	Walcott	1450.00	Nankoweap	1.83	-24.75
LC99-53-21	Walcott	1453.00	Nankoweap	1.09	-24.40
LC99-53-24	Walcott	1460.50	Nankoweap	1.16	-24.86
LC99-53-25	Walcott	1463.50	Nankoweap	1.14	-24.58
LC99-53-27	Walcott	1471.00	Nankoweap	8.67	-25.47
LC99-53-28	Walcott	1513.00	Nankoweap	3.51	-26.31
LC99-53-30	Walcott	1519.00	Nankoweap	1.77	-26.88
LC99-53-32	Walcott	1525.00	Nankoweap	9.39	-26.68
LC99-53-34	Walcott	1547.50	Nankoweap	3.85	-27.18
LC99-53-36	Walcott	1553.50	Nankoweap	4.15	-27.20
LC99-53-37	Walcott	1558.00	Nankoweap	7.88	-27.56
LC99-53-38	Walcott	1562.50	Nankoweap	5.02	-27.73
LC99-53-41	Walcott	1571.00	Nankoweap	2.73	-27.43
LC99-53-42	Walcott	1574.00	Nankoweap	1.35	-27.20
LC99-53-43	Walcott	1577.00	Nankoweap	1.39	-27.93
LC99-53-46	Walcott	1586.00	Nankoweap	1.58	-27.75
LC99-53-48	Walcott	1593.00	Nankoweap	1.88	-27.46
LC99-53-49	Walcott	1597.00	Nankoweap	1.14	-26.93
LC99-53-50	Walcott	1602.00	Nankoweap	1.76	-26.53
LC99-53-51	Walcott	1605.00	Nankoweap	1.56	-26.58
LC99-53-52	Walcott	1608.00	Nankoweap	2.77	-26.53
LC99-53-54	Walcott	1616.00	Nankoweap	4.57	-25.59
LC99-53-56	Walcott	1622.00	Nankoweap	2.06	-26.48

