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APPENDIX A: Grain Size Analysis

PCB 1:

Proportion Data:

Sieve Size (mm)	Stratum I	Stratum II	Stratum III	Stratum IV	Stratum V	Stratum VI	Stratum VII
>4	0%	2%	45%	11%	4%	2%	5%
>2	3%	5%	12%	7%	7%	3%	5%
>1	8%	16%	8%	9%	15%	9%	13%
> 0.5	9%	23%	7%	13%	18%	12%	15%
> 0.125	48%	40%	17%	38%	42%	42%	43%
> 0.0625	17%	8%	6%	11%	8%	19%	13%
silt/ clay	13%	6%	6%	11%	6%	14%	6%

Raw Weight (grams):

Sieve Size (mm)	Strat I	Strat II	Strat III	Strat IV	Strat V	Strat VI	Strat VII
>4	3	16	391	102	40	19	55
>2	27	49	103	72	72	25	51
>1	80	146	70	83	148	81	139
> 0.5	90	215	63	126	173	107	161
> 0.125	458	367	146	367	414	372	471
> 0.0625	166	73	48	110	82	166	140
silt/ clay	124	56	48	106	58	122	69
Total Sample Weight	950	924	870	966	988	894	1087
Weight After Analysis	948	922	869	966	987	892	1086
% Error	0.21%	0.22%	0.11%	0.00%	0.1%	0.22%	0.09%

PCB 2:

Proportion Data:

Sieve Size (mm)	Stratum I	Stratum II	Stratum III	Stratum Va	Stratum Vb	Stratum Vc	Stratum VI	Stratum VII
>4	1%	6%	56%	2%	7%	1%	45%	1%
>2	2%	5%	4%	3%	7%	2%	8%	1%
>1	4%	14%	7%	7%	10%	9%	5%	4%
> 0.5	9%	18%	7%	8%	11%	12%	8%	8%
> 0.125	47%	38%	16%	47%	47%	38%	25%	51%
> 0.0625	24%	9%	5%	22%	10%	26%	4%	22%
silt/ clay	13%	9%	5%	12%	8%	13%	4%	13%

Raw Weight (grams):

Sieve Size (mm)	Stratum I	Stratum II	Stratum III	Stratum Va	Stratum Vb	Stratum Vc	Stratum VI	Stratum VII
>4	5	60	846	21	64	5	584	13
>2	9	53	61	30	69	14	109	12
>1	22	141	104	78	98	80	67	50
> 0.5	53	184	102	92	101	105	109	88
> 0.125	272	386	245	532	445	327	321	572
> 0.0625	139	95	70	245	90	224	47	246
silt/ clay	73	87	71	132	71	116	50	150
Total Sample Weight	574	1006	1500	1130	939	872	1289	1132
Weight After Analysis	573	1006	1499	1130	938	871	1287	1131
% Error	0.17%	0.00%	0.07%	0.00%	0.11%	0.11%	0.16%	0.09%

PCB 3:

Proportion Data:

Sieve Size (mm)	Stratum I	Stratum IIa	Stratum IIb
> 4	42%	4%	6%
> 2	4%	3%	5%
> 1	9%	7%	10%
> 0.5	13%	13%	11%
> 0.125	24%	49%	43%
> 0.0625	5%	14%	14%
silt/clay	4%	10%	10%

Raw Weights (grams):

Size	Strat I	Strat IIa	Strat IIb
> 4	563	37	64
> 2	48	26	54
> 1	123	68	108
> 0.5	174	126	121
> 0.125	326	472	456
> 0.0625	66	133	153
silt/ clay	52	96	110
Total Sample Weight	1353	958	1068
Weight After Analysis	1352	958	1066
% Error	0.08%	0.0%	0.19%

