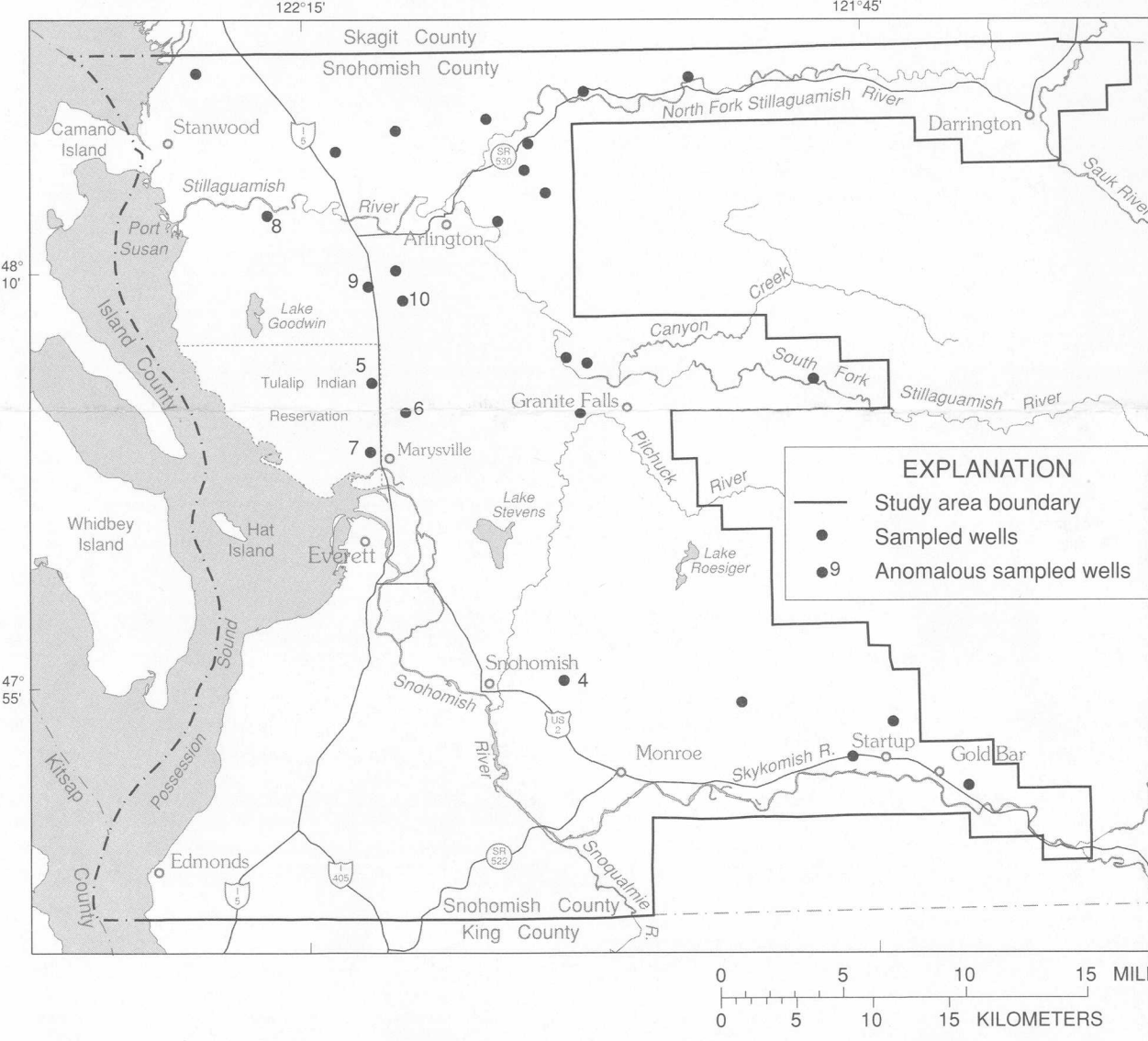
