

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF
1	LEMH RANGE DATA SET, showing sample numbers, locations, descriptions, and chemical analyses. Big Creek and Apple Creek Formations, Lemhi Range, Idaho.																															
2	Major oxides analyzed by X-ray fluorescence spectrometry by J. E. Taggart, Jr.; trace elements, by six-step semiquantitative spectrographic method by P. H. Briggs, D. E. Detra, D. L. Fey, R. T. Hopkins, J. M. Motooka, and K. Slaughter.																															
3	Ten samples (numbers beginning with 'JC') from Connor, 1991a, trace elements analyzed by inductively coupled plasma-atomic absorption emission spectroscopy																															
4	by A. J. Bartel, P. H. Briggs, R. R. Carlson, J. G. Crook, C. S. E. Papp, B. H. Roushey, D. F. Siems, J. E. Taggart, Jr., and E. P. Welsch																															
5	Replacement values, lower limit of detection, and number of replaced values are in Table 10 of report.																															
6	Formations (Tysdal, 2000a) are Yay, Yellow Creek unit of Apple Creek Formation; Yaf, fine siltite unit of Apple Creek Formation; Yad, diamictite unit of Apple Creek Formation; Yac, coarse siltite unit of Apple Creek Formation; and Yb, Big Creek Formation																															
7	FeTO3, total iron as Fe2O3; LOI, Loss on ignition; PCT, percent; PPM, parts per million.																															
8																																
9	Field Number	Laboratory Number	Laboratory Number	North Latitude	West (-) Longitude	Formation	Rock Type	SiO2 PCT	Al2O3 PCT	FeTO3 PCT	MgO PCT	CaO PCT	Na2O PCT	K2O PCT	TiO2 PCT	P2O5 PCT	MnO PCT	LOI PCT	BPPM	Ba PPM	Be PPM	Co PPM	Cr PPM	Cu PPM	Ga PPM	La PPM	Ni PPM	Pb PPM	Sc PPM	V PPM	Y PPM	Zn PPM
10	89ITZ106	C-132797	D367467	44.7528	-113.7994	Yb	Metasandstone	76.8	9.43	2.48	1.09	1.55	2.22	2.16	0.32	0.17	0.07	2.99	15	300	1.5	7	30	3	20	30	7	7	10	70	30	150
11	89ITZ106	C-132822	D362569	44.75	-113.8083	Yb	Metasandstone	67.6	15.9	4.56	0.95	0.47	1.21	4.99	0.61	0.26	0.01	2.78	70	300	5	7	70	3	50	50	10	15	100	50	300	
12	89ITZ143	C-132808	D349662	44.8611	-113.8606	Yad	Siltite	63.3	17.2	6.01	1.59	0.33	2.27	4.66	0.62	0.22	0.05	2.82	30	700	2	15	50	500	30	20	10	10	100	30	200	
13	89ITZ155	C-132798	D367468	44.7503	-113.7803	Yad	Siltite	67.8	14.2	7.43	0.85	0.04	0.96	5.61	0.52	0.12	0.01	1.94	30	2000	1.5	7	50	3	50	50	7	15	15	100	70	300