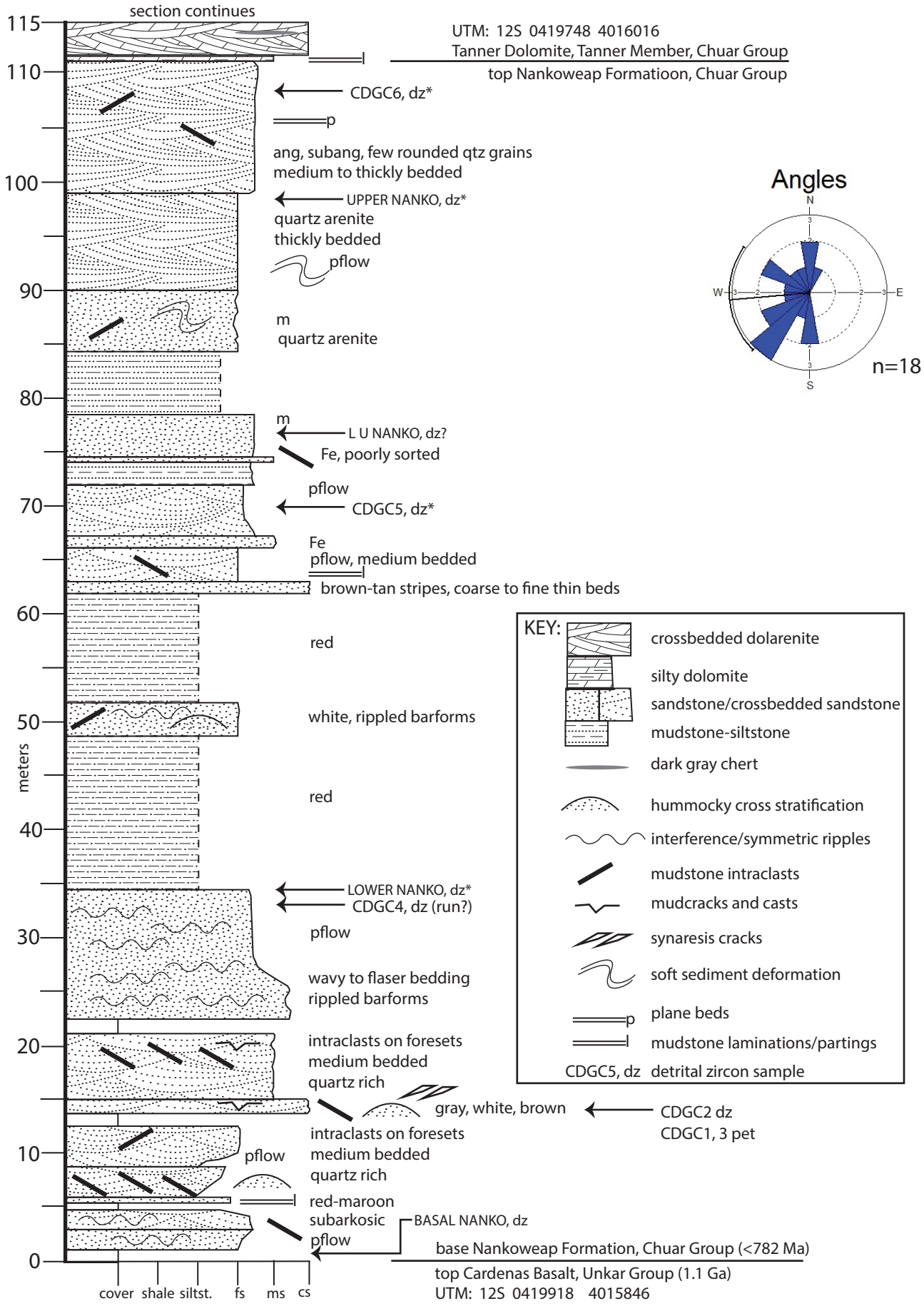
Dolomite sample #	Member/Fm	locale/canyon	strat pos.	$\delta^{13}C$ carb wholerock ave	$\delta^{13}C$ carb microdrill ave	$\delta^{18}O$ wholerock ave. ave	$\delta^{18}O$ microdrill ave.	$\delta^{13}C$ insol ave	$\Delta\delta^{13}C$ wholerock ave	$\Delta\delta^{13}C$ microdrill ave.	TOC (wt %)	$^{87}Sr/^{86}Sr$
cmd9-69-4b	Tanner	Basalt	1	2.2	2	-8.2	-8.3	-29.1	31.2	31	0.0325723	0.7125
CMD14-65-4	Tanner	Lava Chuar	2		2.4		-5.5					
cmd12-69-20	Tanner	Basalt	182		-3		-4.4	-26.3		23.3	0.0003071	
CMD8-65-13	Jupiter	Lava Chuar	183	0.2	0.6	-5.1	-4.2	-29	29.2	29.6	0.0186915	
CMD12-65-1	Jupiter	Lava Chuar	184		0.7		-4.9				0	
CMD12-65-2	Jupiter	Lava Chuar	188		0.2		-6.5	-11.7		12	0.0014369	
CMD12-65-2.5	Jupiter	Lava Chuar	194		-2.5		-6	-22.9		20.4	0.0002422	
CMD12-65-3B	Jupiter	Lava Chuar	196		-4.2		-6.9	-26		21.8	0.0005499	
CMD12-65-4B	Jupiter	Lava Chuar	198		-4.6		-5.5	-24.6		20.1	0.0002945	
Basal Jupiter	Jupiter	Basalt	185	-1.2		-6.1		-16.7	15.5		0.0085753	
lc9-63-4	Carbon Canyon	Lava Chuar	582	-2		-3.2		-23.5	21.5		0.0084156	
lc9-63-5	Carbon Canyon	Lava Chuar	590	-2.5		-4.3		-27.8	25.3		0.0045788	
CMD9-63-26	Carbon Canyon	Lava Chuar	703.5	0.5		-1.6		-25.2	25.7		0.0087089	
cmd9-63-27	Carbon Canyon	Lava Chuar	705	1.2	1.6	-3.1	-2.6	-17.6	18.7	19.2	0.0081502	
CMD11-65-5	CC	Lava Chuar	764.5		2		-3.7	-27.9		29.9	0.1223713	
CMD11-65-6	Carbon Canyon	Lava Chuar	765	2.8	3.6	-6.1	-3.7	-23.4	26.2	27	0.0056981	
