Whole-Rock Geochemical Data for Dugway Proving Ground and Adjacent Areas, Tooele County, Utah

by

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INTRODUCTION

This open-file report makes available raw analytical data from laboratory procedures completed to determine the geochemistry of rock samples collected during geologic mapping of Dugway Proving Ground and adjacent areas partially supported by the Utah Geological Survey (UGS). Additional information about these samples is available in Clark and others (2009) and Clark and others (in press). This report replaces UGS Open-File Report 533, with some updated sample location data. These geochemical data were prepared by ALS Chemex Labs, Inc., Sparks, Nevada, under contract to the UGS. These data are highly technical in nature and proper interpretation requires considerable training in applicable geochemical techniques.

DISCLAIMER

This open-file release is intended as a data repository for technical analytical information gathered in support of geologic mapping. These data may not conform to UGS technical or editorial standards. Therefore, it may be premature for an individual or group to take actions based on the contents of this report. The Utah Department of Natural Resources, Utah Geological Survey, makes no warranty, expressed or implied, regarding its suitability for a particular use. The Utah Department of Natural Resources, Utah Geological Survey, shall not be liable under any circumstances for any direct, indirect, special, incidental, or consequential damages with respect to claims by users of this product.

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Table 1. *Major- and trace-element whole-rock analyses for Dugway Proving Ground and adjacent areas.*

Map Number	Sample #	Map Unit	Rock Name	7.5' Quadrangle	Latitude (N)	Longitude (W)	SiO_2	Al_2O_3	Fe_2O_3	CaO	MgO	Na_2O	K_2O	Cr_2O_3	TiO_2	MnO	P_2O_5	SrO	BaO	LOI	Total	Ag	Ba	Ce	Co	Cr	Cs	Cu	Dy	Er	Eu
Trd2	GP081605-1a	Trd	Rhyolite dike	Granite Peak	40°07'23"	113°17'14"	72.31	14.75	1.77	1.6	0.4	3.64	4.38	0.01	0.21	0.05	0.06	0.03	0.15	0.68	100.05	<1	1335	27.3	2.7	90	2.2	25	3.4	2.2	0.8
Trd3	GP081605-10a	Trd	Rhyolite dike	Granite Peak	40°10'03"	113°17'06"	69.01	13.19	3.52	0.75	0.55	0.9	8.8	<0.01	0.63	0.05	0.12	0.02	0.19	1.64	99.38	<1	1925	193	3.2	50	0.7	<5	7.9	4.9	1.8
Trd1	GP081605-6b	Trd	Rhyolite dike	Granite Peak	40°08'3.7"	113°17'4.9"	75.23	12.07	1.14	0.64	0.1	0.56	8.75	<0.01	0.17	0.02	0.02	0.01	0.06	1.32	100.1	<1	662	70	1.4	50	2.4	5	6.7	5	0.5
Trs1	GP071405-11	Trs	Rhyolite flow	Granite Peak SE	40°03'55.4"	113°16'18.5"	69.95	13.18	3.46	1.14	0.11	1.34	8.51	<0.01	0.71	0.04	0.17	0.02	0.2	1.06	99.88	<1	2110	214	3.8	60	3.4	6	7.8	4.6	1.9
Trs2	GP102605-4	Trs	Rhyolite flow	Granite Peak SE	40°03'40.9"	113°16'14.6"	72.48	10.53	2.74	1.53	0.64	0.76	7.48	<0.01	0.58	0.07	0.11	0.02	0.21	1.9	99.04	<1	1855	150.5	3.3	50	2.5	<5	6	3.5	1.7
Trs3	GP102605-5	Trs	Rhyolite flow	Granite Peak SE	40°03'41.3"	113°15'32.2"	73.05	11.42	2.59	0.84	0.23	1.06	7.56	<0.01	0.59	0.08	0.15	0.01	0.14	0.9	98.62	<1	1230	177	4.3	100	3.4	<5	6.6	3.8	1.7
Trr1	D-47	Trr	Rhyolite	Tabbys Peak	40°26'18.0"	112°56'57.2"	68.97	14.05	1.31	2.04	0.37	2.74	3.98	<0.01	0.1	0.03	0.03	0.04	0.16	4.57	98.38	<1	1490	72.2	0.6	<10	3	<5	2.47	1.63	1.06
