

## APPENDIX A: Tables A1-A3

**Table A1: Mineral Samples from Our Collection (SSI)**

<b>Mineral Samples (SSI)</b>	<b>Locations</b>	<b>Collector/ Mineral Dealer</b>	<b>Analyzed Mineral</b>
hc7	unknown	unknown	quartz
lc3	unknown	unknown	quartz
lc6	unknown	unknown	albite
s183r12dj	Montana	DJ Minerals	hedenbergite
s183r2dj	Montana	DJ Minerals	diopside
s185r1dj	Madagascar	DJ Minerals	labradorite
s189r1dj	Canada	DJ Minerals	albite
s192r1dj	Colorado	DJ Minerals	orthoclase
s194r1dj	Wyoming	DJ Minerals	anorthite
s199r2dj	AZ	DJ Minerals	olivine
s227r2	unknown	DJ Minerals	muscovite
s227r4	unknown	DJ Minerals	microcline
s227r5	unknown	DJ Minerals	quartz
s54r1rk	S. Dakota	DJ Minerals	quartz
s54r2rk	S. Dakota	DJ Minerals	muscovite
s56r1rk	Mattawa, Ontario, Canada	DJ Minerals	albite
s57r1rk	Cannon City, Fremont County, Colorado	DJ Minerals	microcline
s58r2rk	Bancroft, Ontario, Canada	DJ Minerals	biotite
s59r1rk	Ontario, Canada	DJ Minerals	augite
s60r1rk	Ontario, Canada	DJ Minerals	olivine
s66r1rk	Otter Lake, Quebec, Canada	DJ Minerals	diopside
s70r1rk	Eddy County, New Mexico	DJ Minerals	gypsum

**Table A2: Mineral Spectra from RRUFF Website**

<b>Mineral Samples (RRUFF)</b>	<b>Minerals Confirmed</b>
R040068	albite
R040129	albite
R050253	albite
R050402	albite
R060054	albite
R070268	albite
R100169	albite
R040059	anorthite
R050104	anorthite
R060082	anorthite
R060193	anorthite
R060221	anorthite
R060275	anorthite
R070510	anorthite
R070598	anorthite
R100170	anorthite
R061086	augite
R061108	augite
R070231	augite
R040009	diopside
R040097	diopside
R050406	diopside
R050496	diopside
R050666	diopside
R060061	diopside
R060085	diopside
R060171	diopside
R060276	diopside
R060861	diopside
R070123	diopside
R090046	diopside
R120003	diopside
R070157	fayalite
R070293	fayalite
R070374	fayalite
R100102	fayalite
R100103	fayalite
R100104	fayalite

R040018	forsterite
R040052	forsterite
R040057	forsterite
R050117	forsterite
R060535	forsterite
R060539	forsterite
R060551	forsterite
R100099	forsterite
R100100	forsterite
R100101	forsterite
R100140	forsterite
R040029	gypsum
R060509	gypsum
R050030	hedenbergite
R060040	hedenbergite
R070136	hedenbergite
R070236	hedenbergite
R040154	microcline
R050054	microcline
R050150	microcline
R050193	microcline
R120005	microcline
R040104	muscovite
R040108	muscovite
R040124	muscovite
R050080	muscovite
R050188	muscovite
R050198	muscovite
R060182	muscovite
R060266	muscovite
R061120	muscovite
R100147	muscovite
R040055	orthoclase
R050185	orthoclase
R050367	orthoclase
R060077	orthoclase
R070001	orthoclase
R040031	quartz
R050125	quartz
R060604	quartz
R100134	quartz

R110104	quartz
R110108	quartz
R150074	quartz
R150091	quartz
X080015	quartz
X080016	quartz

**Table A3: Multi-Mineral (Rock) Samples from Our Collection (SSI)**

Multi-Mineral Samples (SSI)	Collection Site	Collector	Hand Sample Analysis	Classifier Results (bold=correct ID)
s91r8vg	?	Virginia Gulick	quartz; calcite 90%; fossil	pyroxene(0.39) olivine(0.07) k_feldspar(0.15)
s113r2vg	Ellison Creek, AZ	Virginia Gulick	plagioclase; quartz 50-100%; kspar 0-50%	pyroxene(0.34) olivine(0.07) <b>k_feldspar(0.13)</b>
s164r3vg	E. of Grand Canyon, AZ	Virginia Gulick	plagioclase; quartz 50%; kspar; calcite 10-20%; mud	pyroxene(0.36) olivine(0.06)
s169r2vg	near Grand Falls, AZ	Virginia Gulick	plagioclase; quartz 50%; kspar; calcite 10%; mud; hematite 1%	pyroxene(0.28) olivine(0.06) <b>plagioclase(0.07)</b>
s0r1	Bay area, CA	Virginia Gulick	plagioclase 20-30%; quartz 15-30%; kspar 20-30%; mica 20-30%; epidote 1%; biotite 20%	pyroxene(0.28) <b>k_feldspar(0.22) quartz(0.11)</b> <b>mica(0.08) plagioclase(0.22)</b>
s0r2	Bay area, CA	Virginia Gulick	plagioclase 20-30%; quartz 25-40%; kspar 20-30%; hornblende 5-10%; mica 2-3%; biotite 2%	pyroxene(0.25) <b>k_feldspar(0.14) quartz(0.04)</b> <b>plagioclase(0.12)</b>
s106r14sh	Yosemite Valley, CA	Shawn Hart	plagioclase 20-25%; quartz 0-5%; kspar 5-10%; hornblende 45-50%; mica 15-20%	pyroxene(0.31) olivine(0.09) <b>k_feldspar(0.13)</b>
s107r2sh	Yosemite Valley, CA	Shawn Hart	plagioclase 30-40%; quartz 20-30%; kspar 10-20%; hornblende 10%; mica 15%; pyroxene 1%	<b>k_feldspar(0.3) quartz(0.12)</b> <b>mica(0.09) plagioclase(0.37)</b>
s108r1sh	Yosemite Valley, CA	Shawn Hart	plagioclase 30-50%; quartz 5-20%; kspar 0-10%; hornblende 5%; mica 25-35%; biotite 25%	olivine(0.06) <b>k_feldspar(0.15)</b> <b>mica(0.13) plagioclase(0.6)</b>