cmd11-65-7	Carbon Canyon	Lava Chuar	772.5	1.8		-3.2		-24.4	26.1		0.0142217	
CMD11-65-10	Carbon Canyon	Lava Chuar	806	2	2.4	-2.2	-1.6	-21.6	23.6	23.9	0.0039389	
CMD11-65-17	CC	Lava Chuar-west	881		0.4		-2.2				0	
cmd7-65-4	Carbon Canyon	Lava Chuar	883	2.9		-2		-26	28.9		0.0076892	
CMD9-63-1	Carbon Canyon	Lava Chuar	883	2.7		-1.5		-26.5	29.2		0.0174526	
CMD9-65-4	Carbon Canyon	Lava Chuar	885	1.3		-2.1		-28.9	30.2		0.011979	
cmd9-65-6	Carbon Canyon	Lava Chuar	904.5	0.9		-3.7		-25.2	26		0.0135873	
cmd9-65-6-lam	Carbon Canyon	Lava Chuar	904.5		0.7		-4.2				0	
cmd9-65-6-alt	Carbon Canyon	Lava Chuar	904.5		0.7		-3.8				0	
CMD9-65-7	Carbon Canyon	Lava Chuar	905	1.2		-2.5		-25.8	26.9		0.0428672	
cmd11-53-40	Carbon Canyon	Nankoweap	771.5	1.9		-2.7		-28.5	30.4		0.0155691	
cmd11-53-43	Carbon Canyon	Nankoweap	777.5	1.7	1.6	-3	-4.3	-26.6	28.3	28.2	0.0337718	
cmd11-53-46	Carbon Canyon	Nankoweap	784	2.2	2.3	-3.7	-3.5	-26.1	28.2	28.3	0.0127752	
CMD11-53-49	Carbon Canyon	Nankoweap	805	0.2	0.4	-0.9	-1.3	-26.9	27	27.3	0.1261559	
CMD11-53-54	Carbon Canyon	Nankoweap	817.5	0.6		-2.4		-25.9	26.5		0.0435106	
cmd11-53-60	Carbon Canyon	Nankoweap	827.5	2.1	2.5	-2.1	-1.5	-17.9	20	20.4	0.0103214	
cmd11-53-1	Carbon Canyon	Nankoweap	838.5	-1.2	-1.1	-4.6	-3.7	-26.8	25.6	25.7	0.0658661	
CMD11-53-2	CC	Nankoweap	838.8		-0.1		-1.7	-25.3		25.3	0.1812824	
CMD11-53-5	CC	Nankoweap	839.3		1.2		-0.5	-25		26.2	0.0874543	
CMD9-53-8	Carbon Canyon	Nankoweap	876	0.1	0.4	-3.7	-3	-30	29.2	29.5	0.0895877	