Trr2	D-48	Trr	Rhyolite	Tabbys Peak	40°25'10.8"	112°56'38.3"	67.55	14.38	2.96	2.61	0.89	3.18	4.45	<0.01	0.36	0.03	0.14	0.05	0.16	1.84	98.6	<1	1305	45.7	6.5	40	4.42	16	2.43	1.49	0.95
Trr3	D-49	Trr	Rhyolite	Tabbys Peak	40°22'38.1"	112°57'38.9"	68.18	14.87	2.12	2.2	1.02	3.18	3.78	<0.01	0.43	0.01	0.17	0.06	0.18	2.25	98.46	<1	1625	88.9	4.7	30	3.17	10	2.04	1.12	1.23
Trr4	D-51	Trr	Rhyolite	Tabbys Peak	40°23'11.7"	112°57'13.1"	75.73	14.96	0.61	0.71	0.16	0.06	0.05	<0.01	0.45	<0.01	0.14	0.01	0.08	6.43	99.37	<1	678	89.6	2.1	30	1.29	12	1.88	1.01	1.08
Tdd1	GP080905-3	Tdd	Latite dike	Granite Peak SE	40°07'09"	113°15'20"	56.56	16.94	8.61	3.54	3.08	3.48	3.23	<0.01	1.26	0.11	0.52	0.09	0.22	2.24	99.87	<1	2410	166.5	18.8	30	10.8	<5	7.1	3.6	2.6
Tdd2	GP081005-12	Tdd	Dacite dike	Granite Peak	40°09'01"	113°20'15'	62.41	15.13	5.39	4.8	3.54	3.22	3.04	0.02	0.64	0.1	0.17	0.05	0.1	1.37	99.97	<1	1325	82.8	18.2	200	5.3	15	3.9	2.2	1.3
Tdd3	GP081005-9	Tdd	Dacite dike	Granite Peak	40°09'17"	113°20'06"	61.93	14.85	5.51	4.96	3.94	3.11	3.02	0.02	0.66	0.09	0.16	0.05	0.11	1.45	99.87	<1	1240	79.9	18.4	200	4.3	20	3.9	2.2	1.1
Tac1	D-7	Tac	Andesite	Wig Mountain	40°21'37.8"	113°00'04.0'	60.25	15.15	6.58	5.22	3.45	2.93	3.12	0.03	0.76	0.08	0.19	0.05	0.14	1.4	99.35	<1	1225	78.9	19.7	220	3.42	28	4.54	2.46	1.48
Tac8	D-9	Tac	Dacite	Wig Mountain	40°22'03.5"	113°00'11.9"	60.99	16.4	4.86	4.71	2.79	3	2.13	<0.01	0.52	0.07	0.1	0.05	0.1	4.15	99.88	<1	940	51.5	12.9	80	1.62	10	4.78	2.62	1.32
Tac7	D-10	Tac	Andesite	Tabbys Peak SW	40°21'33.4"	112°59'42.4"	59.97	16.24	6.19	4.83	1.78	2.95	3.62	<0.01	0.84	0.08	0.25	0.06	0.15	2.06	99.01	<1	1245	79.9	12.9	20	1.59	10	4.61	2.54	1.71
Tac8	D-12	Tac	Andesite	Tabbys Peak SW	40°20'12.9"	112°58'21.1"	59	16.41	7.34	6.22	3.86	2.66	2.24	0.01	0.81	0.11	0.19	0.03	0.1	1.02	100	<1	863	81.4	20.3	130	3.08	18	5.34	3.15	1.65
Tac2	D-15	Tac	Dacite	Tabbys Peak SW	40°20'33.7"	112°58'07.7"	62.68	15.82	5.65	4.27	1.68	2.81	3.87	<0.01	0.76	0.07	0.25	0.05	0.15	1.54	99.6	<1	1325	86.7	14.7	50	4.49	12	3.79	2.68	1.44
Tac3	D-17	Tac	Andesite	Tabbys Peak SW	40°18'39.6"	112°56'36.3"	60.15	15.85	6.89	5.05	2.96	2.73	3.62	0.01	0.94	0.1	0.29	0.05	0.16	1.18	99.98	<1	1395	92.2	23.3	140	4.9	20	4.54	2.98	1.67
Tac9	D-19	Tac	Dacite	Tabbys Peak SW	40°19'01.9"	112°56'32.6"	63.54	15.71	5.77	4	1.88	2.85	3.69	0.01	0.66	0.06	0.22	0.05	0.15	1.49	100.1	<1	1350	88.4	14.2	70	4.7	18	3.85	2.71	1.48
Tac10	D-20	Tac	Andesite	Tabbys Peak SW	40°19'05.1"	112°56'26.7"	61.8	16.34	5.8	4.44	2.09	2.82	3.8	0.01	0.71	0.08	0.24	0.05	0.16	1.49	99.83	<1	1350	86.9	13.2	70	5.51	8	3.64	2.56	1.41
Tac11	D-21	Tac	Dacite	Tabbys Peak SW	40°19'06.1"	112°56'23.8"	61.21	16.03	5.69	4.26	1.71	3	3.64	<0.01	0.67	0.06	0.23	0.06	0.16	1.92	98.64	<1	1420	85.8	13.3	60	4.11	17	3.54	2.46	1.46
Tac4	D-25	Tac	Andesite	Tabbys Peak SW	40°16'13.7"	112°56'23.9"	61.01	15.33	6.25	4.56	2.79	2.78	3.72	0.01	0.75	0.09	0.24	0.05	0.15	1.69	99.42	<1	1255	87.9	16.4	130	3.9	22	3.91	2.79	1.48
Tac12	D-31	Tac	Andesite	Tabbys Peak SW	40°16'11.5"	112°52'39.7"	60.04	14.74	6.5	4.89	3.44	2.55	3.47	0.01	0.76	0.09	0.25	0.05	0.16	2.38	99.33	<1	1245	85.5	20.7	170	4.7	32	3.72	2.73	1.39
