

TABLE SD1: TIMS-ID ZIRCON ISOTOPIC AGE DATA

			Concentrations (ppm)		Atomic ratios*=radiogenic				Isotopic ages (Ma)		
Sample	Fraction ( $\mu\text{m}$ ) a=abraded	Amount Analyzed (mg)	$^{238}\text{U}$	$^{206}\text{Pb}^*$	$\frac{^{206}\text{Pb}}{^{204}\text{Pb}}$	$\frac{^{206}\text{Pb}^*}{^{238}\text{U}}$	$\frac{^{207}\text{Pb}^*}{^{235}\text{U}}$	$\frac{^{207}\text{Pb}^*}{^{235}\text{U}}$	$\frac{^{206}\text{Pb}^*}{^{238}\text{U}}$	$\frac{^{207}\text{Pb}^*}{^{235}\text{U}}$	$\frac{^{207}\text{Pb}^*}{^{206}\text{Pb}^*}$
<b>Erskine Canyon Sequence</b>											
E1	<45	0.5	724	10.3	2733	0.01637(08)	0.1085	0.04806(05)	104.7	104.6	103
	45-63	0.8	689	9.7	3102	0.01629(08)	0.1082	0.04817(06)	104.2	104.4	108
E2	<45	1.4	1063	15.1	2315	0.01641(14)	0.1093	0.04832(14)	104.9	105.3	115
	45-63	3.3	1045	15.0	971	0.01657(15)	0.1104	0.04839(17)	105.9	106.3	118
	63-80	2.0	837	12.0	893	0.01653(16)	0.1106	0.04851(19)	105.7	106.5	124
E3	<45	3.0	307	4.4	1794	0.01649(15)	0.1099	0.04834(17)	105.5	105.9	116
	45-63	4.1	392	5.6	1513	0.01655(16)	0.1107	0.04853(19)	105.9	106.7	125
	63-80	11.8	453	7.2	1487	0.01661(14)	0.1116	0.04873(19)	106.3	107.5	135
	80-120	8.4	478	7.9	880	0.01899(17)	0.1485	0.05673(23)	121.3	140.5	480
E4	<45	1.2	552	7.8	4231	0.01624(08)	0.1077	0.04810(05)	103.9	103.9	104
	45-63	1.9	461	6.5	2902	0.01628(08)	0.1081	0.04814(06)	104.1	104.2	106
E5	<45	3.9	993	13.3	1921	0.01544(15)	0.1039	0.04882(15)	98.8	100.4	139
	45-63	4.5	814	11.0	2205	0.01562(15)	0.1050	0.04874(14)	99.9	101.4	136
	63-80	7.2	796	10.8	1843	0.01568(15)	0.1075	0.04973(15)	100.3	103.6	135
	<45a	1.1	801	11.2	4739	0.01613(08)	0.1082	0.04864(06)	103.1	104.3	131
	45-63a	2.3	713	10.0	3901	0.01626(08)	0.1104	0.04923(06)	104.0	106.4	159
	63-80a	1.1	629	9.0	3578	0.01654(09)	0.1149	0.05037(07)	105.8	110.5	212
	80-100a	0.6	572	8.4	2983	0.01687(09)	0.1198	0.05149(06)	107.9	114.9	263
E6	<45	1.9	501	7.2	1247	0.01652(15)	0.1116	0.04901(14)	105.7	107.5	148
	45-63	3.4	375	5.6	621	0.01716(16)	0.1222	0.05167(18)	109.7	117.1	271
	63-80	3.1	308	5.0	538	0.01860(16)	0.1442	0.05626(22)	118.8	136.8	462
	80-100	2.4	289	6.3	490	0.02508(24)	0.2517	0.07279(31)	159.7	228.0	1008
<b>Intrusive Suite of the Kern River</b>											
K1	<45	1.1	791	11.2	7920	0.01637(07)	0.1085	0.04809(05)	104.7	104.6	104
