

## SUPPLEMENTAL MATERIALS

## Quench rate calculation

Quench rates were estimated using the following equation (Xu and Zhang, 2002):

$$q=(T_{ae}-T_{ff})h/\rho C_p L$$

where  $T_{ae}$  is the apparent equilibrium temperature,  $T_{ff}$  is the glass transition temperature,  $h$  is the heat transfer coefficient,  $\rho$  is material density,  $C_p$  is the heat capacity of basalt, and  $L$  is the effective half thickness of the object (volume/surface area). We assumed an equilibrium temperature of 1450 K, a glass transition temperature of 1000 K (Gregg and Zimbelman, 2000), a heat transfer coefficient of  $50 \text{ W m}^{-2} \text{ K}^{-1}$  (Robertson, 1988), a density of  $2750 \text{ kg m}^{-3}$ , and heat capacity of  $1200 \text{ J kg}^{-1} \text{ K}^{-1}$  (Greg and Zimbelman, 2000). To determine  $L$ , we assumed the plate shapes were rectangular prisms with the dimensions reported in Table 1.

## Figures and Video

Back-scattered electron images of the brown and black scoria are provided for reference (Fig. DR1). Additional thin sections are provided to show the range of textures observed within the plate tephra (Fig. DR2).

Video DR1: Observations of one fragmenting slug concurrent with fire fountaining were conducted on video provided by Patricio Oberg.

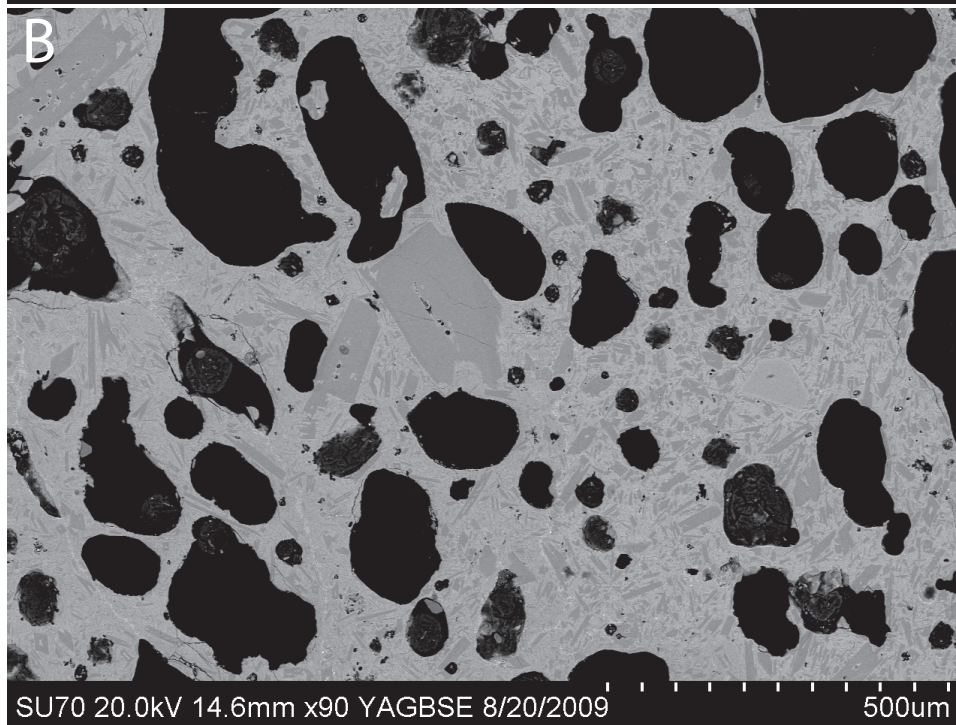
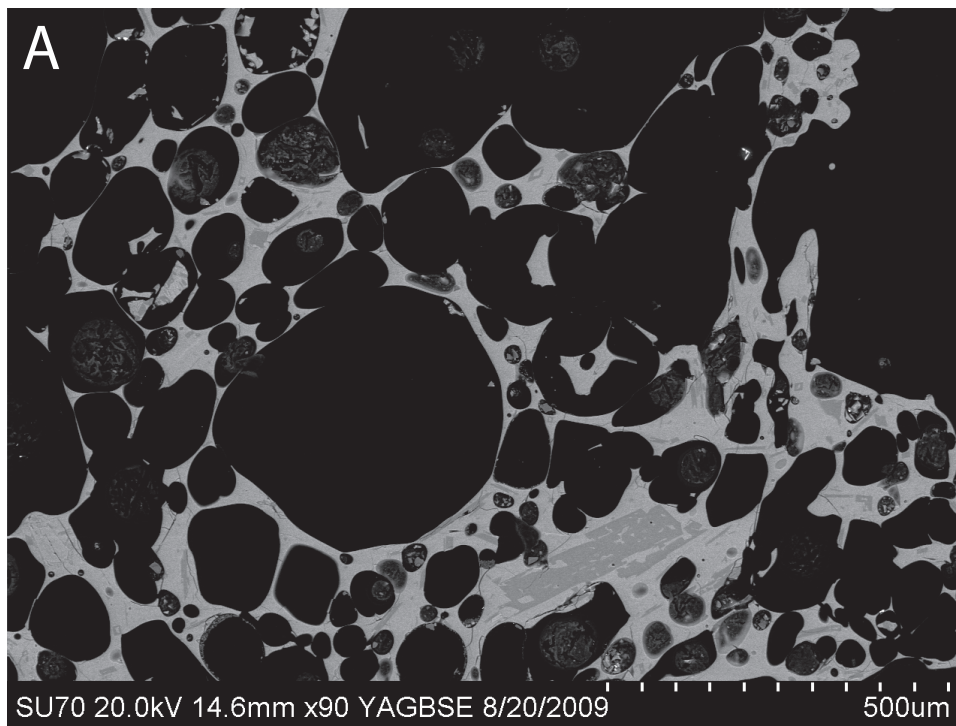
## References

- Gregg, T.K.P., and Zimbelman, J.R., 2000, Volcanic Vestiges, *in* Zimbelman, J.R. and Gregg, T.K.P. eds., Environmental Effects on Volcanic Eruptions: From Deep Oceans to Deep Space, Kluwer Academic/Plenum Publishers, p. 243-251.
- Robertson, E.C., 1988, Thermal properties of rocks: U.S. Geologic Survey Open-File Report 88-441, 106 p.
- Xu, Z., and Zhang, Y., 2002, Quench rates in air, water, and liquid nitrogen, and inferences of temperature in volcanic eruption columns: Earth and Planetary Science Letters, v. 200, p. 315-330.

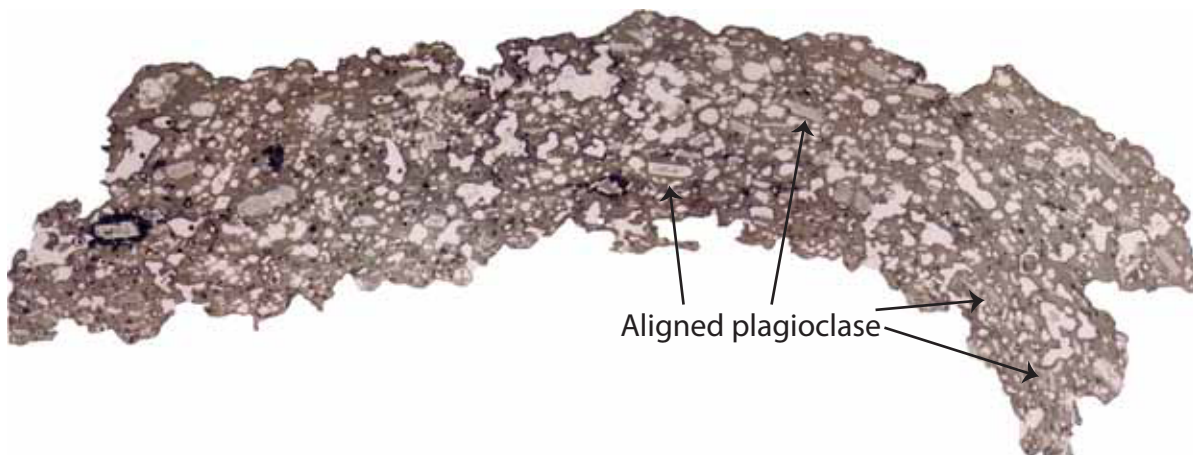
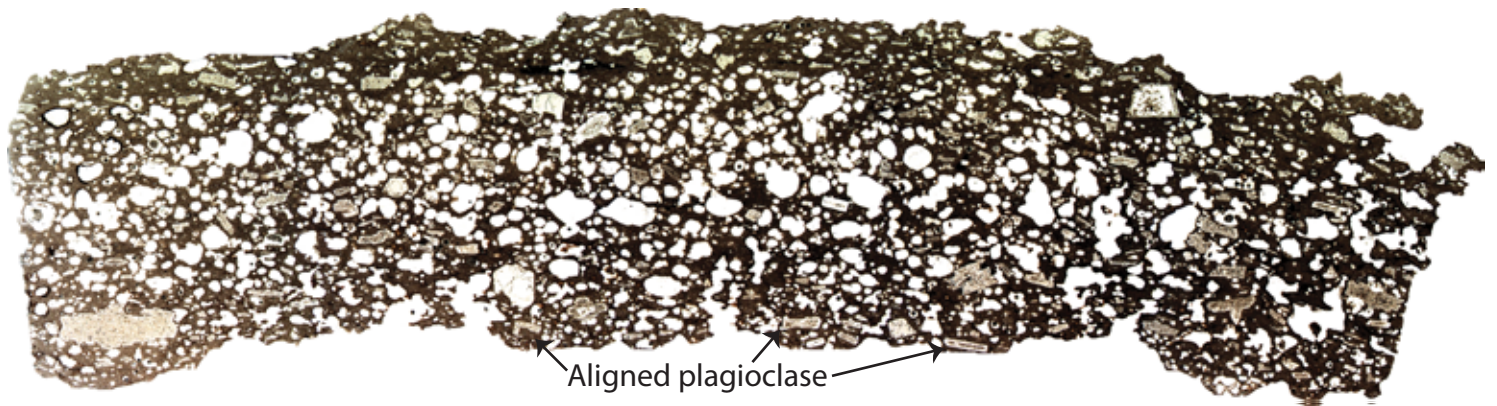
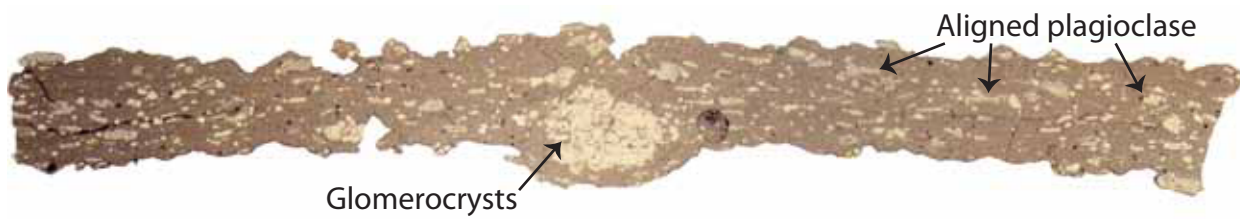
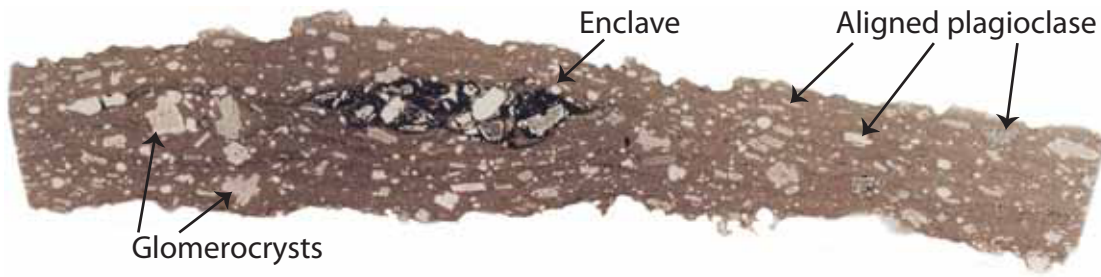
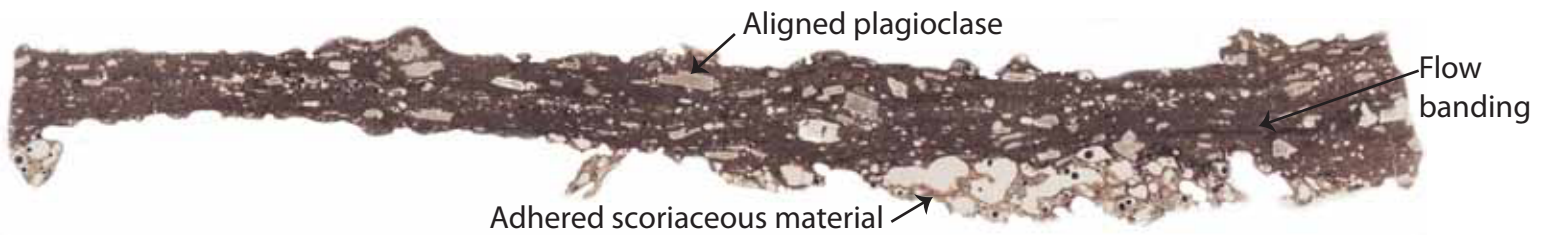
## **FIGURE CAPTIONS**

Figure DR1. Back-scattered electron images of brown scoria (A) and black scoria (B). Note that images were collected at the same scale.

Figure DR2. An assortment of plate tephra in thin section. All tephra are at approximately the same scale. Note the ubiquitously aligned plagioclase crystals, the presence of flow banding and wide range of vesicularity.



~3 cm



Datum: Provisional SA 1956

Discrepancies in UTM coordinates due to different GPS units being used.

Easting	Northing	Major (cm)	Intermediate (cm)	Minor (cm)	Average	Major (cm)	Intermediate (cm)	Minor (cm)
267158	5715550	3	2	1		2.9	1.7	1.0
267158	5715550	3	2	1.8				
267158	5715550	3	1.5	0.8				
267158	5715550	3.2	1.5	0.8				
267158	5715550	3.2	1	0.6				
267158	5715550	2	2	0.8				
267189	5715580	5	4.5	1.8		4.9	3.2	1.7
267189	5715580	4.1	3	1				
267189	5715580	4	1.7	1.9				
267189	5715580	4.3	3.4	1.5				
267189	5715580	5.2	3	1.2				
267189	5715580	5.1	2.5	1.8				
267189	5715580	6	3	1.8				
267189	5715580	6.5	4.7	2				
267189	5715580	5	3.5	2				
267189	5715580	4.5	3.4	2.1				
267189	5715580	4.9	2.9	1.5				
267189	5715580	4	2.7	2				
267683	5714231	sparse new scoria						
267794	5714052	7.7	6.8	6.3		6.6	5.6	4.5
267794	5714052	8.3	6.6	5.2				
267794	5714052	9.0	6.4	3.9				
267794	5714052	6.8	6.2	6.0				
267794	5714052	8.0	5.7	4.4				
267794	5714052	6.4	5.3	5.2				
267794	5714052	7.0	6.4	3.2				
267794	5714052	6.9	4.4	4.7				
267794	5714052	6.0	5.0	4.6				
267794	5714052	5.6	5.2	4.6				



267794	5714052	5.3	5.9	4.2			
267794	5714052	5.4	5.2	4.5			
267794	5714052	6.6	5.0	3.0			
267794	5714052	5.1	5.6	3.6			
267794	5714052	4.7	4.0	4.2			
267837	5714741	6.9	3	3.5	5.0	3.0	2.2
267837	5714741	6.1	4	2.5			
267837	5714741	5	4	2.6			
267837	5714741	6	3.5	2			
267837	5714741	5.5	3	2.5			
267837	5714741	4	2	1.5			
267837	5714741	5	4	2.5			
267837	5714741	4	1.5	2			
267837	5714741	3.5	2	0.7			
267837	5714741	3.5	2.5	2.5			
267921	5714560	no new scoria					
268009	5713603	8.0	6.5	4.7	5.6	5.1	4.0
268009	5713603	6.8	5.8	4.9			
268009	5713603	7.0	4.7	4.2			
268009	5713603	5.7	5.0	4.9			
268009	5713603	5.9	5.0	4.5			
268009	5713603	6.3	5.0	4.0			
268009	5713603	5.7	6.5	3.0			
268009	5713603	5.0	5.9	4.3			
268009	5713603	6.4	4.9	3.8			
268009	5713603	5.0	5.4	4.0			
268009	5713603	4.4	4.3	4.7			
268009	5713603	4.1	5.2	3.6			
268009	5713603	5.0	5.1	2.8			
268009	5713603	5.0	4.0	3.7			

268009	5713603	3.4	3.7	3.0			
268058	5712453	3	2.4	1.1	3.3	2.4	1.4
268058	5712453	4.6	2.7	1.3			
268058	5712453	3.2	2.1	1.8			
268058	5712453	2.2	2.4	0.8			
268058	5712453	4.1	2.1	1.1			
268058	5712453	3.6	2.2	2			
268058	5712453	2.2	1.8	0.5			
268058	5712453	2.8	1.5	1.3			
268058	5712453	3.4	1.5	0.8			
268058	5712453	4.3	3.1	0.9			
268058	5712453	2.5	2.4	1			
268058	5712453	3.8	3.2	1.6			
268058	5712453	3.7	2.6	1.9			
268058	5712453	3.2	2.6	1.9			
268058	5712453	3.5	3.2	2.8			
268058	5712453	3.6	2.5	1.8			
268058	5712453	2.6	2.1	1.4			
268154	5713170	5.2	3.3	1.8	3.9	2.4	1.9
268154	5713170	3.5	1.6	2.1			
268154	5713170	4.5	3.5	2.1			
268154	5713170	2.3	1	2.4			
268154	5713170	4	2.4	1.2			
268198	5713603	2.7	2	1.6	2.9	2.0	1.2
268198	5713603	2.8	1.5	1			
268198	5713603	1.9	1.3	1.6			
268198	5713603	3.2	1.9	1.2			
268198	5713603	2	1.7	1			
268198	5713603	2	1.5	0.8			
268198	5713603	3.9	2.2	1			
268198	5713603	4	3.5	2.5			



268198	5713603	2.3	2.1	1.2			
268198	5713603	3.5	1.7	1.3			
268198	5713603	3.3	2	0.8			
268198	5713603	2.9	2.3	0.8			
268235	5713143	2.6	2.6	1.2	2.5	1.8	1.1
268235	5713143	2.5	1.8	1			
268235	5713143	2.7	1.7	1			
268235	5713143	3.5	1.7	0.5			
268235	5713143	5.5	3.7	2.8			
268235	5713143	1.5	1	1			
268235	5713143	1.6	1.4	0.5			
268235	5713143	2	1.5	1.3			
268235	5713143	1.9	1.7	0.8			
268235	5713143	2.4	1.9	1			
268235	5713143	2	1.9	1.3			
268235	5713143	1.7	1.2	0.7			
268267	5714012	3	1.4	0.4	3.3	1.9	1.2
268267	5714012	3	1.4	0.4			
268267	5714012	3.5	1	0.4			
268267	5714012	3.4	2.2	0.8			
268267	5714012	4	2.7	2.5			
268267	5714012	3.5	2.9	1.8			
268267	5714012	2.5	0.7	0.6			
268267	5714012	1.7	0.8	0.7			
268267	5714012	1.4	1.3	0.4			
268272	5714005	2.9	1.2	1.3			
268272	5714005	4.1	2.5	2.3			
268272	5714005	5	2.4	1.8			
268272	5714005	3.5	2.2	1.2			
268272	5714005	4	2.5	1.7			
268272	5714005	4.3	3	2.2			