Tac13	D-32	Tac	Andesite	Tabbys Peak SW	40°16'06.8"	112°53'04.2"	58.71	15.13	7.55	5.36	4.21	2.24	3.43	0.02	0.99	0.11	0.29	0.05	0.13	1.2	99.42	<1	1100	88.3	27.1	220	3.82	32	4.35	3.03	1.58
Tac14	D-37	Tac	Dacite	Camels Back Ridge NE	40°13'40.9"	112°48'36.5"	63.03	14.6	6.32	4.11	3.1	2.83	3.46	0.01	0.64	0.08	0.21	0.05	0.18	1.25	99.87	<1	1375	78.1	20	140	4.17	30	2.56	2.06	1.25
Tac15	D-38	Tac	Andesite	Tabbys Peak SE	40°15'04.8"	112°46'02.3"	60.56	14.88	7.2	4.63	3.31	2.52	3.59	0.02	0.85	0.08	0.26	0.05	0.15	1.34	99.43	<1	1140	82.1	18.5	160	4.85	25	3.81	2.66	1.45
Tac5	D-42	Tac	Andesite	Wig Mountain NE	40°26'55.3"	113°01'57.8"	59.59	16.58	6.96	6.01	3.3	2.84	2.12	0.01	0.77	0.1	0.17	0.03	0.11	1.1	99.69	<1	870	85.2	20.6	100	1.99	16	5.18	3.77	1.5
Tac16	D-44	Tac	Dacite	Wig Mountain NE	40°27'21.0"	113°00'49.0"	63.88	15.69	4.31	5.12	1.12	3.34	2.64	<0.01	0.44	0.07	0.12	0.04	0.12	2.83	99.72	<1	978	50.7	10.5	20	0.78	5	2.95	2.36	1.01
Tac17	D-46	Tac	Andesite	Tabbys Peak	40°27'58.0"	112°54'25.1"	61.24	16.09	5.63	4.67	2.64	3.32	2.75	0.01	0.88	0.07	0.24	0.05	0.15	2.26	100	<1	1215	120	18.8	100	2.29	27	2.86	1.98	1.49
Tiac1	D-6	Tiac	Andesite	Wig Mountain	40°20'03.3"	113°01'42.2"	61.19	16.71	6.26	5.36	2.72	3.07	2.41	<0.01	0.69	0.1	0.15	0.03	0.1	1.15	99.94	<1	852	76.9	15.4	40	3.61	13	5.32	2.94	1.54
Tiac2	D-40	Tiac	Andesite	Tabbys Peak	40°27'47.7"	112°59'13.8"	59.96	16.84	6.8	5.89	3.25	2.84	2.34	<0.01	0.77	0.1	0.18	0.04	0.09	0.96	100.05	<1	740	75.1	19.6	40	2.3	16	3.87	2.89	1.34
Tiac3	D-59	Tiac	Andesite	Wig Mountain NE	40°23'21.6"	113°01'11.5"	60.34	17.24	6.15	5.51	2.12	3.03	2.34	<0.01	0.74	0.1	0.2	0.04	0.1	1.71	99.61	<1	828	91.7	11.8	10	2.92	11	5.15	3.11	1.43
Tlw1	D-80	Tlw	Latite	Wildcat Mountain	40°27'45.9"	113°18'41.3"	59.41	17.3	6.46	4.61	1.66	3.2	4.04	0.02	0.7	0.1	0.345	0.05	0.14	1.65	99.69	<1	1055	77.7	16.6	10	4.52	48	4.02	2.32	1.39
Tlw2	D-81	Tlw	Trachydacite	Wildcat Mountain	40°27'26.7"	113°19'17.2"	61.06	17.36	5.23	3.77	1.41	3.54	4.23	0.02	0.58	0.1	0.284	0.05	0.14	1.96	99.73	<1	1190	85.5	9.9	10	4.69	72	3.68	2.19	1.33
Tid1	FM083105-1	Tid	Dacite	Camels Back Ridge NE	40°12'08"	112°50'16"	67.9	15.29	3.62	2.69	1.44	3.55	3.6	<0.01	0.5	0.05	0.18	0.06	0.19	0.91	99.99	<1	1775	108.5	8.7	70	2.5	8	3	1.7	1.5
Tid2	D-4	Tid	Dacite	Tabbys Peak SW	40°19'17.9"	112°54'01.1"	63.46	14.65	3.7	3.51	1.95	3.34	3.73	0.01	0.53	0.05	0.18	0.07	0.17	3.15	98.5	<1	1505	115	10.6	110	6.3	15	3.43	1.9	1.49
Tit1	D-2	Tit	Trachyte	Dugway Proving Ground SW	40°00'31.8"	113°12'41.9"	58.07	15.6	4.52	2.66	1.26	0.49	11.39	0.04	1.11	0.13	0.34	0.01	0.25	4.04	99.91	<1	2070	124.5	15.8	300	2.15	42	5.63	3.05	2.2
Tit2	D-3	Tit	Tephriphonolite	Dugway Proving Ground SW	40°00'35.9"	113°12'47.9"	46.22	12.17	6.85	10.29	2.38	0.21	8.62	0.08	0.73	0.47	0.18	0.02	0.23	10.3	98.76	<1	2000	95.3	28	540	1.48	7	4.54	2.29	1.65
Jgd2	GP102605-2	Jgd	Monzodiorite	Granite Peak SE	40°04'37.1"	113°15'51.5"	53.32	13.83	7.31	8.11	5.79	1.99	5.05	0.01	0.94	0.15	0.73	0.07	0.25	1.34	98.91	<1	2600	256	28	200	7.9	6	8.4	4	3.6
Jgd1	GP102605-3	Jgd	Monzonite	Granite Peak SE	40°05'16.2"	113°16'45.9"	61.76	15.98	5.34	3.72	2.05	3.55	3.79	<0.01	0.8	0.08	0.61	0.08	0.17	1.18	99.13	<1	1605	250	13.8	80	8.4	9	5.4	2.7	2.9