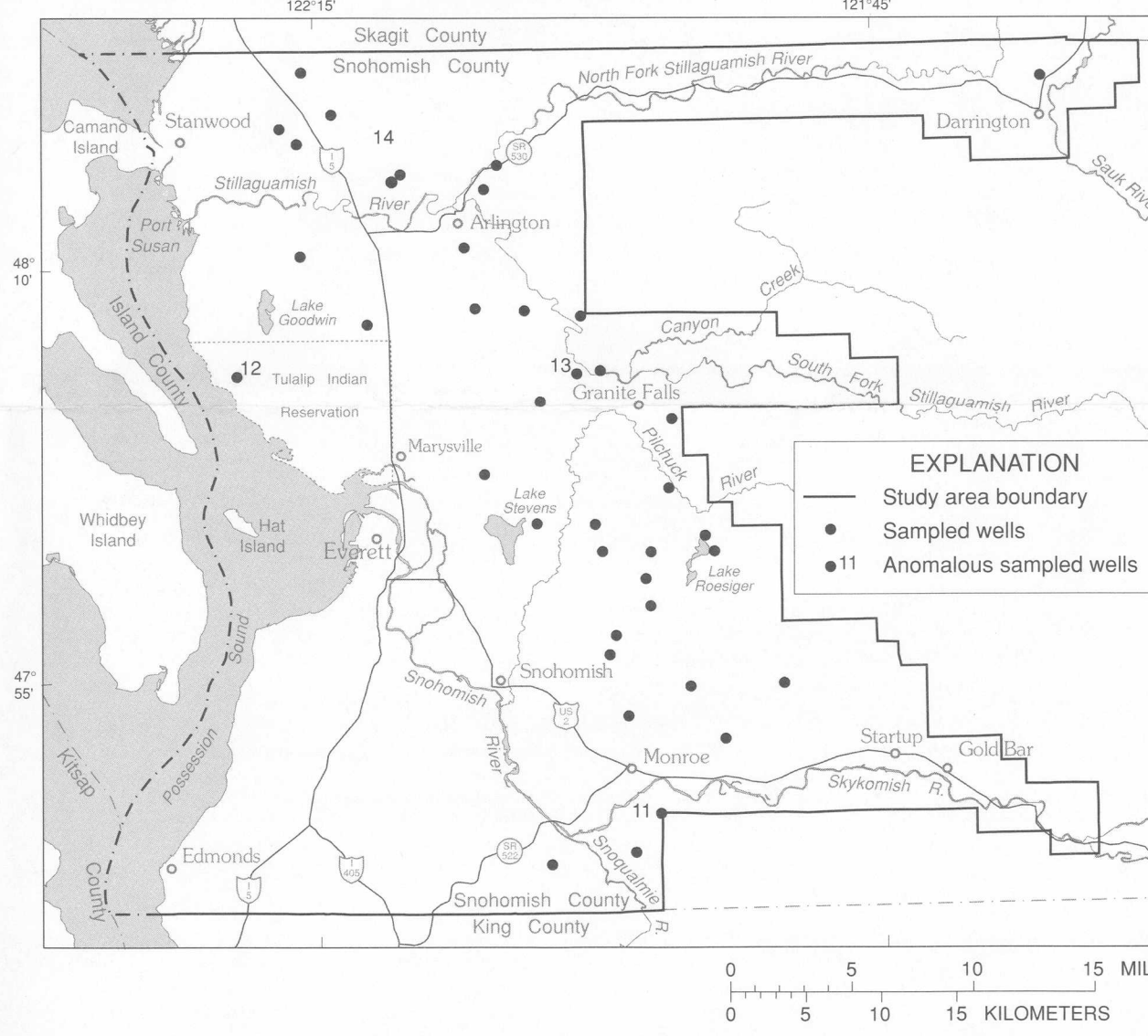