	45-63	1.2	613	8.7	6375	0.01647(08)	0.1094	0.04818(05)	105.3	105.5	108
K2	<45	0.9	710	10.0	8593	0.01623(08)	0.1078	0.04816(04)	103.8	104.0	107
	45-63	1.3	667	9.4	7615	0.01634(08)	0.1086	0.04820(05)	104.5	104.7	109
K6	<45	0.9	535	7.5	4992	0.01613(06)	0.1071	0.04815(05)	103.2	103.3	107
K7	<45	1.2	471	6.6	6501	0.01618(08)	0.1083	0.04856(04)	103.5	104.4	127
	45-63	1.3	436	6.1	7825	0.01625(08)	0.1095	0.04889(05)	103.9	105.5	143
	63-80	1.1	391	5.9	6913	0.01648(10)	0.1132	0.04982(06)	105.6	108.8	187

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	80-100	1.2	314	4.6	5199	0.01687(08)	0.1198	0.05152(07)	107.9	114.8	264
K8	<45	0.8	613	8.5	10019	0.01602(08)	0.1064	0.04817(04)	102.5	102.6	108
	46-63	1.0	571	8.0	9415	0.01611(08)	0.1071	0.04822(05)	103.0	103.7	110
	63-80	0.9	501	7.0	8923	0.01622(09)	0.1083	0.04844(06)	103.7	104.4	121
K9	<45	0.7	1047	14.5	5321	0.01598(06)	0.1059	0.04807(05)	102.2	102.2	103
	45-63	0.8	916	12.6	4902	0.01609(07)	0.1079	0.04814(06)	102.9	104.0	106
<b>Intrusive Suite of Bear Valley</b>											
B1	45-63	0.8	916	12.6	4902	0.01625(07)	0.1079	0.04814(06)	102.9	104.0	106
	<45	0.6	291	4.0	8349	0.01591(10)	0.1055	0.04808(04)	101.8	101.9	103
B2	<45	0.9	557	7.6	6257	0.01573(07)	0.1041	0.04801(05)	100.7	100.6	100
B4	<45	1.0	651	8.9	6105	0.01587(07)	0.1052	0.04809(05)	101.5	101.7	104
	45-63	1.2	603	8.3	5949	0.01599(07)	0.1064	0.04824(06)	102.3	102.8	111
	63-80	1.1	521	7.3	5405	0.01608(08)	0.1073	0.04838(06)	102.9	103.6	118
	80-100	0.9	487	6.8	4721	0.01616(08)	0.1081	0.04853(06)	103.4	104.2	125
B8	<45	1.9	548	7.3	9973	0.01540(08)	0.1019	0.04800(04)	98.5	98.5	99
	45-63	1.7	501	6.7	8551	0.01545(07)	0.1023	0.04805(05)	98.8	98.9	102
B9	<45	0.8	743	10.0	7587	0.01562(06)	0.1035	0.04808(05)	99.9	101.1	103
	45-63	0.9	681	9.2	7101	0.01568(08)	0.104	0.04812(05)	100.3	101.5	105
<b>Intrusive Suite of the Needles</b>											
N2	<45	1.8	401	5.4	7291	0.01568(10)	0.1037	0.04801(05)	100.3	100.2	100
	45-63	2.1	381	5.2	7401	0.01579(09)	0.1045	0.04799(05)	101.0	100.9	99
N3	<45	1.1	591	7.9	8915	0.01535(08)	0.1016	0.04800(04)	98.2	98.3	99
	45-63	1.3	463	6.2	8107	0.01544(08)	0.1024	0.04808(05)	98.8	99.0	103
N4	<45	0.9	729	9.7	9291	0.01532(07)	0.1015	0.04804(05)	98.0	98.2	101
	45-63	1.3	671	8.9	8954	0.01542(07)	0.1020	0.04801(04)	98.6	98.6	99