Jgd3	GP080405-7a	Jgd	Granodiorite	Granite Peak	40°07'54"	113°15'06"	63.21	16.48	5.08	3.52	2.22	3.84	2.72	<0.01	0.77	0.09	0.51	0.09	0.14	1.38	100.05	<1	1590	207	13.4	70	7.3	<5	4.6	2.3	2.1
Jgd4	GP080905-1a	Jgd	Monzonite	Granite Peak SE	40°07'17"	113°15'13"	61.24	16.32	5.26	4.18	2.32	3.62	3.57	0.08	0.96	0.09	0.63	0.1	0.18	1.11	99.66	<1	1935	281	14.4	50	7.4	7	6.4	3.1	2.9
Jgd5	GP080905-4	Jgd	Quartz Monzonite	Granite Peak SE	40°06'56"	113°15'16"	64.53	16.13	4.45	3.34	1.68	3.92	3.17	<0.01	0.71	0.1	0.5	0.08	0.15	1.18	99.95	<1	1650	264	9.9	50	11.2	<5	5	2.5	2.4
Jgd6	GP081005-10	Jgd	Granodiorite	Granite Peak	40°08'34.4"	113°18'53.3"	61.04	15.44	4.72	3.86	2.95	2.34	4.19	0.01	0.67	0.11	0.42	0.05	0.15	3.79	99.73	<1	1680	215	14.4	100	25.5	13	5.1	2.4	2.3
Jgd7	GP081105-10	Jgd	Monzonite	Granite Peak SE	40°04'53"	113°15'39'	59.68	15.11	5.41	5.68	4.34	3.4	3.68	0.02	0.79	0.09	0.49	0.08	0.13	1.12	100	<1	1310	169.5	18.8	190	5.1	17	5	2.6	2.4
Jgd8	GP081105-2	Jgd	Diorite	Granite Peak SE	40°04'37"	113°15'48"	56.35	15.09	7.39	6.96	4.59	2.92	2.2	<0.01	1.2	0.09	0.72	0.1	0.13	2.15	99.91	<1	1210	192.5	24.1	70	10	32	6.9	3.3	3.3
Jgd9	GP081105-7	Jgd	Monzodiorite	Granite Peak SE	40°04'49"	113°15'55"	53.85	13.64	6.88	8.81	6.55	2.52	3.76	0.01	1.08	0.1	0.92	0.15	0.19	1.13	99.6	<1	2110	265	31	180	4	64	7.1	3.3	4
Jgd10	GP081505-2a	Jgd	Granodiorite	Granite Peak SE	40°06'04"	113°16'00"	67.95	15.08	3.62	2.03	1.3	3.32	3.96	<0.01	0.57	0.1	0.34	0.04	0.1	1.45	99.85	<1	973	165	8.5	50	15.4	<5	3.7	2	1.7
Jgd11	GP081605-5a	Jgd	Monzonite	Granite Peak	40°08'3.5"	113°17'5.5"	58.42	16.59	5.52	4.19	2.55	3.78	4.78	<0.01	0.87	0.11	0.61	0.1	0.22	2.02	99.75	<1	2140	256	14	60	11.4	5	9.3	4.7	4.3
Jgd12	GP081805-2	Jgd	Quartz Monzonite Granodiorite	Granite Peak	40°07'48"	113°18'01"	61.97	16.02	4.78	3.75	2.12	4.33	3.33	<0.01	0.83	0.1	0.58	0.08	0.14	1.89	99.93	<1	1295	226	12.1	50	9.8	13	4.8	2.6	2.6
Jgd13	GP081505-1b	Jgd	porphyry	Granite Peak SE	40°06'22"	113°15'50"	67.29	15.22	3.4	2.87	1.13	3.44	4.33	<0.01	0.56	0.06	0.35	0.07	0.14	0.97	99.82	<1	1385	179.5	6.2	50	4.5	<5	4.1	2.3	2
Jg3	GP080405-2a	Jg	Granite	Granite Peak	40°08'04"	113°15'12"	73.53	14.58	1.26	0.86	0.23	2.66	5.02	<0.01	0.23	0.02	0.16	0.03	0.06	1.04	99.67	<1	503	63.2	1.4	60	3.7	<5	2.4	0.9	1.6
Jg4	GP080405-8	Jg	Granite	Granite Peak	40°08'13"	113°15'00"	73.12	15.09	1.24	1.18	0.17	3.47	4.67	0.01	0.14	0.01	0.1	0.02	0.04	0.73	100	<1	380	99.7	1.4	70	3	<5	4.3	2.1	1.5
Jg2	GP081005-13a	Jg	Granite	Granite Peak	40°09'58.2"	113°15'56.2"	74.13	14.78	0.88	0.38	0.14	2.59	4.98	<0.01	0.21	0.01	0.09	0.01	0.02	1.1	99.31	<1	266	59.2	0.7	50	3.5	<5	3.4	1.8	0.8
Jg5	GP081005-1b	Jg	Granite	Granite Peak	40°08'34"	113°18'17"	72.15	14.89	1.56	1.05	0.28	3.16	5.14	<0.01	0.22	0.02	0.19	0.02	0.05	0.81	99.54	<1	702	66.7	1.4	60	4.9	<5	3	1.5	1
Jg6	GP081005-4	Jg	Granite	Granite Peak	40°08'38"	113°18'34"	73.77	14.71	1.02	0.93	0.15	3.28	4.45	<0.01	0.15	0.03	0.2	0.02	0.02	1.08	99.82	<1	192.5	15.6	0.8	60	5.3	<5	2.4	1.2	0.7
Jg7	GP081005-5b	Jg	Granite	Granite Peak	40°08'47"	113°18'45"	75.05	14.32	0.94	0.86	0.1	3.81	3.75	<0.01	0.06	0.03	0.19	0.01	0.01	0.99	100.15	<1	169.5	13.9	0.6	60	7.7	<5	1.8	1	0.6
Jg8	GP081705-2b	Jg	Granite	Granite Peak	40°09'30"	113°16'56"	73.16	14.33	1.1	1.08	0.13	3.45	4.91	<0.01	0.2	0.02	0.13	0.01	0.04	1.06	99.92	<1	292	54.7	0.9	50	4.6	<5	2.7	1.3	0.7