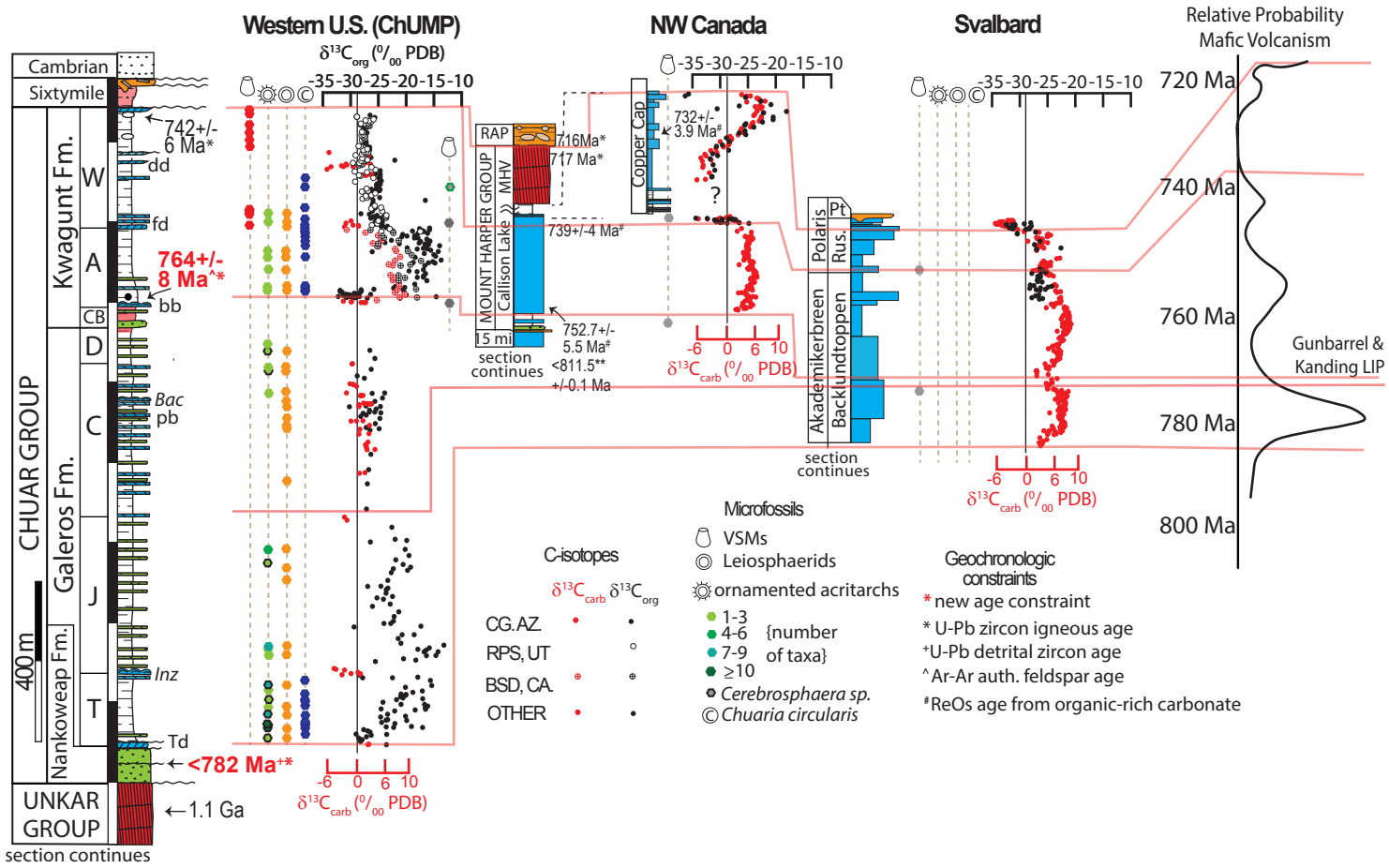
CMD9-53-10	Carbon Canyon	Nankoweap	883	2.4		-1.6		-24.5	26.9		0.0225574	
CMD13-53-15	CC	Nankoweap	883.3		1.9		-1.7	-25.1		27	0.0104796	0.709
CMD13-53-16	CC	Nankoweap	883.8		2.1		-3.1	-25.7		27.7	0.4178462	
CMD11-53-13	Carbon Canyon	Nankoweap	911.5	-2.1		-3.3		-27.9	25.8		0.0251044	
CMD11-53-18	Carbon Canyon	Nankoweap	928.5	-0.1		-3.1		-24.4	24.3		0.0066674	
CMD11-53-20	Carbon Canyon	Nankoweap	933	-0.7		-2.2		-26.5	25.7		0.0063002	
CMD11-53-21	CC	Nankoweap	933.3		-0.7		-4.7	-24.2		23.5	0.0280676	
CMD11-53-23	Carbon Canyon	Nankoweap	935	-1.4	-1.3	-1.9	-2.1	-20.1	18.7	18.7	0.0113249	
CMD11-53-34	Carbon Canyon	Nankoweap	986.5	-1		-2.5		-22.4	21.4		0.0055032	
CMD11-53-35	CC	Nankoweap	987		-0.9		-2.4	-23.4		22.5	0.0256264	
CMD10-60-1	Awatubi	Sixtymile	1145.5	1.4		-4		-25.3	26.7		0.0029947	
cmd10-60-1-alt	Awatubi	Sixtymile	1145.5		0.8		-4.5				0	
cmd10-60-1-la	Awatubi	Sixtymile	1145.5		1.7		-3.8				0	0.708
BR2	Awatubi	Nankoweap	1147	-1.16		-4.67						
BR3	Awatubi	Nankoweap	1148	-1.10		-4.74						
BR4	Awatubi	Nankoweap	1149	-2.74		-4.05						
cmd10-60-28	Awatubi	Sixtymile	1341.5	-2.5		-5		-24.6	22.1		0.0142106	
CMD10-60-32	Walcott	Sixtymile	1346	-0.8		-5.1		-26.4	25.6		0.018351	
CMD10-60-35a	Walcott	Sixtymile	1351	-2	-2.2	-7.9	-8.1	-26.7	24.7	24.5	0.0481803	
CMD10-60-37b	Walcott	Sixtymile	1357		-1.2		-4.2				0	
cmd10-60-56	Walcott	Sixtymile	1490.5	-6	-6.2	-1.4	-1.4	-26.3	20.4	20.1	0.0780557	0.7086
CMD10-60-57	Walcott	Sixtymile	1497	-5.2	5	-6.4	-5.7	-25.5	20.3	20.5	0.0331926	
CMD10-60-30	Walcott	Sixtymile	1497.5		-2.7		-6.1	-26.5		23.8	0.0510231	
CMD10-60-58	Walcott	Sixtymile	1499.5		-3.1		-5.8				0	
cmd10-60-59	Walcott	Sixtymile	1504	-2.2		-7.1		-23.6	21.5		0.0153446	
cmd10-60-60	Walcott	Sixtymile	1524	2	2.3	-8.8	-8.3	-24.2	26.1	26.5	0.0310489	
CMD10-60-62	Walcott	Sixtymile	1534		-5.6		-6.5				0	
cmd10-53-4b	Awatubi	Nankoweap	1146	0.7	1.7	-5.1	-4	-25.2	25.8	26.9	0.0044888	
Flakey	Walcott	Nankoweap	1343	0.31		0.24						
cmd14-53-49	Walcott	Nankoweap	1344.5		0.3		-7.3				0	
LD1	Walcott	Nankoweap	1474.5	1.76		-6.64						
LD2	Walcott	Nankoweap	1475.5	1.21		-6.64	-5.9	-27		26.7	0.0916381	
LD3	Walcott	Nankoweap	1476.5	2.12		-6.91	-5.8				0	
LD4	Walcott	Nankoweap	1477.5	2.91		-6.04	-6.1				0	
LD5	Walcott	Nankoweap	1478	2.36		-7.00	-7.7				0	
LD6	Walcott	Nankoweap	1478.5	2.05		-6.92						
UD1	Walcott	Nankoweap	1497.5	-0.79		-6.03						
UD2	Walcott	Nankoweap	1498.5	-0.72		-6.23						
UD5	Walcott	Nankoweap	1501.5	-2.02		-6.51						
UD6	Walcott	Nankoweap	1502.5	1.23		-4.46						