268545	5712895	7.8	6.1	3.6	5.5	4.2	3.4
268545	5712895	7.4	6.8	2.8			
268545	5712895	6.4	5.2	4.1			
268545	5712895	6.0	4.4	4.3			
268545	5712895	5.2	5.1	4.2			
268545	5712895	6.3	4.4	3.6			
268545	5712895	5.4	5.0	3.0			
268545	5712895	5.0	3.9	3.0			
268545	5712895	6.2	2.8	2.7			
268545	5712895	5.1	3.2	3.2			
268545	5712895	3.5	3.8	4.2			
268545	5712895	4.0	3.5	3.6			
268545	5712895	5.4	2.3	3.0			
268545	5712895	3.8	3.6	3.0			
268545	5712895	4.6	3.0	2.8			
268570	5712209	3	2	1.3	3.0	2.2	1.7
268570	5712209	2.5	2.4	1.8			
268570	5712209	2.6	2	1			
268570	5712209	4.5	3.3	3			
268570	5712209	3.5	2.3	1.8			
268570	5712209	3.5	2.5	2			
268570	5712209	3	2	1.3			
268570	5712209	2.6	2	1.5			
268570	5712209	2.5	2	2			
268570	5712209	2.5	1.5	1			
268746	5712931	4.7	4	2.4	2.6	1.9	0.8
268746	5712931	1.8	1.2	0.7			
268746	5712931	3.4	2	0.4			
268746	5712931	3.1	1.7	0.5			
268746	5712931	3.5	1.7	0.8			
268746	5712931	2	1.6	0.8			
268746	5712931	3	2	0.8			

268746	5712931	2.5	2	1.5			
268746	5712931	2	2	0.3			
268746	5712931	1.5	1.5	0.5			
268746	5712931	1.9	1.5	0.5			
268746	5712931	2.3	1.6	0.7			
268772	5713657	7.4	5.9	4.4	6.4	4.8	3.7
268772	5713657	6.5	6.0	4.2			
268772	5713657	6.9	6.5	2.6			
268772	5713657	5.9	5.0	4.9			
268772	5713657	6.9	4.2	4.6			
268772	5713657	6.2	4.1	5.3			
268772	5713657	7.0	5.0	3.4			
268772	5713657	6.9	4.6	3.4			
268772	5713657	6.0	5.1	3.7			
268772	5713657	8.1	4.4	2.1			
268772	5713657	6.0	3.9	3.9			
268772	5713657	5.6	5.0	3.0			
268772	5713657	5.0	4.7	3.0			
268772	5713657	6.0	3.0	3.6			
268772	5713657	5.0	4.0	3.0			
269003	5713728	5	3.7	2.5	2.6	2.0	1.3
269003	5713728	2.3	2.5	2			
269003	5713728	2.2	2.2	1			
269004	5713727	3	1	0.5			
269004	5713727	2.5	2	0.7			
269004	5713727	2.5	1.6	0.8			
269004	5713727	3.1	2	1.3			
269004	5713727	2.1	1.1	1			
269004	5713727	1.8	1	1			
269004	5713727	2.5	2.2	1.9			
269004	5713727	2	1.8	1.3			
269004	5713727	2.7	2.5	2.1			

269014	5712036	4	2.8	1.5	3.7	2.6	1.2
269014	5712036	3.7	3.5	1.5			
269014	5712036	3.2	1.8	1.4			
269014	5712036	3.2	2.4	2.1			
269014	5712036	4.6	2.1	0.4			
269014	5712036	4.7	3.5	0.9			
269014	5712036	5.6	2.9	2			
269014	5712036	3.7	2.1	0.5			
269014	5712036	2.8	1.8	0.7			
269014	5712036	2.4	2.2	1			
269014	5712036	3.1	3	0.7			
269014	5712036	3	2.7	1.7			
269236	5712696	5.2	2.5	1.2	3.0	1.9	0.9
269236	5712696	3	2	1.2			
269236	5712696	3	1.4	0.6			
269236	5712696	2.7	2.2	0.5			
269236	5712696	2.2	2	0.5			
269236	5712696	2.8	1.6	1			
269236	5712696	3	1.9	0.9			
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269236	5712696	2.9	2	1.4			
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269334	5712684	5.0	4.9	4.2	4.5	3.5	2.7
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269334	5712684	4.1	3.9	2.7			

269334	5712684	4.5	3.7	2.4			
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269334	5712684	4.2	2.9	3.1			
269334	5712684	4.7	3.0	2.1			
269334	5712684	4.3	2.5	2.7			
269334	5712684	4.2	3.6	1.2			
269334	5712684	3.9	2.9	1.6			
269334	5712684	3.5	2.4	1.9			
269342	5713103	6.7	4.2	2.8	4.9	3.7	2.9
269342	5713103	5.3	3.6	4.7			
269342	5713103	5.5	4.3	3.2			
269342	5713103	5.4	4.4	3.0			
269342	5713103	5.5	4.2	2.7			
269342	5713103	6.3	4.0	2.0			
269342	5713103	5.0	4.2	2.8			
269342	5713103	4.7	3.6	3.2			
269342	5713103	5.2	3.0	3.2			
269342	5713103	4.0	3.8	3.3			
269342	5713103	4.0	3.2	3.4			
269342	5713103	5.0	3.0	2.4			
269342	5713103	3.3	3.4	3.6			
269342	5713103	4.0	2.9	2.0			
269342	5713103	3.2	3.5	1.8			
269367	5713965	2.1	0.9	0.9	2.5	1.5	1.0
269367	5713965	1.8	1.3	0.5			
269367	5713965	2.1	1	0.8			
269367	5713965	2.4	1	0.7			
269367	5713965	2	1	0.8			
269367	5713965	2	1.8	0.9			
269368	5713979	3.5	2.5	1.5			
269368	5713979	2.5	1.5	1.2			
269368	5713979	3	2	1.5			

269368	5713979	2	1.5	1			
269368	5713979	3	1.5	1			
269368	5713979	3	1.8	1.2			
269373	5713613	3.6	2.4	1.5	2.4	1.9	1.1
269373	5713613	2.6	2.4	2.2			
269374	5713622	3.5	2.5	1			
269374	5713622	2	1.5	0.5			
269374	5713622	2.4	1	0.8			
269374	5713622	3.7	2.8	0.9			
269374	5713622	1.4	1.4	1			
269374	5713622	2.2	2.1	1.4			
269374	5713622	1.9	1.3	0.8			
269374	5713622	1.8	1.4	0.9			
269374	5713622	2	2	1.2			
269374	5713622	2	1.7	1.1			
269439	5711714	3.3	2.5	1.9	3.2	2.3	1.5
269439	5711714	2.8	1.8	1			
269439	5711714	2.3	1.8	0.7			
269439	5711714	4.8	3.3	2			
269439	5711714	3.9	2.6	1.8			
269439	5711714	3.3	2.8	0.8			
269439	5711714	4.2	3	2			
269439	5711714	2	1.7	0.8			
269439	5711714	2	1.7	0.7			
269439	5711714	2.1	1.3	1.2			
269439	5711714	1.7	1.4	0.7			
269439	5711714	2	1	1			
269439	5711714	6.3	3	1.8			
269439	5711714	4.8	3.2	2.7			
269439	5711714	3.9	2.9	2.3			
269439	5711714	2.9	2.3	1.5			
269439	5711714	3	2.5	2.3			

269439	5711714	2.4	2	2			
269457	5713012	2.8	1.6	1.2	2.2	1.3	1.0
269457	5713012	2.5	1.5	1.3			
269457	5713012	2.5	1	0.8			
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269457	5713012	2	1	0.8			
269457	5713012	3	1.7	1			
269457	5713012	3	2	1.3			
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269457	5713012	2	1	0.8			
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269457	5713012	2	1.5	0.9			
269630	5713977	4.8	3.4	2	2.5	1.6	0.9
269630	5713977	3.5	2	1.3			
269636	5713969	1.9	1.7	0.9			
269636	5713969	1.4	0.9	0.5			
269636	5713969	1.6	0.8	0.6			
269636	5713969	1.5	0.9	0.6			
269636	5713969	2.5	1.7	0.4			
269636	5713969	2	1.5	0.7			
269636	5713969	3	2.2	1			
269636	5713969	2.5	2	1			
269636	5713969	3.2	0.6	0.5			
269728	5712967	4	2.5	2	2.7	1.8	1.3
269728	5712967	2.4	2	1			
269728	5712967	3	1.8	1.5			
269728	5712967	3.5	2.5	2			
269728	5712967	3.5	2	1.5			
269728	5712967	1.5	1.5	0.8			
269728	5712967	3	2	1.5			



269728	5712967	2.2	1.6	1			
269728	5712967	2	1.5	0.8			
269728	5712967	3	2	1.2			
269728	5712967	2.5	1.5	1			
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269734	5712110	3	1.6	0.8	2.4	1.6	0.7
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269734	5712110	3	2.5	1			
269734	5712110	2	1	0.4			
269734	5712110	3	1.2	0.8			
269734	5712110	2.9	2.3	0.3			
269734	5712110	2.6	2.2	0.6			
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269734	5712110	1.4	1.4	0.5			
269734	5712110	2.5	1	1			
269734	5712110	1.4	1.2	0.7			
269827	5713004	6.2	5.0	5.7	5.4	4.4	3.3
269827	5713004	6.8	5.2	4.0			
269827	5713004	6.9	5.0	3.5			
269827	5713004	5.0	6.3	3.7			
269827	5713004	5.0	4.8	4.7			
269827	5713004	6.0	4.3	3.8			
269827	5713004	6.6	4.4	2.7			
269827	5713004	6.0	5.0	1.8			
269827	5713004	5.0	4.2	3.0			
269827	5713004	6.0	3.8	2.0			
269827	5713004	4.0	4.6	3.0			
269827	5713004	4.0	3.8	3.0			
269827	5713004	5.0	3.5	2.2			
269827	5713004	3.8	3.5	3.4			
269827	5713004	4.6	2.5	3.2			

270035	5712926	1.5	1.5	1	1.5	1.3	0.9
270035	5712926	2	1.5	1			
270035	5712926	2.5	2	1			
270035	5712926	1.5	1.3	1			
270035	5712926	1.1	1.1	0.8			
270035	5712926	1	1	0.8			
270035	5712926	2.5	1.5	1			
270035	5712926	1.1	1	0.8			
270035	5712926	1.5	1.3	1			
270035	5712926	1.2	1.2	0.8			
270035	5712926	1	1	0.5			
270099	5713477	2	2	0.2	2.1	1.6	1.1
270099	5713477	2	1.5	1.1			
270099	5713477	1.9	1.6	1			
270099	5713477	2.5	2	1.5			
270099	5713477	2	1.3	0.9			
270099	5713477	1.8	1.3	1.2			
270099	5713477	1.8	1.1	0.9			
270099	5713477	2.8	2.1	1.8			
270099	5713477	1.9	1	0.8			
270099	5713477	2	1	0.8			
270099	5713477	2.1	1.7	1.3			
270099	5713477	2.4	2	1.7			
270182	5712432	4	2	1	3.2	1.9	1.1
270182	5712432	2.5	2	1.5			
270182	5712432	3	2.2	1			
270182	5712432	3.2	2	1.5			
270182	5712432	3	2.5	1			
270182	5712432	3	1.6	1			
270182	5712432	3.2	2.2	1			
270182	5712432	4	2	1			

270182	5712432	3	1.5	1			
270182	5712432	3.5	2	1			
270182	5712432	3	1.6	1			
270182	5712432	2.5	1.5	1			
270185	5713957	2.4	1.2	0.6	2.7	1.6	1.1
270185	5713957	1.9	1.3	1.1			
270185	5713957	1.6	1.3	0.7			
270185	5713957	3	2.5	1.5			
270185	5713957	2.5	1.5	1			
270185	5713957	2.2	1.6	1			
270195	5713958	4	2	1.5			
270195	5713958	2	2	1			
270195	5713958	2	1	0.5			
270195	5713958	3.5	1	1			
270195	5713958	2	2	1			
270195	5713958	3.7	2	1.5			
270195	5713958	4	2	1.3			
270233	5711743	1.7	1.2	0.6	2.2	1.4	0.7
270233	5711743	2.5	1.5	1			
270233	5711743	2.5	2	1			
270233	5711743	2.2	0.5	0.5			
270233	5711743	2.5	2	0.6			
270233	5711743	2	1	0.5			
270233	5711743	2.2	1	1			
270233	5711743	2.4	1.4	0.8			
270233	5711743	2	1.2	0.6			
270233	5711743	1.4	1	0.4			
270233	5711743	3.5	2.4	0.5			
270233	5711743	1.5	1	0.3			
270394	5712910	2.5	1	0.7	2.7	1.7	1.1
270394	5712910	3.5	2.5	1			

270394	5712910	3	1	1			
270394	5712910	2	1	0.9			
270394	5712910	2	1.5	1			
270394	5712910	2	1.5	1			
270394	5712910	3	2	1			
270394	5712910	2.5	2	1			
270394	5712910	4	3	2			
270394	5712910	2	1.5	1			
270394	5712910	4	2	1.5			
270394	5712910	1.5	1.5	1			
270423	5712432	5.5	4	2	4.0	2.8	1.4
270423	5712432	4	2.5	1			
270423	5712432	3.5	3.5	1.5			
270423	5712432	4	3	1			
270423	5712432	4	3.8	2			
270423	5712432	3.5	3	1			
270423	5712432	5	3	2			
270423	5712432	4	2	2			
270423	5712432	4	2	1.5			
270423	5712432	4	2	1			
270423	5712432	3	2	1			
270423	5712432	3	2.5	1			
270438	5714593	6	2	1	3.4	2.1	1.0
270438	5714593	4	3	0.6			
270438	5714593	3	2	1			
270438	5714593	3	2	1			
270438	5714593	3	1.5	0.8			
270438	5714593	2	1.5	1.5			
270438	5714593	4	3	1			
270438	5714593	3	2	1			
270438	5714593	3	2	1			
270438	5714593	3	2	1			

270438	5714593	4	1.6	0.8			
270438	5714593	3	2	0.8			
270573	5714484	3	1.5	0.8	3.9	1.9	1.0
270573	5714484	2.5	2	1			
270573	5714484	6.5	3	1			
270573	5714484	5.2	1.5	1			
270573	5714484	4	2	1.5			
270573	5714484	3	1.5	0.8			
270573	5714484	3	2	0.8			
270573	5714484	4	2	1			
270573	5714484	3	2	1			
270573	5714484	4	1.3	1			
270573	5714484	4	2	1.2			
270573	5714484	4	2	0.8			
270577	5711305	3.9	2	0.8	3.4	1.9	0.7
270577	5711305	2.6	2.5	0.7			
270577	5711305	3.4	2.5	0.8			
270577	5711305	3.4	1.1	0.3			
270577	5711305	3.6	0.6	0.6			
270577	5711305	3.5	2.9	1			
270585	5714725	4	2	1	4.0	2.3	1.1
270585	5714725	5	1.5	1			
270585	5714725	3.5	3.5	1			
270585	5714725	4.5	2	1			
270585	5714725	3	2.5	1			
270585	5714725	4	2	1			
270585	5714725	4	2.5	1			
270585	5714725	4	2.5	1.5			
270585	5714725	5.5	2	1.5			
270585	5714725	3.5	3	1			
270585	5714725	4	2	1.5			

270585	5714725	3	2	1			
270653	5712937	6.8	5.6	4.7	4.8	4.0	3.1
270653	5712937	5.1	5.4	4.5			
270653	5712937	5.8	3.9	4.0			
270653	5712937	4.7	4.0	4.6			
270653	5712937	5.0	4.5	3.7			
270653	5712937	5.4	4.7	2.5			
270653	5712937	4.5	3.5	4.0			
270653	5712937	5.1	4.7	2.0			
270653	5712937	4.9	3.4	3.0			
270653	5712937	5.2	4.0	2.0			
270653	5712937	5.2	4.0	1.8			
270653	5712937	4.0	2.7	3.4			
270653	5712937	3.4	3.6	2.9			
270653	5712937	3.9	3.0	2.9			
270653	5712937	4.2	4.2	1.0			
270653	5712937	3.5	3.0	2.5			
270658	5712266	3	1.8	1.3	3.5	2.3	1.1
270658	5712266	5	3	2			
270658	5712266	3.5	2	0.8			
270658	5712266	3.5	2.5	1			
270658	5712266	4	2	1			
270658	5712266	3.5	2	1.5			
270658	5712266	3.5	2.5	1			
270658	5712266	4	3	1			
270658	5712266	3	3	1			
270658	5712266	3	2	1			
270658	5712266	3	2	1			
270658	5712266	3	2	0.8			
270668	5713960	2	1.8	1.1	2.4	1.6	1.0
270668	5713960	2.2	1.7	1			

270668	5713960	1.7	1	0.9			
270668	5713960	3.1	3	1			
270668	5713960	3	2.3	1.5			
270668	5713960	3.4	0.9	0.5			
270668	5713960	2.4	1.3	0.7			
270668	5713960	2	1.7	1.1			
270668	5713960	3	2.5	2			
270693	5713963	1.8	0.9	0.2			
270693	5713963	2	1.6	1			
270693	5713963	1.8	1.5	1			
270693	5713963	2.2	1	0.9			
270742	5711658	3.5	1.5	1.5	2.3	1.5	0.7
270742	5711658	3.4	1	0.4			
270742	5711658	3	2	1			
270742	5711658	2.7	2	0.4			
270742	5711658	2.5	1.8	1			
270742	5711658	1.8	1.5	0.4			
270742	5711658	2	1.5	0.4			
270742	5711658	2	1.5	1			
270742	5711658	2	1.2	0.5			
270742	5711658	1.5	1.2	0.8			
270742	5711658	1.8	1.4	0.6			
270742	5711658	1.9	1.4	0.3			
270840	5714316	3	3	1	2.7	1.7	1.0
270840	5714316	2.5	1.5	1.5			
270840	5714316	3	2	1			
270840	5714316	2	2	1			
270840	5714316	3	0.9	0.5			
270840	5714316	2.5	1.5	1			
270840	5714316	3	3	1			
270840	5714316	3.5	1.5	0.5			
270840	5714316	4	1	1			



