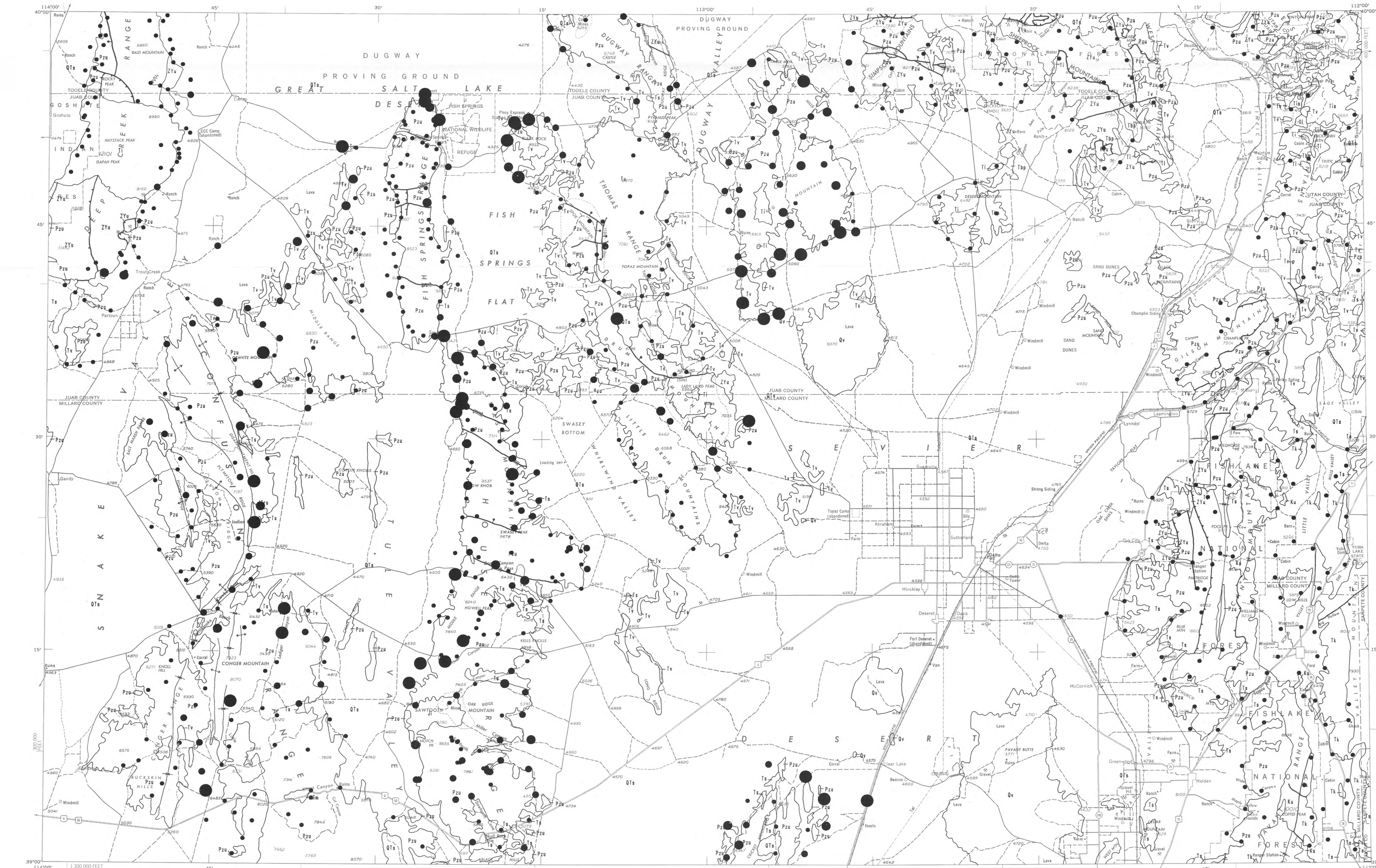




Map D. Distribution of samples with high factor 4 scores in stream-sediment samples, Delta 1° x 2° quadrangle, Utah



Map E. Distribution of samples with high factor 5 scores in stream-sediment samples, Delta 1° x 2° quadrangle, Utah

EXPLANATION, FACTOR 4			
Lower boundary	Upper boundary	Symbol	Approximate percentile
-3.04	0.70	•	<75
0.70	1.28	•	75-90
1.28	1.58	•	90-95
1.58	4.23	•	>95

Samples located at geometric midpoint of symbols.