UD7	Walcott	Nankoweap	1503.5	2.70		-6.64
cmd14-53-52	Walcott	Nankoweap	1497.5		-0.2	Udl
cmd14-53-54	Walcott	Nankoweap	1508.5		2	Udu
cmd14-53-50	Walcott	Nankoweap	1474.5		-0.3	LDl
cmd14-53-51	Walcott	Nankoweap	1479.5		1.1	Ldu

Formation	Locality	Sample ID	Identified fossils
Moosehorn Lake Formation		MH 072208-	*Lanulatisphaera laufeldii, Leiosphaeridia sp., Microlepidopalla mira, Siphonophycus* sp.,
Moosehorn Lake Formation		MH 072208-	*?Caelatimurus foveolatus, Lanulatisphaera laufeldii, Leiosphaeridia sp., Microlepidopalla mira, Siphonophycus* sp.,
Moosehorn Lake Formation		MH 072208-	*?Caelatimurus foveolatus, ?Culcitulisphaera revelata, Lanulatisphaera laufeldii, Leiosphaeridia sp., Microlepidopalla mira, Siphonophycus sp., ?Vidalopalla verrucata*
Moosehorn Lake Formation		MH 072208-	*Lanulatisphaera laufeldii, Leiosphaeridia sp., Microlepidopalla mira, ?Squamosphaera colonialica*
Moosehorn Lake Formation		MH 072208-	*Lanulatisphaera laufeldii, Leiosphaeridia sp., Microlepidopalla mira, Siphonophycus* sp.
Moosehorn Lake Formation		MH 6 23-08	*Lanulatisphaera laufeldii, Microlepidopalla mira*
Moosehorn Lake Formation		MH-14-10	*Kaibabia gemmulella; Lanulatisphaera laufeldii, Microlepidopalla mira*
Moosehorn Lake Formation		MH-14-8	*Lanulatisphaera laufeldii, Microlepidopalla mira*
Moosehorn Lake Formation		MH-14-10	*Kaibabia gemmulella; Lanulatisphaera laufeldii, Microlepidopalla mira*
Moosehorn Lake Formation		MH-14-12	*Lanulatisphaera laufeldii, Microlepidopalla mira*
Hades-Red Pine Shale transition	Leidy Peak	DHLP-A3	?Vase-shaped microfossils, *Leiosphaeridia* sp.
Hades-Red Pine Shale transition	Leidy Peak	DHLP-A4	?Vase-shaped microfossils, *Leiosphaeridia* sp.
Hades-Red Pine Shale transition	Leidy Peak	DHLP-A6	*Leiosphaeridia* sp.; unidentified filaments
Hades-Red Pine Shale transition	Leidy Peak	DHLP-A8	*Leiosphaeridia* sp.; unidentified filaments
Hades-Red Pine Shale transition	Leidy Peak	DHLP-A11	*Leiosphaeridia* sp.; unidentified filaments
Hades-Red Pine Shale transition	Leidy Peak	DHLP-A13	*Leiosphaeridia* sp.; unidentified filaments
Hades-Red Pine Shale transition	Leidy Peak	DHLP-A14	*Leiosphaeridia* sp.; unidentified filaments
Hades-Red Pine Shale transition	Leidy Peak	DHLP-A16	*Leiosphaeridia* sp.; unidentified filaments
Hades-Red Pine Shale transition	Leidy Peak	DHLP-A17	*Leiosphaeridia* sp.; unidentified filaments
Hades-Red Pine Shale transition	Leidy Peak	LP-10-03-01-2	?Vase-shaped microfossils; *Cerebrosphaera globosa* , *Lanulatisphaera laufeldii,*
Hades-Red Pine Shale transition	Leidy Peak	LP-10-03-01-4	?Vase-shaped microfossils
Hades-Red Pine Shale transition	Leidy Peak	LP-10-03-01-6	?Vase-shaped microfossils

Figure S6: REFERENCE SECTION, NANKOWEAP FORMATION*, NANKOWEAP CANYON, GRAND CANYON
(*now the lowermost formation in the Chuar Group)





Supplementary Data S7 Figure 1. Alternate correlation between the Chuar Group and the Svalbard strata using Chuar age control and the Svalbard age model of Halverson et al. (2005). The implications: VSMs and *Cerebrosphaera globosa* predate 780 Ma in Svalbard and are not as useful as index fossils, the Svanbergfjellet is older than 790 Ma, and acritarchs should be found in the Backlundtoppen and the Callison Lake dolostone.

Supplementary Data S8 ***ƐNd study on Chuar Group***

ƐNd Analysis: Background

With the exception of $^{87}Sr/^{86}Sr$ data, the main paleoenvironmental proxies that have been applied to the Neoproterozoic, such as the $\delta^{13}C_{carb}$ record (Halverson et al., 2010), the $\delta^{13}C_{org}$ record (Swanson-Hysell et al., 2010), and Fe speciation record (Canfield et al., 2008) are strongly influenced by biology, redox and/or pH, which complicate their interpretation, particularly when attempting to identify tectono-thermal effects. Neither neodymium nor samarium have a biological function, and with their sole 3+ oxidation state, neither is affected by Eh/pH changes (Brookins, 1983). Significant fractionation of Sm from Nd occurs during igneous processes with Nd being preferentially incorporated into the melt while Sm is preferentially retained in the residue. Thus the progression from mafic to felsic compositions, whether by protracted fractionation, assimilation and fractional crystallization, or remelting of a crustal precursor results in a trend of decreasing $^{147}Sm/^{144}Nd$ (Goldstein et al., 1984). Furthermore, the ƐNd evolution of the depleted upper mantle is relatively well constrained with initial ƐNd ranging from 0 at 4.6 Ga to ~ +10 for modern mid-ocean ridge basalts (DePaolo, 1980; Goldstein et al., 1984). Since basalts are a direct product of mantle melting they should have ƐNd values close to predicted mantle values. Some variation from these predicted values does occur due to mantle heterogeneities and/or minor amounts of crustal assimilation; however, initial ε_{Nd} values for basalts are overwhelmingly primitive (i.e. positive ƐNd). In contrast to mafic rocks, the protracted petrogenesis of felsic rocks, which often includes the assimilation of older crustal material, results in more varied $^{147}Sm/^{144}Nd$ and hence ε_{Nd} signatures that range from primitive to evolved (Vervoort et al., 1999). Nevertheless, old continental crust

typically has very negative ε_{Nd} values. Consequently, by correcting for the in-situ decay of ^{147}Sm to ^{143}Nd to ascertain the initial $^{143}Nd/^{144}Nd$ (in the case of sedimentary rocks we take the initial ratio to be their estimated depositional age) the interpretation of $^{143}Nd/^{144}Nd$ in sedimentary rocks becomes relatively simple with variations largely reflecting the mixing of the source terranes from which the sediment is derived.