Jg9	GP080405-6b	Jg	Granite porphyry	Granite Peak	40°07'55"	113°15'07"	68.44	15.61	3.46	1.91	0.66	3.48	4.09	<0.01	0.45	0.05	0.37	0.05	0.09	0.89	99.56	<1	960	191	3.8	60	5.6	<5	5.6	3	1.7
Jg10	GP081005-8a	Jg	Granite porphyry	Granite Peak	40°08'57"	113°19'54"	67.62	15.46	3.23	2.32	0.95	3.35	4.76	<0.01	0.6	0.07	0.32	0.06	0.11	1.08	99.92	<1	1325	187.5	5.7	60	9.5	<5	3.1	1.5	1.6
Jg1	GP081605-9	Jg	Granite porphyry	Granite Peak	40°07'40"	113°18'23"	71.57	14.31	2.81	2	0.74	3.61	3.34	<0.01	0.49	0.06	0.26	0.06	0.07	0.58	99.89	<1	766	172.5	4	60	7.1	<5	3.8	2	1.7
Jgu1	GP081805-1	Jgu	Granite dike in Jgd	Granite Peak	40°07'46"	113°17'59"	72.65	15.34	1.12	1.06	0.14	3.57	4.23	<0.01	0.15	0.03	0.16	0.02	0.02	1.06	99.53	<1	99.8	11.4	0.8	70	3.9	15	2.2	1.2	0.6
Jgdx1	GP081005-7	Jgd	xenolith in Jgd	Granite Peak	40°08'35"	113°19'42"	57.73	15.84	6.64	4.87	3.45	2.53	3.5	0.01	0.8	0.09	0.17	0.03	0.09	4.34	100.1	<1	1005	86.8	18.8	90	31.2	14	4.8	2.9	1.3
Jgx1	GP081005-6	Jg	quartz dike in Jg	Granite Peak	40°08'47"	113°18'45"	95.23	0.98	0.99	0.41	0.01	0.15	0.46	0.03	<0.01	<0.01	0.01	<0.01	0.01	0.45	98.74	5	29.9	1.5	0.9	210	0.6	19	0.1	0.1	0.1
Jgx2	GP081005-3b	Jg	aplite dike in Jg schistose lenses in Jg	Granite Peak	40°08'34"	113°18'17"	70.63	15.28	4.02	0.66	0.06	4.76	1.89	0.02	0.07	1.44	0.14	0.01	0.01	0.71	99.69	<1	25.3	8	0.9	180	3.6	<5	6.1	3.6	0.1
Jgx3	GP080405-6a	Jg	Jg	Granite Peak	40°07'55"	113°15'07"	60.15	16.33	7.07	2.75	2.42	3.59	2.47	0.01	1.45	0.12	0.82	0.04	0.06	2.52	99.8	<1	645	358	9.8	80	5	<5	7.5	3.6	2.9
Jgx4	GP081005-8b	Jg	xenolith in Jg	Granite Peak	40°08'57"	113°19'54"	51	18.68	9.78	3.96	3.7	3.33	4.76	<0.01	1.65	0.22	1.65	0.04	0.05	1.28	100.1	<1	517	506	22.6	20	56.1	90	13	6.1	4.1
PzZm1	GP081805-3	PzZm	schist	Granite Peak SE	40°04'31"	113°16'03"	51.61	15.08	7.88	8.03	7.23	3.26	2.35	0.05	1.25	0.14	0.72	0.09	0.12	1.7	99.49	<1	1325	218	31.9	410	2	17	5.9	2.9	3.3
PzZm2	GP081105-4b	PzZm	schist	Granite Peak SE	40°04'38"	113°15'42"	54.58	21.05	9.2	0.56	2.9	1.12	3.77	0.02	1.17	0.17	0.08	0.03	0.12	5.12	99.89	<1	1125	123.5	33.1	180	8.1	40	10.2	7.1	1.9

Notes:
Major oxides reported in weight percent by x-ray fluorescence (XRF); minor and trace elements reported in ppm by inductively coupled plasma-mass spectrometry (ICP-MS).
All analyses performed by ALS Chemex Labs, Inc., Sparks, NV
Map numbers and units correspond to those of Clark and others (2015).
Rock names using total alkali-silica diagram of LeBas and others (1986).
LOI is loss on ignition.
Location data based on NAD27.

Map Number	Sample #	Map Unit	Rock Name	Ga	Gd	Hf	Ho	La	Lu	Mo	Nb	Nd	Ni	Pb	Pr	Rb	Sm	Sn	Sr	Ta	Tb	Th	Tl	Tm	U	V	W	Y	Yb	Zn	Zr
Trd2	GP081605-1a	Trd	Rhyolite dike	21	3	3	0.7	15	0.3	<2	25	12.2	7	45	3.3	176.5	2.8	6	234	1.9	0.5	6	<0.5	0.3	4.9	21	3	20.8	2.2	55	94.4
Trd3	GP081605-10a	Trd	Rhyolite dike	17	10.7	8	1.6	100.5	0.7	3	32	69.7	<5	9	20.9	301	10.8	<1	130.5	1.8	1.4	27	<0.5	0.7	6.5	30	3	43.3	4.6	61	336
Trd1	GP081605-6b	Trd	Rhyolite dike	18	5.8	6	1.5	34.6	0.9	2	44	27.9	<5	31	8.4	472	5.7	8	87.7	3.4	1	51	0.6	0.9	15	9	6	41.9	6.2	29	167.5
Trs1	GP071405-11	Trs	Rhyolite flow	19	10.3	10	1.5	110.5	0.7	4	35	79.3	7	48	22.8	402	12.8	3	174.5	1.6	1.4	24	1.1	0.6	4.6	42	8	46.7	4.4	54	376