14	89ITZ156	C-132856	D504725	44.7461	-113.7742	Yad	Siltite	81	7.61	4.39	1	0.08	1.31	1.66	0.27	0.14	0.02	1.59	15	300	1	15	30	15	15	30	15	7	5	30	30	100
15	89ITZ163	C-132809	D349663	44.7558	-113.7683	Yad	Siltite	72.9	11.4	6.28	1.31	0.21	2.3	2.15	0.46	0.18	0.03	1.76	30	500	2	15	20	7	15	30	20	7	7	70	30	150
16	89ITZ176	C-132810	D349664	44.7592	-113.785	Yad	Siltite	65.4	15.1	7.91	1.32	0.19	1.1	5.17	0.57	0.19	0.02	1.96	70	1500	2	7	20	50	20	50	15	10	10	100	30	150
17	89ITZ178	C-132900	D378616	44.7558	-113.7914	Yb	Siltite	70.5	13.9	4.8	1.17	0.3	1.83	4.05	0.52	0.19	0.02	2.06	50	700	1.5	10	70	3	30	50	20	7	10	70	30	500
18	89ITZ179	C-132901	D378617	44.7558	-113.7894	Yad	Siltite	68.2	12.9	9.14	0.66	0.13	0.32	3.32	0.49	0.19	0.04	1.76	70	1000	2	7	70	7	50	50	10	15	15	100	50	700
19	89ITZ184	C-132811	D334965	44.7678	-113.775	Yad	Diamictite	65.8	14.6	6.17	2.56	0.28	1.87	3.84	0.6	0.23	0.04	2.61	50	2000	1.5	20	50	3	30	70	30	15	15	100	50	200
20	89ITZ196	C-132812	D334966	44.7697	-113.7917	Yad	Diamictite	67.2	14.6	5.9	1.77	0.25	2.51	3.83	0.57	0.21	0.04	2.2	50	1500	2	15	50	3	30	30	20	10	15	100	30	200
21	89ITZ199A	C-132813	D334967	44.7664	-113.7908	Yad	Siltite	71	10.4	7.27	2.15	0.15	0.92	2.61	0.42	0.17	0.02	2.16	50	5000	2	30	10	7	15	30	20	10	7	70	20	200
22	89ITZ199B	C-132814	D334968	44.7664	-113.7908	Yad	Siltite	78	6.92	6.64	1.27	0.07	1.24	1.27	0.22	0.16	0.02	1.81	30	3000	1.5	20	7	10	10	30	20	10	5	30	100	150
23	89ITZ199C	C-132815	D334969	44.7639	-113.7947	Yad	Siltite	68.6	12.5	7.44	1.59	0.41	1.6	3.28	0.53	0.19	0.06	2.11	50	3000	2	30	30	20	20	50	30	10	10	70	30	300
24	89ITZ191C	C-132902	D378618	44.7639	-113.795	Yad	Siltite	69.9	13.5	6.01	1.1	0.21	1.41	4	0.43	0.17	0.04	2.1	50	3000	3	7	50	3	50	50	10	10	15	50	700	
25	89ITZ208	C-132857	D504726	44.7683	-113.8003	Yaf	Metasandstone	68.8	11.2	3.11	2.22	2.97	1.96	2.55	0.44	0.18	0.14	5.6	30	300	1.5	7	70	7	30	30	20	7	7	50	50	150
26	89ITZ214	C-132816	D334971	44.7694	-113.7917	Yad	Siltite	68.5	12.5	8.14	1.68	0.18	1.55	3.3	0.49	0.19	0.02	2.19	30	3000	3	20	30	50	20	30	20	7	10	70	30	200
27	89ITZ229	C-132817	D334972	44.7653	-113.7917	Yad	Diamictite	70.7	12.8	6.62	0.87	0.05	0.84	4.04	0.48	0.13	0.02	2.08	50	2000	3	7	20	3	30	50	7	30	10	70	30	300
28	89ITZ267	C-132879	D388499	44.8542	-113.8714	Yac	Siltite	73.1	12.5	4.03	0.98	0.33	3.18	4.1	0.38	0.18	0.02	0.86	7	1500	2	15	30	15	50	70	15	7	7	70	50	300