APPENDIX B: Projectile Point Raw Data

FS/CAT #	MAX LENGTH (cm)	MAX WIDTH (cm)	BASAL WIDTH (cm)	MAX THICKNESS (cm)	WT (g)	TYPE	COMMENTS
393.14	3.1	1.2		0.3	1	DSN	
109.4	2	1.2		0.3	1	DSN	
123.89	5	2.2		0.7	8	FB	Finished Biface
63.51	5.5	1.7*		0.4	4	FB	Finished Biface
313.5	2.6	1.2		0.4	1	RG	
95.93	7.2*	3.1		0.5	14	UI	Possible Humboldt
326.71	2.1*	1.5		0.3	1	UI	Base broken; Possible Rosegate
217.4	5.6	2.7		0.5	10	FB	Finished Biface
123.75	4.7	2.7		0.6	8	FB	Finished Biface
195.22	5.2*	2.9		0.5	8	FB	Finished Biface
179.197	3.8	2.9*		0.5	4	UI	CT Preform
223.64	2*	1.7*		0.3	1	UI	Likely a Rosegate
393.39	2.5*	1.4		0.3	2	FB	Finished Biface
293.34	3.1	2.1*		0.5	4	LSN	
13.12	N/A	N/A		N/A	1	UI	
393.30	N/A	1.6	1.4*	0.5	2	UI	Likely a DSN
393.56	2.5	1.3		0.3	2	CT	Or small preform
234.4	N/A	3		0.3	8	UI	
42.116	3.9*	2.3		0.6	6	UI	
310.2	N/A	N/A	3.1	0.4	2	ECN	
19.249	N/A	2.1	2.1	0.4	2	UI	Possibly Bull Creek
95.148	3.1*	1.3	N/A	0.3	1	CT	Elongated Triangular Point
393.71	N/A	2*	1.4*	0.5	2	UI	Side notched
324.3	N/A	2.1	2.1	0.5	2	FB	Finished Biface
199.298	3.3	1.7	1.7	0.4	2	CT	
113.75	2.9*	2*	0.7	0.4	2	UI	Maybe Rosegate
267.19	2.5*	1.5*	N/A	0.4	2	UI	Triangular
393	N/A	2.2	2.2	0.5	2	UI	
229.65	2.7*	1.2*	N/A	0.4	1	UI	
299.2	3.5*	1.8*	N/A	0.4	2	UI	Likely LSN
32.63	4*	2.3	1.7	0.6	6	FB	Finished Biface
93.6	2.5*	1.7	N/A	0.4	2	UI	Broken Base, maybe CT

FS/CAT #	MAX LENGTH (cm)	MAX WIDTH (cm)	BASAL WIDTH (cm)	MAX THICKNESS (cm)	WT (g)	TYPE	COMMENTS
393.48	N/A	2.2	1.9	0.6	4	UI	Likely LSN or NSN
92.208	N/A	2.5*	N/A	0.2	2	UI	Likely ECN
24.127	N/A	1.5*	0.5*	0.2	1	UI	Likely EGES or RG
105.46	N/A	1.1	0.4*	0.4	1	UI	Likely a Rosegate
47.91	4.2*	2	N/A	0.6	4	FB	
166.5	4.1*	2.5	N/A	0.4	4	FB	Finished Biface
133.6	5.3*	2.8	2.8	0.7	14	FB	Finished Biface
199.34	2.8	1.2	N/A	0.3	1	CT	Triangular
54.5	4.5	2.4	N/A	0.7	8	FB	Large triangular
13.2	3.5	2	1.7	0.5	4	H	Or large triangular
22.19	3*	2	1.1	0.4	4	GCCS	
108.94	N/A	1.9	0.5*	0.2	1	UI	Probably Rosegate
179.157	N/A	2.3	2.3	0.3	2	UI	CT or other large triangular point
267.18	N/A	1.9	1.9*	0.5	4	FB	Finished Biface
383.63	5*	2.2	1.8*	0.4	8	UI	Likely ECN or EE
289.112	2.2*	1.1*	N/A	0.2	1	UI	Likely CT
160.151	2.5*	1.1	0.4*	0.3	2	UI	Likely a Rosegate
13.10	N/A	1.4	1.4	0.3	1	UI	Maybe CT?
197.230	2.5*	1.5*	N/A	0.4	2	UI	
355.38	2*	1.4*	0.9	0.3	1	ECN	
248.44	2.5*	1.7	N/A	0.3	4	FB	Finished Biface/ large triangular
113.5	3.3	3	2.4	0.8	8	FB	Finished Biface/ large triangular
19.298	5.1	2.7	N/A	0.8	12	FB	Finished Biface/ large triangular
119.69	3.5	2.2	N/A	0.7	4	FB	Finished Biface/ large triangular
108.31	N/A	1.6*	0.6	0.3	1	RG	
108.14	4.2	2.7	N/A	0.7	8	FB	Finished Biface
103.145	N/A	1.1*	0.4	0.3	1	UI	GCSS, but very light
123.46	2.8*	2	N/A	0.5	2	UI	CT or other large triangular point
182.37	N/A	1.2	1.2	0.2	1	NSN	OR ECN
357.45	N/A	2	0.2	0.2	1	UI	Possible CT
279.76	N/A	2.3	2.3	0.6	2	UI	
298.3	1.7	1.5	N/A	0.2	1	BC	OR CT