Trs2	GP102605-4	Trs	Rhyolite flow	15	8.1	8	1.2	78.6	0.5	3	25	55	<5	28	16.2	362	8.8	3	178	1.4	1.1	21	<0.5	0.5	5	33	2	34.4	3.4	41	268
Trs3	GP102605-5	Trs	Rhyolite flow	16	9.3	8	1.3	92.8	0.6	3	28	64	<5	30	19.2	325	10.3	3	130.5	1.6	1.2	24	0.8	0.5	4.6	35	3	36.4	3.7	94	285
Trr1	D-47	Trr	Rhyolite	17.6	3.76	4.2	0.49	41.6	0.26	<2	14	23.9	<5	28	7.26	130	3.83	1	304	1	0.48	17.2	<0.5	0.23	3.72	8	5	14.7	1.73	39	130
Trr2	D-48	Trr	Rhyolite	16.2	3.26	4.3	0.48	25.9	0.21	<2	11.4	18.9	7	25	5.18	135.5	3.52	1	409	0.8	0.46	12.7	0.5	0.2	3.1	45	1	13.9	1.48	41	142
Trr3	D-49	Trr	Rhyolite	21.2	4.18	5.7	0.35	50.4	0.14	<2	18.1	30.9	9	32	9.12	161.5	4.63	2	568	1.5	0.48	22.8	0.6	0.14	6.04	57	3	9.7	1.03	40	192
Trr4	D-51	Trr	Rhyolite	20.7	4.09	5.5	0.33	51	0.13	<2	17.4	30.9	5	12	9.26	3.9	4.61	2	26.2	1.4	0.44	23.5	<0.5	0.12	9.82	42	6	9.2	0.95	18	184
Tdd1	GP080905-3	Tdd	Latite dike	25	9.9	9	1.3	86.3	0.5	<2	23	70.4	8	20	18.8	147.5	12.4	6	838	1	1.4	15	0.6	0.5	2.4	161	4	40.1	3	138	369
Tdd2	GP081005-12	Tdd	Dacite dike	22	4.8	5	0.7	45.4	0.3	<2	22	31.3	38	27	8.7	130.5	5.7	5	458	1.7	0.7	14	0.5	0.3	5.1	124	3	23.5	2	71	171.5
Tdd3	GP081005-9	Tdd	Dacite dike	22	4.6	6	0.7	43.3	0.4	<2	22	31.3	36	21	8.5	134	5.6	8	440	1.7	0.7	13	0.6	0.3	4.3	126	4	24	2.2	74	207
Tac1	D-7	Tac	Andesite	17.9	5.58	5.1	0.85	44.3	0.35	<2	16.4	32.7	50	21	9.17	103	5.74	2	417	1.4	0.79	15.95	<0.5	0.33	4.58	115	3	21	2.2	71	174
Tac6	D-9	Tac	Dacite	19.4	4.83	4.3	0.86	32.1	0.36	<2	9.7	26.2	11	22	7	65.1	4.86	1	441	0.7	0.73	7.25	<0.5	0.36	1.62	96	1	21.8	2.35	68	144
Tac7	D-10	Tac	Andesite	21.1	5.96	5.8	0.87	45	0.37	<2	13.5	34.4	<5	19	9.55	120	6.18	1	515	0.9	0.84	13.95	<0.5	0.37	2.95	135	2	23.8	2.44	82	214
Tac8	D-12	Tac	Andesite	20.3	6.26	6.3	1.06	43.2	0.45	3	17.2	34.1	14	17	9.55	80.2	6.19	2	300	1.2	0.91	11.6	<0.5	0.46	2.89	154	2	27.5	2.85	85	232
Tac2	D-15	Tac	Dacite	22.6	5.73	6.7	0.88	48.8	0.36	2	20.8	36.5	11	26	10.15	152	6.53	3	473	1.7	0.83	19.4	0.5	0.39	5.74	133	5	27.6	2.53	73	259
Tac3	D-17	Tac	Andesite	24.2	6.66	7.3	0.97	49.2	0.39	4	20.2	40.5	18	26	10.9	143.5	7.18	3	545	1.5	0.93	17.2	0.5	0.45	4.61	188	4	30.3	2.77	96	271
Tac9	D-19	Tac	Dacite	23	5.84	6.7	0.89	50.2	0.38	2	19.7	36.5	15	29	10.15	145	6.55	3	464	1.7	0.85	19.95	0.6	0.4	5.77	113	5	27.5	2.49	74	261
Tac10	D-20	Tac	Andesite	21.7	5.6	6.2	0.85	47.7	0.36	3	17.1	35.4	7	27	9.84	135.5	6.21	3	490	1.6	0.82	18	0.5	0.38	4.83	122	29	25.5	2.45	74	240
Tac11	D-21	Tac	Dacite	21.5	5.63	6.3	0.82	48.9	0.34	2	17.1	35.1	15	28	9.81	122.5	6.25	2	524	1.3	0.78	18.05	<0.5	0.37	4.74	104	5	25.7	2.46	75	236
Tac4	D-25	Tac	Andesite	19.8	5.84	6.6	0.91	47.6	0.38	2	19.2	37	19	25	10.05	136	6.39	3	440	1.4	0.84	17.75	<0.5	0.43	4.52	127	4	27.9	2.65	70	257
Tac12	D-31	Tac	Andesite	20.6	6.03	6.6	0.9	47.8	0.37	2	19.1	36.5	35	24	10.05	135	6.37	3	479	1.4	0.87	18	<0.5	0.41	4.77	144	3	28.7	2.61	78	257
Tac13	D-32	Tac	Andesite	20.7	6.48	6.8	1.01	46.8	0.41	3	18.6	38.2	38	21	10.35	121	6.93	2	466	1.2	0.93	16.6	<0.5	0.44	3.73	183	3	31.8	2.91	84	265
Tac14	D-37	Tac	Dacite	20	4.9	5.5	0.69	44.4	0.25	3	14.1	32.1	32	25	8.79	133	5.49	2	438	1	0.68	19.4	0.5	0.29	4.72	117	4	21.4	2.01	68	222
Tac15	D-38	Tac	Andesite	19.6	5.78	6.1	0.91	44.3	0.32	2	17.3	36	22	24	9.59	138	6.44	2	460	1.2	0.83	16.35	0.5	0.37	4.18	165	3	27.4	2.54	72	246