29	89ITZ309	C-132858	D504727	44.8111	-113.7994	Yad	Diamictite	77.9	11	2.36	0.17	0.47	5.07	0.87	0.31	0.16	0.03	0.69	10	200	1	7	50	3	20	30	3	10	7	30	15	150
30	89ITZ351	C-132818	D334975	44.7894	-113.8172	Yad	Diamictite	67.2	14.2	7.23	1.26	0.09	0.15	4.95	0.45	0.17	0.04	2.66	50	2000	3	20	30	30	30	50	7	7	10	70	30	300
31	89ITZ386	C-132819	D334976	44.7819	-113.8014	Yad	Diamictite	69.2	12.6	8.59	1.32	0.11	0.17	4.1	0.47	0.18	0.01	2.19	50	2000	3	7	50	30	20	30	7	10	10	70	30	200
32	89ITZ412	C-132880	D388500	44.8428	-113.8556	Yac	Siltite	72.6	12.6	4.71	1.02	0.38	4.19	2.34	0.41	0.16	0.02	0.99	7	700	1.5	7	50	7	30	70	20	7	7	70	30	300
33	89ITZ413	C-132881	D388501	44.8439	-113.8594	Yac	Siltite	62.6	17.4	6.13	1.59	0.56	2.59	5.18	0.67	0.19	0.03	2.17	50	1500	3	7	70	10	70	50	30	15	15	100	50	300
34	89ITZ419	C-132799	D367471	44.8442	-113.8508	Yad	Siltite	73.1	13.4	2.19	0.39	0.35	3.36	5.47	0.23	0.14	0.02	0.64	7	1000	1	7	7	5	30	30	3	20	5	15	30	100
35	90ITZ107	C-132839	D359175	44.7192	-113.7297	Yaf	Siltite	78.4	9.98	3.67	0.38	0.19	1.3	2.91	0.24	0.21	0.35	1.71	50	1500	1.5	7	70	50	30	70	15	10	10	70	100	300
36	90ITZ109	C-132840	D359176	44.7583	-113.7053	Yad	Siltite	70.5	10.9	9.43	1.42	0.16	2.25	1.99	0.39	0.19	0.02	2.01	20	300	1	15	30	150	30	100	20	30	7	50	30	200
37	90ITZ125	C-132859	D504730	44.7328	-113.7475	Yaf	Siltite	81.7	8.62	2.77	0.5	0.12	0.1	3.28	0.34	0.17	0.01	1.44	30	500	1.5	7	30	5	15	50	7	7	7	30	70	200
38	90ITZ130C	C-132841	D359181	44.7928	-113.7083	Yad	Siltite	64.8	20.2	3.05	0.55	0.25	0.86	5.83	0.78	0.21	0.007	2.83	30	500	1.5	7	50	15	30	70	3	7	15	70	30	200
39	90ITZ135	C-132842	D359182	44.7811	-113.7142	Yad	Siltite	63.5	10.9	17.6	0.51	0.23	1.18	3.11	0.48	0.21	0.01	1.23	20	1500	1.5	7	30	50	30	30	10	7	7	70	30	150
40	90ITZ14	C-132801	D367473	44.7514	-113.785	Yad	Siltite	67.2	16.1	4.18	1.43	0.14	0.86	5.95	0.43	0.17	0.02	2.51	30	1500	1.5	7	50	3	50	30	7	15	15	70	200	
41	90ITZ161	C-132820	D363662	44.7256	-113.605	Yad	Siltite	73.6	5.06	12.8	0.1	0.07	0.1	0.77	0.27	0.31	0.01	5.97	30	500	0.7	7	30	20	30	50	5	30	5	100	30	300
42	90ITZ182	C-132821	D363665	44.7611	-113.835	Yb	Siltite	66.8	14	6.19	2.39	0.61	2.38	3.1	0.79	0.19	0.02	2.64	50	300	2	20	150	3	70	50	70	10	10	150	50	300
43	90ITZ185	C-132822	D363666	44.7578	-113.8344	Yb	Siltite	77.8	10.1	2.85	2.46	0.03	0.1	3.52	0.13	0.09	0.01	2.32	15	500	3	15	10	3	50	30	10	7	3	15	15	200