270840	5714316	2	1	1			
270840	5714316	2	1.6	1.5			
270840	5714316	2	1	1			
270854	5713260	5.2	1.2	0.9	2.9	1.5	1.0
270854	5713260	3.5	1.2	1.1			
270854	5713260	3.4	2.6	1.6			
270854	5713260	3	2	0.5			
270854	5713260	2.2	1	0.5			
270854	5713260	2.3	1	0.4			
270854	5713260	2.4	1.9	1.5			
270854	5713260	2.2	1.2	0.7			
270854	5713260	1.1	0.9	0.7			
270854	5713260	2.5	1.7	1.5			
270854	5713260	4.3	2	1.7			
270854	5713260	3	1.8	0.9			
270873	5712882	3.5	2.5	1	2.5	1.5	0.9
270873	5712882	2	1	0.8			
270873	5712882	3	1.5	1			
270873	5712882	2	1.5	1			
270873	5712882	3	2.5	1			
270873	5712882	2	1	0.9			
270873	5712882	2	1	0.8			
270873	5712882	2	1	0.5			
270873	5712882	2.5	1.5	1			
270873	5712882	2	1.5	1			
270873	5712882	3.5	1.5	1			
270873	5712882	2	1.5	1			
270883	5712042	3.8	2.2	0.8	3.2	2.2	1.0
270883	5712042	3	2	0.5			
270883	5712042	3	2.5	1			
270883	5712042	2.5	2	1			

270883	5712042	3.5	2.5	0.5			
270883	5712042	3	2.5	1.5			
270883	5712042	3	2	1.5			
270883	5712042	4	2.2	1			
270883	5712042	3.4	2	0.8			
270883	5712042	3	2	1			
270883	5712042	3	2	1.2			
270883	5712042	3	2	1			
270920	5714758	7	2.5	1	4.5	2.3	1.1
270920	5714758	4.5	2	1			
270920	5714758	4.5	2.5	1			
270920	5714758	4.5	1	1			
270920	5714758	4	2.5	1.3			
270920	5714758	4	3	0.8			
270920	5714758	5.5	2.5	1.5			
270920	5714758	4.5	4	1.5			
270920	5714758	4	2	1			
270920	5714758	4	2	1.3			
270920	5714758	4	2.5	0.8			
270920	5714758	3.2	1	0.9			
271067	5714345	3	2.5	1.5	2.8	1.7	1.0
271067	5714345	3	1.5	1			
271067	5714345	3	0.8	0.5			
271067	5714345	2.5	2	1			
271067	5714345	2	1	0.5			
271067	5714345	2	2	1.5			
271067	5714345	4	2.6	1.5			
271067	5714345	3.2	2	1			
271067	5714345	2.5	1	1			
271067	5714345	3.5	1.5	1			
271067	5714345	3	2	1			
271067	5714345	2	1	0.5			

271084	5713646	5.2	4.6	3.4	4.7	3.8	2.6
271084	5713646	5.0	4.6	3.6			
271084	5713646	5.9	4.5	2.6			
271084	5713646	5.2	4.5	2.8			
271084	5713646	5.2	5.0	2.1			
271084	5713646	4.6	4.0	3.3			
271084	5713646	5.3	3.6	2.7			
271084	5713646	4.8	3.7	2.9			
271084	5713646	5.0	2.7	3.0			
271084	5713646	4.6	4.2	1.8			
271084	5713646	4.3	3.8	2.4			
271084	5713646	3.8	3.3	2.6			
271084	5713646	4.0	3.4	2.2			
271084	5713646	3.6	2.7	2.1			
271084	5713646	3.9	2.9	1.4			
271115	5711857	4.5	2	1	3.1	2.0	0.9
271115	5711857	2.5	1.8	0.9			
271115	5711857	3.5	2.6	1.5			
271115	5711857	3	2	0.6			
271115	5711857	3.3	2	0.5			
271115	5711857	2.5	2	0.5			
271115	5711857	2.6	2.4	1.2			
271115	5711857	3.5	1.5	0.8			
271115	5711857	3.5	2	1			
271115	5711857	3	2.2	1.2			
271115	5711857	2.5	1.6	0.8			
271115	5711857	3	2.4	0.6			
271199	5714002	1.5	1	0.8	2.0	1.2	0.7
271199	5714002	2.5	1.2	0.5			
271199	5714002	1.8	1	0.5			
271199	5714002	2	1.5	1			

271200	5713997	1.5	0.9	0.7	2.3	1.5	1.0
271200	5713997	2.5	0.7	0.6			
271200	5713997	1.7	0.8	0.7			
271200	5713997	1.4	1.3	0.4			
271200	5713997	3.5	2.5	2			
271200	5713997	2.8	2.4	1.7			
271200	5713997	2.3	1.4	1			
271200	5713997	2.6	1.6	0.9			
271206	5714743	7.5	4	1	4.1	2.1	1.1
271206	5714743	4	2	1			
271206	5714743	3.5	2	1			
271206	5714743	3.2	2.5	1			
271206	5714743	3.2	2.5	1.2			
271206	5714743	4	1	0.6			
271206	5714743	4.5	2.5	2			
271206	5714743	4	2	1			
271206	5714743	3.5	2	0.8			
271206	5714743	3	2	1			
271206	5714743	4.5	1	1			
271206	5714743	4	2	1			
271236	5711558	3.7	2	1.5	2.3	1.5	0.8
271236	5711558	2.5	2	1.5			
271236	5711558	1.5	1.5	0.8			
271236	5711558	2	1.6	0.7			
271236	5711558	2	1	0.5			
271236	5711558	3	1.7	1			
271236	5711558	3.5	1.8	1			
271236	5711558	2	1.5	0.8			
271236	5711558	1.7	1.5	0.5			
271236	5711558	1.5	0.8	0.5			
271236	5711558	2.5	1.5	0.5			

271236	5711558	2	1	0.5			
271237	5712325	7.0	4.3	3.2	5.0	3.9	2.7
271237	5712325	5.7	5.0	3.6			
271237	5712325	6.7	4.5	3.0			
271237	5712325	5.3	4.0	3.1			
271237	5712325	4.5	4.6	3.2			
271237	5712325	4.5	4.0	3.4			
271237	5712325	4.7	4.2	2.9			
271237	5712325	6.0	3.9	1.5			
271237	5712325	3.9	4.2	2.7			
271237	5712325	4.7	3.2	2.6			
271237	5712325	4.2	3.6	2.7			
271237	5712325	4.7	3.2	2.4			
271237	5712325	4.9	3.2	2.1			
271237	5712325	3.7	4.2	2.3			
271237	5712325	4.9	2.9	1.8			
271259	5712864	1.5	0.5	0.3	2.8	1.8	1.1
271259	5712864	3.5	3.5	2			
271259	5712864	2	2	1			
271259	5712864	2.5	2	0.8			
271259	5712864	3	1	0.8			
271259	5712864	3	1.5	1			
271259	5712864	5	2.5	2			
271259	5712864	2	1	0.8			
271259	5712864	2.5	2	1			
271259	5712864	2.5	1.5	1			
271259	5712864	4	2	1.5			
271259	5712864	2.5	1.5	0.9			
271360	5714325	3.5	2	1	3.4	1.9	1.1
271360	5714325	4	2.5	2			
271360	5714325	2.6	2	1.2			

271360	5714325	4.2	2	0.8			
271360	5714325	3	2	1			
271360	5714325	3.5	1	1			
271360	5714325	3	3	1.5			
271360	5714325	3.2	2	1			
271360	5714325	3	0.6	0.6			
271360	5714325	4	2.5	1			
271360	5714325	3.5	2	1.5			
271360	5714325	3	1	1			
271366	5711656	3.5	3	0.5	3.0	2.3	1.0
271366	5711656	3.3	3	2			
271366	5711656	3.5	2	0.8			
271366	5711656	3	2	1			
271366	5711656	2	2	0.8			
271366	5711656	2.5	2	1			
271375	5712877	5.8	5.0	3.9	5.6	4.3	3.3
271375	5712877	6.8	3.6	4.1			
271375	5712877	6.1	4.1	4.0			
271375	5712877	5.3	5.0	3.9			
271375	5712877	5.0	5.0	3.8			
271375	5712877	6.0	3.6	4.0			
271375	5712877	5.1	5.0	3.4			
271375	5712877	6.1	4.0	3.2			
271375	5712877	5.5	4.3	2.9			
271375	5712877	5.8	4.0	2.6			
271375	5712877	4.7	4.5	3.0			
271375	5712877	5.7	4.5	2.0			
271375	5712877	4.7	4.2	3.2			
271375	5712877	5.8	3.6	2.6			
271375	5712877	5.5	4.2	2.2			
271430	5714766	5	3.5	2	3.8	2.2	1.4

271430	5714766	7	3	2			
271430	5714766	3.5	2	1			
271430	5714766	3.5	2	1.2			
271430	5714766	3.5	2.5	1			
271430	5714766	2.6	2	1			
271430	5714766	3.5	2.5	1.5			
271430	5714766	3.5	2	1			
271430	5714766	3	1.5	1.5			
271430	5714766	3.6	2	2			
271430	5714766	4	1.5	1			
271430	5714766	3	1.5	1			
271635	5711445	5	2.5	2	3.3	2.1	1.2
271635	5711445	4	2	2			
271635	5711445	4	3	2			
271635	5711445	3	2	1			
271635	5711445	2.5	2.3	1.2			
271635	5711445	3	2	0.8			
271635	5711445	2.5	1.5	1			
271635	5711445	3	1.5	0.8			
271635	5711445	2.5	2	1			
271635	5711445	3	2.5	0.4			
271686	5712927	4	1	1	2.9	1.7	1.0
271686	5712927	4.5	2.5	1.5			
271686	5712927	3	2	1			
271686	5712927	2	1.5	0.8			
271686	5712927	3	1.5	0.7			
271686	5712927	3	1.5	1			
271686	5712927	2.5	1.5	0.8			
271686	5712927	2	1.5	1			
271686	5712927	1.5	1.5	1			
271686	5712927	2.5	2	1.2			
271686	5712927	2.5	1.5	1			



271686	5712927	4	2	1.2			
271702	5714709	4	3	1	3.3	2.0	1.0
271702	5714709	3	2	1.2			
271702	5714709	4	2	1			
271702	5714709	3	1.5	1			
271702	5714709	2.6	2.5	1			
271702	5714709	3	2.8	0.9			
271702	5714709	4	2	1			
271702	5714709	4.5	2.2	1			
271702	5714709	3.2	1.5	1			
271702	5714709	3	1.5	1.2			
271702	5714709	3.2	1.5	0.8			
271702	5714709	2.5	2	1			
271797	5711737	5.7	5.2	4.8	5.4	4.0	2.9
271797	5711737	5.7	5.2	3.4			
271797	5711737	5.9	4.5	3.6			
271797	5711737	6.1	4.2	2.8			
271797	5711737	5.6	3.6	3.8			
271797	5711737	5.0	3.7	3.4			
271797	5711737	5.2	4.3	2.4			
271797	5711737	5.3	4.4	2.2			
271797	5711737	6.4	2.8	2.7			
271797	5711737	5.6	4.0	2.1			
271797	5711737	5.2	3.7	2.7			
271797	5711737	4.8	3.6	2.7			
271797	5711737	5.0	3.4	2.6			
271797	5711737	5.6	3.7	1.6			
271797	5711737	4.2	3.2	2.8			
271835	5714019	first detected					
271885	5714568	4	3	1	3.6	2.0	1.1

271885	5714568	3.2	2	1			
271885	5714568	3.5	2	0.8			
271885	5714568	4	1.5	1			
271885	5714568	4	2.2	1.5			
271885	5714568	3	1.5	1			
271885	5714568	5	2	1			
271885	5714568	4	2	0.8			
271885	5714568	3	2.5	1			
271885	5714568	3	2	1.5			
271885	5714568	3	2	1			
271885	5714568	3	1.5	1			
271903	5711298	2	1	0.5	2.8	1.8	0.8
271903	5711298	3	2.5	2			
271903	5711298	3.5	2.5	1.5			
271903	5711298	3	1.8	1			
271903	5711298	2.5	2	1			
271903	5711298	3	2	0.5			
271903	5711298	3.2	2	0.8			
271903	5711298	3	1.5	0.8			
271903	5711298	4	1	0.5			
271903	5711298	2.5	1.5	0.5			
271903	5711298	2	2	0.5			
271903	5711298	2.5	1	0.5			
271903	5711298	2.8	2	0.6			
271915	5713012	3.4	2.9	1.3	3.4	2.3	1.4
271915	5713012	2.9	2.5	1.9			
271915	5713012	4.5	2.5	1.3			
271915	5713012	4.8	4.2	1.5			
271915	5713012	2.4	2	1.7			
271915	5713012	1.9	1.2	1.2			
271914	5713011	3.3	2.8	1.8			
271914	5713011	4	2	0.5			

271914	5713011	3.5	2	1.5			
271914	5713011	2.2	1.6	1			
271914	5713011	3	1.6	1.2			
271914	5713011	4.5	2.3	1.6			
271962	5711120	southern extent					
271965	5711469	2.5	1.7	0.8	3.1	2.3	1.1
271965	5711469	1.8	1.2	0.5			
271965	5711469	2.3	1.8	1			
271965	5711469	1.4	1	0.7			
271965	5711469	4.2	3.7	1.5			
271965	5711469	5.8	3.6	1.4			
271965	5711469	4.1	3	1.6			
271965	5711469	5.4	4.2	1.3			
271965	5711469	2.5	2	0.8			
271965	5711469	1.7	1.7	1			
271965	5711469	2.5	1.3	0.9			
271965	5711469	2.7	1.8	1.5			
271992	5713863	4	1.5	0.5	3.0	2.0	0.8
271992	5713863	3	1.7	1			
271992	5713863	2.4	2.1	0.4			
271992	5713863	2.5	1.5	0.6			
271992	5713863	2.5	2.3	1			
271992	5713863	4	2.5	1			
271992	5713863	3	2	1			
271992	5713863	2.5	2	0.5			
271998	5712985	7.8	5.0	3.2	4.7	3.7	2.8
271998	5712985	6.0	5.3	4.6			
271998	5712985	5.0	4.1	3.2			
271998	5712985	4.6	3.6	3.3			
271998	5712985	4.3	3.7	3.5			

271998	5712985	5.1	4.3	2.0			
271998	5712985	3.9	3.5	3.6			
271998	5712985	4.7	3.5	2.4			
271998	5712985	4.5	3.7	2.4			
271998	5712985	4.2	3.3	3.0			
271998	5712985	4.1	3.0	2.6			
271998	5712985	4.2	3.1	2.2			
271998	5712985	4.0	2.6	2.6			
271998	5712985	3.7	2.8	2.6			
271998	5712985	3.7	3.5	1.5			
271998	5713606	3.7	2	1.6	2.9	1.8	1.0
271998	5713606	2.9	2	0.9			
271998	5713606	3.3	1.3	1			
271998	5713606	3.5	2.2	1.1			
271998	5713606	2.2	2.1	1.4			
271998	5713606	3.1	1.8	1.1			
271998	5713606	2.4	1.4	0.9			
271998	5713606	3.3	1.2	0.5			
271998	5713606	2	1.6	1			
271998	5713606	3.2	2	0.5			
271998	5713606	3	1.5	0.8			
271998	5713606	3	2	1			
271998	5713606	2	2	1			
272013	5711169	3.7	1.9	0.9	2.9	1.8	0.8
272013	5711169	3.7	2.5	0.7			
272013	5711169	3.4	2.4	1			
272013	5711169	2.2	1.7	0.7			
272013	5711169	2.9	2.3	1.6			
272013	5711169	2.4	1.5	0.6			
272013	5711169	2.4	1.3	1			
272013	5711169	2.1	2	1.1			
272013	5711170	3.5	1.5	0.3			

272013	5711170	3.5	2.2	0.5			
272013	5711170	2.5	1	0.4			
272013	5711170	2.5	1.8	0.5			
272033	5711865	3.5	2.5	1.5	2.9	2.1	1.3
272033	5711865	2.5	2	0.9			
272033	5711865	3.4	2.7	1			
272033	5711865	2.6	1.9	1			
272033	5711865	2.4	2.1	1.1			
272033	5711865	1.9	1.4	1.2			
272033	5711865	2.7	2.7	1.9			
272033	5711865	3.1	2	1.1			
272033	5711865	2.9	2.2	1.9			
272033	5711865	3.1	1.8	0.9			
272033	5711865	3.2	2.1	1.6			
272033	5711865	3.7	1.5	1.5			
272048	5713228	4.1	2.1	1.6	3.4	2.1	1.3
272048	5713228	3	1.9	1.4			
272048	5713228	2.5	2.5	1			
272048	5713228	4	1.5	1			
272048	5713228	3	2	1			
272048	5713228	2.5	2	1			
272048	5713228	3	1.5	1.2			
272048	5713228	3.2	2.2	1			
272048	5713228	3.5	2	2			
272048	5713228	4.5	3	2			
272048	5713228	3	2.5	0.8			
272048	5713228	4	2	1			
272061	5714213	4.9	2	1	3.6	2.5	1.5
272061	5714213	3.3	1.6	1.5			
272061	5714213	2.8	1.6	0.9			
272061	5714213	2.9	1.9	1.6			

272061	5714213	2.8	1.2	1			
272061	5714213	5	4	2			
272061	5714213	3.5	3	1			
272061	5714213	4	4	2			
272061	5714213	3.5	2.4	2			
272061	5714213	3.5	3	2			
272065	5714800	northern extent					
272072	5712758	3.5	3	1.5	3.9	2.6	1.4
272072	5712758	3.5	1.6	0.7			
272072	5712758	3.3	2	0.8			
272072	5712758	4	3	0.9			
272072	5712758	6.4	4.4	1.7			
272072	5712758	3.9	2.1	1.8			
272072	5712758	5.2	2.5	1.3			
272072	5712758	3	2.4	1			
272072	5712758	3.7	3	1.5			
272072	5712758	3	2.5	2			
272072	5712758	3.3	2.3	1.6			
272072	5712758	4	2.2	2			
272117	5712433	6.4	5.2	3.0	5.5	4.2	3.3
272117	5712433	6.2	5.0	3.3			
272117	5712433	6.0	5.1	3.3			
272117	5712433	5.5	4.3	4.5			
272117	5712433	5.4	4.9	4.0			
272117	5712433	6.3	3.7	4.2			
272117	5712433	6.0	4.1	3.7			
272117	5712433	6.6	3.5	2.7			
272117	5712433	4.7	4.2	3.7			
272117	5712433	3.6	4.2	4.4			
272117	5712433	5.5	4.0	2.7			
272117	5712433	5.3	4.0	2.7			