ƐNd analytical methods used on Chuar Samples

Nine whole rock shale samples were analyzed for$^{143}Nd/^{144}Nd$ and $^{147}Sm/^{144}Nd$ ratios to explore a complementary provenance signature because ƐNd records the mafic component of provenance, which is not resolved in detrital zircon studies. $^{143}Nd/^{144}Nd$ and $^{147}Sm/^{144}Nd$ ratios were measured on a Thermo Triton mass spectrometer in the GEOTOP laboratories at Université du Québec à Montréal. Nd and Sm were analyzed using a double filament array with the samples loaded onto outgassed Re filaments, parallel to this was an outgassed Re ionization filament. Sm and Nd concentrations were determined by isotope dilution. This appendix also provides the Nd isotopic data for the shale and iron formation. Nd isotope ratios ($^{143}Nd/^{144}Nd$) are presented as $\varepsilon_{Nd(t)}$, where the $^{144}Nd/^{143}Nd$ ratio is normalized to CHUR as a function of age (t) and expressed in parts per ten thousand.

Samples were first ignited at ~1000°C to remove organic matter. Following ignition ~ 0.3 g of sample powder was spiked with enriched 150Nd-149Sm tracers and dissolved under pressure with a HF-HNO3 mixture in Teflon containers. The resulting solutions were evaporated and dissolved again in perchloric acid to facilitate conversion of fluoride salts

to chloride salts. The samples were then dissolved in aqua-regia followed by 6N HCl. Nd and Sm were extracted using a three stage-chemistry procedure. The first stage involved the removal of Fe by passing the sample through columns filled with 200-400 mesh AG1X8 anion exchange resin. Subsequent to the removal of Fe, the REE component was concentrated using columns filled with Eichrom TRU Resin SPS 50-100μm. The third stage purification of the Sm and Nd fractions entailed passing the samples through columns filled with 600 mg of Eichrom LN Resin 100-150 μm.

The $^{143}Nd/^{144}Nd$ and $^{147}Sm/^{144}Nd$ ratios reported were measured on a Thermo Triton mass spectrometer in the GEOTOP laboratories at Université du Québec à Montréal. Nd and Sm were analyzed using a double filament array with the samples loaded onto outgassed Re filaments, parallel to this was an outgassed Re ionization filament. Nd and Sm samples were measured in dynamic mode, the total combined blank for Sm and Nd is less than 150 pg. The reported Sm and Nd concentrations and the $^{147}Sm/^{144}Nd$ ratios have less than 0.5% error, corresponding to an error of less than 0.5 εNd unit for the initial Nd isotopic composition. $^{146}Nd/^{144}Nd$ was normalized to 0.7219 for mass fractionation corrections. Repeated measurements of JNdi-1 standard yielded a value of $^{143}Nd/^{144}Nd = 512109 \pm 1$ (n =20) for the period of the study. This value is within error of the value obtained by Tanaka et al. (2000) of $^{143}Nd/^{144}Nd = 0.512115 \pm 7$. Repeated measurements of BHVO-2 yielded a value of $^{143}Nd/^{144}Nd = 0.512965 \pm 6$ (n = 20) for the period of the study. This value is within error of the accepted value of $^{143}Nd/^{144}Nd = 0.51298 \pm 12$ (Jochum et al., 2005). The chrondritic reference values used for εNd calculations are: $^{143}Nd/^{144}Nd_{CHUR} = 0.512636$,

$^{147}Sm/^{144}Nd_{CHUR}$ = 0.1966, and the decay constant for ^{147}Sm was assumed to be 6.54 x 10-12 a^{-1}

Results from ƐNd analyses on Chuar Samples

ƐNd values from the Chuar shales range from -5.73 to -8.68, indicating mafic detrital input into the Chuar basin (see Figure). While the resolution of the Chuar ƐNd values is coarse, the data is entirely consistent with the trends observed in other middle Neoproterozoic basins of Northern Rodinia. ƐNd values from these basins fall into the range between 0 to -10 and are interpreted to reflect an increase of the mafic component in the weathering flux of continental flood basalts (Fig. 1; Cox et. al. 2016).

REFERENCES

Brookins, D. G., 1983, Eh-pH diagrams for the rare earth elements at 25C and one Bar Pressure: Geochemical Journal, v. 17, p. 223-299.

Canfield, D. E., Poulton, S. W., Knoll, A. H., Narbonne, G. M., Ross, G., Goldberg, T., and Strauss, H., 2008, Ferruginous Conditions Dominated Later Neoproterozoic Deep-Water Chemistry: Science, v. 321, no. 5891, p. 949-952.