44	90ITZ190	C-132860	D504731	44.7469	-113.741	Yb	Siltite	86.3	6.41	2.07	1.54	0.04	0.1	1.72	0.07	0.1	0.01	1.5	10	150	1.5	7	15	3	70	7	7	3	30	10	70	
45	90ITZ193	C-132823	D363667	44.7053	-113.6686	Yb	Siltite	74.1	12.5	3.59	0.64	0.66	1.37	2.8	0.61	0.24	0.16	2.27	50	500	2											

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF
84	911T206	C-132893	D382585	44.7664	-113.835	Yb	Metasandstone	75.2	11.2	2.28	0.48	2.29	1.23	2.62	0.38	0.18	0.04	3.69	50	200	2	7	70	3	30	50	20	10	7	70	50	300
85	911T210	C-132894	D382588	44.7689	-113.8294	Yaf	Metasandstone	80.9	9.54	1.81	0.47	0.31	2.42	2.07	0.42	0.19	0.02	1.31	50	700	1.5	7	70	7	30	30	3	10	7	70	30	700
86	911T211	C-132865	D504737	44.7694	-113.8211	Yb	Metasandstone	76.7	10.1	2.39	0.92	1.48	2.57	1.69	0.36	0.18	0.04	2.71	15	500	1.5	7	30	7	20	30	10	7	7	30	50	300
87	911T216A	C-132866	D504738	44.7847	-113.8425	Yb	Metasandstone	73.2	10.9	3.1	1.28	1.87	1.67	2.5	0.55	0.23	0.09	3.95	30	500	1.5	10	70	5	30	50	15	10	10	70	50	500
88	911T222	C-132867	D504739	44.7883	-113.8506	Yaf	Metasandstone	76.7	9.73	5.34	1.99	0.23	3.4	0.41	0.26	0.18	0.02	1.45	15	100	0.7	20	30	3	30	30	20	10	3	30	30	100
89	911T224	C-132895	D382593	44.7906	-113.8483	Yaf	Metasandstone	85.4	7.43	1.35	0.21	0.41	3.86	0.21	0.12	0.13	0.03	0.66	10	70	0.7	7	10	3	15	30	3	7	3	10	50	150
90	911T224	C-132862	D504733	44.7606	-113.7189	Yaf	Siltite	72.5	13.8	2.54	1.71	0.1	3.19	2.77	0.28	0.13	0.02	1.82	20	300	2	15	20	20	30	30	15	7	7	50	30	150
91	911T2251	C-132896	D382594	44.7756	-113.8564	Yb	Metasandstone	94.8	1.14	0.56	0.22	0.85	0.16	0.28	0.05	0.11	0.04	1.28	7	70	0.7	7	15	3	3	30	5	7	3	15	7	30
92	911T2266	C-132868	D504740	44.8122	-113.87	Yaf	Metasandstone	80	8.78	3.68	1.92	0.14	0.15	2.38	0.29	0.18	0.02	2.16	30	700	3	7	30	3	30	30	10	7	5	30	15	500
93	911T2269	C-132869	D504741	44.815	-113.8664	Yb	Metasandstone	72.8	12.6	3.03	1.32	0.68	1.2	3.87	0.23	0.13	0.19	2.6	15	1500	3	20	20	7	30	50	15	7	5	30	30	100
94	911T227	C-132911	D378628	44.7664	-113.7133	Yad	Diamictite	91.7	2.6	1.44	1.51	0.05	0.1	0.38	0.15	0.13	0.01	0.94	15	70	0.7	7	15	3	7	30	3	7	5	30	20	150
95	911T2283	C-132897	D382597	44.7719	-113.8633	Yb	Metasandstone	73.1	12.9	3.4	1.33	0.3	2.06	3.39	0.6	0.24	0.02	2.01	50	300	2	10	100	3	50	30	30	7	10	100	50	700
96	911T2284	C-132898	D382598	44.7717	-113.87	Yb	Metasandstone	78	9.76	2.98	1.36	0.52	1.79	2.23	0.35	0.21	0.05	1.84	50	300	1.5	15	50	3	20	50	50	7	7	50	150	500