272117	5712433	5.0	4.1	2.7			
272117	5712433	5.7	3.5	2.2			
272117	5712433	3.8	3.2	2.5			
272131	5714881	2	1	1	2.9	1.7	1.2
272131	5714881	3	1	1.2			
272131	5714881	2.5	1.2	1			
272131	5714881	3	1.5	1			
272131	5714881	4	2	1			
272131	5714881	2.5	2	1			
272131	5714881	3.5	3	2			
272131	5714881	3	2	1			
272131	5714881	4	2	1.5			
272131	5714881	2.5	2	1			
272131	5714881	2.5	1.5	1.5			
272131	5714881	2.5	1.5	1			
272138	5713771	7.0	4.6	3.3	4.6	3.8	2.5
272138	5713771	6.3	6.0	2.1			
272138	5713771	4.5	4.7	2.4			
272138	5713771	4.5	3.7	2.8			
272138	5713771	4.9	3.2	2.8			
272138	5713771	4.8	3.5	2.4			
272138	5713771	4.2	4.3	2.1			
272138	5713771	4.2	3.7	2.4			
272138	5713771	4.0	3.5	2.7			
272138	5713771	3.7	3.2	3.1			
272138	5713771	4.8	3.2	1.7			
272138	5713771	4.5	2.5	2.7			
272138	5713771	3.5	3.7	2.3			
272138	5713771	4.5	3.2	1.7			
272138	5713771	3.2	3.4	2.4			
272162	5714624	3	1.5	0.8	3.3	1.8	1.0

272162	5714624	2	1	1			
272162	5714624	2.5	1.5	1			
272162	5714624	3	1	0.8			
272162	5714624	4	2	1			
272162	5714624	5	2	1			
272162	5714624	4	2	1.5			
272162	5714624	3.2	2	1			
272162	5714624	3.5	2	1			
272162	5714624	2.5	2	1			
272162	5714624	3	2.2	1			
272162	5714624	4	2	0.8			
272167	5713046	3.5	2.4	1.3	3.9	2.8	1.8
272167	5713046	3.7	2.5	1			
272167	5713046	3.3	2.5	1.1			
272167	5713046	2.9	2	1.5			
272167	5713046	5.5	4.5	2.1			
272167	5713046	4.7	2.4	2.2			
272167	5713046	6.5	4.9	1.9			
272167	5713046	4.1	2.9	2.2			
272167	5713046	3	3	2.6			
272167	5713046	4.2	2.5	2			
272167	5713046	2.6	2.5	1.7			
272167	5713046	3.2	2	1.6			
272173	5714471	3	2	0.8	2.5	1.5	0.8
272173	5714471	3.5	2	1			
272173	5714471	2.5	2	0.5			
272173	5714471	3	1	1			
272173	5714471	2	1.5	0.8			
272173	5714471	2.2	1	0.8			
272173	5714471	2.5	1.5	1			
272173	5714471	3	2	0.8			
272173	5714471	2	1	0.7			



272173	5714471	2	1.5	0.6			
272173	5714471	2.5	1.5	1			
272173	5714471	2	1	0.8			
272188	5712331	4	2	1	3.9	2.3	1.3
272188	5712331	4.2	2.5	1			
272188	5712331	5	2.5	1			
272188	5712331	3	2.5	1.2			
272188	5712331	4.5	1.5	1.4			
272188	5712331	3.5	2.2	2.2			
272188	5712331	4.7	3	1.3			
272188	5712331	3.3	2	0.7			
272188	5712331	3.6	2.4	1.3			
272188	5712331	3.2	2.4	1.3			
272188	5712331	3.1	2.5	1.2			
272188	5712331	4.5	2	1.8			

Easting	Northing	Major (cm)	Intermediate (cm)	Minor (cm)	Average	Major (cm)	Intermediate (cm)	Minor (cm)
266991	5715282	2.1	1.7	0.9		2.6	1.7	1.1
266991	5715282	4.8	2	1.5				
266991	5715282	3.1	1.6	1.3				
266991	5715282	1.7	1.3	1.1				
266991	5715282	1.6	1.5	1				
266991	5715282	2.1	1.9	1				
267158	5715550	3.5	2.5	1		3.5	2.5	1
267683	5714231	sparse new scoria						
267794	5714052	7.0	5.5	3.2		5.2	4.1	2.9
267794	5714052	6.6	5.4	3.0				
267794	5714052	7.3	4.2	3.4				
267794	5714052	5.7	4.0	3.5				
267794	5714052	6.4	3.6	3.1				
267794	5714052	5.4	4.1	3.5				
267794	5714052	5.2	4.5	3.3				
267794	5714052	5.9	3.6	3.2				
267794	5714052	5.0	4.6	2.4				
267794	5714052	4.3	3.7	3.7				
267794	5714052	5.3	3.9	1.9				
267794	5714052	4.4	3.7	2.4				
267794	5714052	3.6	4.6	2.2				
267794	5714052	3.7	3.7	2.6				
267794	5714052	4.1	3.0	2.6				
267794	5714052	3.4	4.0	1.8				
267837	5714741	3.7	2.6	1.8		2.6	1.8	1.3
267837	5714741	4.2	2.8	2.5				
267837	5714741	2.1	1.8	1				
267837	5714741	2	1.7	1.3				

267837	5714741	2.2	1	0.9			
267837	5714741	2.4	1.5	1.5			
267837	5714741	2	1.5	1.2			
267837	5714741	2.2	1.8	1			
267837	5714741	1.7	1.2	0.9			
267837	5714741	2.1	1.3	1.3			
267837	5714741	4.5	3.4	1.6			
267837	5714741	1.7	1	0.9			
267921	5714560	no new scoria					
268009	5713603	6.9	5.3	4.1	4.8	4.0	2.3
268009	5713603	5.8	6.0	3.6			
268009	5713603	5.0	4.6	3.0			
268009	5713603	5.8	4.6	2.1			
268009	5713603	5.0	4.1	2.5			
268009	5713603	5.2	3.8	2.1			
268009	5713603	4.8	3.8	2.5			
268009	5713603	5.0	3.5	1.8			
268009	5713603	5.0	3.0	2.1			
268009	5713603	4.6	3.3	1.9			
268009	5713603	4.6	3.5	1.5			
268009	5713603	3.5	3.6	2.4			
268009	5713603	3.6	3.8	1.9			
268009	5713603	3.6	4.1	1.5			
268009	5713603	3.6	3.0	1.8			
260858	5712453	2	2	1	2.5	1.9	1.0
260858	5712453	2.8	1.5	0.6			
260858	5712453	3	1.7	1			
260858	5712453	2.5	2.5	1.4			
260858	5712453	2.5	2	1.3			
260858	5712453	2.2	2	1.2			
260858	5712453	2.4	1.4	0.7			

268154	5713170	5.2	4.6	2.8	3.3	2.7	1.4
268154	5713170	4.6	4.2	1.7			
268154	5713170	3.9	2.6	0.8			
268154	5713170	3.5	3	0.7			
268154	5713170	3	2.2	0.6			
268154	5713170	3.4	3.2	1.1			
268154	5713170	3.4	2.2	2.5			
268154	5713170	2.3	2	1			
268154	5713170	2	1.7	1.5			
268154	5713170	1.6	1.2	1			
268198	5713603	2	1.6	1.3	1.8	1.1	0.7
268198	5713603	1.5	1	0.7			
268198	5713603	1.8	1.1	1.3			
268198	5713603	1.6	1.1	0.6			
268198	5713603	1.2	0.9	0.6			
268198	5713603	1.8	1.3	0.6			
268198	5713603	1.7	1	0.5			
268198	5713603	2	1.4	0.8			
268198	5713603	2.3	1.4	0.7			
268198	5713603	2	1.2	0.6			
268198	5713603	1.2	0.7	0.4			
268198	5713603	2	0.6	0.4			
268235	5713143	1.6	1.3	0.5	1.5	1.2	0.5
268235	5713143	1.1	1	0.6			
268235	5713143	0.9	0.7	0.4			
268235	5713143	0.9	0.7	0.5			
268235	5713143	1.1	0.9	0.6			
268235	5713143	1.1	0.8	0.4			
268235	5713143	2.6	1.8	0.5			
268235	5713143	1.5	1.1	0.5			
268235	5713143	1.5	1.2	0.4			

268235	5713143	2.2	1.5	0.5			
268235	5713143	2	1.4	1			
268235	5713143	1.5	1.5	0.5			
268267	5714012	2.5	1.5	1	2.1	1.5	0.9
268267	5714012	2	1.5	0.8			
268267	5714012	1.8	1.5	0.8			
268272	5714005	1.5	1.4	1.2			
268272	5714005	1.7	1	0.7			
268272	5714005	1.2	0.9	0.7			
268272	5714005	2.6	1.8	0.6			
268272	5714005	3.6	2.1	2			
268272	5714005	2.1	1.7	1			
268272	5714005	1.7	1.2	0.5			
268272	5714005	2	1.5	0.7			
268272	5714005	2.4	1.9	1.3			
268545	5712895	6.1	4.9	2.7	5.1	3.9	2.4
268545	5712895	6.0	5.2	2.3			
268545	5712895	6.2	4.5	2.7			
268545	5712895	6.0	3.6	3.3			
268545	5712895	5.0	3.9	3.0			
268545	5712895	4.9	6.0	0.9			
268545	5712895	4.9	4.1	2.6			
268545	5712895	4.9	4.0	2.6			
268545	5712895	4.9	3.4	2.6			
268545	5712895	5.1	3.2	2.4			
268545	5712895	4.2	3.1	3.2			
268545	5712895	4.2	3.7	2.4			
268545	5712895	5.3	3.0	1.8			
268545	5712895	5.2	3.0	1.8			
268545	5712895	3.7	3.3	1.3			
268570	5712209	3.5	2.5	1.4	2.0	1.3	0.7

268570	5712209	2.2	2	1.1			
268570	5712209	1.7	1	1			
268570	5712209	1.1	0.9	0.7			
268570	5712209	2.4	1.9	0.5			
268570	5712209	1.9	1.1	0.4			
268570	5712209	1.5	1	0.7			
268570	5712209	1.7	0.7	0.3			
268570	5712209	1.9	1.5	0.4			
268570	5712209	2.9	1.5	1.2			
268570	5712209	1.4	0.8	0.7			
268570	5712209	1.6	1.1	1			
268570	5712209	2.1	1.6	0.4			
268570	5712209	1.8	1.2	0.5			
268746	5712931	2.7	1.8	0.8	1.5	1.0	0.5
268746	5712931	1.1	0.9	0.6			
268746	5712931	1.6	0.9	0.6			
268746	5712931	0.9	0.8	0.4			
268746	5712931	0.9	0.8	0.3			
268746	5712931	2.2	1.2	0.6			
268746	5712931	2	1	0.8			
268746	5712931	1.2	0.9	0.2			
268746	5712931	1.2	0.8	0.4			
268746	5712931	1.5	0.8	0.4			
268746	5712931	1.4	0.8	0.5			
268746	5712931	1	0.7	0.4			
268772	5713657	6.5	5.5	5.9	5.4	4.1	3.3
268772	5713657	7.2	5.4	3.2			
268772	5713657	6.0	4.9	4.2			
268772	5713657	5.4	4.8	4.8			
268772	5713657	5.5	4.6	4.0			
268772	5713657	5.8	4.0	3.3			
268772	5713657	5.4	3.7	4.0			

268772	5713657	6.5	4.0	2.5			
268772	5713657	5.4	4.0	2.5			
268772	5713657	5.0	4.0	2.9			
268772	5713657	4.6	3.4	3.2			
268772	5713657	5.4	3.7	2.0			
268772	5713657	4.0	3.3	3.7			
268772	5713657	4.2	3.6	1.8			
268772	5713657	4.5	3.0	1.8			
269003	5713728	1.1	0.8	0.5	1.9	1.4	0.7
269003	5713728	1.6	1.5	0.9			
269003	5713728	1.2	0.9	0.5			
269003	5713728	3.2	3.1	1			
269003	5713728	2.3	1.2	0.5			
269003	5713728	1.4	0.9	0.5			
269004	5713727	2.5	2	1.5			
269004	5713727	2.4	1.3	1			
269004	5713727	1.5	1.2	0.6			
269004	5713727	2.6	1.8	0.7			
269004	5713727	2	1.5	0.4			
269004	5713727	1.1	1	0.7			
269014	5712036	4.2	3.5	1.8	3.2	2.6	1.5
269014	5712036	2.9	2.6	1.8			
269014	5712036	3.4	2.3	1.4			
269014	5712036	4.4	3.5	2.5			
269014	5712036	3.5	3	2			
269014	5712036	1.7	1.2	1			
269014	5712036	2.8	2.4	1.4			
269014	5712036	4.5	3.5	1			
269014	5712036	2.8	2.4	1.4			
269014	5712036	4.5	3.5	1			
269014	5712036	2.4	2	1			
269014	5712036	2.8	1.9	0.9			

269014	5712036	2.1	1.7	1.7			
269014	5712036	3	2.9	2.8			
269014	5712036	2.2	2	1.4			
269014	5712036	3.8	2.7	0.9			
269236	5712696	1.2	0.9	0.4	1.7	1.1	0.6
269236	5712696	2.4	1.3	0.8			
269236	5712696	1.3	1.1	0.8			
269236	5712696	2.2	1	0.5			
269236	5712696	2.2	1.2	0.4			
269236	5712696	1.8	1.3	1			
269236	5712696	2	1	0.9			
269236	5712696	1.3	0.8	0.5			
269236	5712696	1.9	1.4	0.8			
269236	5712696	1.4	1.2	0.8			
269236	5712696	1.4	1	0.6			
269236	5712696	1.1	1	0.2			
269240	5713221	1.5	1	0.8	1.7	1.2	0.8
269240	5713221	3	2.2	1			
269240	5713221	1.8	1.2	0.8			
269240	5713221	2.5	2	1.2			
269240	5713221	1.5	1	0.6			
269240	5713221	1.2	1	0.3			
269240	5713221	1.5	1.3	1			
269240	5713221	1.5	0.8	0.5			
269240	5713221	1.8	0.8	0.5			
269240	5713221	1.8	1.4	1			
269240	5713221	1.5	1	0.8			
269240	5713221	1	1	0.6			
269334	5712684	5.6	4.8	3.2	4.3	3.4	2.2
269334	5712684	5.0	4.8	3.7			
269334	5712684	5.5	4.2	2.8			



269334	5712684	4.8	4.6	2.4			
269334	5712684	4.8	2.9	2.5			
269334	5712684	3.4	4.0	2.4			
269334	5712684	4.3	4.2	1.0			
269334	5712684	4.1	3.0	2.3			
269334	5712684	4.1	2.9	2.3			
269334	5712684	3.8	2.7	2.5			
269334	5712684	3.4	3.3	1.6			
269334	5712684	4.0	2.2	2.0			
269334	5712684	3.9	1.7	2.5			
269334	5712684	3.6	3.2	1.2			
269334	5712684	3.8	1.8	1.2			
269342	5713103	5.3	3.7	2.0	4.1	3.3	2.0
269342	5713103	5.2	2.6	2.7			
269342	5713103	4.5	3.2	1.7			
269342	5713103	4.4	2.5	1.8			
269342	5713103	4.4	3.7	2.6			
269342	5713103	4.4	3.7	2.3			
269342	5713103	4.0	3.9	2.6			
269342	5713103	4.0	3.5	2.4			
269342	5713103	4.0	3.1	1.8			
269342	5713103	4.0	1.9	1.1			
269342	5713103	4.0	3.8	2.1			
269342	5713103	3.7	3.0	2.0			
269342	5713103	3.6	3.9	1.2			
269342	5713103	3.6	3.9	2.5			
269342	5713103	3.5	3.0	1.4			
269342	5713103	3.2	2.8	1.9			
269367	5713965	1.2	0.6	0.5	1.5	0.9	0.6
269367	5713965	1.2	0.8	0.7			
269367	5713965	1.3	0.7	0.6			
269367	5713965	2	0.9	0.6			

269367	5713965	1.5	0.5	0.5			
269367	5713965	1.8	1.5	0.5			
269368	5713979	1.5	0.8	0.5			
269368	5713979	1.5	1	1			
269368	5713979	2	1.5	0.8			
269368	5713979	2.3	1.5	1			
269368	5713979	0.7	0.6	0.3			
269368	5713979	1	0.6	0.3			
269368	5713979	1	0.7	0.3			
269373	5713613	1.7	0.8	0.5	1.5	1.1	0.6
269373	5713613	1.2	1	0.9			
269373	5713613	1.7	1.5	0.2			
269373	5713613	1.9	1	0.4			
269374	5713622	1.5	0.8	0.4			
269374	5713622	1.4	1	0.4			
269374	5713622	1.5	1.3	0.9			
269374	5713622	1.4	0.9	0.7			
269374	5713622	1.5	0.9	0.6			
269374	5713622	2	1.5	0.9			
269374	5713622	1.4	1.2	1			
269374	5713622	0.9	0.9	0.4			
269439	5711714	3.2	2.2	1	2.5	1.8	1.0
269439	5711714	4.4	3.4	1.4			
269439	5711714	3.3	2.2	1.1			
269439	5711714	3.8	3.5	2			
269439	5711714	1.5	0.7	0.3			
269439	5711714	1.5	0.9	0.7			
269439	5711714	2	1.4	0.8			
269439	5711714	2	1.9	0.6			
269439	5711714	1.2	1.1	0.7			
269439	5711714	1.6	1	0.3			
269439	5711714	2.3	1.7	1			

269439	5711714	2.6	1.5	1.5			
269457	5713012	1.5	1	1	2.0	1.2	0.9
269457	5713012	2.5	1.5	0.8			
269457	5713012	4	1.5	1			
269457	5713012	2	1	1			
269457	5713012	1.2	1	1			
269457	5713012	1.5	1.2	1			
269457	5713012	1.5	1.2	1			
269457	5713012	1.5	1	0.8			
269457	5713012	2.5	1.2	1			
269457	5713012	2.1	1.5	1			
269457	5713012	2.5	1.5	1			
269457	5713012	1	1	0.5			
269630	5713977	2.5	1.5	1	1.7	1.1	0.6
269630	5713977	1.8	1	1			
269630	5713977	2	1.3	1			
269636	5713969	1.1	0.9	0.4			
269636	5713969	1.7	1.2	0.6			
269636	5713969	1.6	1.4	0.7			
269636	5713969	2.9	1	0.6			
269636	5713969	1.4	1.3	0.8			
269636	5713969	2.2	1.4	0.5			
269636	5713969	1.9	0.7	0.4			
269636	5713969	1	0.5	0.3			
269636	5713969	0.6	0.4	0.2			
269728	5712967	1.2	1.1	1	1.6	1.1	0.7
269728	5712967	2.3	1.5	1			
269728	5712967	1.8	1.6	1			
269728	5712967	1.8	1	0.6			
269728	5712967	1	0.5	0.4			
269728	5712967	1.5	1	0.5			