s108r3sh	Yosemite Valley, CA	Shawn Hart	plagioclase 25-40%; quartz 5-10%; kspar 5-10%; hornblende 40-45%; mica 5-30%; muscovite 1%; biotite 5-30%	pyroxene(0.39) <b>k_feldspar(0.2)</b>
s108r8sh	Yosemite Valley, CA	Shawn Hart	plagioclase 20-50%; quartz 10-15%; kspar 5-10%; hornblende 45-55%; mica 10-20%; unknown; biotite 10-20%	pyroxene(0.32) olivine(0.1) <b>k_feldspar(0.21)</b>
s113r6vg	Yosemite Valley, CA	Virginia Gulick	plagioclase; quartz 50-100%; kspar 0-50%	pyroxene(0.32) olivine(0.08) <b>k_feldspar(0.13)</b>
s13r10vg	Bear Valley, CA	Virginia Gulick	plagioclase 15-50%; quartz 25-30%; kspar 20-45%; hornblende 5-10%; mica 2-15%; hematite 1%; biotite 2-5%	pyroxene(0.26) olivine(0.07) <b>k_feldspar(0.2) mica(0.07) plagioclase(0.13)</b>
s148r3sh	Mt. Shasta, CA	Shawn Hart	plagioclase 5-40%; quartz 20-40%; kspar 10-50%; hornblende 10%; mica 10%; biotite 10%	pyroxene(0.24) k_feldspar(0.21) <b>mica(0.06) plagioclase(0.1)</b>
s14r1vg	Near Pinnacles NP, CA	Virginia Gulick	plagioclase 5%; quartz 2%; hornblende 1-2%	<b>quartz(0.08) mica(0.08) plagioclase(0.14)</b>
s153r12sh	Sierra Nevada, CA	Shawn Hart	plagioclase 20-40%; quartz 5-10%; mica 5-30%; biotite 5-10%	pyroxene(0.23) olivine(0.07) <b>mica(0.06) plagioclase(0.09)</b>
s15r5vg	Near Pinnacles NP, CA	Virginia Gulick	plagioclase 20-35%; quartz 25-40%; kspar 30-35%; mica 1-5%; muscovite 1-3%; biotite 1-2%	<b>k_feldspar(0.23) quartz(0.09) plagioclase(0.16)</b>
s176r5vg	Mt. Lassen, CA	Virginia Gulick	plagioclase 15%	olivine(0.08) k_feldspar(0.2) mica(0.09) <b>plagioclase(0.55)</b>

s17r1sh	San Bernadino Co., CA	Shawn Hart	plagioclase 20-25%; quartz 20%; kspar 45-50%; mica 7-10%	pyroxene(0.22) <b>k_feldspar(0.36) quartz(0.04) plagioclase(0.23)</b>
s22r1sh	Yuba River, CA	Shawn Hart	plagioclase 10-60%; quartz 15-35%; kspar 10-30%; mica 1-20%; muscovite 15-20%; hornblende 3-5%; biotite 1%	<b>k_feldspar(0.31) plagioclase(0.26)</b>
s22r8sh	Yuba River, CA	Shawn Hart	plagioclase 40-45%; quartz 5-7%; kspar 10%; hornblende 30%; mica 10%; epidote 1%	pyroxene(0.4) olivine(0.07) <b>k_feldspar(0.51) plagioclase(0.1)</b>
s23r1rk	Tehachapi mountains, Kern County, CA	DJ Minerals	plagioclase 2%; quartz 1%; mica 2-3%; tuff 5%	k_feldspar(0.23) <b>quartz(0.04) mica(0.2) plagioclase(0.52)</b>
s249r4uk	CA	Shawn Hart	plagioclase 35%; quartz 20%; kspar; mica 45%	<b>k_feldspar(0.34) quartz(0.11) mica(0.07) plagioclase(0.46)</b>
s249r5uk	CA	Shawn Hart	plagioclase 30-40%; quartz 10-20%; mica 50%	pyroxene(0.21) <b>mica(0.13) plagioclase(0.38)</b>
s26r1rk	Pisgah Crater, San Bernardino County, CA	DJ Minerals	plagioclase 2%; olivine 5%; pyroxene 1%	<b>olivine(0.09) mica(0.15) gypsum(0.05) plagioclase(0.38)</b>
s27r1rk	Bishop, Inyo County, CA	DJ Minerals	plagioclase 1%; quartz 3%; sanidine 1%; ash 5%	mica(0.1) <b>plagioclase(0.26)</b>
s28r1rk	Duluth, Minnesota	DJ Minerals	plagioclase 5-15%; mica 20%; pyroxene 65-75%	<b>pyroxene(0.61) olivine(0.08) k_feldspar(0.26)</b>
s29r1rk	San Gabriel Mountains, LA County, CA	DJ Minerals	plagioclase 60%; quartz 5%; kspar 2-5%; hornblende 20-23%; mica 5-7%	olivine(0.06) <b>kspar(0.2) mica(0.12) plagioclase(0.59)</b>
s31r1rk	Mt. Islip, San Gabriel Mountains, LA County, CA	DJ Minerals	plagioclase 5-10%; quartz 15-20%; kspar 55-65%; mica 10-15%	pyroxene(0.26) <b>kspar(0.23) quartz(0.26) mica(0.19) plagioclase(0.14)</b>

s31r2rk	Mt. Islip, San Gabriel Mountains, LA County, CA	DJ Minerals	plagioclase 35-45%; quartz 25-30%; kspar 5-10%; hornblende 5%; mica 15-20%	<b>kspar(0.27) plagioclase(0.16)</b>
s32r1rk	Nevada Mountains, Inyo County, CA	DJ Minerals	plagioclase 35%; quartz 5-10%; kspar 30-35%; hornblende 10%; mica 5-10%	pyroxene(0.33) olivine(0.07) <b>kspar(0.33) plagioclase(0.06)</b>
s34r1sh	South Yuba	Shawn Hart	plagioclase 30%; quartz 5%; kspar 5%; mica 60%	pyroxene(0.47) olivine(0.1) <b>kspar(0.18)</b>
s34r2sh	South Yuba	Shawn Hart	plagioclase 7-10%; quartz 0-5%; mafic 90%	pyroxene(0.52) olivine(0.07) kspar(0.15)
s34r9sh	South Yuba	Shawn Hart	plagioclase 30-50%; pyroxene 60-70%; olivine 5-10%; quartz 10-20%; kspar 10-25%; hornblende 5%; biotite 1-3%	<b>pyroxene(0.41) kspar(0.33)</b> mica(0.06) <b>plagioclase(0.14)</b>
s35r3sh	North San Juan, CA	Shawn Hart	plagioclase 40-60%; quartz 5-10%; kspar 5-20%; hornblende 5-20%; mica 5-10%; biotite 5-10%	<b>kspar(0.29) quartz(0.05)</b> <b>mica(0.06) plagioclase(0.28)</b>
s37r1sh	Yuba River, CA	Shawn Hart	plagioclase; quartz 2-5%; kspar 35%; hornblende 60%; pyrite 1%	pyroxene(0.48) <b>kspar(0.2)</b> <b>plagioclase(0.09)</b>
s50r9sh	Clear Lake, CA	Shawn Hart	plagioclase; quartz; kspar; lithics; pebble; sand; mud	pyroxene(0.36) olivine(0.07) <b>kspar(0.14)</b>
s5r1sh	Bowman Lake, CA	Shawn Hart	plagioclase 30-60%; quartz 5%; kspar 35%; hornblende 20%; fe oxide 10%	pyroxene(0.36) olivine(0.06) <b>kspar(0.23)</b>
s71r2rk	San Gabriel Mountains, LA County, CA	DJ Minerals	plagioclase 25-40%; quartz 20-40%; kspar 10-20%; hornblende 10%; mica 20%	<b>kspar(0.31) quartz(0.04)</b> <b>plagioclase(0.15)</b>