Tac5	D-42	Tac	Andesite	21.1	6.42	7	1.24	45.7	0.53	2	19.4	35.4	10	19	9.98	75.8	6.83	2	318	1.2	1.03	14.7	<0.5	0.55	3.05	153	3	37.3	3.48	90	274
Tac16	D-44	Tac	Dacite	19.4	3.95	4.4	0.75	28.5	0.32	<2	11.4	22.3	5	20	5.98	74.8	3.96	1	384	0.8	0.62	9.08	<0.5	0.35	2.33	51	5	24.5	2.36	49	168
Tac17	D-46	Tac	Andesite	20.9	6.19	6.9	0.84	66.6	0.21	3	23.7	45.7	44	25	13.25	105	6.99	2	482	1.6	0.78	28.1	<0.5	0.26	5.04	100	3	19.8	1.6	82	266
Tiac1	D-6	Tiac	Andesite	18.7	5.72	5.7	0.95	41.6	0.41	2	19.9	31.1	7	21	9.01	93.9	5.74	3	295	1.6	0.85	12.95	<0.5	0.41	4.71	128	2	25	2.76	80	201
Tiac2	D-40	Tiac	Andesite	20.2	5.35	5.7	0.95	41	0.39	2	20.1	30.9	11	19	8.51	84.9	5.45	3	347	1.3	0.81	14.35	<0.5	0.41	3.65	152	3	28.2	2.69	74	219
Tiac3	D-59	Tiac	Andesite	20.5	6.37	6.4	1	49.4	0.47	2	22.5	36.8	<5	20	10.4	85.7	6.48	2	349	1.5	0.89	14.25	<0.5	0.43	3.88	110	3	27.4	3.09	89	250
Tlw1	D-80	Tlw	Latite	20.5	5.67	5.1	0.81	41.2	0.33	5	14.6	34.1	<5	26	8.46	184.5	6.36	2	456	0.9	0.76	14.25	<0.5	0.34	4.22	69	3	22.9	2.08	78	189
Tlw2	D-81	Tlw	Trachydacite	20.3	5.51	5.6	0.74	46.9	0.32	3	16.3	35.4	<5	27	9	199	6.24	2	440	1	0.72	16.85	0.6	0.32	4.85	30	3	21.8	2.09	69	212
Tid1	FM083105-1	Tid	Dacite	20	4.9	6	0.6	61.6	0.2	<2	15	37.3	14	49	11.2	127.5	5.7	2	634	1.1	0.6	21	<0.5	0.2	3.4	67	1	16.7	1.5	59	198
Tid2	D-4	Tid	Dacite	18.7	5.58	5.8	0.6	64.9	0.24	2	18	42	31	33	12.6	144	6.36	2	574	1.8	0.68	26.6	<0.5	0.24	9.13	67	2	15.7	1.62	63	193
Tit1	D-2	Tit	Trachyte	15.7	7.78	7.4	1.01	66.6	0.4	<2	17.7	49.8	76	101	14.3	503	8.4	2	141.5	1	1.06	19.9	<0.5	0.41	4.21	107	7	27.5	2.68	332	272
Tit2	D-3	Tit	Tephriphonolite	14.8	6.32	5.6	0.81	53.3	0.28	<2	13.7	39.8	181	13	11.45	368	6.68	1	245	0.8	0.83	14.2	1.3	0.32	2.19	107	6	20.3	1.97	93	203
Jgd2	GP102605-2	Jgd	Monzodiorite	18	15.6	8	1.5	128	0.5	2	51	110	68	29	30.5	224	18.8	6	764	2.4	1.8	19	<0.5	0.5	6.7	198	1	41.9	3.3	85	316
Jgd1	GP102605-3	Jgd	Monzonite	21	10.4	7	1	142	0.3	3	85	87.1	11	25	26.2	178	12.6	5	848	4.9	1.2	39	<0.5	0.3	9.5	112	1	28	2.4	60	278
Jgd3	GP080405-7a	Jgd	Granodiorite	23	8.6	6	0.8	113.5	0.3	2	76	74.3	18	18	21.7	196.5	11.2	7	824	3.4	1	25	0.5	0.3	8.5	98	4	25.3	1.9	80	276
Jgd4	GP080905-1a	Jgd	Monzonite	22	11.8	7	1.1	152.5	0.4	6	106	102	14	37	29.6	189.5	15.2	7	1005	4.5	1.4	34	0.5	0.4	8.6	111	2	33.9	2.5	73	325
Jgd5	GP080905-4	Jgd	Quartz Monzonite	23	9.7	7	0.9	150.5	0.4	2	120	86.1	8	22	26.2	234	12	9	767	5.8	1.1	35	0.6	0.3	4.7	79	2	28.4	2.2	75	317
Jgd6	GP081005-10	Jgd	Granodiorite	23	9.4	6	0.8	117.5	0.3	2	83	78.5	34	20	22.6	455	11.9	11	549	3.1	1.1	34	1.3	0.3	8.5	109	8	27.5	2.2	76	229
Jgd7	GP081105-10	Jgd	Monzonite	18	9.7	6	0.9	96.7	0.3	<2	44	69.7	66	24	19.8	141.5	10.9	4	717	2.2	1.1	21	<0.5	0.3	4.5	118	2	24.2	2.2	67	281
Jgd8	GP081105-2	Jgd	Diorite	19	13	4	1.2	100	0.4	2	46	90.6	26	91	24.1	142.5	15.2	7	872	2.2	1.5	18	<0.5	0.4	4.1	218	3	31.7	2.7	84	172.5
Jgd9	GP081105-7	Jgd	Monzodiorite	18	16	4	1.2	134.5	0.3	2	33	123	86	21	33.4	147.5	19.2	2	1315	1.7	1.7	26	<0.5	0.4	4.9	215	3	31.9	2.4	72	150
Jgd10	GP081505-2a	Jgd	Granodiorite	20	7.4	5	0.7	103.5	0.3	<2	81	56.2	9	16	17.7	293	8	10	363	4.3	0.8	42	0.5	0.3	7.9	68	4	19.1	1.7	78	205
Jgd11	GP081605-5a	Jgd	Monzonite	21	16.2	6	1.7	137.5	0.5	2	98	114.5	16	24	31.7	219	19	9	864	5.2	2	28	<0.5	0.6	7.2	118	4	44.8	3.7	83	297