269728	5712967	1.5	1	0.5			
269728	5712967	2.1	1.5	1			
269728	5712967	1.5	1	0.8			
269728	5712967	1	1	0.6			
269728	5712967	2	1	0.8			
269728	5712967	1.6	0.8	0.5			
269734	5712110	1.7	0.9	0.3	1.4	0.8	0.4
269734	5712110	1.5	0.6	0.3			
269734	5712110	2.2	1	0.4			
269734	5712110	1.9	1.5	0.4			
269734	5712110	1.3	0.6	0.4			
269734	5712110	1.5	0.6	0.4			
269734	5712110	1.4	0.8	0.4			
269734	5712110	1.3	0.6	0.4			
269734	5712110	1	0.9	0.5			
269734	5712110	1	0.5	0.5			
269734	5712110	1.2	0.5	0.3			
269734	5712110	1	0.6	0.5			
269827	5713004	6.6	5.2	4.3	4.3	3.5	2.4
269827	5713004	5.7	2.2	1.6			
269827	5713004	5.0	4.6	1.8			
269827	5713004	5.0	3.7	2.4			
269827	5713004	4.9	2.4	2.4			
269827	5713004	4.7	4.6	1.8			
269827	5713004	4.2	3.9	2.9			
269827	5713004	4.2	3.7	2.4			
269827	5713004	4.1	4.2	2.6			
269827	5713004	4.0	2.7	2.3			
269827	5713004	3.9	3.6	1.2			
269827	5713004	3.8	3.2	3.0			
269827	5713004	3.8	3.9	3.0			
269827	5713004	3.7	3.0	1.8			

269827	5713004	3.6	2.8	2.2			
269827	5713004	3.6	2.8	2.3			
269827	5713004	3.5	3.4	2.2			
269827	5713004	3.2	2.8	2.6			
270035	5712926	1	0.8	0.5	1.1	0.9	0.5
270035	5712926	1	0.8	0.5			
270035	5712926	1	1	0.5			
270035	5712926	0.5	0.5	0.2			
270035	5712926	1	0.8	0.2			
270035	5712926	1.2	0.9	0.5			
270035	5712926	1	0.5	0.2			
270035	5712926	1	1	0.5			
270035	5712926	1	0.9	0.5			
270035	5712926	2.5	1.9	1			
270035	5712926	2	1.5	1			
270035	5712926	0.5	0.5	0.3			
270099	5713477	0.8	0.7	0.5	1.9	1.4	1.0
270099	5713477	2.2	1.6	1.2			
270099	5713477	2.5	1.5	1.3			
270099	5713477	1.9	1.5	1			
270099	5713477	1.6	1.5	1			
270099	5713477	1.8	1.4	1.1			
270099	5713477	1.9	1.6	1.4			
270099	5713477	1.5	1	0.8			
270099	5713477	2	1.4	1.1			
270099	5713477	2.5	2	1.5			
270099	5713477	1.8	1.1	0.6			
270099	5713477	2.2	1.9	1.2			
270099	5713477	2.1	1	0.7			
270182	5712432	4	3	2	3.1	2.0	1.2
270182	5712432	3.5	2	1			

270182	5712432	2.5	2	1			
270182	5712432	3	2	1.2			
270182	5712432	2.2	1	0.7			
270182	5712432	2	2	1			
270182	5712432	5	3	2			
270182	5712432	3	1.5	1.2			
270182	5712432	3.2	2.5	1			
270182	5712432	4	1.8	0.8			
270182	5712432	3.2	1.5	1			
270182	5712432	2	1.5	0.9			
270185	5713957	2.5	1.8	0.9	1.9	1.4	0.8
270185	5713957	1.2	0.8	0.6			
270185	5713957	1	0.9	0.5			
270185	5713957	2.4	1.4	1.1			
270185	5713957	2.6	1.8	1			
270185	5713957	2.2	2	1			
270195	5713958	1.5	1.5	1			
270195	5713958	2.5	1.5	1			
270195	5713958	2	2	0.8			
270195	5713958	1.9	0.9	0.5			
270195	5713958	1.8	1	0.5			
270195	5713958	1.5	0.7	0.4			
270233	5711743	2	1	0.7	1.7	1.1	0.5
270233	5711743	2.2	2	0.8			
270233	5711743	2.5	1.5	1			
270233	5711743	1.5	1.5	0.3			
270233	5711743	2	1.2	0.9			
270233	5711743	1.2	1	0.2			
270233	5711743	2.2	0.8	0.2			
270233	5711743	1.3	0.7	0.5			
270233	5711743	1.2	0.8	0.5			
270233	5711743	1.9	0.7	0.4			

270233	5711743	1.3	1.2	0.4			
270233	5711743	1.3	0.5	0.5			
270394	5712910	2.5	1.5	1	1.9	1.2	0.8
270394	5712910	3	1.5	1			
270394	5712910	3	1	0.8			
270394	5712910	1.5	1	0.7			
270394	5712910	1	0.7	0.5			
270394	5712910	1.2	1.1	1			
270394	5712910	1.5	1	0.8			
270394	5712910	2	1.5	0.7			
270394	5712910	1.5	1	0.5			
270394	5712910	1	1	0.5			
270394	5712910	3	1.5	1			
270394	5712910	1.5	1.3	1			
270423	5712432	3	2	1	2.9	2.2	1.1
270423	5712432	3	2	1.1			
270423	5712432	3	3	1			
270423	5712432	3	2.5	1.5			
270423	5712432	3	2.5	1			
270423	5712432	2	1.8	1			
270423	5712432	2.5	2	1.2			
270423	5712432	3.2	2.1	0.8			
270423	5712432	3	3	1			
270423	5712432	3.2	2	1.5			
270423	5712432	3.2	1.6	1			
270423	5712432	2.5	2	1			
270438	5714593	2.5	2	0.7	2.8	1.6	0.9
270438	5714593	3	2	0.8			
270438	5714593	3	1.5	1			
270438	5714593	2	1.5	0.8			
270438	5714593	2.5	1	0.9			

270438	5714593	2	1	1			
270438	5714593	3.5	2	1			
270438	5714593	5	2	1			
270438	5714593	3	2	1			
270438	5714593	2.5	1.5	0.8			
270438	5714593	2.5	1.2	1			
270438	5714593	2.5	1	0.8			
270573	5714484	3.2	1	1	2.9	1.6	0.9
270573	5714484	2.5	2.5	0.8			
270573	5714484	3.5	2	1.5			
270573	5714484	4	2	1			
270573	5714484	2.5	1.2	1			
270573	5714484	2	1	0.8			
270573	5714484	3.5	1.5	1			
270573	5714484	2.6	1	0.6			
270573	5714484	3	2.5	0.8			
270573	5714484	2.5	2	0.8			
270573	5714484	3	1.5	1			
270573	5714484	2.5	1.5	0.6			
270577	5711305	4	2.9	0.5	2.8	2.1	0.7
270577	5711305	2.4	2.2	0.9			
270577	5711305	3.2	2.4	1			
270577	5711305	3.4	2.3	0.7			
270577	5711305	3	2.4	0.7			
270577	5711305	2.3	1.3	0.3			
270577	5711305	2.5	1.2	0.6			
270577	5711305	2.4	2.1	1			
270577	5711305	1.5	1.4	0.5			
270577	5711305	3.5	2.6	1			
270585	5714725	5	2.5	1	3.2	1.8	1.0
270585	5714725	5	1.5	0.8			



270585	5714725	3	1.5	0.8			
270585	5714725	2	1.5	0.8			
270585	5714725	2	1.5	1			
270585	5714725	3	2	1			
270585	5714725	2.5	1	0.8			
270585	5714725	3.5	3.5	2			
270585	5714725	3	2.5	1			
270585	5714725	3.5	2.5	0.8			
270585	5714725	2.5	1.5	0.7			
270585	5714725	3	1.5	0.8			
270585	5714725	3	1	1			
270653	5712937	8.4	7.5	4.0	4.8	3.9	2.7
270653	5712937	6.3	4.7	3.5			
270653	5712937	6.2	5.0	3.0			
270653	5712937	5.5	5.7	2.4			
270653	5712937	4.7	3.5	2.8			
270653	5712937	4.5	3.0	1.7			
270653	5712937	4.5	3.0	2.2			
270653	5712937	4.5	3.4	4.1			
270653	5712937	4.5	3.7	3.0			
270653	5712937	4.4	3.6	3.0			
270653	5712937	4.2	4.7	3.0			
270653	5712937	4.0	3.2	2.8			
270653	5712937	3.8	3.4	1.3			
270653	5712937	3.0	2.1	2.0			
270653	5712937	3.0	2.6	2.2			
270658	5712266	3	1.5	1	3.5	2.2	1.0
270658	5712266	5	3	1			
270658	5712266	3.5	2	1.5			
270658	5712266	3.5	1.5	0.8			
270658	5712266	3	2.2	0.9			
270658	5712266	3	2.2	0.6			

270658	5712266	4	2	1			
270658	5712266	4	3	1			
270658	5712266	3	2	1			
270658	5712266	4	2.5	1			
270658	5712266	3	2.8	1			
270658	5712266	2.8	2.1	1			
270668	5713960	1.5	1	0.6	1.8	1.2	0.7
270668	5713960	1.9	1.8	0.9			
270668	5713960	1.6	1.5	1			
270668	5713960	3.1	2.2	1.5			
270668	5713960	4.1	2.2	0.6			
270668	5713960	2	1.2	1.2			
270693	5713963	2	1.2	1			
270693	5713963	1.5	1	0.5			
270693	5713963	1.5	1	0.5			
270693	5713963	2	1	0.9			
270693	5713963	1.5	1	0.5			
270693	5713963	0.6	0.6	0.4			
270693	5713963	0.7	0.6	0.4			
270693	5713963	1.7	0.5	0.2			
270742	5711658	1.8	0.5	0.4	1.6	1.1	0.5
270742	5711658	1.5	1	0.5			
270742	5711658	1.4	1	0.5			
270742	5711658	2.5	2	1			
270742	5711658	1.4	1	0.7			
270742	5711658	2	1.5	0.5			
270742	5711658	1.5	1	0.5			
270742	5711658	1.4	1	0.5			
270742	5711658	1.7	0.7	0.5			
270742	5711658	1.5	1	0.3			
270742	5711658	1	0.9	0.6			
270742	5711658	1.5	1	0.5			

270840	5714316	4	3	1	2.3	1.4	0.9
270840	5714316	2	1.5	1			
270840	5714316	2	1.8	1			
270840	5714316	2.5	1	0.8			
270840	5714316	2	1.2	0.5			
270840	5714316	1.5	1	1			
270840	5714316	2.5	1	1			
270840	5714316	2.5	1	0.8			
270840	5714316	3	1.5	1			
270840	5714316	2	1	1			
270840	5714316	2	1	0.5			
270840	5714316	2	2	1			
270854	5713260	2.3	2.1	1.3	1.9	1.3	0.8
270854	5713260	1.9	1	0.7			
270854	5713260	1	0.7	0.4			
270854	5713260	3.4	2.3	0.6			
270854	5713260	2.3	2.1	1			
270854	5713260	2.4	1.4	1.4			
270854	5713260	1.7	1	0.4			
270854	5713260	1.4	0.7	0.5			
270854	5713260	1.5	0.6	0.4			
270854	5713260	1.3	0.7	0.4			
270854	5713260	2	1.4	1.2			
270854	5713260	1.8	1.4	1			
270873	5712882	2	1.5	1	1.8	1.2	0.9
270873	5712882	1	1	0.2			
270873	5712882	2	1	1			
270873	5712882	2	1.2	1			
270873	5712882	1.6	0.5	0.3			
270873	5712882	1	0.8	0.3			
270873	5712882	1.5	1.5	1			

270873	5712882	3	2	2			
270873	5712882	1.3	1	0.8			
270873	5712882	1.5	1	1			
270873	5712882	3	2	1			
270873	5712882	1.5	1	0.8			
270883	5712042	4	3.2	1	3.5	2.3	1.1
270883	5712042	3.5	2.5	1			
270883	5712042	5	3	1			
270883	5712042	3	2.2	1			
270883	5712042	3.1	2.1	1			
270883	5712042	3	1.8	1			
270883	5712042	5	3.5	1.2			
270883	5712042	3.2	2	1			
270883	5712042	4.2	2	1.2			
270883	5712042	3.5	2.5	1.2			
270883	5712042	2.5	1.5	1			
270883	5712042	2	1.5	1			
270920	5714758	5	3	2	4.0	2.5	1.4
270920	5714758	4	3	1			
270920	5714758	4	2	2			
270920	5714758	3.5	2	1.5			
270920	5714758	5	4	1			
270920	5714758	3.5	2.2	1			
270920	5714758	5	3.5	2.5			
270920	5714758	4	2	1.5			
270920	5714758	3	1.5	1			
270920	5714758	3	2	1			
270920	5714758	4	2	1			
270920	5714758	3.5	2.5	1.5			
271067	5714345	3	2	1.5	2.4	1.3	0.8
271067	5714345	3	1	1			

271067	5714345	3	2	1			
271067	5714345	2	1.5	1			
271067	5714345	2	1.5	0.6			
271067	5714345	2	1	1			
271067	5714345	3	1	0.5			
271067	5714345	3	0.8	0.8			
271067	5714345	3	1.2	0.3			
271067	5714345	2	1.5	0.5			
271067	5714345	2	0.8	0.6			
271067	5714345	1	1	1			
271084	5713646	7.0	4.6	3.7	4.4	3.4	2.6
271084	5713646	5.6	3.5	3.2			
271084	5713646	5.0	4.1	2.2			
271084	5713646	4.3	4.0	2.8			
271084	5713646	5.0	3.6	2.4			
271084	5713646	4.6	3.4	2.9			
271084	5713646	4.2	4.2	2.2			
271084	5713646	4.6	3.1	2.8			
271084	5713646	4.0	3.5	2.3			
271084	5713646	3.4	3.2	2.8			
271084	5713646	4.1	3.1	2.1			
271084	5713646	3.9	3.3	2.0			
271084	5713646	4.0	3.0	1.5			
271084	5713646	3.2	2.0	3.1			
271084	5713646	3.6	2.1	2.4			
271115	5711857	5	3.2	1.5	3.3	2.1	1.2
271115	5711857	3.2	2.8	2			
271115	5711857	4.2	2	1.3			
271115	5711857	3	2	1			
271115	5711857	3	2	0.8			
271115	5711857	2.5	2	1			
271115	5711857	3.5	2	1.5			

271115	5711857	4.5	2.5	2			
271115	5711857	3	2	1			
271115	5711857	3	1.5	1.2			
271115	5711857	2	2	1			
271115	5711857	2.5	1.5	0.6			
271199	5714002	2.2	1.2	0.8	2.0	1.5	0.9
271199	5714002	2	2	1			
271199	5714002	1.5	1	0.8			
271200	5713997	3.4	2.6	1.5			
271200	5713997	1.7	1.3	0.8			
271200	5713997	1.6	1	0.6			
271200	5713997	1.2	0.9	0.7			
271200	5713997	2.5	1.8	1.2			
271200	5713997	1.8	1.7	0.8			
271200	5713997	2	1.4	0.7			
271200	5713997	1.9	1.7	1.1			
271206	5714743	4.5	2	0.5	3.5	2.1	1.1
271206	5714743	3	2	1.4			
271206	5714743	3.5	2.5	1			
271206	5714743	3	2	1			
271206	5714743	3	1.5	1			
271206	5714743	3	1	1			
271206	5714743	4	2.5	1			
271206	5714743	3.5	2.5	1.5			
271206	5714743	4	3	1.5			
271206	5714743	4	2	1			
271206	5714743	2.5	2.5	1			
271206	5714743	4	2	1.5			
271236	5711558	1.5	1	0.5	1.6	0.9	0.5
271236	5711558	1.5	1.2	0.4			
271236	5711558	1.8	0.7	0.5			

271236	5711558	2.5	1	0.5			
271236	5711558	1.7	1.5	0.7			
271236	5711558	2	0.8	0.4			
271236	5711558	1.2	0.5	0.5			
271236	5711558	1.7	0.7	0.3			
271236	5711558	1.6	0.6	0.3			
271236	5711558	1.5	1	1			
271236	5711558	1	1	0.8			
271236	5711558	1.5	0.7	0.5			
271237	5712325	6.0	5.1	3.4	4.5	3.4	2.4
271237	5712325	5.9	3.8	3.0			
271237	5712325	4.9	4.3	3.0			
271237	5712325	4.5	3.2	3.5			
271237	5712325	4.7	4.2	1.9			
271237	5712325	5.2	3.2	2.0			
271237	5712325	4.5	3.1	2.6			
271237	5712325	5.0	3.6	1.4			
271237	5712325	3.2	2.7	4.1			
271237	5712325	4.0	3.5	2.4			
271237	5712325	3.8	3.5	2.0			
271237	5712325	4.0	2.7	2.4			
271237	5712325	4.0	2.8	2.3			
271237	5712325	3.9	2.9	1.3			
271237	5712325	4.0	2.9	0.7			
271259	5712864	3.5	2.5	1	1.9	1.3	0.8
271259	5712864	2	1.5	1			
271259	5712864	1	1	0.8			
271259	5712864	2	1.5	1			
271259	5712864	2	1	0.7			
271259	5712864	2	0.5	0.2			
271259	5712864	1	1	0.5			
271259	5712864	1.5	1	0.8			

271259	5712864	3.5	2	1			
271259	5712864	1.5	1	0.8			
271259	5712864	2	1.5	1			
271259	5712864	1	0.5	0.3			
271360	5714325	5	3	1.5	3.3	1.9	1.1
271360	5714325	3	2	1			
271360	5714325	2.5	1.5	0.8			
271360	5714325	3	2	1			
271360	5714325	3.5	1.5	1			
271360	5714325	3	2	0.8			
271360	5714325	4	3	1			
271360	5714325	2.5	1	1			
271360	5714325	3	2	1.2			
271360	5714325	2.5	1.5	1			
271360	5714325	4	1.5	1.5			
271360	5714325	3.5	2	1.5			
271366	5711656	5	3.5	1.5	3.3	2.3	1.0
271366	5711656	4.5	3	0.5			
271366	5711656	3.5	2.5	0.5			
271366	5711656	2.6	2	1			
271366	5711656	2.5	2	1			
271366	5711656	2.5	2	1			
271366	5711656	3	3	1.5			
271366	5711656	4	2.5	1.5			
271366	5711656	3.5	2	1.5			
271366	5711656	3	2	0.6			
271366	5711656	3	2	0.5			
271366	5711656	2	1.5	0.8			
271375	5712877	5.8	3.5	2.4	3.9	2.9	2.2
271375	5712877	5.7	2.7	1.6			
271375	5712877	5.0	3.2	2.7			



271375	5712877	4.4	3.0	1.6			
271375	5712877	4.2	3.5	3.2			
271375	5712877	4.0	3.0	2.5			
271375	5712877	3.8	2.8	2.0			
271375	5712877	3.7	3.0	3.0			
271375	5712877	3.6	2.4	1.8			
271375	5712877	3.5	2.7	2.0			
271375	5712877	3.5	2.0	1.6			
271375	5712877	3.3	3.0	2.4			
271375	5712877	3.1	2.5	1.5			
271375	5712877	2.7	3.5	2.3			
271375	5712877	2.7	2.4	2.8			
271430	5714766	3.2	2	1.5	3.0	1.8	1.0
271430	5714766	4	4	2			
271430	5714766	3	1.5	0.5			
271430	5714766	2.5	2	1.5			
271430	5714766	2	1	0.8			
271430	5714766	2	1	0.5			
271430	5714766	4	1.5	1			
271430	5714766	5	2.5	1			
271430	5714766	4	2	1			
271430	5714766	3	1.5	0.8			
271430	5714766	2	1	1			
271430	5714766	1.5	1	0.8			
271686	5712927	4	2	1	2.3	1.7	1.0
271686	5712927	4	3	2			
271686	5712927	2	2	1			
271686	5712927	2.5	1.5	0.7			
271686	5712927	2	1.5	1			
271686	5712927	2	2	0.9			
271686	5712927	2	1.5	1			
271686	5712927	2.5	2	1			