s71r3rk	San Gabriel Mountains, LA County, CA	DJ Minerals	plagioclase 40-50%; quartz 5%; kspar 0-10%; hornblende 40-50%	olivine(0.07) <b>kspar(0.12)</b> mica(0.08) <b>plagioclase(0.3)</b>
s71r5rk	San Gabriel Mountains, LA County, CA	DJ Minerals	plagioclase 60%; kspar 5%; quartz 5%; epidote 1%; mica 5%; hornblende 25%	olivine(0.13) <b>kspar(0.19)</b> <b>quartz(0.06)</b> mica(0.16) gypsum(0.07) <b>plagioclase(0.25)</b>
s72r1rk	Cartago, Inyo County, CA	DJ Minerals	plagioclase 30-40%; quartz 10-15%; kspar 20-25%; hornblende 15-20%; mica 5-10%	<b>kspar(0.26)</b> quartz(0.62) <b>mica(0.07)</b> <b>plagioclase(0.11)</b>
s73r1rk	Duluth, Minnesota	DJ Minerals	plagioclase 5-30%; quartz 2-5%; kspar 0-3%; pyroxene 85%; olivine 2%	<b>pyroxene(0.31)</b> olivine(0.06) <b>kspar(0.27)</b> <b>plagioclase(0.34)</b>
s76r1rk	Pisgah Crater, San Bernardino County, CA	DJ Minerals	plagioclase 2-5%; pyroxene 1%; olivine 10%	<b>pyroxene(0.25)</b> olivine(0.06) mica(0.1) <b>plagioclase(0.21)</b>
s77r1rk	Bishop, Inyo County, CA	DJ Minerals	plagioclase 1%; quartz 3%; hornblende 1%; ash 25%; lithics 25%	mica(0.1) <b>plagioclase(0.29)</b>
s78r1rk	Tehachapi mountains, Kern County, CA	DJ Minerals	plagioclase 1%; quartz 1%; mica 1%; sanidine 1-3%	<b>kspar(0.18)</b> quartz(0.04) <b>mica(0.09)</b> <b>plagioclase(0.7)</b>
s79r1rk	Tehachapi mountains, Kern County, CA	DJ Minerals	plagioclase 2-5%; hornblende 5%; mica 1%	<b>mica(0.11)</b> <b>plagioclase(0.28)</b>
s7r1sh	South Yuba	Shawn Hart	plagioclase 40-70%; quartz 10-20%; kspar 10-30%; hornblende 2-10%; mica 5-10%; biotite 5-8%	pyroxene(0.39) <b>kspar(0.31)</b> <b>plagioclase(0.21)</b>
s85r1rk	Sierra Pelona Formation, near Wrightwood, San	DJ Minerals	mica 80%	quartz(0.48) <b>mica(0.19)</b>

	Bernardino County, CA			
ce2hs6a	El Tatio, Chile	Nancy Hinman	gypsum 50%; hornblende 10%; biotite 1%; quartz 1%; anhydrite 2%; microbes	pyroxene(0.25) kspar(0.14) <b>mica(0.17) gypsum(0.04)</b> plagioclase(0.48)
et16hs2a	El Tatio, Chile	Nancy Hinman	hornblende 3%; quartz 5%; biotite; muscovite; microbes	pyroxene(0.37) olivine(0.07)
et16hs2b	El Tatio, Chile	Nancy Hinman	quartz 5%; biotite 1%; plagioclase 1%; microbes	pyroxene(0.4) olivine(0.07)
et16hs3	El Tatio, Chile	Nancy Hinman	quartz 5%; plagioclase 2%; biotite 1%; hornblende 1%; microbes	pyroxene(0.35) olivine(0.07)
et16hs4	El Tatio, Chile	Nancy Hinman	quartz 5%; biotite 1%; hornblende 1%; calcite 5%; microbes	pyroxene(0.38) olivine(0.07)
spbhmb_hs1	Bills Hill, Salar de Pajonales	Nancy Hinman	gypsum 85-90%; bubbles 5%; amorphous 10%; quartz 1-4%; unknown 1-2%; kspar 1-5%; biotite 1%; hornblende 1%; plagioclase 1%	<b>kspar(0.13) gypsum(0.18)</b> <b>plagioclase(0.09)</b>
spmm_hs1	Michaels Mound, Salar de Pajonales	Nancy Hinman	gypsum 75%; quartz 10%; amorphous 10%; unknown 10%	olivine(0.06) <b>gypsum(0.32)</b>
spshard1_1	Salar de Pajonales	David Wettergreen	gypsum 70-75%; quartz 5%; amorphous 20%; unknown 1-10%; plagioclase 1-5%; biotite 1%; kspar 1%; rutile 1%; isotropic 2%	olivine(0.08) <b>kspar(0.12)</b> <b>mica(0.07) gypsum(0.46)</b> <b>plagioclase(0.06)</b>

s30r1rk	Rocky Mountains, Minnesota, Georgia, Wisconsin, and Texas	DJ Minerals	plagioclase 15-25%; quartz 20-25%; kspar 30-40%; hornblende 5-7%; mica 5-8%	<b>kspar(0.28) quartz(0.11) plagioclase(0.09)</b>
s1003r1tv	Swamscott, MA	Ted Vassalo	plagioclase 25%; quartz 50%; kspar 25%; muscovite 1%; pyroxene 5-10%; calcite 1-3%	<b>pyroxene(0.35) kspar(0.23) mica(0.16) plagioclase(0.22)</b>
s1003r12tv	Swamscott, MA	Ted Vassalo	plagioclase 10%; quartz 50-60%; kspar 30-40%; pyroxene 5-10%; muscovite 1%; calcite 5-10%	<b>pyroxene(0.32) kspar(0.17) mica(0.18) plagioclase(0.32)</b>
s1003r19tv	Swamscott, MA	Ted Vassalo	plagioclase 2-5%; quartz 30%; kspar 40%; muscovite 1%; pyroxene 10%; calcite 15-20%	<b>pyroxene(0.21) kspar(0.12) mica(0.15) plagioclase(0.33)</b>
s1003r25tv	Swamscott, MA	Ted Vassalo	plagioclase 1-5%; quartz 40%; kspar 40%; pyroxene 5%; calcite 5-10%; muscovite 1%	<b>pyroxene(0.32) kspar(0.14) mica(0.1) plagioclase(0.17)</b>
s1003r3tv	Swamscott, MA	Ted Vassalo	plagioclase 5-10%; quartz 40-45%; kspar 40-45%; hornblende; biotite 1%; calcite 5-7%; muscovite 1%	<b>kspar(0.14) quartz(0.1) mica(0.1) plagioclase(0.43)</b>
s1003r31tv	Swamscott, MA	Ted Vassalo	plagioclase 1-5%; quartz 30%; kspar 40-50%; pyroxene 5-10%; calcite 10-15%; muscovite 1-3%	<b>kspar(0.22) quartz(0.05) mica(0.16) plagioclase(0.6)</b>
s1003r34tv	Swamscott, MA	Ted Vassalo	plagioclase 1-5%; quartz 40-50%; kspar 30-40%; biotite 1-2%; pyroxene 5%; muscovite 1-5%; calcite 5-10%	<b>kspar(0.22) quartz(0.05) mica(0.21) plagioclase(0.77)</b>