FS/CAT #	MAX LENGTH (cm)	MAX WIDTH (cm)	BASAL WIDTH (cm)	MAX THICKNESS (cm)	WT (g)	TYPE	COMMENTS
216.148	N/A	1.3	0.7*	0.3	1	UI	Rosegate or Parawan
185.56	N/A	2.1	2.1	0.4	2	UI	Possible CT
108.2	4.5*	2.2	N/A	0.7	10	FB	Finished Biface
108.42	N/A	1.9	1.9	0.3	1	UI	Side Notched
123.36	3.1*	1.7	N/A	0.6	4	FB	Finished Biface
92.206	N/A	2.2	2.2	0.5	2	UI	Side notch preform
198.69	N/A	2.2	2.2	0.4	2	UI	Possible CT
108.20	N/A	3	2.7	0.4	2	ECN	
316.16	N/A	1.2	0.4*	0.3	1	UI	
22.227	N/A	1.2	0.4*	0.4	1	UI	Probably Rosegate
170.180	N/A	1.3	N/A	0.2	1	UI	Maybe CT?
289.113	N/A	1.3	N/A	0.2	1	CT	
47.80	N/A	1.8	N/A	0.3	2	UI	Triangular
268.362	N/A	1.6*	N/A	0.3	2	UI	Probably a CT
256.101	2.9	1.7	N/A	0.4	2	CT	Or other large triangular point
177.50	N/A	1.7*	1.5*	0.5	2	UI	Probably ECN
161.132	N/A	1.2	0.5*	0.3	1	UI	Probably Rosegate
393.15	3	N/A	N/A	0.2	1	UI	
45.39	N/A	1.5	N/A	0.2	1	CT	
393.21	2.9	N/A	0.9	0.3	1	EGES	OR Rosegate
92.227	N/A	1.5	N/A	0.7	4	FB	Stem or Blade or not a ppt
288.14	1.8	N/A	0.5	0.2	1	RG	OR EGES
349.8	N/A	1.5	N/A	0.4	2	FB	Stem or Blade or not a ppt
238.23	N/A	1.3	N/A	0.2	1	UI	Probably CT
107.149	2.3*	1.2	N/A	0.3	1	CT	
37.169	2.3	1.5	N/A	0.3	1	CT	
29.18	2	1.5	0.4	0.3	1	EGES	OR Parowan?
6.9	3.2	1.3	1	0.5	2	RG	
21.24	2.2*	1.2*	0.6	0.2	1	RG	
358.60	1.6	0.8	0.8	0.2	1	NSN	
393.26	2.2*	1.4	0.5	0.3	1	RG	
88.78	2.6*	1	1*	0.3	1	NSN	
19.298	1.6*	1.3	0.6*	0.2	1	UI	
198.230	2.2	2.7	0.7	0.45	1	EGES	