271686	5712927	2.5	1.5	1			
271686	5712927	1.5	1	0.8			
271686	5712927	2	1.5	0.8			
271686	5712927	1.5	1	1			
271686	5712927	1.5	1	0.8			
271702	5714709	3.5	2	1	3.6	1.7	1.0
271702	5714709	4	2.5	1.5			
271702	5714709	3.5	2	1			
271702	5714709	2.5	2	1.2			
271702	5714709	3.5	1	0.5			
271702	5714709	4	1.5	1			
271702	5714709	3.5	2	1.5			
271702	5714709	4	1	0.7			
271702	5714709	3.5	1.5	1			
271797	5711737	7.6	4.3	2.7	4.7	3.3	2.0
271797	5711737	5.7	4.8	2.2			
271797	5711737	5.0	3.7	3.3			
271797	5711737	5.0	3.9	2.9			
271797	5711737	5.2	3.4	2.4			
271797	5711737	4.4	3.2	3.1			
271797	5711737	4.2	3.9	2.2			
271797	5711737	5.0	3.4	1.7			
271797	5711737	4.4	3.1	2.4			
271797	5711737	5.0	2.7	1.8			
271797	5711737	4.0	3.5	1.6			
271797	5711737	5.0	3.3	0.6			
271797	5711737	3.6	3.2	1.4			
271797	5711737	4.2	2.3	1.7			
271797	5711737	3.9	2.2	1.6			
271797	5711737	3.2	2.4	0.8			
271835	5714019	first detected					

271885	5714568	5	3	1.5	3.3	2.1	1.3
271885	5714568	4	2.5	1.5			
271885	5714568	3.2	2.5	2			
271885	5714568	3	2	0.8			
271885	5714568	3	2	1.5			
271885	5714568	2.5	1.5	0.8			
271885	5714568	3.2	2.5	1.5			
271885	5714568	4	2	1.6			
271885	5714568	3	2	1			
271885	5714568	3.5	2	1			
271885	5714568	2.5	1	0.8			
271885	5714568	2.5	2	1			
271898	5712972	1.5	1.5	0.8	1.9	1.3	1.0
271898	5712972	2	1	1			
271898	5712972	2	1.5	1			
271898	5712972	2	1	1			
271903	5711298	3.5	1.5	0.5	2.6	1.5	0.6
271903	5711298	3	2.3	0.8			
271903	5711298	3	2	0.5			
271903	5711298	3	1	0.8			
271903	5711298	2.5	1.5	1			
271903	5711298	4	2.5	0.5			
271903	5711298	2	1	0.5			
271903	5711298	2	1	0.5			
271903	5711298	2.5	1.2	0.6			
271903	5711298	2	1.5	0.5			
271903	5711298	2	1	0.5			
271903	5711298	2	1	1			
271914	5713011	3	1.5	0.5	2.1	1.4	0.9
271914	5713011	2	1.5	0.8			

271914	5713011	1.8	1.2	0.6			
271915	5713012	3	2.4	1.9			
271915	5713012	3.2	1.2	1.1			
271915	5713012	1.2	1.2	0.9			
271915	5713012	2	1.4	0.7			
271915	5713012	1.6	1.3	0.6			
271915	5713012	2.8	1	0.5			
271915	5713012	1.2	1	0.7			
271915	5713012	1.5	1.3	1.3			
271915	5713012	2.1	1.7	1.2			
271962	5711120	southern extent					
271965	5711469	1.9	1.8	0.9	2.2	1.7	1.0
271965	5711469	1.7	1.3	1			
271965	5711469	1.9	1.6	1.1			
271965	5711469	2	1.6	1.1			
271965	5711469	2.7	1.8	1.2			
271965	5711469	2.8	2.4	1.1			
271965	5711469	2.4	2.3	1.1			
271965	5711469	2	1.9	1.3			
271965	5711469	2.3	2.2	1			
271965	5711469	2.3	1	0.6			
271965	5711469	2.5	1.6	0.7			
271965	5711469	1.8	1	0.8			
271992	5713863	3.7	2.8	1.8	2.8	2.0	1.0
271992	5713863	3.9	2.7	1.4			
271992	5713863	2.8	2.7	0.9			
271992	5713863	2.7	2	0.6			
271992	5713863	2.4	1.8	1			
271992	5713863	2	1.4	1			
271992	5713863	3.1	1.3	0.6			
271992	5713863	2.4	1.7	1.1			

271992	5713863	3.1	2.3	1.1			
271992	5713863	2	1.1	1			
271992	5713863	3.5	2.5	0.8			
271992	5713863	3	2	0.8			
271992	5713863	2	2	1.5			
271992	5713863	3	1.5	1			
271998	5712985	4.4	3.5	3.3	3.5	2.7	2.1
271998	5712985	4.3	2.5	2.5			
271998	5712985	4.2	3.6	2.5			
271998	5712985	4.0	2.7	2.4			
271998	5712985	4.0	2.1	2.0			
271998	5712985	3.8	3.0	1.9			
271998	5712985	3.8	3.0	3.7			
271998	5712985	3.5	3.0	1.1			
271998	5712985	3.4	2.7	2.0			
271998	5712985	3.0	2.6	2.0			
271998	5712985	3.0	2.2	1.7			
271998	5712985	2.7	2.5	1.1			
271998	5712985	2.6	2.4	0.8			
271998	5712985	2.6	2.8	2.7			
271998	5712985	2.5	2.2	1.9			
271998	5713606	no brown					
271998	5713606	3	2	1	3.2	1.8	0.9
271998	5713606	4	2	1			
271998	5713606	3	2	1.4			
271998	5713606	4	2	1			
271998	5713606	3	1	0.5			
271998	5713606	2.5	1.5	0.5			
271998	5713606	4	2	1.4			
271998	5713606	4	2.5	1			
271998	5713606	3	2	1			

271998	5713606	1.5	1	1			
271998	5713606	3.2	2	0.5			
272013	5711169	2	1.2	0.8	1.9	1.4	0.9
272013	5711169	1.1	1	0.6			
272013	5711169	1.8	1.1	0.5			
272013	5711169	1.6	1.1	0.6			
272013	5711170	3.3	2.8	1.9			
272013	5711170	2.5	1.9	1.6			
272013	5711170	2.2	1.7	1			
272013	5711170	1.3	1.2	1.2			
272013	5711170	1.6	1	0.6			
272013	5711170	2.5	1.5	0.6			
272013	5711170	1.6	1	0.7			
272013	5711170	1.2	1	0.5			
272033	5711865	1.6	1.4	0.7	2.4	1.6	1.0
272033	5711865	2.3	2.1	0.8			
272033	5711865	1.8	1.3	1			
272033	5711865	2.2	1.7	0.9			
272033	5711865	3.5	2.7	1.7			
272033	5711865	1.8	1.4	0.9			
272033	5711865	2.7	1.5	0.9			
272033	5711865	1.6	1.4	1.1			
272033	5711865	3	1.9	1.5			
272033	5711865	3.5	1	0.6			
272033	5711865	1.8	1.7	1			
272033	5711865	2.5	1	0.4			
272048	5713228	5	3.2	1.4	2.8	1.9	1.0
272048	5713228	3.4	2.9	1.5			
272048	5713228	3.5	2.1	1.7			
272048	5713228	3.2	1.8	1.1			
272048	5713228	2.3	1.4	0.8			

272048	5713228	2.5	1.5	0.9			
272048	5713228	2.2	1.4	0.5			
272048	5713228	3	2	1			
272048	5713228	3	2.1	0.6			
272048	5713228	2.5	2	1			
272048	5713228	2	2	1			
272048	5713228	2	1.5	1			
272048	5713228	3.2	1.5	1			
272048	5713228	2.1	1.5	1			
272048	5713228	3	1.5	1			
272048	5713228	1.5	1.5	1.2			
272061	5714213	2.8	1.4	0.7	3.5	2.0	1.1
272061	5714213	6	3	1			
272061	5714213	3.5	2	1			
272061	5714213	3	2	1			
272061	5714213	3	2	1			
272061	5714213	3.5	2.5	2			
272061	5714213	4.5	2	2			
272061	5714213	3	1.5	1			
272061	5714213	2.5	1.5	0.5			
272065	5714800	northern extent					
272072	5712758	3.8	3.2	2	2.6	1.7	1.2
272072	5712758	2.5	1.5	1.2			
272072	5712758	2.5	2.2	1.7			
272072	5712758	2.3	1.7	1.2			
272072	5712758	3.5	2.5	2.1			
272072	5712758	2	1.6	0.8			
272072	5712758	2.3	1.8	1.5			
272072	5712758	1.7	1.1	0.7			
272072	5712758	1.4	1.3	1.2			
272072	5712758	4	0.6	0.5			

272072	5712758	2.8	1.8	0.8			
272072	5712758	1.8	1	0.9			
272117	5712433	5.5	4.3	3.3	4.8	3.4	2.5
272117	5712433	4.5	4.0	3.6			
272117	5712433	5.0	4.7	2.3			
272117	5712433	4.7	3.7	3.5			
272117	5712433	5.1	3.5	3.2			
272117	5712433	4.9	3.5	3.0			
272117	5712433	5.2	3.5	2.0			
272117	5712433	5.2	3.2	2.0			
272117	5712433	4.1	3.0	3.2			
272117	5712433	5.0	3.4	1.7			
272117	5712433	4.7	3.2	2.1			
272117	5712433	4.3	3.1	2.2			
272117	5712433	4.2	3.7	1.7			
272117	5712433	5.0	2.4	1.8			
272117	5712433	4.3	2.5	2.3			
272131	5714881	3	1.5	1	2.2	1.4	0.9
272131	5714881	2.3	2	0.8			
272131	5714881	2	1.5	1			
272131	5714881	2.6	2	1.5			
272131	5714881	2	1.5	1			
272131	5714881	2	1	0.5			
272131	5714881	2.5	1	0.8			
272131	5714881	2.5	1	0.5			
272131	5714881	2	1.5	1			
272131	5714881	2	1	1			
272131	5714881	2	1	1			
272131	5714881	1.5	1.2	0.8			
272138	5713771	4.7	4.6	4.4	4.6	3.3	2.2
272138	5713771	7.6	3.4	2.2			



272138	5713771	5.5	5.0	2.2			
272138	5713771	5.5	3.3	1.8			
272138	5713771	3.6	3.7	2.9			
272138	5713771	4.9	3.6	1.7			
272138	5713771	4.3	3.6	2.1			
272138	5713771	4.2	3.4	2.2			
272138	5713771	4.7	3.4	1.4			
272138	5713771	4.2	3.3	1.9			
272138	5713771	4.0	3.2	2.0			
272138	5713771	4.9	2.3	1.9			
272138	5713771	3.7	2.9	2.0			
272138	5713771	3.2	2.4	2.2			
272138	5713771	3.6	2.1	1.9			
272162	5714624	3.5	2	1	2.8	1.7	1.1
272162	5714624	3	2	1			
272162	5714624	2	1.5	1			
272162	5714624	2.5	2	1			
272162	5714624	2	1	0.8			
272162	5714624	2	1	1			
272162	5714624	4.5	1.5	1			
272162	5714624	4.5	2.5	2			
272162	5714624	2.5	2	1			
272162	5714624	2.5	2	1			
272162	5714624	2.2	1.5	1			
272162	5714624	2.5	1	1			
272167	5713046	3	2.9	1.7	2.5	1.9	1.4
272167	5713046	3.2	1.9	1.8			
272167	5713046	2.6	2	1.5			
272167	5713046	2.2	1.6	1			
272167	5713046	4.2	3	2.5			
272167	5713046	3	2.7	2.5			
272167	5713046	2.6	2.4	0.8			

272167	5713046	1.7	1.5	1.2			
272167	5713046	2	1.5	1.2			
272167	5713046	2.1	1.5	0.7			
272167	5713046	2.2	1	0.8			
272167	5713046	1.5	1.2	0.6			
272173	5714471	2.2	1.2	1	2.2	1.2	1.0
272173	5714471	2	1	1			
272173	5714471	2	1	0.8			
272173	5714471	2	1	1			
272173	5714471	2	1.2	1			
272173	5714471	2	1	0.8			
272173	5714471	2	1	1			
272173	5714471	2	1	1			
272173	5714471	2	1	0.8			
272173	5714471	2.8	2	1.5			
272173	5714471	2	1	0.8			
272173	5714471	2.8	2	1.5			
272173	5714471	2	1	0.8			
272173	5714471	2.3	1.5	1			
272188	5712331	2.9	2.6	1.6	2.6	1.7	1.2
272188	5712331	2.9	2.4	2			
272188	5712331	3.4	1.7	1.4			
272188	5712331	2	1	1			
272188	5712331	3.4	2.9	1.6			
272188	5712331	2.6	1.6	1			
272188	5712331	2.5	1.6	1.5			
272188	5712331	1.9	1.7	1.1			
272188	5712331	3.2	1.6	1			
272188	5712331	2.6	0.9	0.4			
272188	5712331	2.2	2	1			
272188	5712331	1.7	0.6	0.5			

Easting	Northing	Major (cm)	Intermediate (cm)	Minor (cm)	Average	Major (cm)	Intermediate (cm)	Minor (cm)
267683	5714231	sparse new scoria						
267794	5714052	11.9	9.0	0.2		7.6	5.7	0.3
267794	5714052	10.0	8.1	0.2				
267794	5714052	8.9	5.5	0.3				
267794	5714052	8.5	5.8	0.3				
267794	5714052	7.5	6.4	0.3				
267794	5714052	7.1	5.6	0.4				
267794	5714052	7.0	5.9	0.3				
267794	5714052	6.8	5.3	0.4				
267794	5714052	6.4	4.0	0.4				
267794	5714052	6.1	4.2	0.4				
267794	5714052	6.0	5.3	0.4				
267794	5714052	5.2	3.6	0.3				
267921	5714560	no new scoria						
268009	5713603	14.6	11.2	0.3		8.9	6.5	0.4
268009	5713603	11.2	7.3	0.3				
268009	5713603	10.0	5.4	0.4				
268009	5713603	9.6	5.7	0.3				
268009	5713603	9.6	4.3	0.3				
268009	5713603	9.4	8.0	0.2				
268009	5713603	9.4	7.0	0.5				
268009	5713603	9.0	5.1	0.5				
268009	5713603	8.3	9.7	0.5				
268009	5713603	8.1	7.0	0.4				
268009	5713603	8.0	7.2	0.5				
268009	5713603	7.1	5.6	0.4				
268009	5713603	7.0	5.5	0.3				
268009	5713603	6.4	4.3	0.4				
268009	5713603	5.6	4.5	0.4				

268058	5712453	3.8	2.6	0.2	3.1	2.2	0.2
268058	5712453	2.8	2.6	0.2			
268058	5712453	2.6	1.5	0.3			
268154	5713170	7	6.3	0.4	4.3	3.5	0.4
268154	5713170	4	3.1	0.3			
268154	5713170	4.1	3.2	0.4			
268154	5713170	3.6	3	0.5			
268154	5713170	4.2	2.6	0.6			
268154	5713170	3	3	0.4			
268235	5713143	2.8	2.1	0.5	2.3	1.8	0.4
268235	5713143	2.1	1.9	0.4			
268235	5713143	2.4	1.4	0.4			
268235	5713143	1.2	1.1	0.4			
268235	5713143	1.5	1.1	0.5			
268235	5713143	1.4	1.2	0.4			
268235	5713143	4.5	4	0.5			
268273	5714005	no plates					
268507	5712209	no plates					
268545	5712895	9.0	6.8	0.3	9.0	7.4	0.3
268545	5712895	7.0	5.2	0.3			
268545	5712895	11.0	10.2	0.4			
268772	5713657	10.9	7.1	0.2	6.6	5.0	0.4
268772	5713657	8.7	5.6	0.3			
268772	5713657	7.6	7.7	0.4			
268772	5713657	6.8	5.9	0.8			
268772	5713657	6.7	4.3	0.8			
268772	5713657	6.6	4.8	0.4			
268772	5713657	6.5	4.1	0.3			

268772	5713657	5.5	5.0	0.3			
268772	5713657	5.3	3.3	0.3			
268772	5713657	4.2	2.2	0.4			
268772	5713657	3.5	4.6	0.2			
269003	5713728	3.5	2.1	0.3	3.1	2.3	0.4
269003	5713728	2.2	1.4	0.2			
269003	5713728	3	2.6	0.2			
269003	5713728	4.9	3.5	0.7			
269003	5713728	2.5	2.3	0.5			
269003	5713728	2.1	1.7	0.2			
269014	5712036	4.4	2.5	0.5			
269014	5712036	2.3	2.2	0.3			
269014	5712036	3.1	2.8	0.3			
269236	5712696	5.5	3.8	0.3	3.6	2.3	0.3
269236	5712696	2.5	1.8	0.3			
269236	5712696	4.3	1.6	0.3			
269236	5712696	3.5	1.9	0.3			
269236	5712696	3	2.4	0.2			
269236	5712696	2.5	2	0.3			
269240	5713221	2.6	1.4	0.3	2.3	1.5	0.2
269240	5713221	2	2	0.2			
269240	5713221	2.2	1.2	0.2			
269334	5712684	6.3	3.2	0.5	4.5	3.3	0.3
269334	5712684	5.7	3.5	0.2			
269334	5712684	5.5	4.4	0.3			
269334	5712684	5.0	4.3	0.4			
269334	5712684	4.5	3.0	0.2			
269334	5712684	4.5	3.1	0.3			
269334	5712684	4.2	3.5	0.3			
269334	5712684	4.1	2.5	0.3			

269334	5712684	3.8	4.0	0.3			
269334	5712684	3.7	2.9	0.3			
269334	5712684	3.5	2.4	0.3			
269334	5712684	3.0	2.5	0.3			
269342	5713103	7.9	6.0	0.5	5.2	3.8	0.3
269342	5713103	7.5	5.4	0.7			
269342	5713103	6.4	4.6	0.3			
269342	5713103	6.2	4.5	0.3			
269342	5713103	6.0	3.5	0.4			
269342	5713103	5.5	4.0	0.4			
269342	5713103	5.4	4.6	0.3			
269342	5713103	4.5	4.2	0.3			
269342	5713103	4.4	3.6	0.4			
269342	5713103	4.2	2.6	0.2			
269342	5713103	4.2	3.0	0.2			
269342	5713103	4.0	4.0	0.2			
269342	5713103	3.8	2.2	0.2			
269342	5713103	3.7	2.0	0.2			
269342	5713103	3.6	3.0	0.3			
269367	5713965	no plates					
269373	5713613	2.9	2.2	0.5	3.9	3.5	0.9
269373	5713613	4.9	4.7	1.2			
269439	5711714	no plates					
269457	5713012	4	2	0.3	3.8	1.4	0.3
269457	5713012	3.5	0.8	0.2			
269636	5713969	no plates					
269734	5712110	4.5	3	0.3	3.1	2.2	0.3