s1003r7tv	Swamscott, MA	Ted Vassalo	plagioclase 10%; quartz 60-70%; kspar 20-30%; biotite 1-2%; muscovite 1%; calcite 5-10%; pyroxene 1%	<b>quartz(0.86) mica(0.09) plagioclase(0.19)</b>
s1003r8tv	Swamscott, MA	Ted Vassalo	plagioclase 10%; quartz 50-60%; kspar 30-40%; biotite 1%; muscovite 1%; calcite 15-20%	pyroxene(0.35) olivine(0.06) <b>kspar(0.12) plagioclase(0.07)</b>
s1004r1tv	Littleton, MA	Ted Vassalo	plagioclase 20-30%; quartz 60-70%; kspar 5%; calcite 5-10%; pyroxene 1-2%	<b>kspar(0.19) quartz(0.22) mica(0.14) plagioclase(0.6)</b>
s1004r10tv	Littleton, MA	Ted Vassalo	plagioclase 20%; quartz 70-80%; biotite 1%; calcite 5-10%	kspar(0.3) <b>quartz(0.1) mica(0.1) plagioclase(0.31)</b>
s1004r11tv	Littleton, MA	Ted Vassalo	plagioclase 20%; quartz 70-80%; biotite 1%; pyroxene 1%; calcite 5-10%	kspar(0.22) <b>quartz(0.51) mica(0.16) plagioclase(0.48)</b>
s1004r12tv	Littleton, MA	Ted Vassalo	plagioclase 20%; quartz 70-80%; biotite 1%; calcite 2-5%	<b>kspar(0.43) quartz(0.09) mica(0.22) plagioclase(0.2)</b>
s1004r14tv	Littleton, MA	Ted Vassalo	plagioclase 20-30%; quartz 60-70%; biotite 1%; pyroxene 1%; calcite 2-5%	kspar(0.19) <b>quartz(0.16) mica(0.11) plagioclase(0.28)</b>
s1004r15tv	Littleton, MA	Ted Vassalo	plagioclase 30-40%; quartz 30-40%; hornblende 1-2%; biotite 10%; pyroxene 2-5%; calcite 10-15%	<b>pyroxene(0.26) kspar(0.18) quartz(0.04) plagioclase(0.12)</b>
s1004r18tv	Littleton, MA	Ted Vassalo	plagioclase 20%; quartz 70-80%; biotite 2-4%;	<b>kspar(0.44) quartz(0.11) mica(0.09) plagioclase(0.35)</b>

			pyroxene 1%; calcite 2-5%	
s1004r2tv	Littleton, MA	Ted Vassalo	plagioclase 20-30%; quartz 60-70%; kspar 5%; biotite 1-2%; pyroxene 1-2%; calcite 1%	pyroxene(0.29) <b>kspar(0.36)</b> <b>plagioclase(0.13)</b>
s1004r20tv	Littleton, MA	Ted Vassalo	plagioclase 10; quartz 80-90%; biotite 1%; calcite 10-15%	kspar(0.38) <b>quartz(0.07)</b> <b>mica(0.14) plagioclase(0.31)</b>
s1004r21tv	Littleton, MA	Ted Vassalo	plagioclase 5-10%; quartz 80-90%; calcite 5%	kspar(0.27) <b>quartz(0.11)</b> mica(0.17) <b>plagioclase(0.46)</b>
s1004r23tv	Littleton, MA	Ted Vassalo	plagioclase 20%; quartz 60-70%; biotite 2%; calcite 5-10%	kspar(0.25) <b>quartz(0.1)</b> <b>mica(0.11) plagioclase(0.48)</b>
s1004r24tv	Littleton, MA	Ted Vassalo	plagioclase 20; quartz 80-90%; hornblende 1%; pyroxene 1%; calcite 5-10%	kspar(0.37) <b>quartz(0.23)</b> mica(0.09) <b>plagioclase(0.27)</b>
s1004r3tv	Littleton, MA	Ted Vassalo	plagioclase 20-30%; quartz 60-70%; kspar 5%; biotite 1-2%; pyroxene 1-2%; calcite 5-10%	<b>kspar(0.41) quartz(0.16)</b> <b>mica(0.09) plagioclase(0.36)</b>
s1004r4tv	Littleton, MA	Ted Vassalo	plagioclase 20; quartz 70-80%; kspar 5%; biotite 1%; calcite 2-5%	kspar(0.13) <b>quartz(0.07)</b> <b>mica(0.11) plagioclase(0.17)</b>
s1004r5tv	Littleton, MA	Ted Vassalo	plagioclase 20; quartz 70-80%; kspar 5%; pyroxene 2-5%; fe <sub>2</sub> oxide 1%; calcite 10%	<b>kspar(0.38) quartz(0.07)</b> <b>mica(0.07) plagioclase(0.48)</b>
s1004r7tv	Littleton, MA	Ted Vassalo	plagioclase 20; quartz 60-70%; kspar 5%; hornblende 1%; pyroxene 1%; calcite 2-5%	<b>pyroxene(0.23) kspar(0.22)</b> <b>quartz(0.06) mica(0.09)</b> <b>plagioclase(0.22)</b>

s1004r8tv	Littleton, MA	Ted Vassalo	plagioclase 20%; quartz 70-80%; kspar 5%; biotite 1-2%; pyroxene 1%; calcite 5-10%	<b>kspar(0.44) quartz(0.08) mica(0.09) plagioclase(0.25)</b>
s1006r1tv	Ludenburg, MA	Ted Vassalo	plagioclase 10%; quartz 60-70%; kspar 20; biotite 1-2%; muscovite 5%; calcite 10-15%; fe_oxide 1%	<b>kspar(0.13) quartz(0.11) mica(0.07) plagioclase(0.21)</b>
s1006r11tv	Ludenburg, MA	Ted Vassalo	plagioclase 5-10%; quartz 40%; kspar 30-40%; biotite 1%; calcite 15-20%; muscovite 2-5%	<b>pyroxene(0.3) kspar(0.21) mica(0.08) plagioclase(0.08)</b>
s1006r19tv	Ludenburg, MA	Ted Vassalo	plagioclase 5-10%; quartz 40-50%; kspar 20; biotite 1%; calcite 15-20%; muscovite 2-5%	<b>pyroxene(0.22) quartz(0.08) mica(0.08) plagioclase(0.08)</b>
s1006r23tv	Ludenburg, MA	Ted Vassalo	plagioclase 10%; quartz 40-50%; kspar 20; muscovite 1-3%; calcite 5-10%	<b>pyroxene(0.27) kspar(0.12) quartz(0.07) mica(0.07) plagioclase(0.13)</b>
s1006r4tv	Ludenburg, MA	Ted Vassalo	plagioclase 10%; quartz 40-50%; kspar 20; biotite 1-5%; muscovite 5-7%; pyroxene 1%; calcite 15-20%	<b>pyroxene(0.31) kspar(0.17) quartz(0.04) mica(0.14) plagioclase(0.12)</b>
s1006r7tv	Ludenburg, MA	Ted Vassalo	plagioclase 10%; quartz 20-30%; kspar 20-30%; biotite 5-10%; muscovite 10%; calcite 10-20%; pyroxene 1-2%	<b>pyroxene(0.29) kspar(0.17) quartz(0.09) plagioclase(0.06)</b>
s1008r1tv	Acustnet, MA	Ted Vassalo	plagioclase 30%; quartz 20%; kspar 30%; hornblende 5%; biotite 5-10%;	<b>pyroxene(0.29) kspar(0.25) mica(0.07) plagioclase(0.08)</b>