Cox, G.M., Halverson, G.P., Stevenson, R.K., Vokaty M., Poirier, A., Kunzmann M., Li Z.X., Denyszyn, S.W., Strauss, J.V., and Macdonald, F.A., 2016, Continental flood basalt weathering as a trigger for Neoproterozoic Snowball Earth: Earth and Planetary Science Letters, v.15; p. 89-99.

DePaolo, D. J., 1980, Crustal growth and mantle evolution: inferences from models of element transport and Nd and Sr isotopes: Geochimica et Cosmochimica Acta, v. 44, no. 8, p. 1185-1196.

Goldstein, S. L., O'Nions, R. K., and Hamilton, P. J., 1984, A Sm-Nd isotopic study of atmospheric dusts and particulates from major river systems: Earth and Planetary Science Letters, v. 70, no. 2, p. 221-236.

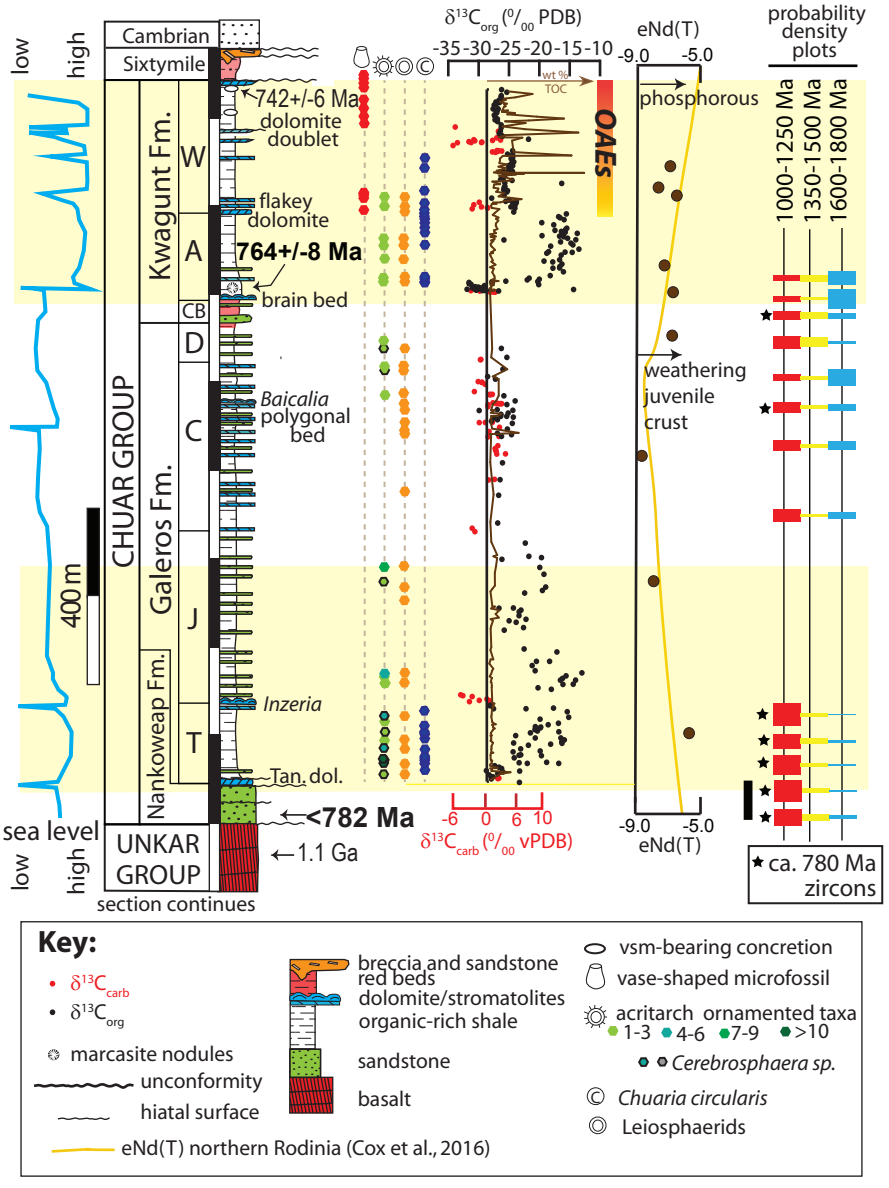
Halverson, G. P., Wade, B. P., Hurtgen, M. T., and Barovich, K. M., 2010, Neoproterozoic chemostratigraphy: Precambrian Research, v. 182, no. 4, p. 337-350.

Jochum, K. P., Nohl, U., Herwig, K., Lammel, E., Stoll, B., and Hofmann, A. W., 2005, GeoReM: A New Geochemical Database for Reference Materials and Isotopic Standards: Geostandards and Geoanalytical Research, v. 29, no. 3, p. 333-338.

Swanson-Hysell, N. L., Rose, C. V., Calmet, C. C., Halverson, G. P., Hurtgen, M. T., and Maloof, A. C., 2010, Cryogenian Glaciation and the Onset of Carbon-Isotope Decoupling: Science, v. 328, no. 5978, p. 608-611.