269734	5712110	2.7	2	0.2			
269734	5712110	2.5	1.7	0.3			
269734	5712110	2.5	1.9	0.4			
269827	5713004	11.4	7.0	0.2	6.2	4.3	0.3
269827	5713004	9.4	4.6	0.3			
269827	5713004	8.1	3.5	0.3			
269827	5713004	8.0	6.0	0.4			
269827	5713004	5.9	4.1	0.3			
269827	5713004	5.6	3.5	0.4			
269827	5713004	5.6	4.2	0.4			
269827	5713004	5.5	6.1	0.3			
269827	5713004	5.2	3.7	0.3			
269827	5713004	5.2	4.0	0.3			
269827	5713004	5.0	3.7	0.3			
269827	5713004	5.0	3.5	0.2			
269827	5713004	4.6	3.6	0.3			
269827	5713004	4.5	4.0	0.4			
269827	5713004	4.3	2.8	0.3			
269998	5713659	2	1.5	1	2	1.5	1
270099	5713477	3.6	2.4	0.5	3.0	2.2	0.4
270099	5713477	2.4	2	0.2			
270182	5712432	4	3.5	0.2	4	3.5	0.2
270185	5713957	1.8	1.3	0.3	2.0	1.6	0.4
270185	5713957	2	1.8	0.5			
270185	5713957	1.8	1.4	0.3			
270185	5713957	2.5	2	0.5			
270185	5713957	2.5	1.5	0.3			
270185	5713957	1.5	1.3	0.2			

270233	5711743	1.9	1.2	0.3	1.8	1.3	0.2
270233	5711743	2	1.7	0.3			
270233	5711743	1.5	1.5	0.2			
270233	5711743	1.9	1.3	0.3			
270233	5711743	1.6	1.2	0.2			
270233	5711743	1.6	1.2	0.2			
270233	5711743	1.9	1.2	0.2			
270394	5712910	3.5	2.5	0.3	2.1	1.4	0.2
270394	5712910	3	2	0.3			
270394	5712910	2	1.5	0.2			
270423	5712432	2	2	0.2			
270438	5714593	2	1	0.2			
270438	5714593	2	1	0.3			
270438	5714593	2	0.6	0.2			
270438	5714593	1.5	0.6	0.2			
270573	5714484	2	1.5	0.2			
270573	5714484	2	1.5	0.2			
270573	5714484	1.5	1	0.2			
270577	5711305	no plates					
270653	5712937	9.2	4.1	0.4	6.2	4.4	0.3
270653	5712937	8.0	5.7	0.2			
270653	5712937	7.5	6.5	0.3			
270653	5712937	7.3	3.0	0.5			
270653	5712937	7.0	4.5	0.2			
270653	5712937	7.0	3.2	0.3			
270653	5712937	6.5	6.4	0.2			
270653	5712937	6.2	4.0	0.2			
270653	5712937	6.2	4.2	0.4			
270653	5712937	6.0	6.5	0.5			
270653	5712937	5.9	3.0	0.2			
270653	5712937	4.9	4.7	0.4			



270653	5712937	4.5	3.0	0.2			
270653	5712937	4.2	4.0	0.4			
270653	5712937	2.7	2.9	0.3			
270658	5712266	2	1.5	0.1	2.3	1.5	0.2
270658	5712266	2.5	1.5	0.2			
270668	5713960	2.6	2.4	1	2.6	2.0	0.8
270668	5713960	2.2	1.9	0.5			
270668	5713960	2.7	2.5	1.1			
270668	5713960	3.2	1.9	0.4			
270693	5713963	2.4	1.3	1			
270742	5711658	2	2	0.3	1.9	1.5	0.3
270742	5711658	1.8	1.6	0.5			
270742	5711658	2.5	1.7	0.4			
270742	5711658	1.8	1.2	0.2			
270742	5711658	1.5	1	0.3			
270840	5714316	2.8	1.6	0.2	2.7	1.6	0.3
270840	5714316	2.5	1.5	0.3			
270854	5713260	2.5	2.3	0.5	2.4	1.7	0.4
270854	5713260	2.7	2.4	0.7			
270854	5713260	1.8	1.4	0.2			
270854	5713260	1.8	1.4	0.2			
270854	5713260	1.6	1.4	0.5			
270854	5713260	3.7	1.8	0.5			
270854	5713260	3.9	3	1			
270854	5713260	3	2.2	0.6			
270854	5713260	2.5	1.4	0.2			
270854	5713260	1.6	0.8	0.2			
270854	5713260	1.5	1	0.2			

270883	5712042	2.5	1.5	0.2	2.7	1.8	0.2
270883	5712042	3	2	0.3			
270883	5712042	3.2	2.2	0.2			
271067	5714345	3.5	2.5	0.2			
271067	5714345	2.5	1.5	0.2			
271067	5714345	1.6	1.2	0.2			
271084	5713646	6.0	4.6	0.4	4.1	3.4	0.3
271084	5713646	4.3	3.3	0.2			
271084	5713646	4.1	3.8	0.2			
271084	5713646	4.0	3.2	0.2			
271084	5713646	3.2	3.6	0.6			
271084	5713646	3.2	1.9	0.2			
271115	5711857	2.5	2	0.2	2.8	2.5	0.2
271115	5711857	3	3	0.2			
271236	5711558	2	1.5	0.3	1.8	1.4	0.3
271236	5711558	1.5	1.3	0.3			
271237	5712325	5.3	4.5	0.3	3.6	3.3	0.2
271237	5712325	3.9	3.0	0.2			
271237	5712325	3.6	3.6	0.3			
271237	5712325	3.5	3.6	0.3			
271237	5712325	3.2	3.9	0.2			
271237	5712325	3.1	2.5	0.2			
271237	5712325	3.0	3.3	0.2			
271237	5712325	2.9	2.2	0.2			
271360	5714325	3	1.8	0.2	2.9	1.2	0.2
271360	5714325	3.5	0.5	0.2			
271360	5714325	2.1	1.2	0.2			
271375	5712877	1.8	1.9	0.2	3.4	3.1	0.2

271375	5712877	3.3	3.0	0.2			
271375	5712877	2.6	2.5	0.2			
271375	5712877	5.9	5.0	0.2			
271686	5712927	4	3	0.2	4	3	0.2
271797	5711737	3.9	4.0	0.2	3.3	3.1	0.2
271797	5711737	2.7	2.2	0.2			
271835	5714019	first detected					
271915	5713012	3	2.1	0.6	2.5	1.9	0.4
271915	5713012	3	1.5	0.5			
271915	5713012	1.8	0.9	0.2			
271915	5713012	2.1	1.7	0.4			
271915	5713012	2.7	2.7	0.3			
271915	5713012	2.5	2.3	0.2			
271962	5711120	southern extent					
271965	5711469	2	1.8	0.2	1.3	1.0	0.2
271965	5711469	0.9	0.7	0.2			
271965	5711469	1	0.6	0.2			
271965	5711469	1.1	0.7	0.2			
271992	5713863	no plates					
271992	5713863	2.1	1.4	0.2	2.6	1.7	0.3
271992	5713863	2.4	1	0.2			
271992	5713863	3	1.5	0.2			
271992	5713863	4	2	0.5			
271992	5713863	2.5	2	0.5			
271992	5713863	2	1.5	0.2			
271992	5713863	2	2	0.1			

271992	5713863	3	2	0.2			
271992	5713863	2	1.5	0.2			
271998	5713606	2.6	1.6	0.3	2.7	1.8	0.4
271998	5713606	2.3	1.7	0.4			
271998	5713606	3.3	2.1	0.4			
271998	5712985	5.8	6.2	0.1	5.8	6.2	0.1
272013	5711169	2	1.5	0.5	2.0	1.1	0.3
272013	5711169	2.4	1.4	0.5			
272013	5711169	2.4	1.4	0.5			
272013	5711169	1.5	0.9	0.2			
272013	5711170	3	1.4	0.2			
272013	5711170	2	0.7	0.2			
272013	5711170	1.2	0.8	0.2			
272013	5711170	1.6	1	0.2			
272033	5711865	1.1	1	0.9	2.1	1.6	0.5
272033	5711865	1.3	1.2	0.3			
272033	5711865	3.7	2.5	0.6			
272033	5711865	2.2	1.7	0.3			
272048	5713228	2.5	1.9	0.4	2.9	1.7	0.3
272048	5713228	2.7	2.2	0.3			
272048	5713228	3.3	2.1	0.3			
272048	5713228	2.3	1.5	0.3			
272048	5713228	4.8	1.5	0.4			
272048	5713228	2.4	1.5	0.2			
272048	5713228	2.3	1.7	0.2			
272048	5713228	2.6	1.1	0.1			
272048	5713228	2.7	2	0.3			
272048	5713228	2.9	1.8	0.2			

272061	5714213	no plates					
272065	5714800	northern extent					
272072	5712758	2.4	2.1	0.5	2.2	1.5	0.4
272072	5712758	2.1	1.2	0.4			
272072	5712758	1.7	0.9	0.5			
272072	5712758	1.3	1	0.3			
272072	5712758	3.6	2.4	0.3			
272117	5712433	4.8	3.5	0.5	5.1	4.8	0.3
272117	5712433	4.5	5.0	0.2			
272117	5712433	6.0	5.9	0.2			
272138	5713771	4.6	7.1	0.2	3.9	3.7	0.3
272138	5713771	4.5	4.5	0.2			
272138	5713771	4.5	3.3	0.2			
272138	5713771	4.2	3.1	0.8			
272138	5713771	4.2	3.5	0.3			
272138	5713771	3.6	3.2	0.4			
272138	5713771	3.5	2.7	0.3			
272138	5713771	2.0	1.9	0.2			
272167	5713046	1.3	0.9	0.3	2.1	1.2	0.3
272167	5713046	3	1.6	0.4			
272167	5713046	1.7	1.3	0.2			
272167	5713046	1.5	0.6	0.3			
272167	5713046	3.2	1.6	0.2			
272188	5712331	3.4	3.1	0.5	3.4	3.1	0.5

Averages		Black Scoria			Zingg	(a>b>c)	Wilson and Huang (1979)	Brown Scoria			Zingg	(a>b>c)	Wilson and Huang (1979)	Plate Tephra			Zingg	(a>b>c)	Wilson and Huang (1979)
Easting    Northing		Major (cm)	Intermediate (cm)	Minor (cm)	b/a	c/b	F =b+c/2a	Major (cm)	Intermediate (cm)	Minor (cm)	b/a	c/b	F =b+c/2a	Major (cm)	Intermediate (cm)	Minor (cm)	b/a	c/b	F =b+c/2a
270035	5712926	1.5	1.3	0.9	0.85	0.67	0.71	1.1	0.9	0.5	0.81	0.53	0.62						
271199	5714002	2.0	1.2	0.7	0.60	0.60	0.48	2.0	1.5	0.9	0.76	0.60	0.61						
270099	5713477	2.1	1.6	1.1	0.74	0.71	0.63	1.9	1.4	1.0	0.73	0.74	0.64	3.0	2.2	0.4	0.73	0.16	0.43
270233	5711743	2.2	1.4	0.7	0.61	0.48	0.45	1.7	1.1	0.5	0.63	0.50	0.47	1.8	1.3	0.2	0.75	0.18	0.44
269457	5713012	2.2	1.3	1.0	0.59	0.75	0.52	2.0	1.2	0.9	0.61	0.76	0.54	3.8	1.4	0.3	0.37	0.18	0.22
271200	5713997	2.3	1.5	1.0	0.63	0.69	0.54												
271236	5711558	2.3	1.5	0.8	0.64	0.55	0.50	1.6	0.9	0.5	0.55	0.60	0.44	1.8	1.4	0.3	0.80	0.21	0.49
270742	5711658	2.3	1.5	0.7	0.64	0.46	0.47	1.6	1.1	0.5	0.66	0.52	0.50	1.9	1.5	0.3	0.78	0.23	0.48
269734	5712110	2.4	1.6	0.7	0.69	0.41	0.48	1.4	0.8	0.4	0.54	0.53	0.41	3.1	2.2	0.3	0.70	0.14	0.40
270668	5713960	2.4	1.6	1.0	0.69	0.61	0.56	1.8	1.2	0.7	0.65	0.61	0.53	2.6	2.0	0.8	0.76	0.40	0.53
269373	5713613	2.4	1.9	1.1	0.77	0.59	0.62	1.5	1.1	0.6	0.71	0.57	0.56	3.9	3.5	0.9	0.88	0.25	0.55
269367	5713965	2.5	1.5	1.0	0.61	0.67	0.51	1.5	0.9	0.6	0.62	0.65	0.51						
270873	5712882	2.5	1.5	0.9	0.61	0.61	0.49	1.8	1.2	0.9	0.68	0.72	0.58						
268235	5713143	2.5	1.8	1.1	0.74	0.59	0.59	1.5	1.2	0.5	0.77	0.46	0.56	2.3	1.8	0.4	0.81	0.24	0.50
272173	5714471	2.5	1.5	0.8	0.60	0.54	0.46	2.2	1.2	1.0	0.56	0.83	0.51						
269630	5713977	2.5	1.6	0.9	0.63	0.54	0.49	1.7	1.1	0.6	0.61	0.60	0.49						
268746	5712931	2.6	1.9	0.8	0.72	0.43	0.52	1.5	1.0	0.5	0.64	0.53	0.49						
269003	5713728	2.6	2.0	1.3	0.74	0.68	0.63	1.9	1.4	0.7	0.75	0.51	0.57	3.1	2.3	0.4	0.75	0.15	0.43
270394	5712910	2.7	1.7	1.1	0.64	0.64	0.53	1.9	1.2	0.8	0.62	0.67	0.52	2.1	1.4	0.2	0.65	0.16	0.38
270185	5713957	2.7	1.6	1.1	0.61	0.64	0.50	1.9	1.4	0.8	0.71	0.57	0.55	2.0	1.6	0.4	0.77	0.23	0.47
270840	5714316	2.7	1.7	1.0	0.62	0.60	0.49	2.3	1.4	0.9	0.61	0.62	0.49	2.7	1.6	0.3	0.58	0.16	0.34
269728	5712967	2.7	1.8	1.3	0.67	0.70	0.57	1.6	1.1	0.7	0.67	0.67	0.56						
271067	5714345	2.8	1.7	1.0	0.59	0.60	0.47	2.4	1.3	0.8	0.53	0.64	0.43						
271259	5712864	2.8	1.8	1.1	0.62	0.62	0.50	1.9	1.3	0.8	0.65	0.61	0.52						
271903	5711298	2.8	1.8	0.8	0.62	0.47	0.45	2.6	1.5	0.6	0.56	0.44	0.40						
268198	5713603	2.9	2.0	1.2	0.69	0.62	0.56	1.8	1.1	0.7	0.63	0.64	0.52						
271686	5712927	2.9	1.7	1.0	0.58	0.61	0.47	2.3	1.7	1.0	0.72	0.60	0.58	4.0	3.0	0.2	0.75	0.07	0.40
271998	5713606	2.9	1.8	1.0	0.61	0.55	0.48	3.2	1.8	0.9	0.57	0.52	0.43	2.7	1.8	0.4	0.66	0.20	0.40
267158	5715550	2.9	1.7	1.0	0.57	0.58	0.45	3.5	2.5	1.0	0.71	0.40	0.50						
272013	5711169	2.9	1.8	0.8	0.64	0.42	0.45	1.9	1.4	0.9	0.73	0.64	0.60	2.0	1.1	0.3	0.57	0.27	0.36
272033	5711865	2.9	2.1	1.3	0.71	0.63	0.58	2.4	1.6	1.0	0.67	0.60	0.54	2.1	1.6	0.5	0.77	0.33	0.51
272131	5714881	2.9	1.7	1.2	0.59	0.69	0.50	2.2	1.4	0.9	0.61	0.67	0.51						
270854	5713260	2.9	1.5	1.0	0.53	0.65	0.43	1.9	1.3	0.8	0.67	0.60	0.54	2.4	1.7	0.4			
271366	5711656	3.0	2.3	1.0	0.79	0.44	0.56	3.3	2.3	1.0	0.72	0.43	0.51						
269236	5712696	3.0	1.9	0.9	0.63	0.48	0.46	1.7	1.1	0.6	0.65	0.58	0.52	3.6	2.3	0.3	0.63	0.13	0.36
271992	5713863	3.0	2.0	0.8	0.65	0.38	0.45	2.8	2.0	1.0	0.70	0.53	0.54	2.6	1.7	0.3	0.65	0.15	0.37
268570	5712209	3.0	2.2	1.7	0.73	0.76	0.64	2.0	1.3	0.7	0.68	0.55	0.53						
271965	5711469	3.1	2.3	1.1	0.73	0.48	0.54	2.2	1.7	1.0	0.78	0.58	0.62	1.3	1.0	0.2	0.76	0.21	0.46
271115	5711857	3.1	2.0	0.9	0.66	0.43	0.47	3.3	2.1	1.2	0.65	0.58	0.51	2.8	2.5	0.2	0.91	0.08	0.49
270182	5712432	3.2	1.9	1.1	0.61	0.56	0.48	3.1	2.0	1.2	0.63	0.58	0.50	4.0	3.5	0.2	0.88	0.06	0.46
270883	5712042	3.2	2.2	1.0	0.68	0.46	0.49	3.5	2.3	1.1	0.66	0.45	0.48	2.7	1.8	0.2	0.67	0.12	0.37
269439	5711714	3.2	2.3	1.5	0.71	0.67	0.59	2.5	1.8	1.0	0.73	0.53	0.56						
271635	5711445	3.3	2.1	1.2	0.66	0.57	0.52												
272162	5714624	3.3	1.8	1.0	0.53	0.56	0.42	2.8	1.7	1.1	0.59	0.64	0.49						
268058	5712453	3.3	2.4	1.4	0.72	0.59	0.57							3.1	2.2	0.2	0.73	0.10	0.40
268267	5714012	3.3	1.9	1.2	0.57	0.66	0.47	2.1	1.5	0.9	0.72	0.63	0.58						
271702	5714709	3.3	2.0	1.0	0.61	0.49	0.46	3.6	1.7	1.0	0.48	0.61	0.39						
272048	5713228	3.4	2.1	1.3	0.63	0.60	0.50	2.8	1.9	1.0	0.67	0.56	0.52	2.9	1.7	0.3	0.61	0.16	0.35
271914	5713011	3.4	2.3	1.4	0.68	0.60	0.55	2.1	1.4	0.9	0.66	0.65	0.54	2.5	1.9	0.4	0.74	0.20	0.44
271360	5714325	3.4	1.9	1.1	0.56	0.60	0.45	3.3	1.9	1.1	0.58	0.58	0.46	2.9	1.2	0.2	0.41	0.17	0.24
270577	5711305	3.4	1.9	0.7	0.57	0.36	0.39	2.8	2.1	0.7	0.74	0.35	0.50						
270438	5714593	3.4	2.1	1.0	0.60	0.47	0.44	2.8	1.6	0.9	0.55	0.58	0.43						
270658	5712266	3.5	2.3	1.1	0.66	0.48	0.49	3.5	2.2	1.0	0.64	0.44	0.46	2.3	1.5	0.2	0.67	0.10	0.37
271885	5714568	3.6	2.0	1.1	0.57	0.52	0.43	3.3	2.1	1.3	0.63	0.60	0.51						
272061	5714213	3.6	2.5	1.5	0.68	0.61	0.55	3.5	2.0	1.1	0.56	0.57	0.44						
269014	5712036	3.7	2.6	1.2	0.70	0.47	0.51	3.2	2.6	1.5	0.81	0.58	0.64						
271430	5714766	3.8	2.2	1.4	0.57	0.62	0.46	3.0	1.8	1.0	0.58	0.59	0.46						
270573	5714484	3.9	1.9	1.0	0.49	0.52	0.38	2.9	1.6	0.9	0.57	0.55	0.44						