			muscovite 2%; calcite 5-8%	
s1008r14tv	Acustnet, MA	Ted Vassalo	plagioclase 10%; quartz 30-40%; kspars 50%; biotite 5%; calcite 2-5%	pyroxene(0.25) <b>kspars(0.21)</b> <b>mica(0.07) plagioclase(0.08)</b>
s1008r16tv	Acustnet, MA	Ted Vassalo	plagioclase 10%; quartz 30-40%; kspars 30-35%; biotite 10%; calcite 5-10%	<b>kspars(0.27) mica(0.07)</b> <b>plagioclase(0.06)</b>
s1008r22tv	Acustnet, MA	Ted Vassalo	plagioclase 10%; quartz 30-40%; kspars 30-35%; hornblende 1%; biotite 1-2%; calcite 5-10%	<b>kspars(0.34) quartz(0.09)</b> <b>mica(0.1) plagioclase(0.16)</b>
s1008r3tv	Acustnet, MA	Ted Vassalo	plagioclase 30%; quartz 30%; kspars 30%; hornblende 5%; biotite 10%; muscovite 1%; pyroxene 1%; calcite 5%	<b>pyroxene(0.28) kspars(0.23)</b>
s1008r6tv	Acustnet, MA	Ted Vassalo	plagioclase 10-20%; quartz 40-50%; kspars 25-30%; biotite 5-10%; calcite 2-5%	<b>kspars(0.21) quartz(0.07)</b> <b>plagioclase(0.06)</b>
s1000r1tv	Wells, ME	Ted Vassalo	plagioclase 30-40%; quartz 40%; kspars 10%; hornblende 1%; pyroxene 10%; pyrite 1%; garnet 1%	<b>pyroxene(0.4) kspars(0.16)</b> <b>quartz(0.06) plagioclase(0.08)</b>
s1000r13tv	Wells, ME	Ted Vassalo	plagioclase 40%; quartz 30-40%; kspars 20%; pyroxene 5-10%; calcite 1-2%	mica(0.12) <b>plagioclase(0.3)</b>
s1000r15tv	Wells, ME	Ted Vassalo	plagioclase 50-60%; quartz 40-50%; pyroxene 2-5%; calcite 5%	<b>pyroxene(0.32)</b> <b>plagioclase(0.06)</b>

s1000r17tv	Wells, ME	Ted Vassalo	plagioclase 50%; quartz 25-35%; kspars 10%; pyroxene; calcite 2-5%	<b>pyroxene(0.24) mica(0.08)</b> <b>plagioclase(0.16)</b>
s1000r19tv	Wells, ME	Ted Vassalo	plagioclase 50%; quartz 40%; pyroxene 10%; calcite 5-10%	<b>pyroxene(0.23) mica(0.07)</b> <b>plagioclase(0.15)</b>
s1000r2tv	Wells, ME	Ted Vassalo	plagioclase 30-40%; quartz 60%; kspars 10%; hornblende 1-2%; pyroxene 5%; calcite 5-10%	<b>pyroxene(0.25) kspars(0.18)</b> <b>plagioclase(0.07)</b>
s1000r22tv	Wells, ME	Ted Vassalo	plagioclase 50%; quartz 50%; hornblende 1%; pyroxene 5-10%; calcite 2-5%	<b>pyroxene(0.38) kspars(0.24)</b> <b>plagioclase(0.12)</b>
s1000r26tv	Wells, ME	Ted Vassalo	plagioclase 30%; quartz 50-60%; pyroxene 5-10%; calcite 1-2%	<b>pyroxene(0.3) kspars(0.17)</b> <b>mica(0.14) plagioclase(0.36)</b>
s1000r29tv	Wells, ME	Ted Vassalo	quartz 40%; plagioclase 30%; kspars 10%; biotite 25%; hornblende 2%; muscovite 2%; opaque 10%; unknown 2%	<b>pyroxene(0.25) kspars(0.27)</b> <b>quartz(0.04) plagioclase(0.31)</b>
s1000r3tv	Wells, ME	Ted Vassalo	plagioclase 50-60%; quartz 30-40%; kspars 10%; pyroxene 5-10%; calcite 2-5%	<b>pyroxene(0.37) olivine(0.14)</b> <b>kspars(0.56) mica(0.1)</b> <b>plagioclase(0.12)</b>
s1000r30tv	Wells, ME	Ted Vassalo	quartz 30-40%; plagioclase 50-60%; kspars 5-10%; biotite 10%; hornblende 2%; opaque 5-10%; unknown 1%	<b>kspars(0.23) quartz(0.11)</b> <b>gypsum(0.06) plagioclase(0.14)</b>
s1000r4tv	Wells, ME	Ted Vassalo	plagioclase 30-40%; quartz 30-40%; kspars 10%;	<b>pyroxene(0.25) kspars(0.14)</b> <b>plagioclase(0.08)</b>

			biotite 1%; pyrite 1%; pyroxene 10%; calcite 2-5%	
s1000r5tv	Wells, ME	Ted Vassalo	plagioclase 40%; quartz 30-40%; kspars 10%; garnet 1%; pyroxene 2-10%; calcite 1-2%	<b>pyroxene(0.25) kspars(0.19)</b> <b>mica(0.06) plagioclase(0.07)</b>
s1000r7tv	Wells, ME	Ted Vassalo	plagioclase 30-40%; quartz 50-60%; pyrite 1%; pyroxene 10%; calcite 1-2%	<b>pyroxene(0.28) kspars(0.2)</b> <b>mica(0.11) plagioclase(0.33)</b>
s1001r1tv	Wells, ME	Ted Vassalo	plagioclase 25%; quartz 20-30%; kspars 25%; biotite 5-10%; pyroxene 10-20%; calcite 10-15%	<b>pyroxene(0.27) kspars(0.19)</b> <b>quartz(0.05) mica(0.08)</b> <b>plagioclase(0.18)</b>
s1001r12tv	Wells, ME	Ted Vassalo	plagioclase 30-40%; quartz 15-30%; kspars 10-30%; biotite 1%; pyroxene 20%; muscovite 1%; calcite 2-5%	<b>pyroxene(0.34) kspars(0.15)</b> <b>plagioclase(0.09)</b>
s1001r15tv	Wells, ME	Ted Vassalo	plagioclase 20-30%; quartz 60%; kspars 10; pyroxene 5%; calcite 1%	<b>kspars(0.42) quartz(0.04)</b> <b>plagioclase(0.15)</b>
s1001r18tv	Wells, ME	Ted Vassalo	plagioclase 40%; quartz 40%; kspars 10%; hornblende 1-2%; pyroxene 5-10%; calcite 15-20%	<b>pyroxene(0.24) kspars(0.15)</b> <b>mica(0.12) plagioclase(0.29)</b>
s1001r24tv	Wells, ME	Ted Vassalo	plagioclase 35%; quartz 40%; kspars 25%; pyroxene 1%; calcite 10-15%	<b>pyroxene(0.26) kspars(0.26)</b> <b>quartz(0.04) plagioclase(0.09)</b>
s1001r25tv	Wells, ME	Ted Vassalo	plagioclase 20%; quartz 75%; kspars 5%; pyroxene 1%; calcite 1%	<b>quartz(0.25) plagioclase(0.09)</b>
s1001r3tv	Wells, ME	Ted Vassalo	plagioclase 20%; quartz 20-30%;	<b>pyroxene(0.23) kspars(0.29)</b> <b>mica(0.11) plagioclase(0.38)</b>