Tanaka, T., Togashi, S., Kamioka, H., Amakawa, H., Kagami, H., Hamamoto, T., Yuhara, M., Orihashi, Y., Yoneda, S., Shimizu, H., Kunimaru, T., Takahashi, K., Yanagi, T., Nakano, T., Fujimaki, H., Shinjo, R., Asahara, Y., Tanimizu, M., and Dragusanu, C., 2000, JNdi-1: a neodymium isotopic reference in consistency with LaJolla neodymium: Chemical Geology, v. 168, no. 3-4, p. 279-281.

Vervoort, J. D., Patchett, P. J., Blichert-Toft, J., and Albarede, F., 1999, Relationships between Lu-Hf and Sm-Nd isotopic systems in the global sedimentary system: Earth and Planetary Science Letters, v. 168, p. 79-99.



Supplementary data Figure 1. Composite measured section of the Chuar Group, Grand Canyon, Arizona, showing (from left to right): sea-level interpretation (Dehler et al., 2005); marker units fossil assemblages, and age constraints (Karlstrom et al., 2000; Dehler et al., 2001; this paper); δ^{13}Ccarb and δ^{13}Corg values from the Chuar Group and TOC values (Dehler et al., 2005; this paper); **preliminary** E**Nd values from Chuar Group shale and** E**Nd curve for Laurentia (Cox et al., 2016)**; and DZ age probability density plots (this paper). The age of the Nankoweap Formation, now part of the Chuar Group, is ca. 782 Ma (this paper). Members are shown by T (Tanner); J (Jupiter); CC (Carbon Canyon); D (Duppa); CB (Carbon Butte); A (Awatubi); and W (Walcott). Probability density plots show unroofing of basement material through Chuar time.

Supplementary Data S8 Table 1: Neodymiam isotope data, Chuar Group Shales

Sample Name	stratigraphic thickness	Formation	Est. Age (Myr)	[Nd]	[Sm]	Sm/Nd
SP14-53-9	1152	Awatubi Fm. (Chuar Gp)	748.6	50.2913656	9.6500937	0.19188371
SP14-63-29	1050	Duppa Fm (Chuar Gp)	752.5	49.2857494	10.5836955	0.21474149
AK10-60-24	1448	Walcott Mb. (Chuar Gp)	745	33.1269093	5.70910589	0.17234043
AK10-53-16	1398	Walcott Mb. (Chuar Gp)	744.2	47.8658196	9.65750698	0.20176207
SP14-63-21	116	Tanner Fm. (Chuar Gp)	768	79.4078507	16.2159271	0.20421063
SP14-53-21	1379	Walcott Mb. (Chuar Gp)	746.4	56.4750515	10.9144738	0.19326186
SP12-63-8	767.5	Carbon Canyon (Chuar Gp)	761.4	38.6345627	7.24767203	0.18759555
SP12-53-3	473	Carbon Canyon (Chuar Gp)	750	34.3293353	6.20332138	0.18070031
SP14-53-14	1215	Awatubi (Fm.)	747.3	51.039445	9.97271318	0.19539227

147Sm/144Nd	143Nd/144Nd	error	eNd(0)	eNd(t)	eNd(t) error	Tdm	143Nd/144Nd(
0.11598399	0.5118973	5.4157E-06	-14.448758	-6.7290333	0.10579711	1.93203606	0.511327
0.12980237	0.51196228	3.1093E-05	-13.181242	-6.7870392	0.60732997	2.12930479	0.51132403
0.10416941	0.51183041	7.5063E-06	-15.753618	-6.9010031	0.14665524	1.81794656	0.5113182
0.12195445	0.51188	7.507E-06	-14.786178	-7.6408396	0.14665524	2.08403963	0.51128035
0.12343757	0.51198514	8.2725E-06	-12.735296	-5.728607	0.16157676	1.94354041	0.51137819
0.11681746	0.51191339	5.2602E-06	-14.134945	-6.4947228	0.10275538	1.92355155	0.51133899
0.11338897	0.51178456	7.6685E-06	-16.647984	-8.6830393	0.14983869	2.0510674	0.51122702
0.1092217	0.51180174	1.4422E-05	-16.312857	-7.9468139	0.28178574	1.9457657	0.51126469
0.11810425	0.51188018	1.1001E-05	-14.782819	-7.2674784	0.21490918	2.00107249	0.51129945

CHUR(T)	eNd(T)	Lambda	e(Lambda*T)-1	147Sm/144Nd(T)
0.511671308	-6.7290333	6.54E-12	0.00491705	0.11850101
0.511671308	-6.7870392	6.54E-12	0.00491705	0.13231971
0.511671308	-6.9010031	6.54E-12	0.00491705	0.1066861
0.511671308	-7.6408396	6.54E-12	0.00491705	0.12447139
0.511671308	-5.728607	6.54E-12	0.00491705	0.12595502
0.511671308	-6.4947228	6.54E-12	0.00491705	0.11933456
0.511671308	-8.6830393	6.54E-12	0.00491705	0.11590544
0.511671308	-7.9468139	6.54E-12	0.00491705	0.11173826
0.511671308	-7.2674784	6.54E-12	0.00491705	0.12062119