Jgd12	GP081805-2	Jgd	Quartz Monzonite Granodiorite	20	10.2	6	0.9	135	0.3	5	86	82.6	13	19	25.1	186.5	11.4	15	667	5.2	1.1	31	<0.5	0.3	10.2	101	5	24.7	2.1	80	284
Jgd13	GP081505-1b	Jgd	porphyry	20	7.9	5	0.7	111	0.3	2	99	63.1	5	30	20	181	8.8	6	572	6.3	0.9	46	<0.5	0.3	8.1	50	3	21.3	2.1	47	232
Jg3	GP080405-2a	Jg	Granite	21	3.6	3	0.4	34.3	0.1	<2	40	21.6	5	63	6.6	265	4.1	9	257	3.3	0.5	15	0.7	0.1	3.7	8	4	12.4	0.8	49	105
Jg4	GP080405-8	Jg	Granite	19	5.3	5	0.8	56.3	0.3	3	36	31.8	12	53	9.9	236	6	5	192.5	1.3	0.8	21	0.7	0.3	5.1	5	3	25.8	1.7	51	182
Jg2	GP081005-13a	Jg	Granite	35	3.7	3	0.6	32.6	0.3	<2	112	19.8	<5	33	6.1	331	4.1	22	81.7	4.6	0.6	17	0.7	0.3	3.7	11	8	22.6	1.8	21	91.2
Jg5	GP081005-1b	Jg	Granite	25	3.5	4	0.5	35.7	0.2	<2	70	22.3	<5	46	6.9	312	4.2	3	222	3	0.5	19	0.8	0.2	9.6	13	4	17.9	1.5	73	148
Jg6	GP081005-4	Jg	Granite	19	1.7	2	0.4	8.3	0.2	<2	31	5.6	<5	60	1.7	294	1.5	9	140.5	4.3	0.4	3	0.6	0.2	1.5	8	3	16.2	1.1	64	55.7
Jg7	GP081005-5b	Jg	Granite	18	1.2	1	0.3	8.1	0.2	3	29	5	<5	89	1.5	276	1.2	9	109.5	2.8	0.3	3	0.8	0.2	1.4	6	3	12.5	1.1	104	39.9
Jg8	GP081705-2b	Jg	Granite	22	3.7	2	0.4	32.7	0.1	<2	62	19.6	<5	35	6.1	106	3.9	9	93	4.6	0.5	18	<0.5	0.2	3.3	5	5	14.1	1.1	55	78.2
Jg9	GP080405-6b	Jg	Granite porphyry	25	7.6	7	1	108.5	0.4	<2	79	59.1	6	30	18.8	296	8.6	22	420	3	1	39	0.8	0.4	7.6	28	3	34.8	2.6	85	315
Jg10	GP081005-8a	Jg	Granite porphyry	24	6.7	7	0.5	106	0.2	2	63	59.3	5	33	18.6	263	8.1	7	561	1.1	0.7	40	0.6	0.2	10.4	46	42	18	1.2	57	274
Jg1	GP081605-9	Jg	Granite porphyry	21	7.6	5	0.6	102.5	0.2	2	76	58.3	<5	26	18.6	179.5	8.4	10	454	3.5	0.8	36	<0.5	0.2	4.4	33	3	18.8	1.6	54	253
Jgu1	GP081805-1	Jgu	Granite dike in Jgd	17	1.2	1	0.4	6.7	0.1	2	27	4.3	<5	62	1.2	236	1	9	104.5	3.2	0.3	3	<0.5	0.2	1.9	5	3	14.2	1.1	56	35.2
Jgdx1	GP081005-7	Jgd	xenolith in Jod	21	5.4	6	1	45.8	0.5	<2	20	35.2	13	23	9.5	282	6.7	6	339	1.1	0.8	12	0.8	0.4	3	158	4	29.3	2.8	85	240
Jgx1	GP081005-6	Jg	quartz dike in Jg	2	0.1	<1	<0.1	1.3	<0.1	2	2	0.6	5	128	0.2	31.2	0.1	7	10.5	<0.5	<0.1	<1	<0.5	<0.1	2.4	<5	3	1.5	0.1	84	13.6
Jgx2	GP081005-3b	Jg	aplite dike in Jg schistose lenses in Jo	26	1.3	5	1.2	4.9	0.7	4	83	2.4	5	19	0.8	203	0.8	17	27	17	0.6	6	<0.5	0.7	6.9	6	4	54.4	4.8	75	99.8
Jgx3	GP080405-6a	Jg	Jo	27	14.4	11	1.2	188.5	0.5	<2	174	129	17	32	38.2	197	18.4	17	416	6.4	1.6	34	0.6	0.5	5.3	90	10	39.8	3	128	537
Jgx4	GP081005-8b	Jg	xenolith in Jg	37	21.7	12	2.3	278	0.7	3	196	173.5	6	36	51.8	860	25	23	429	3.6	2.7	56	2.6	0.8	6.6	147	4	73.2	4.3	219	561
PzZm1	GP081805-3	PzZm	schist	21	12.2	7	1	124	0.3	2	59	91.6	120	31	26	90.1	14.2	6	813	2.8	1.3	19	<0.5	0.3	2.5	176	2	26.9	2.1	204	346
PzZm2	GP081105-4b	PzZm	schist	26	10.1	5	2.2	67.4	1	3	20	56.8	114	13	15.4	170	10.2	4	212	1.2	1.6	25	<0.5	1	2.7	189	4	61.5	7	128	186

Notes:
Major oxides reported in weight percent by x-ray fluorescence (XRF); minor and trace elements reported in ppm by inductively coupled plasma-mass spectrometry (ICP-MS).
All analyses performed by ALS Chemex Labs, Inc., Sparks, NV
Map numbers and units correspond to those of Clark and others (2015).
Rock names using total alkali-silica diagram of LeBas and others (1986).
LOI is loss on ignition.
Location data based on NAD27.