			kspars 40%; hornblende 1%; biotite 1%; pyroxene; calcite 5-10%	
s1001r31tv	Wells, ME	Ted Vassalo	plagioclase 20%; quartz 40%; kspars 40%; pyroxene 2-5%; calcite 10%	<b>pyroxene(0.29) kspars(0.22) plagioclase(0.08)</b>
s1001r34tv	Wells, ME	Ted Vassalo	kspars 10-15%; quartz 15-30%; plagioclase 20%; biotite 20-30%; pyroxene 10%; rutile 2%; hornblende 2%; opaque 5%; unknown 1%; Fe sulfide 5%	<b>kspars(0.22) quartz(0.12) mica(0.08) gypsum(0.05) plagioclase(0.6)</b>
s1001r35tv	Wells, ME	Ted Vassalo	quartz 25-40%; biotite 20-30%; kspars 5-10%; plagioclase 20-30%; hornblende 2%; pyroxene 5-10%; opaque 1-3%; unknown 1%	<b>pyroxene(0.22) kspars(0.24) quartz(0.07) plagioclase(0.38)</b>
s1001r5tv	Wells, ME	Ted Vassalo	plagioclase 30%; quartz 40%; kspars 20; hornblende 1%; biotite 1-2%; pyroxene 5%; calcite 1-5%	<b>olivine(0.07) kspars(0.25) mica(0.28)</b>
s1001r6tv	Wells, ME	Ted Vassalo	plagioclase 40%; quartz 40%; kspars 10%; biotite 1%; pyroxene; muscovite 1%; pyrite 1%; calcite 10%	<b>pyroxene(0.26) kspars(0.17) quartz(0.05) mica(0.1) plagioclase(0.28)</b>
s1007r11tv	Prospect, ME	Ted Vassalo	plagioclase 15-20%; quartz 30-40%; kspars 15-20%; biotite 5%; muscovite 1%; calcite 1-3%	<b>kspars(0.33) quartz(0.15) mica(0.09) plagioclase(0.23)</b>

s1007r13tv	Prospect, ME	Ted Vassalo	plagioclase 20-30%; quartz 30-40%; kspar 20%; biotite 5-10%; calcite 1%	<b>kspar(0.42) quartz(0.11) mica(0.09) plagioclase(0.38)</b>
s1007r14tv	Prospect, ME	Ted Vassalo	plagioclase 20-25%; quartz 30%; kspar 25-30%; biotite 5-10%; calcite 1-3%	<b>kspar(0.39) quartz(0.05) mica(0.08) plagioclase(0.59)</b>
s1007r16tv	Prospect, ME	Ted Vassalo	plagioclase 15-20%; quartz 30%; kspar 25%; biotite 5-10%; calcite 1-3%	<b>kspar(0.31) quartz(0.07) plagioclase(0.2)</b>
s1007r21tv	Prospect, ME	Ted Vassalo	plagioclase 15-20%; quartz 30%; kspar 25-30%; biotite 10%; calcite 1%	<b>olivine(0.06) kspar(0.43) mica(0.07) plagioclase(0.52)</b>
s1007r3tv	Prospect, ME	Ted Vassalo	plagioclase 25-30%; quartz 30-40%; kspar 20%; biotite 5-10%; calcite 1%	<b>kspar(0.4) quartz(0.05) mica(0.08) plagioclase(0.59)</b>
s1007r4tv	Prospect, ME	Ted Vassalo	plagioclase 20-25%; quartz 30-40%; kspar 20-25%; biotite 5-10%; calcite 1%	<b>kspar(0.28) quartz(0.08) mica(0.06) plagioclase(0.33)</b>
s1007r5tv	Prospect, ME	Ted Vassalo	plagioclase 20-25%; quartz 30-40%; kspar 20%; biotite 5%; calcite 1%	<b>kspar(0.33) quartz(0.08) mica(0.07) plagioclase(0.45)</b>
s1007r9tv	Prospect, ME	Ted Vassalo	plagioclase 20-25%; quartz 30-40%; kspar 20-25%; biotite 5%; calcite 1%	<b>kspar(0.38) quartz(0.06) mica(0.08) plagioclase(0.58)</b>
s1009r10tv	Sydney, ME	Ted Vassalo	plagioclase 15; quartz 20%; kspar 15; biotite 10-15%; muscovite 3-5%; pyroxene 1%; calcite 15-20%	<b>quartz(0.76)</b>

s1009r13tv	Sydney, ME	Ted Vassalo	plagioclase 15; quartz 5-10%; kspars 20-25%; biotite 15-20%; calcite 15-20%	pyroxene(0.37) olivine(0.06) <b>kspars(0.15)</b>
s1009r15tv	Sydney, ME	Ted Vassalo	plagioclase 5-15%; quartz 20%; kspars 20-25%; biotite 20%; calcite 10- 15%; muscovite 1- 5%	<b>pyroxene(0.31) kspars(0.12)</b> <b>quartz(0.15) mica(0.09)</b>
s1009r17tv	Sydney, ME	Ted Vassalo	plagioclase 20- 25%; quartz 5- 10%; kspars 20- 30%; biotite 20%; pyroxene 1-3%; calcite 15-20%	<b>pyroxene(0.34) kspars(0.12)</b> <b>quartz(0.05) mica(0.11)</b> <b>plagioclase(0.05)</b>
s1009r21tv	Sydney, ME	Ted Vassalo	plagioclase 15; quartz 5-10%; kspars 20-30%; biotite 20%; Fe <sub>2</sub> O <sub>3</sub> 1%; calcite 15-20%	pyroxene(0.23) <b>mica(0.08)</b> <b>plagioclase(0.1)</b>
s1009r4tv	Sydney, ME	Ted Vassalo	plagioclase 20- 25%; quartz 5- 10%; kspars 15; biotite 20%; muscovite 5-10%; pyroxene 1-5%; calcite 10-20%	<b>pyroxene(0.23) quartz(0.07)</b> <b>mica(0.13) plagioclase(0.09)</b>
s122r24dj	Montana	DJ Minerals	plagioclase 40- 50%; pyroxene 30%; olivine 5- 10%	<b>pyroxene(0.49) olivine(0.07)</b> kspars(0.13)
s122r36dj	Montana	DJ Minerals	plagioclase; quartz 50-100%; kspars	pyroxene(0.25) <b>kspars(0.19)</b> <b>quartz(0.16)</b>
s123r2dj	SW Montana	DJ Minerals	plagioclase; quartz 20-40%; kspars; chlorite	<b>pyroxene(0.45) olivine(0.08)</b> <b>kspars(0.13)</b>
s124r3dj	Montana	DJ Minerals	plagioclase 5%; quartz 30-35%; kspars 30%; mica 30-35%	<b>kspars(0.2) quartz(0.14)</b> <b>mica(0.18) plagioclase(0.05)</b>
s1005r18tv	Hooksett, NH	Ted Vassalo	plagioclase 5-10%; quartz 80-90%; biotite 1-5%;	<b>kspars(0.47) mica(0.08)</b> <b>plagioclase(0.24)</b>