Table 1. Lower and upper determination limits, and occurrence of censored data for selected elements analyzed in stream-sediment samples, Delta 1° x 2° quadrangle, Utah

[LDL, lower determination limit; UDL, upper determination limit; B, not analyzed; L, detected, but below LDL; R, not detected; G, greater than UDL; DR, detection ratio; na, not applicable; LD and UDL for all elements reported in ppm except Ca, Fe, Mn, Na, P, and Ti, which are given in percent; all elements analyzed by emission spectroscopy except those annotated with the following: AA, atomic absorption spectroscopy; CV, atomic absorption spectroscopy; ICP, inductively coupled plasma-atomic emission spectroscopy; %, element not used in factor analysis]

Element	LDL	UDL	B	L	N	G	DR
As*	0.5	5000	0	21	724	0	0.04
As*	200	10000	0	0	774	0	0.00
As-ICP*	5	na	594	43	11	0	0.16
As*	10	500	0	0	775	0	0.00
As-AA*	0.05	na	597	111	55	0	0.02
B	10	2000	0	27	1	0	0.96
Ba	20	5000	0	0	0	0	1.00
Be	1	1000	0	180	39	0	0.72
Be*	10	1000	0	0	774	0	0.90
Bi-ICP*	2	na	594	158	10	0	0.02
Ca-%	0.05	20	0	0	0	4	0.99
Cd*	20	500	0	0	775	0	0.00
Cd-ICP*	0.1	na	594	0	5	0	0.23
Co	10	2000	0	53	8	0	0.92
Cr	10	5000	0	7	1	0	0.99
Cr	5	20000	0	2	0	0	1.00
Fe-%	0.05	20	0	0	0	0	1.00
Fe	30	1000	0	273	100	0	0.52
Mg-%	0.02	10	0	0	0	0	1.00
Mn	10	5000	0	0	0	0	1.00
Mn*	5	2000	0	101	641	0	0.04
Nb*	20	2000	0	91	645	0	0.05
Ni	5	5000	0	3	0	0	1.00
Pb	10	20000	0	56	0	0	0.93
Si*	100	10000	0	774	0	0.00	
Si-ICP*	2	na	594	151	12	0	0.02
Sc	5	100	0	237	14	0	0.68
Sn*	10	1000	0	31	724	0	0.03
Sn*	100	5000	0	69	42	0	0.86
Tb*	100	2000	0	5	757	0	0.01
Ti-%	0.002	1	0	0	0	0	1.00
V	10	10000	0	1	0	0	1.00
W*	20	10000	0	2	773	0	0.00
Y	10	2000	0	43	4	0	0.94
Zn*	200	10000	0	116	649	0	0.01
Zn-ICP*	2	na	594	0	0	0	0.23
Zr	10	1000	0	0	0	38	0.95

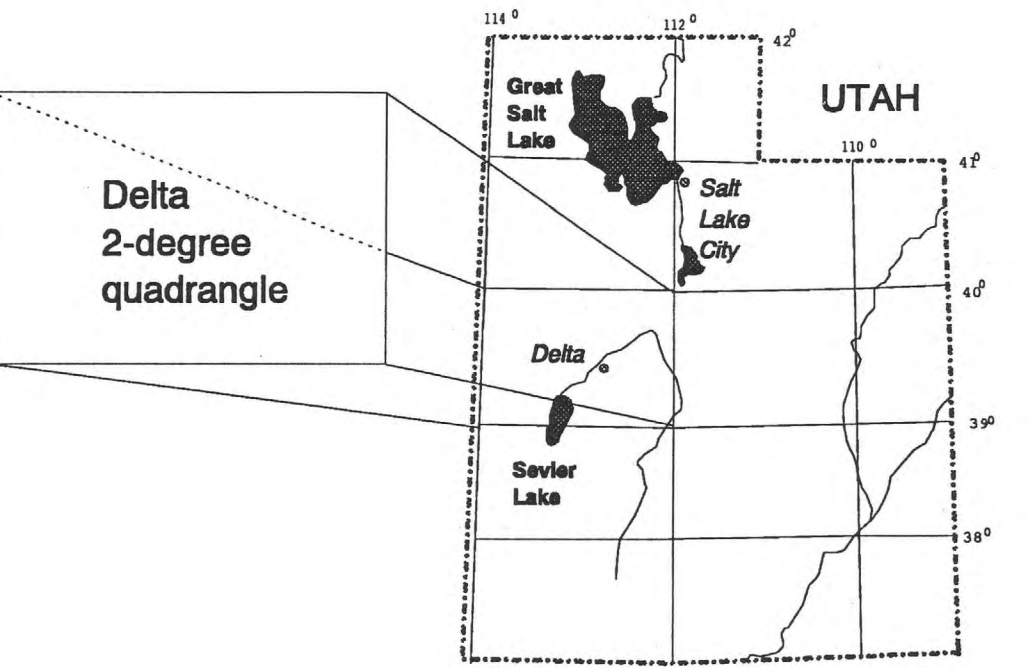


Figure 1. Generalized location map, Delta 1° x 2° quadrangle, Utah

EXPLANATION, FACTOR 5			
Lower boundary	Upper boundary	Symbol	Approximate percentile
-2.88	0.80	•	<75
0.80	1.19	•	75-90
1.19	1.49	•	90-95
1.49	2.65	•	>95

Samples located at geometric midpoint of symbols.