272188	5712331	3.9	2.3	1.3	0.59	0.56	0.46	2.6	1.7	1.2	0.66	0.68	0.55	3.4	3.1	0.5	0.91	0.16	0.53
268154	5713170	3.9	2.4	1.9	0.61	0.81	0.55	3.3	2.7	1.4	0.82	0.51	0.62	4.3	3.5	0.4	0.82	0.12	0.46
272072	5712758	3.9	2.6	1.4	0.66	0.54	0.51	2.6	1.7	1.2	0.66	0.72	0.57	2.2	1.5	0.4	0.68	0.26	0.43
272167	5713046	3.9	2.8	1.8	0.72	0.62	0.59	2.5	1.9	1.4	0.77	0.70	0.65	2.1	1.2	0.3	0.56	0.23	0.35
270423	5712432	4.0	2.8	1.4	0.70	0.51	0.53	2.9	2.2	1.1	0.77	0.49	0.57						
270585	5714725	4.0	2.3	1.1	0.57	0.49	0.43	3.2	1.8	1.0	0.59	0.52	0.45						
271206	5714743	4.1	2.1	1.1	0.52	0.49	0.39	3.5	2.1	1.1	0.61	0.53	0.46						
270920	5714758	4.5	2.3	1.1	0.51	0.48	0.38	4.0	2.5	1.4	0.63	0.57	0.49						
269334	5712684	4.5	3.5	2.7	0.78	0.76	0.69	4.3	3.4	2.2	0.78	0.67	0.65	4.5	3.3	0.3	0.73	0.09	0.40
272138	5713771	4.6	3.8	2.5	0.82	0.65	0.68	4.6	3.3	2.2	0.73	0.65	0.60	3.9	3.7	0.3	0.94	0.09	0.51
271998	5712985	4.7	3.7	2.8	0.79	0.78	0.70	3.5	2.7	2.1	0.79	0.77	0.70	5.8	6.2	0.1	1.07	0.02	0.54
271084	5713646	4.7	3.8	2.6	0.82	0.68	0.68	4.4	3.4	2.6	0.76	0.76	0.67	4.1	3.4	0.3	0.82	0.09	0.45
270653	5712937	4.8	4.0	3.1	0.84	0.77	0.74	4.8	3.9	2.7	0.83	0.69	0.70	6.2	4.4	0.3	0.71	0.07	0.38
269342	5713103	4.9	3.7	2.9	0.76	0.80	0.68	4.1	3.3	2.0	0.79	0.61	0.64	5.2	3.8	0.3	0.74	0.09	0.40
267189	5715580	4.9	3.2	1.7	0.65	0.54	0.50												
267837	5714741	5.0	3.0	2.2	0.60	0.76	0.52	2.6	1.8	1.3	0.70	0.74	0.61						
271237	5712325	5.0	3.9	2.7	0.78	0.69	0.66	4.5	3.4	2.4	0.76	0.70	0.65	3.6	3.3	0.2	0.93	0.07	0.50
269827	5713004	5.4	4.4	3.3	0.81	0.75	0.71	4.3	3.5	2.4	0.81	0.68	0.68	6.2	4.3	0.3	0.69	0.07	0.37
271797	5711737	5.4	4.0	2.9	0.73	0.73	0.63	4.7	3.3	2.0	0.71	0.61	0.57	3.3	3.1	0.2	0.94	0.06	0.50
272117	5712433	5.5	4.2	3.3	0.77	0.79	0.69	4.8	3.4	2.5	0.72	0.73	0.62	5.1	4.8	0.3	0.94	0.06	0.50
268545	5712895	5.5	4.2	3.4	0.77	0.81	0.70	5.1	3.9	2.4	0.77	0.60	0.62	9.0	7.4	0.3	0.82	0.05	0.43
268009	5713603	5.6	5.1	4.0	0.92	0.78	0.82	4.8	4.0	2.3	0.83	0.58	0.66	8.9	6.5	0.4	0.73	0.06	0.39
271375	5712877	5.6	4.3	3.3	0.77	0.76	0.68	3.9	2.9	2.2	0.73	0.77	0.65	3.4	3.1	0.2	0.91	0.06	0.49
268772	5713657	6.4	4.8	3.7	0.75	0.77	0.66	5.4	4.1	3.3	0.76	0.80	0.69	6.6	5.0	0.4	0.76	0.08	0.41
267794	5714052	6.6	5.6	4.5	0.85	0.81	0.77	5.2	4.1	2.9	0.79	0.69	0.67	7.6	5.7	0.3	0.75	0.06	0.40
260858	5712453							2.5	1.9	1.0	0.75	0.55	0.58						
266991	5715282							2.6	1.7	1.1	0.65	0.68	0.55						
269240	5713221							1.7	1.2	0.8	0.71	0.62	0.58	2.3	1.5	0.2	0.68	0.15	0.39
271898	5712972							1.9	1.3	1.0	0.67	0.76	0.59						

Easting	Northing	Thickness (cm)
267921	5714560	0
272065	5714800	0
271835	5714019	0.1
271962	5711120	0.1
267794	5714052	1
269457	5713012	1
270035	5712926	1
270438	5714593	1
270585	5714725	1
270840	5714316	1
271067	5714345	1
272131	5714881	1
272162	5714624	1
272173	5714471	1
267683	5714231	1.5
267837	5714741	1.5
270573	5714484	1.5
270577	5711305	1.5
271702	5714709	1.5
271885	5714568	1.5
272061	5714213	1.5
271236	5711558	1.8
267785	5713625	2
269236	5712696	2
269368	5713979	2
269728	5712967	2
270394	5712910	2
270423	5712432	2
270616	5711055	2
270668	5713960	2
270693	5713963	2
271199	5714002	2



271206	5714743	2
271360	5714325	2
271430	5714766	2
271797	5711737	2
271998	5713606	2
271998	5713606	2
272138	5713771	2
268198	5713603	2.5
268235	5713143	2.5
269374	5713622	2.5
269439	5711714	2.5
269439	5711714	2.5
270233	5711743	2.5
270658	5712266	2.5
270920	5714758	2.5
272167	5713046	2.7
268746	5712931	2.8
272033	5711865	2.8
272188	5712331	2.8
268009	5713603	3
268154	5713170	3
268272	5714005	3
269004	5713727	3
269734	5712110	3
270099	5713477	3
270182	5712432	3
270195	5713958	3
270742	5711658	3
270873	5712882	3
270883	5712042	3
271084	5713646	3
271115	5711857	3
271200	5713997	3
271237	5712325	3

271259	5712864	3
271635	5711445	3
271903	5711298	3
271915	5713012	3
271992	5713863	3
272072	5712758	3
269014	5712036	3.5
269014	5712036	3.5
272013	5711169	3.5
267158	5715550	4
267189	5715580	4
270854	5713260	4
270854	5713260	4
271366	5711656	4
271686	5712927	4
271965	5711469	4
271998	5712985	4
272117	5712433	4
268058	5712453	4.5
268570	5712209	4.5
268772	5713657	4.5
270792	5711449	4.5
272048	5713228	4.5
271375	5712877	4.7
269630	5713977	5
269827	5713004	5
270653	5712937	5.5
269342	5713103	6.5
268545	5712895	7
269334	5712684	7

Plagioclase Phenocrysts		Plagioclase Microlites		Olivine	
Angle	converted angle	Angle	converted angle	Angle	converted angle
9.964	9.964	168.475	-11.525	75.719	75.719
12.563	12.563	16.021	16.021	17.842	17.842
0.519	0.519	170.959	-9.041	0.633	0.633
91.139	-88.861	160.64	-19.36	3.957	3.957
6.414	6.414	132.642	-47.358	165.993	-14.007
2.808	2.808	115.371	-64.629	129.501	-50.499
1.412	1.412	127.6	-52.4	164.88	-15.12
9.69	9.69	163.481	-16.519	141.89	-38.11
5.108	5.108	17.541	17.541	35.115	35.115
18.757	18.757	177.838	-2.162	79.658	79.658
87.718	87.718	165.615	-14.385	2.17	2.17
32.689	32.689	12.224	12.224	21.197	21.197
0.612	0.612	146.808	-33.192	88.828	88.828
145.709	-34.291	5.034	5.034	127.792	-52.208
163.579	-16.421	147.806	-32.194	5.234	5.234
16.778	16.778	25.866	25.866	162.712	-17.288
147.011	-32.989	156.943	-23.057	155.468	-24.532
24.093	24.093	163.318	-16.682	128.792	-51.208
10.405	10.405	147.522	-32.478	177.887	-2.113
132.482	-47.518	19.186	19.186	154.787	-25.213
10.757	10.757	22.46	22.46	74.008	74.008
178.976	-1.024	4.579	4.579	0.45	0.45
11.831	11.831	103.612	-76.388	139.56	-40.44
25.528	25.528	144.411	-35.589	121.809	-58.191
178.35	-1.65	37.447	37.447	42.142	42.142
179.234	-0.766	42.109	42.109	15.956	15.956
161.528	-18.472	79.722	79.722	133.017	-46.983
177.1	-2.9	0	0	12.622	12.622
16.613	16.613	161.689	-18.311	27.722	27.722
174.601	-5.399	17.417	17.417	148.831	-31.169
175.695	-4.305	18.233	18.233	162.336	-17.664

150.02	-29.98	7.114	7.114	41.078	41.078
178.333	-1.667	13.828	13.828	41.684	41.684
170.608	-9.392	175.473	-4.527	50.341	50.341
12.538	12.538	137.407	-42.593	0.035	0.035
177.455	-2.545	170.116	-9.884	22.323	22.323
179.079	-0.921	154.395	-25.605	26.769	26.769
176.728	-3.272	170.759	-9.241	17.439	17.439
170.898	-9.102	1.182	1.182	152.453	-27.547
7.041	7.041	135.564	-44.436	178.194	-1.806
178.718	-1.282	38.584	38.584	155.417	-24.583
13.073	13.073	163.924	-16.076	174.01	-5.99
178.825	-1.175	151.391	-28.609	171.048	-8.952
179.272	-0.728	120.3	-59.7	133.488	-46.512
168.275	-11.725	135	-45	24.585	24.585
158.007	-21.993	168.565	-11.435	14.31	14.31
176.14	-3.86	100.278	-79.722	149.446	-30.554
10.522	10.522	119.781	-60.219	91.18	-88.82
0.492	0.492	112.379	-67.621	11.296	11.296
4.033	4.033	3.504	3.504	152.429	-27.571
179.356	-0.644	0	0	175.642	-4.358
151.089	-28.911	13.024	13.024	64.215	64.215
158.066	-21.934	133.163	-46.837	96.662	-83.338
173.816	-6.184	169.672	-10.328	147.261	-32.739
161.517	-18.483	26.306	26.306	12.711	12.711
137.559	-42.441	26.728	26.728	147.609	-32.391
178.021	-1.979	37.019	37.019	12.122	12.122
155.727	-24.273	27.447	27.447	137.254	-42.746
34.476	34.476	22.285	22.285	0.091	0.091
179.78	-0.22	9.175	9.175	145.254	-34.746
1.31	1.31	82.282	82.282	173.149	-6.851
2.054	2.054	141.635	-38.365	27.775	27.775
167.6	-12.4	177.158	-2.842	167.982	-12.018
1.073	1.073	0.567	0.567	140.592	-39.408
173.602	-6.398	178.294	-1.706	5.905	5.905

8.168	8.168	173.188	-6.812	24.665	24.665
17.421	17.421	155.289	-24.711	37.873	37.873
1.657	1.657	97.762	-82.238	15.065	15.065
176.635	-3.365	178.648	-1.352	160.538	-19.462
163.49	-16.51	147.007	-32.993	166.093	-13.907
175.698	-4.302	73.176	73.176	175.893	-4.107
179.9	-0.1	5.104	5.104	18.91	18.91
176.166	-3.834	168.561	-11.439	24.205	24.205
168.479	-11.521	21.04	21.04	94.383	-85.617
161.286	-18.714	151.663	-28.337	179.321	-0.679
3.716	3.716	165.697	-14.303	2.067	2.067
179.366	-0.634	128.318	-51.682	150.887	-29.113
179.982	-0.018	107.22	-72.78	124.263	-55.737
0.741	0.741	6.428	6.428	112.391	-67.609
177.062	-2.938	16.115	16.115	152.859	-27.141
175.898	-4.102	166.718	-13.282	54.104	54.104
163.891	-16.109	143.615	-36.385	119.414	-60.586
150.753	-29.247	45.836	45.836	12.612	12.612
172.138	-7.862	35.739	35.739	0.664	0.664
175.344	-4.656	66.58	66.58	24.902	24.902
173.663	-6.337	176.886	-3.114	153.386	-26.614
177.595	-2.405	51.992	51.992	163.985	-16.015
2.989	2.989	15.44	15.44	5.325	5.325
3.882	3.882	135	-45	139.132	-40.868
174.903	-5.097	28.394	28.394	86.897	86.897
168.581	-11.419	55.034	55.034	169.503	-10.497
0.505	0.505	155.223	-24.777	33.863	33.863
162.466	-17.534	161.114	-18.886	177.147	-2.853
170.217	-9.783	164.809	-15.191	40.01	40.01
167.479	-12.521	37.73	37.73	16.424	16.424
164.066	-15.934	25.949	25.949	12.526	12.526
2.415	2.415	23.266	23.266	157.582	-22.418
174.881	-5.119	4.201	4.201	141.911	-38.089
0.656	0.656	24.686	24.686	10.649	10.649

2.84	2.84	140.582	-39.418	42.135	42.135
4.824	4.824	106.871	-73.129	162.365	-17.635
175.554	-4.446	178.926	-1.074	149.395	-30.605
151.372	-28.628	148.575	-31.425	159.333	-20.667
174.353	-5.647	178.519	-1.481	165.942	-14.058
180	0	0.179	0.179	10.593	10.593
167.96	-12.04	156.575	-23.425	46.742	46.742
179.192	-0.808	30.009	30.009	119.712	-60.288
98.21	-81.79	23.684	23.684	12.191	12.191
177.307	-2.693	26.757	26.757	84.603	84.603
157.29	-22.71	160.181	-19.819	17.334	17.334
145.004	-34.996	126.93	-53.07	156.707	-23.293
178.324	-1.676	175.01	-4.99	88.431	88.431
0.918	0.918	164.488	-15.512	12.132	12.132
178.727	-1.273	175.409	-4.591		
178.417	-1.583	13.221	13.221		
138.907	-41.093	17.255	17.255		
176.775	-3.225	157.477	-22.523		
179.24	-0.76	8.927	8.927		
175.76	-4.24	44.037	44.037		
176.202	-3.798	22.812	22.812		
10.91	10.91	19.601	19.601		
0	0	175.535	-4.465		
178.146	-1.854	106.717	-73.283		
177.501	-2.499	173.611	-6.389		
177.357	-2.643	146.29	-33.71		
0	0	17.8	17.8		
179.184	-0.816	25.816	25.816		
173.036	-6.964	0	0		
2.302	2.302	165.867	-14.133		
179.795	-0.205	143.991	-36.009		
7.066	7.066	130.439	-49.561		
3.319	3.319	163.677	-16.323		
174.528	-5.472	0	0		

165.609	-14.391	24.85	24.85
2.067	2.067	11.232	11.232
177.087	-2.913	5.489	5.489
156.996	-23.004	18.746	18.746
178.526	-1.474	25.419	25.419
173.294	-6.706	10.245	10.245
171.417	-8.583	167.781	-12.219
169.901	-10.099	49.506	49.506
174.941	-5.059	45.003	45.003
0.77	0.77	158.977	-21.023
172.956	-7.044	156.716	-23.284
163.754	-16.246	10.827	10.827
147.573	-32.427	159.518	-20.482
139.277	-40.723	178.539	-1.461
175.684	-4.316	12.969	12.969
12.269	12.269	136.817	-43.183
174.321	-5.679	173.35	-6.65
179.444	-0.556	111.363	-68.637
0	0	173.601	-6.399
179.109	-0.891	0.656	0.656
172.95	-7.05	158.982	-21.018
174.611	-5.389	121.96	-58.04
131.013	-48.987	116.645	-63.355
40.927	40.927	21.395	21.395
149.625	-30.375	179.148	-0.852
28.654	28.654	2.05	2.05
176.718	-3.282	69.743	69.743
174.028	-5.972	18.998	18.998
7.928	7.928	4.437	4.437
179.014	-0.986	167.34	-12.66
3.638	3.638	15.499	15.499
41.01	41.01	163.762	-16.238
5.357	5.357	53.665	53.665
176.514	-3.486	145.571	-34.429

76.237	76.237
37.042	37.042
0	0
23.464	23.464
19.109	19.109
158.179	-21.821
176.91	-3.09
3.699	3.699
174.363	-5.637
177.123	-2.877
19.408	19.408
158.439	-21.561
160.373	-19.627
13.834	13.834
12.691	12.691
23.877	23.877
156.409	-23.591
37.095	37.095
177.144	-2.856
112.727	-67.273
162.856	-17.144
20.456	20.456
164.931	-15.069
130.587	-49.413
173.053	-6.947
166.291	-13.709
0.929	0.929
9.767	9.767
178.597	-1.403
156.428	-23.572
150.014	-29.986
1.293	1.293
159.781	-20.219
6.687	6.687



167.631	-12.369
175.66	-4.34
25.752	25.752
148.333	-31.667
132.166	-47.834
150.377	-29.623
171.719	-8.281
171.241	-8.759
151.597	-28.403
19.745	19.745
32.799	32.799
173.575	-6.425
8.26	8.26
135	-45
128.031	-51.969
144.821	-35.179
127.463	-52.537
21.244	21.244
31.93	31.93
7.947	7.947
32.671	32.671
6.407	6.407
163.191	-16.809
150.156	-29.844
152.577	-27.423
163.439	-16.561
171.051	-8.949
3.658	3.658
1.901	1.901
4.153	4.153
44.161	44.161
160.63	-19.37
154.066	-25.934
142.382	-37.618

127.924	-52.076
149.779	-30.221