			calcite 1-10%; muscovite 2-10%; kspars 5-10%	
s1005r2tv	Hooksett, NH	Ted Vassalo	plagioclase 5-10%; quartz 90%; hornblende 1%; calcite 5-10%; pyroxene 1%; muscovite 5%	<b>pyroxene(0.24) quartz(0.07) mica(0.13) plagioclase(0.08)</b>
s1005r20tv	Hooksett, NH	Ted Vassalo	plagioclase 5-10%; quartz 80-90%; kspars 5-10%; biotite 1-2%; muscovite 1-2%; calcite 1-3%	<b>kspars(0.29) quartz(0.08) mica(0.14) plagioclase(0.32)</b>
s1005r22tv	Hooksett, NH	Ted Vassalo	plagioclase 10%; quartz 80-90%; kspars 10%; biotite 1-2%; muscovite 5-10%; calcite 1-3%	<b>kspars(0.45) mica(0.24) plagioclase(0.17)</b>
s1005r24tv	Hooksett, NH	Ted Vassalo	plagioclase 15%; quartz 80-90%; kspars 5%; hornblende 1%; biotite 1-2%; muscovite 5-10%; calcite 2-5%; pyroxene 1%	<b>kspars(0.18) quartz(0.19) mica(0.11) plagioclase(0.16)</b>
s1005r9tv	Hooksett, NH	Ted Vassalo	plagioclase 5-10%; quartz 80-90%; kspars 10%; hornblende 1%; pyroxene 2-5%; calcite 2-5%; muscovite 2%	<b>quartz(0.72) mica(0.1) plagioclase(0.12)</b>
s1002r1tv	Santa Ana, NM	Ted Vassalo	epidote 5%; quartz 30-60%; kspars 10-35%; plagioclase 20%; unknown 5%; opaque 5-10%; biotite 2%; muscovite 12%; hornblende 1-2%; pyroxene 2-5%	<b>quartz(0.86) mica(0.08) plagioclase(0.09)</b>
s1002r13tv	Santa Ana, NM	Ted Vassalo	plagioclase 10%; quartz 75-90%;	<b>quartz(0.9) mica(0.08) plagioclase(0.09)</b>

			kspar 10%; biotite 1%; pyroxene 1-2%	
s1002r16tv	Santa Ana, NM	Ted Vassalo	plagioclase 5-10%; quartz 75-90%; kspar 2-5%; biotite 1%; pyroxene 1%	olivine(0.08) <b>kspar(0.61)</b> <b>mica(0.08)</b> <b>plagioclase(0.19)</b>
s1002r17tv	Santa Ana, NM	Ted Vassalo	plagioclase 20; quartz 50-60%; kspar 20; biotite 1%; calcite 1-5%; pyroxene 1%	<b>pyroxene(0.24)</b> <b>kspar(0.23)</b> <b>quartz(0.06)</b> <b>mica(0.2)</b> <b>plagioclase(0.62)</b>
s1002r2tv	Santa Ana, NM	Ted Vassalo	opaque 10%; muscovite 2-10%; quartz 20-40%; kspar 30%; pyroxene 2-20%; plagioclase 10%; unknown 3%; biotite 5%	<b>kspar(0.22)</b> <b>plagioclase(0.07)</b>
s1002r20tv	Santa Ana, NM	Ted Vassalo	plagioclase 20; quartz 40-50%; kspar 40-50%; hornblende 1%; biotite 1-3%; calcite 1%; pyroxene 2-5%	<b>kspar(0.17)</b> <b>quartz(0.06)</b> <b>mica(0.21)</b> <b>plagioclase(0.74)</b>
s1002r21tv	Santa Ana, NM	Ted Vassalo	plagioclase 20; quartz 70-80%; kspar 20; biotite 1%; calcite 1%; pyroxene 1%	<b>pyroxene(0.22)</b> <b>kspar(0.17)</b> <b>quartz(0.05)</b> <b>mica(0.17)</b> <b>plagioclase(0.32)</b>
s1002r23tv	Santa Ana, NM	Ted Vassalo	plagioclase 20; quartz 70-80%; kspar 20; hornblende 1%; biotite 1%; pyroxene 1-3%; calcite 1%	<b>kspar(0.23)</b> <b>quartz(0.06)</b> <b>mica(0.14)</b> <b>gypsum(0.05)</b> <b>plagioclase(0.8)</b>
s1002r26tv	Santa Ana, NM	Ted Vassalo	plagioclase 5-15%; quartz 60-70%; kspar 30-40%; biotite 1%; pyroxene 1%; calcite 1%	<b>kspar(0.17)</b> <b>quartz(0.05)</b> <b>mica(0.17)</b> <b>gypsum(0.04)</b> <b>plagioclase(0.74)</b>

s1002r4tv	Santa Ana, NM	Ted Vassalo	plagioclase 20-30%; quartz 25-30%; kspar 30-40%; hornblende 1%; biotite 4-5%; pyroxene 5-10%	<b>kspar(0.24) quartz(0.07) mica(0.2) plagioclase(0.57)</b>
s1002r5tv	Santa Ana, NM	Ted Vassalo	plagioclase 20%; quartz 40-50%; kspar 40-50%; hornblende 1%; pyroxene 2-5%; hematite 1%	<b>kspar(0.44) plagioclase(0.28)</b>
s1002r7tv	Santa Ana, NM	Ted Vassalo	plagioclase 10%; quartz 75-90%; kspar 20; biotite 1%; pyroxene 2-5%	<b>quartz(0.84) mica(0.07) plagioclase(0.08)</b>
s1002r9tv	Santa Ana, NM	Ted Vassalo	plagioclase 5-10%; quartz 75-90%; kspar 5-10%; calcite 1%; pyroxene 1%	<b>quartz(0.93) mica(0.08) plagioclase(0.08)</b>
s1010r12tv	Cranston, RI	Ted Vassalo	plagioclase 10%; quartz 75%; kspar 15; hornblende 1-2%; biotite 5%; calcite 1-2%	<b>quartz(0.79) mica(0.08) plagioclase(0.23)</b>
s1010r16tv	Cranston, RI	Ted Vassalo	plagioclase 10%; quartz 65-75%; kspar 15-20%; hornblende 5%; biotite 1-3%; calcite 5%	<b>kspar(0.3) quartz(0.38) mica(0.12) plagioclase(0.25)</b>
s1010r19tv	Cranston, RI	Ted Vassalo	plagioclase 10%; quartz 60-65%; kspar 15-20%; hornblende 2-5%; biotite 15-20%; calcite 1%	<b>quartz(0.56) mica(0.12) plagioclase(0.3)</b>
s1010r2tv	Cranston, RI	Ted Vassalo	plagioclase 10%; quartz 75%; kspar 15; hornblende 1%; biotite 5-10%; calcite 1-2%	<b>olivine(0.07) kspar(0.43) mica(0.17) plagioclase(0.18)</b>
s1010r22tv	Cranston, RI	Ted Vassalo	plagioclase 10%; quartz 60%; kspar 20-30%;	<b>quartz(0.08) mica(0.1) plagioclase(0.87)</b>