97	911T2289	C-132870	D504742	44.7789	-113.8686	Yb	Metasandstone	87	6.27	1.44	1.64	0.07	0.1	1.54	0.13	0.12	0.01	1.45	30	150	1.5	7	70	7	15	30	15	15	3	30	15	70
98	911T22B	C-132907	D378624	44.7736	-113.7111	Yad	Diamictite	70.2	12.2	7.61	1.76	0.29	0.91	3.59	0.47	0.24	0.04	2.29	50	2000	2	30	70	300	50	50	20	10	10	70	30	500
99	911T23	C-132908	D378625	44.775	-113.7139	Yad	Diamictite	68.4	13	7.47	2.24	0.16	1.18	3.24	0.49	0.22	0.03	2.72	50	2000	1.5	10	70	30	50	30	30	10	10	100	30	500
100	911T2307	C-132899	D382600	44.8189	-113.8722	Yad	Siltite	83.4	6.1	4.47	0.25	0.66	1.08	1.49	0.21	0.15	0.17	1.15	50	1500	1.5	7	20	10	15	30	7	7	5	50	20	200
101	911T2335	C-132872	D388484	44.8333	-113.905	Yaf	Metasandstone	62.2	17	7.87	1.55	0.16	0.19	6.38	0.65	0.19	0.02	2.58	20	2000	1.5	20	100	5	50	30	30	7	15	70	30	300
102	911T237A	C-132873	D388485	44.8356	-113.9033	Yaf	Diamictite	65.5	13.6	8.07	0.58	0.11	0.1	5.42	0.48	0.19	0.03	1.96	50	2000	2	7	50	20	50	30	15	10	7	70	30	200
103	911T2423B	C-132874	D388489	44.8353	-113.8661	Yad	Siltite	71.5	13.6	3.44	1.22	0.27	3.85	2.15	0.35	0.2	0.02	1.86	20	500	2	7	50	10	50	20	10	7	70	30	150	
104	911T2424	C-132875	D388490	44.8378	-113.8578	Yad	Siltite	76.1	11.4	3.64	1.07	0.13	3.1	2.5	0.34	0.17	0.02	0.95	15	700	1.5	7	50	3	30	50	20	7	7	70	20	200
105	911T2425	C-132871	D504745	44.8333	-113.8325	Yac	Siltite	75.1	12.7	2.97	0.73	0.13	4.18	2.26	0.26	0.14	0.02	0.95	10	700	3	7	20	10	30	30	7	15	7	30	15	100
106	911T2432	C-132876	D388491	44.8531	-113.8672	Yac	Siltite	65.9	16	5.66	1.47	0.41	4.33	3.34	0.61	0.18	0.02	1.49	30	1000	2	7	70	3	50	30	30	10	10	100	30	300
107	911T2433	C-132877	D388492	44.85	-113.865	Yac	Siltite	70.4	13.8	4.88	1.04	0.31	4.37	2.74	0.48	0.16	0.01	0.91	10	1000	2	10	70	15	50	30	30	7	10	70	50	300
108	911T246	C-132792	D378629	44.7469	-113.7436	Yad	Diamictite	61.8	7.75	14.2	0.59	0.1	0.44	2.69	0.39	0.14	0.01	1.16	50	7000	2	7	30	7	50	30	7	7	7	70	30	300
109	911T2462	C-132878	D388493	44.835	-113.9092	Yaf	Metasandstone	65.9	15.9	5.29	1.41	0.19	1.96	5.26	0.65	0.21	0.01	2.28	30	2000	3	20	70	30	50	30	30	10	15	100	70	500
110	911T24B	C-132909	D378626	44.7764	-113.7144	Yad	Diamictite	64.8	16.2	6.57	2.44	0.28	0.29	4.87	0.67	0.23	0.04	3.42	70	3000	2	10	100	5	50	70	20	10	15	100	50	300
111	911T253	C-132793	D378630	44.7558	-113.6878	Yad	Siltite	70.1	12.8	6.81	1.1	0.15	1.27	4.7	0.45	0.19	0.01	1.6	20	1500	2	7	50	100	50	30	20	7	10	70	50	500