FS/CAT #	MAX LENGTH (cm)	MAX WIDTH (cm)	BASAL WIDTH (cm)	MAX THICKNESS (cm)	WT (g)	TYPE	COMMENTS
95.147	1.4*	1.1	1.1	0.3	1	UI	Resharpener EE?
93.4	2.1*	1	0.5*	0.3	1	UI	Likely a Rosegate
358.1	2	1.5	0.6	0.3	1	RG	
393.16	N/A	1.2	0.6*	0.3	1	UI	Probably RG
105.111	2.7*	1.9	1	0.3	1	UI	Probably Elko; Base Resharpener from previous form
123.38	N/A	N/A	0.6	0.3	1	RG	
123.31	N/A	1.4	0.6	0.3	1	UI	Probably Rosegate
309.37	N/A	0.8	0.3*	0.3	1	UI	Probably Rosegate
48.61	3.4*	1.6	0.6	0.4	2	RG	
1.152	2.1	1.8	0.8	0.4	1	RG	Ugly, but still a RG
235.43	3.6	2.9	N/A	0.4	2	UI	Probably CT
179.200	2.2*	N/A	0.5	0.5	2	RG	
11.57	2.2	1.9	1.9	0.5	2	CT	A little thick
83.42	2.1	1.5	1.5	0.3	1	CT	
1.1A	2.3*	1.4	0.6	0.4	1	RG	
198.226	2.2	1.3	1.3	0.3	1	CT	
338.4	N/A	1.6	N/A	0.4	2	FB	Maybe blade
393.18	2.2*	1.3	0.5	0.4	1	RG	
197.77	3	1.6*	N/A	0.4	1	CT	
393.28	1.8	1.4	0.7	0.3	1	RG	
61.21	2.4	0.6	0.6	0.4	1	UI	Single SN see Marwitt p. 43
69.158	N/A	1.1	0.6	0.3	1	RG	
170.168	2.6*	1.8	N/A	0.4	2	CT	
29.20	2.6	1.5	0.6	0.2	1	RG	
261.50	5	1.8	N/A	0.6	6	FB	Finished Biface
108.33	2.6	1.8*	0.7	0.4	1	RG	
185.212	2.6	1.9	N/A	0.4	2	FB	Maybe CT?
393.17	N/A	1.5	N/A	0.4	1	UI	Probably CT
393.13	N/A	3	1.8	0.5	6	EE	
108.30	N/A	2.2	1.2	0.4	2	UI	Gatecliff or Elko?
393.47	2.7*	1.5	N/A	0.6	2	FB	Finished Biface
185.249	3.6*	2.3	1.5	0.4	4	ECN	

FS/CAT #	MAX LENGTH (cm)	MAX WIDTH (cm)	BASAL WIDTH (cm)	MAX THICKNESS (cm)	WT (g)	TYPE	COMMENTS
100.22	N/A	1.3	0.5*	0.3	1	UI	Probably Rosegate
353.14	3.5*	2.1	1.6	0.5	6	UI	Preform for a large side notch
393.29	1.6	1.1	0.6	0.2	1	RG	
26.103	2.2	1.1*	0.6*	0.2	1	UI	Probably Rosegate
29.41	2.2	1.2*	1*	0.2	1	DSN	
359.52	2.1	1.3*	0.6	0.3	1	RG	
100.29	2.8	1.9	N/A	0.5	2	UI	Maybe CT?
358.15	N/A	2.4	1.4*	0.4	2	EE	partially broken haft
209.40	2.8	1.5	N/A	0.4	2	SN	Single SN see Marwitt p. 43
109.60	2.4	1.4*	0.4	0.3	2	GCCS	Or Rosegate, but has CS
24.96	N/A	1.6	N/A	0.4	2	FB	CTL?
13.8	N/A	2.5	N/A	0.4	2	UI	Triangular
364.82	N/A	1.6	1.6	0.5	2	SN	
172.51	N/A	1.2	N/A	0.4	2	UI	Probably CT
220.77	2.6	1.7	N/A	0.5	2	CT	
354.5	1.9	1.6	N/A	0.4	1	CT	
103.111	2.1	1.1*	1.1*	0.3	1	SN	Nawthis Side-notched? Or Large Side-notched
77.30	2	1.6	N/A	0.5	1	CT	Thick
359.47	N/A	1.4	0.7	0.3	1	RG	
113.76	2.6*	1.2	N/A	0.2	1	FB	Finished Biface
142.198	3.6	2.3*	1.2	0.4	2	UI	Gatecliff Split Stem or EE
108.23	3.1	1.7	N/A	0.5	2	UI	Probably CT
315.2	4.4	3	N/A	0.5	6	UI	Not a ppt
235.31	3*	1.7	0.9	0.5	4	GCCS	
148.26	N/A	1.2	0.4	0.2	1	UI	Probably Rosegate
108.47	N/A	2.1	1.2*	0.4	2	UI	Probably Elko
39.57	N/A	1.9	N/A	0.5	2	CT	Bad material
249.53	N/A	1.5	N/A	0.5	2	FB	Stemmed Point
24.128	1.7	1	0.8	0.2	1	RG	
138.112	N/A	0.9	0.3*	0.3	1	UI	Probably Rosegate

FS/CAT #	MAX LENGTH (cm)	MAX WIDTH (cm)	BASAL WIDTH (cm)	MAX THICKNESS (cm)	WT (g)	TYPE	COMMENTS
275.32	3	1.5	N/A	0.3	2	FB	CT?
344.10	N/A	1.4	N/A	0.3	1	CT	Or larger triangular
47.107	N/A	1.7	N/A	0.3	1	FB	
108.32	2.2	1.1	N/A	0.3	1	CT	

APPENDIX C: Results of OSL analysis

All analyses area based on coarse grains of quartz (90-125 μ m).