			hornblende 1%; biotite 5%; calcite 1%	
s1010r24tv	Cranston, RI	Ted Vassalo	plagioclase 10%; quartz 45-50%; kspars 25-30%; hornblende 5%; biotite 15-20%; calcite 1-3%	<b>quartz(0.28) mica(0.1) plagioclase(0.17)</b>
s1010r4tv	Cranston, RI	Ted Vassalo	plagioclase 25- 30%; quartz 25- 30%; kspars 15; hornblende 1-2%; biotite 25-30%; calcite 1-2%	<b>kspars(0.16) quartz(0.14) mica(0.11) plagioclase(0.17)</b>
s89r1rk	Marble Canyon, Frisco District, Beaver County, Utah	DJ Minerals	plagioclase 10- 15%; quartz 20- 25%; kspars 40- 45%; mica 20%	<b>pyroxene(0.22) kspars(0.47) quartz(0.05) mica(0.07) plagioclase(0.14)</b>
s1011r14tv	New Haven, VT	Ted Vassalo	plagioclase 10%; quartz 40-50%; kspars 20-30%; hornblende 1-5%; Fe <sub>2</sub> O <sub>3</sub> 1%; calcite 10%	pyroxene(0.24) olivine(0.07) <b>kspars(0.13) plagioclase(0.08)</b>
s1011r18tv	New Haven, VT	Ted Vassalo	plagioclase 15- 25%; quartz 40- 50%; kspars 15- 25%; hornblende 5%; calcite 10%	pyroxene(0.33) olivine(0.08) <b>kspars(0.13) plagioclase(0.05)</b>
s1011r19tv	New Haven, VT	Ted Vassalo	plagioclase 10- 15%; quartz 50- 60%; kspars 20- 25%; hornblende 5%; calcite 10%	<b>kspars(0.18) plagioclase(0.11)</b>
s1011r2tv	New Haven, VT	Ted Vassalo	plagioclase 15; quartz 30-40%; kspars 30-40%; pyroxene 10%; calcite 10%	<b>pyroxene(0.3) olivine(0.07) kspars(0.14) mica(0.06) plagioclase(0.08)</b>
s1011r23tv	New Haven, VT	Ted Vassalo	plagioclase 15; quartz 40%; kspars 20-30%; biotite 7- 10%; calcite 5-10%	pyroxene(0.29) olivine(0.07) <b>kspars(0.15)</b>

s1011r9	New Haven, VT	Ted Vassalo	plagioclase 10%; quartz 35-40%; kspars 30-40%; hornblende 10%; biotite 1-5%; calcite 10%	pyroxene(0.27) olivine(0.06) <b>kspars(0.2) plagioclase(0.09)</b>
s1012r1	Williamstown, VT	Ted Vassalo	plagioclase 20- 30%; quartz 10%; kspars 30-40%; biotite 20-30%; muscovite 1%; calcite 2-5%	pyroxene(0.23) <b>kspars(0.16)</b> <b>quartz(0.16) mica(0.13)</b>
s1012r2	Williamstown, VT	Ted Vassalo	plagioclase 30- 40%; quartz 10%; kspars 20-30%; biotite 20-30%; calcite 1-2%	<b>kspars(0.13) quartz(0.04)</b> <b>mica(0.16) plagioclase(0.52)</b>
s1012r3	Williamstown, VT	Ted Vassalo	plagioclase 30- 40%; quartz 10%; kspars 30-40%; biotite 30%; calcite 1%	<b>quartz(0.84) mica(0.54)</b> <b>plagioclase(0.07)</b>
s1012r4	Williamstown, VT	Ted Vassalo	plagioclase 30- 40%; quartz 10%; kspars 20-30%; biotite 30-40%; calcite 1-3%	<b>quartz(0.84) mica(0.35)</b> <b>plagioclase(0.08)</b>
s1012r5	Williamstown, VT	Ted Vassalo	plagioclase 30- 40%; quartz 10%; kspars 20-30%; biotite 30-40%; calcite 1%	<b>kspars(0.14) quartz(0.23)</b> <b>mica(0.24)</b>
s1012r6	Williamstown, VT	Ted Vassalo	plagioclase 30- 40%; quartz 10%; kspars 20-30%; biotite 30-40%; calcite 1-3%	<b>kspars(0.14) quartz(0.26)</b> <b>mica(0.19)</b>
s1013r10	Williston, VT	Ted Vassalo	plagioclase 1%; quartz 80-90%; kspars 10%; calcite 10-15%; Fe_sulfide 2%	olivine(0.09) <b>kspars(0.18)</b> mica(0.1) <b>plagioclase(0.13)</b>
s1013r12	Williston, VT	Ted Vassalo	plagioclase 1%; quartz 80-90%; kspars 10%; hornblende 1%;	pyroxene(0.24) olivine(0.09) <b>kspars(0.19) mica(0.11)</b> <b>plagioclase(0.14)</b>

			biotite 1%; calcite 10%	
s1013r16	Williston, VT	Ted Vassalo	plagioclase 1%; quartz 80-90%; kspar 10%; biotite 2-5%; calcite 10%	pyroxene(0.25) <b>kspar(0.2)</b> <b>plagioclase(0.1)</b>
s1013r17	Williston, VT	Ted Vassalo	plagioclase 1%; quartz 70%; kspar 20; biotite 1%; calcite	olivine(0.07) <b>kspar(0.2)</b> <b>plagioclase(0.07)</b>
s1013r21	Williston, VT	Ted Vassalo	plagioclase 1%; quartz 80-90%; kspar 5%; biotite 1%; calcite 10-15%	olivine(0.07) <b>kspar(0.2)</b> <b>mica(0.07) plagioclase(0.23)</b>
s1013r22	Williston, VT	Ted Vassalo	plagioclase 1%; quartz 85-90%; kspar 5%; calcite 10%	<b>kspar(0.29) plagioclase(0.2)</b>
s1013r23	Williston, VT	Ted Vassalo	plagioclase 1%; quartz 85%; kspar 5%; calcite 15%	olivine(0.09) <b>kspar(0.18)</b> mica(0.11) <b>plagioclase(0.22)</b>
s1013r3	Williston, VT	Ted Vassalo	plagioclase 1%; quartz 90%; kspar 10%; calcite 10%	<b>kspar(0.18) plagioclase(0.09)</b>
s1013r6	Williston, VT	Ted Vassalo	plagioclase 1%; quartz 85-90%; kspar 5%; calcite 10%	olivine(0.06) <b>kspar(0.22)</b> <b>plagioclase(0.09)</b>
s1013r9	Williston, VT	Ted Vassalo	plagioclase 1%; quartz 85-90%; kspar 10%; biotite 1%; calcite 10%	olivine(0.06) kspar(0.19) mica(0.08) plagioclase(0.1)
s128r2dj	Washington	DJ Minerals	plagioclase 20-30%; kspar 0-5%; hornblende 10-30%; feldspathoid 40%; quartz 0-5%; mica 20-30%; biotite 20-30%	<b>kspar(0.19) quartz(0.07)</b> <b>mica(0.06) gypsum(0.06)</b> <b>plagioclase(0.74)</b>