112	911T255	C-132863	D504734	44.7572	-113.6825	Yad	Siltite	69.7	12.2	7.94	1.93	0.13	1.2	2.1	0.47	0.18	0.02	2.81	50	300	1.5	7	30	20	30	30	10	7	7	70	20	300
113	911T274	C-132794	D378632	44.7461	-113.6864	Yb	Siltite	73.6	13.9	3.18	0.56	0.24	2.07	3.68	0.52	0.19	0.01	1.63	50	1000	2	7	100	5	50	50	20	7	15	150	20	700
114	911T275	C-132863	D382570	44.7433	-113.7081	Yad	Siltite	73	8.01	10.2	0.5	0.07	0.1	2.91	0.33	0.13	0.06	1.43	70	7000	5	7	50	20	30	30	3	7	10	70	50	300
115	911T28	C-132861	D504732	44.7883	-113.7206	Yac	Siltite	71.2	12.3	4.18	0.99	2.45	0.7	3.15	0.5	0.19	0.07	3.83	50	700	2	15	50	3	30	50	20	7	7	70	30	200
116	911T290	C-132795	D378633	44.7522	-113.7169	Yad	Diamictite	69.6	13	6.72	1.35	0.42	2.29	3.15	0.48	0.18	0.04	2.02	50	2000	1.5	10	100	3	50	70	20	7	10	150	30	500
117	911T292	C-132796	D378634	44.7575	-113.7889	Yad	Siltite	64.4	14.4	9.55	1.2	0.2	0.77	5.59	0.54	0.16	0.02	2.08	50	3000	2	10	100	10	70	30	20	10	15	100	50	300
118	921T2108	C-132846	D564426	44.7867	-113.8225	Yaf	Siltite	66.4	15.2	6	2.98	0.19	1.33	3.52	0.75	0.2	0.02	2.89	20	200	1	15	70	3	20	50	20	7	10	50	20	300
119	921T2134	C-132854	D514511	44.8044	-113.8789	Yb	Metasandstone	74.8	12.1	3.16	1.08	0.43	3.64	2.43	0.43	0.17	0.01	1	15	300	1	7	50	3	20	30	20	7	7	50	15	150
120	921T2136	C-132853	D514512	44.8072	-113.8883	Yb	Metasandstone	67.9	15	4.99	1.81	0.15	2.47	4.49	0.53	0.17	0.02	1.76	15	1000	1.5	20	70	15	50	30	30	7	7	50	10	70
121	921T2159	C-132852	D514514	44.8156	-113.8944	Yaf	Siltite	72.9	12.7	3.89	1.41	0.41	3.61	2.17	0.39	0.15	0.02	1.75	15	300	1.5	7	30	3	20	30	10	7	7	30	30	150
122	921T2187	C-132850	D514518	45.8344	-113.9678	Yac	Siltite	67.2	15.2	4.74	1.35	0.5	3.65	3.78	0.65	0.21	0.02	1.71	20	700	1	7	70	3	30	50	20	15	10	50	20	200
123	921T253B	C-132855	D514502	44.7489	-113.8103	Yb	Siltite	63.8	17.1	5.78	1.36	0.5	0.18	6.38	0.65	0.2	0.02	3	100	300	2	7	50	3	50	50	30	7	15	70	100	200
124	931T2143	C-132848	D535340	44.8472	-113.9108	Yad	Diamictite	61.4	11.6	16	0.49	0.05	0.15	5.58	0.42	0.18	0.02	2.79	30	2000	2	7	50	100	70	70	7	15	10	70	30	200
125	931T2154	C-132849	D535342	44.8389	-113.9	Yad	Diamictite	68	10.6	10.5	0.49	0.02	0.1	4.53	0.34	0.12	0.02	2.46	20	7000	2	70	15	150	30	30	30	10	7	30	30	150
126	941T2163D	C-132845	D564429	44.8117	-113.9653	Yaf	Siltite	79.6	8.94	3.56	0.31	0.86	2.45	1.93	0.27	0.16	0.04	1.5	7	300	1	10	20	5	7	30						