Table 2. R-mode varimax factor matrix of chemical data for 775 stream-sediment samples collected from the Delta 1° x 2° quadrangle, Utah

Element	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
B	-0.02	0.04	0.85	0.12	0.20
Ba	0.47	0.21	-0.16	0.50	-0.02
Be	-0.16	0.55	0.48	0.40	-0.08
Ca	-0.11	-0.44	-0.66	0.14	0.42
Co	0.84	0.01	0.12	0.12	-0.12
Cr	0.85	-0.04	0.26	0.01	0.29
Cu	0.21	0.01	0.76	0.43	0.01
Fe	0.87	0.07	-0.08	0.21	-0.19
La	0.19	0.85	0.00	0.14	0.20
Mg	-0.09	-0.52	-0.60	0.26	0.30
Mn	0.49	0.08	0.12	0.65	-0.16
Ni	0.53	-0.19	0.63	-0.02	0.20
Pb	0.14	0.10	0.17	0.82	0.04
Sc	0.78	0.33	-0.01	0.19	0.15
Sr	-0.07	0.03	0.03	-0.05	0.90
Ti	0.68	0.32	0.39	0.14	-0.23
V	0.80	0.19	0.28	0.14	-0.01
Y	0.39	0.69	0.18	0.22	0.21
Zr	0.32	0.37	0.88	0.06	-0.15

Approximate factor loadings	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
+1.0	Fe Co V	La	B	Pb	Sr
+0.9	Sc	Y	Cu	Mn	
+0.7	Ti Cr	Be	Zr Ni	Ba	
+0.6	Ni				
+0.5					
+0.4					
0					
-0.4					
-0.5					
-0.6					
-0.7					
-0.8					
-0.9					
-1.0					

Figure 2. Diagrammatic representation of factors from R-mode varimax solution of chemical data for stream-sediment samples, Delta 1° x 2° quadrangle, Utah



- Qv Quaternary volcanic deposits (Pliocene and Pleistocene)-Flow and pyroclastic deposits of basalt and basaltic andesite
- QTS Alluvium and valley fill deposits (Pliocene, Pleistocene, and Pliocene)-Colluvium and alluvium in valley areas and floodplains, and lacustrine units, silt deposits, and tuffaceous beds in valleys and basins
- Tbp Breccia pipes (Oligocene)-Plug- and dike-like bodies containing large and small blocks of Tertiary Paleocene, and Precambrian rocks embedded in a matrix of rock fragments, rock clasts, and volcanic microbreccia
- Tis Sills (Oligocene)-Resentive sheets of quartzitic lacite injected into eruptive rocks of the Tintic Mountain Volcanic Group
- Ti Intrusive bodies (Tertiary)-Stocks, plugs, and dikes ranging in composition from basaltic andesite and leucite to alkali granite and rhyolite, chiefly associated with volcanic rocks in the eruptive centers
- Tv Tertiary volcanic deposits (Pliocene through Pliocene)-Flow, (ignimbrites, pyroclastic deposits, and agglomerates ranging in composition from basalt to alkali granite, generally localized in well-defined eruptive centers in northern part of quadrangle
- TS Tertiary sedimentary deposits (Pliocene through Pliocene)-Conglomerate, sandstone, shale, limestone, and other continental deposits including Flagstaff, Cotton, and Canyon City, Fossil Creek, and other post-volcanic units
- Tk North Horn Formation (Tertiary and Cretaceous)-Red and green post-orogenic shale, sandstone, conglomerate, and limestone. Contains mammalian remains in upper part and dinosaurian remains in the lower part
- Ku Cretaceous strata, undivided-Red orogenic conglomerate, sandstone, and siltstone, characterized by large, semi-rounded clasts of quartzite and carbonate rocks. Chiefly consists of Canyon Range, Price River, and Indianola Conglomerate; locally includes some Pliocene strata
- Ji Jurassic pluton-Finishish-gray to white, coarsely crystalline quartz monzonite porphyry stock cutting Cambrian strata in House Range. Age is estimated to be 143 Ma
- JRu Jurassic and Triassic strata, undivided-Includes Thuyon Limestone in western part of quadrangle and Monopoli, Chino, and Nevada Formations in eastern part of quadrangle
- Pu Pliocene strata, undivided (Pliocene through Cambrian)-Includes strata deposited during each period of the Pliocene Era. These strata are composed of about 60 percent carbonate rock, 30 percent quartzite and sandstone, and 10 percent shale, and are subdivided into as many as 20 or 30 formal units in any one area
- ZYu Precambrian 2 and Y strata, undivided (Upper and middle Proterozoic)-Chiefly quartzite, gneiss, and glaucophane diorite, with some local beds of algal limestone all subdivided into 5 or more formal units or sequences

- Contact--dashed where approximately located
- High-angle fault---bar and ball on downthrown side; arrows show direction of relative horizontal displacement
- Thrust fault---Swathcut on upper plate. Dotted where concealed; groups of three dots where inferred and concealed. Most concealed positions approximately located
- Anticline--Showing trace of axial plane; dotted where concealed
- Syncline--Showing trace of axial plane; dotted where concealed

MAPS SHOWING INTERPRETATION, USING R-MODE FACTOR ANALYSIS, OF TRACE-ELEMENT ABUNDANCES IN STREAM-SEDIMENT SAMPLES, DELTA 1° x 2° QUADRANGLE, UTAH

By
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