N8	<45	0.8	945	12.3	7599	0.01492(06)	0.0986	0.04793(05)	95.9	95.5	96
	45-63	1.2	903	11.8	7100	0.01513(07)	0.1003	0.04808(06)	96.8	97.1	103
	63-45	1.1	841	11.0	6225	0.01511(07)	0.1004	0.04818(07)	96.7	97.1	108
<b>Intrusive Suite of the South Fork</b>											
S1	<45	0.6	431	5.8	6759	0.01557(08)	0.1031	0.04802(04)	99.6	99.7	100
S3	<45	1.3	685	9.2	8945	0.01544(08)	0.1022	0.04799(05)	98.8	98.8	99
	45-63	1.5	599	8.0	8102	0.01551(09)	0.1026	0.04796(05)	99.2	99.1	98
S4	<45	0.9	579	7.7	6997	0.01528(08)	0.1010	0.04795(05)	97.8	97.8	97
	45-63	1.1	521	6.9	6129	0.01540(09)	0.1020	0.04804(06)	98.5	98.7	101
S5	<45	0.8	602	7.9	7105	0.01512(08)	0.1000	0.04797(04)	96.7	96.8	98
	45-63	1.0	559	7.4	6339	0.01521(08)	0.1006	0.04795(05)	97.3	97.4	97

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<b>Intrusive Suite of the Domelands</b>											
D2	<45	1.2	791	10.0	12551	0.01459(07)	0.0964	0.04791(04)	93.4	93.5	95
	45-63	1.4	726	9.3	10205	0.01478(07)	0.0977	0.04795(04)	94.6	94.7	97
	45-63a	1.2	631	8.1	11103	0.01482(07)	0.0979	0.04793(04)	94.8	94.9	96
	63-80	0.9	591	7.6	9651	0.01481(07)	0.0978	0.04791(04)	94.7	94.8	95
D5	<45	0.8	752	9.4	10521	0.01451(07)	0.0969	0.04842(04)	92.9	93.9	120
	45-63	1.2	621	7.8	9059	0.01458(07)	0.0983	0.04889(05)	93.3	95.8	143
	63-80	1.1	545	7.0	8716	0.01491(08)	0.1025	0.04986(05)	95.4	99.1	189
	80-100	0.9	501	6.6	7199	0.01527(08)	0.1081	0.05134(06)	97.7	104.2	256
D9	<45	1.1	902	10.7	12205	0.01392(05)	0.0917	0.04779(03)	89.1	89.1	89
	45-63	1.0	813	9.8	10613	0.01395(06)	0.0919	0.04777(04)	89.3	89.3	88
D10	<45	1.1	695	8.3	8994	0.01387(07)	0.0914	0.04779(04)	88.8	88.8	89
	45-63	1.3	602	7.3	8152	0.01393(07)	0.0917	0.04775(04)	89.2	89.1	87
D11	<45	0.9	751	8.8	7753	0.01357(06)	0.0893	0.04774(04)	86.9	86.9	87
	45-63	1.2	695	8.2	6905	0.01363(07)	0.0898	0.04779(05)	87.2	87.3	89
D12	<45	1.3	813	9.5	8351	0.01348(06)	0.0887	0.04771(04)	86.3	86.3	85
	45-63	1.1	779	9.0	8006	0.01341(06)	0.0884	0.04779(04)	85.9	86.0	89
D13	<45	1.3	922	10.7	12399	0.01340(06)	0.0883	0.04777(04)	85.9	86.0	88
	45-63	1.4	894	10.4	10102	0.01338(07)	0.0880	0.04771(04)	85.7	85.7	85
	45-63a	1.1	801	9.3	11791	0.01343(07)	0.0884	0.04775(04)	86.0	86.0	87
	63-80	1.2	717	8.3	10215	0.01341(07)	0.0882	0.04769(04)	85.9	85.9	84