Averaged dates

sample ID	Lab ID	n *	Equivalent dose (Gy)	Error (\pm)	BC/A D	Date	Date (error)	Error term*	Age model	Over dispersion (%)**
FS183.33	LB1245	1	1.99	0.07	AD	1264	62	3.2%	single	N/A
FS289.12	LB1246	2	3.11	0.16	AD	1138	72	3.7%	central	6.0%
FS69.110	LB1247	3	4.55	0.18	AD	916	129	6.8%	central	5.8%
FS348.109	LB1248	2	3.84	0.13	AD	534	119	6.3%	common	N/A
FS69.121	LB1249	2	2.30	0.24	AD	1339	84	4.4%	common	N/A
FS183.24	LB1250	3	2.03	0.04	AD	1279	46	2.3%	central	1.9%
FS179.243	LB1251	3	2.47	0.16	AD	1084	81	4.2%	central	9.7%
FS183.45	LB1252	1	2.85	0.07	AD	1192	56	2.9%	single	N/A

*n: number of aliquots analyzed.

** : Overdispersion based on 1 sigma.

Luminescence measurements

Sample ID	Lab ID	disk	Equivalent dose (Gy)	Error (\pm)	Ages (ka)	Error (\pm)(ka)	Error term*	BC/AD	Date	Date (error)
FS183.33	LB1245	1	1.99	0.07	1.953	0.062	3.2%	AD	1264	62
FS289.12	LB1246	1	2.88	0.13	1.951	0.064	3.3%	AD	1204	64
FS289.12	LB1246	2	3.33	0.12	1.946	0.069	3.5%	AD	1078	69
FS289.12	LB1246	average	3.11	0.16	1.943	0.072	3.7%	AD	1138	72
FS69.110	LB1247	1	4.15	0.14	1.900	0.115	6.1%	AD	1014	115
FS69.110	LB1247	2	4.81	0.16	1.881	0.134	7.1%	AD	853	134
FS69.110	LB1247	3	4.73	0.17	1.883	0.132	7.0%	AD	872	132
FS69.110	LB1247	average	4.55	0.18	1.886	0.129	6.8%	AD	916	129
FS348.109	LB1248	1	3.90	0.21	1.878	0.137	7.3%	AD	512	137
FS348.109	LB1248	2	3.80	0.16	1.891	0.124	6.6%	AD	549	124
FS348.109	LB1248	average	3.84	0.13	1.896	0.119	6.3%	AD	534	119
FS69.121	LB1249	2	1.97	0.34	1.909	0.106	5.6%	AD	1435	106

FS69.1 21	LB12 49	3	2.53	0.34	1.905	0.11	5.8%	AD	1273	110
FS69.1 21	LB12 49	avera ge	2.30	0.24	1.931	0.084	4.4%	AD	1339	84
FS183. 24	LB12 50	1	1.99	0.04	1.969	0.046	2.3%	AD	1294	46
FS183. 24	LB12 50	2	2.01	0.03	1.969	0.046	2.3%	AD	1288	46
FS183. 24	LB12 50	3	2.61	0.19	1.926	0.089	4.6%	AD	1070	89
FS183. 24	LB12 50	avera ge	2.03	0.04	1.969	0.046	2.3%	AD	1279	46
FS179. 243	LB12 51	1	2.63	0.13	1.939	0.076	3.9%	AD	1024	76
FS179. 243	LB12 51	2	2.10	0.12	1.95	0.065	3.3%	AD	1223	65
FS179. 243	LB12 51	3	2.70	0.13	1.937	0.078	4.0%	AD	999	78
FS179. 243	LB12 51	avera ge	2.47	0.16	1.934	0.081	4.2%	AD	1084	81
FS183. 45	LB12 52	2	2.85	0.07	1.959	0.056	2.9%	AD	1192	56

*Error term: Error (ka)/Age (Ka)