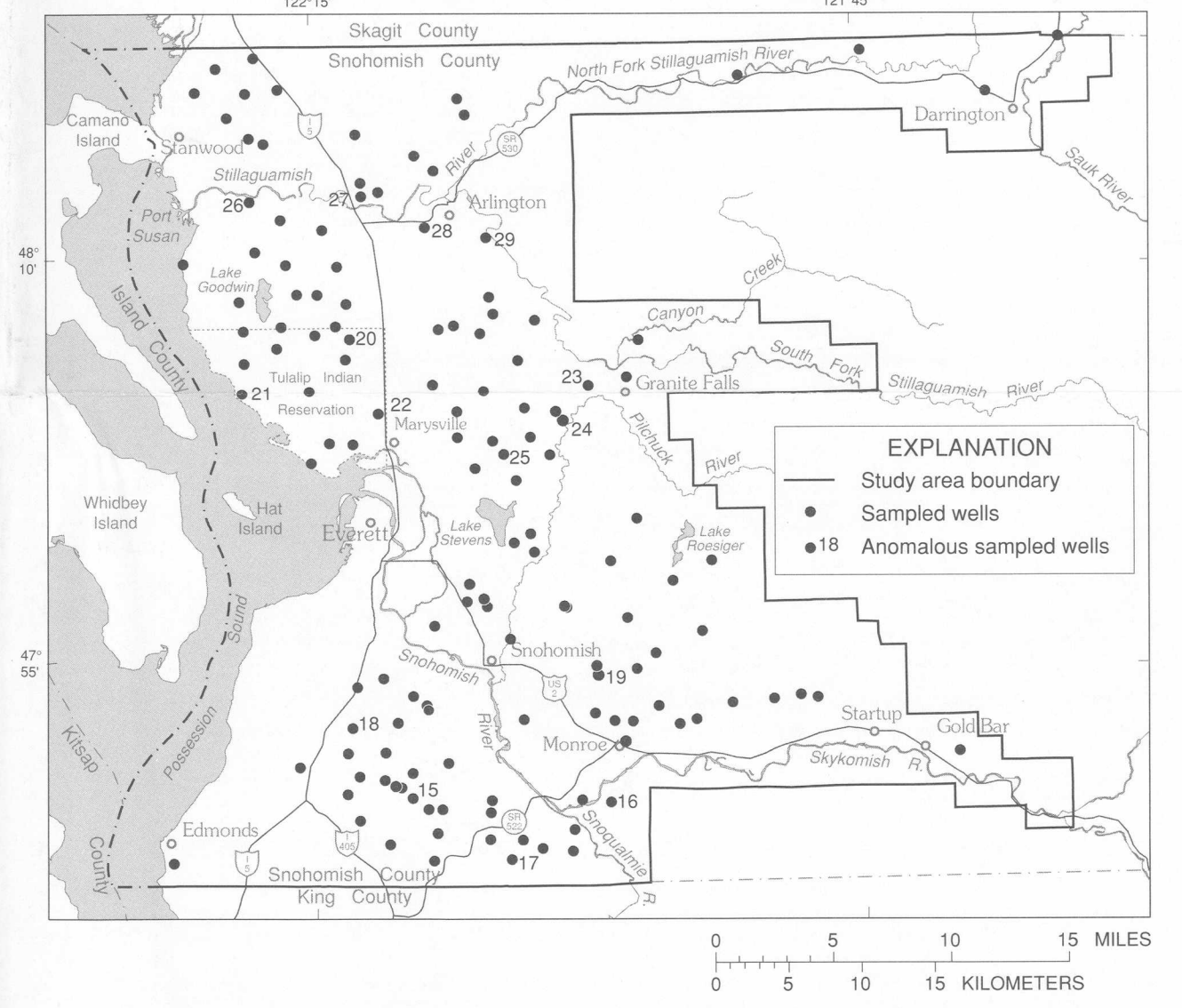
Alluvium (Qal) aquifer



Vashon recessional outwash (Qvr) aquifer



Vashon till (Qvt) confining bed

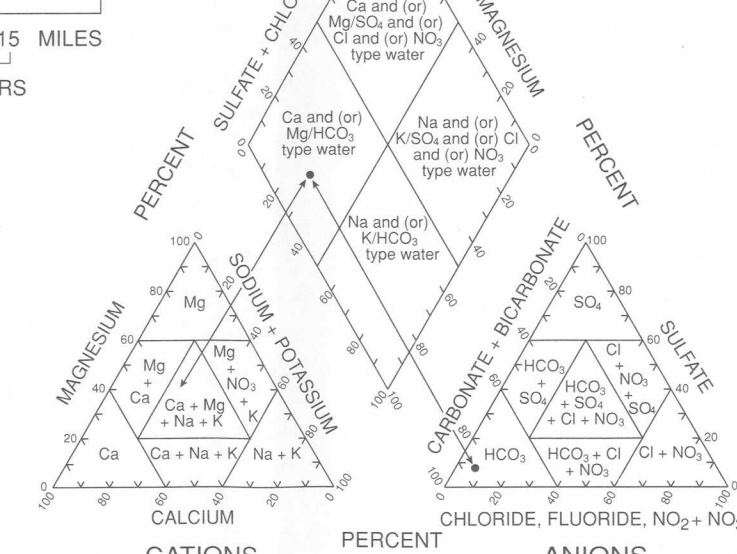


Vashon advance outwash (Qva) aquifer

Wells with anomalous or unusual water types

Map number	Local well number	Water type	Comments
Alluvium (Qal) aquifer			
1	27N08E-04P01	Ca, K, Na, MgHCO ₃	K = 5.8 mg/L
2	27N08E-15D03	Ca, K, NaHCO ₃	K = 5.2 mg/L
3	31N08E-09K01	NaHCO ₃	Na = 45 mg/L
Vashon recessional outwash (Qvr) aquifer			
4	28N08E-15C03	NaHCO ₃	Na = 130 mg/L, Cl = 110 mg/L
5	30N08E-09K01	Ca, Na, K, MgNO ₃ , SO ₄	Na = 6.2 mg/L, K = 10.0 mg/L, NO ₃ = 7.6 mg/L, SO ₄ = 12 mg/L
6	30N08E-16J01	Ca, Mg, NaHCO ₃ , SO ₄	SO ₄ = 12 mg/L
7	30N08E-29P07	Na, Ca, MgNO ₃ , Cl, HCO ₃	Na = 21 mg/L, NO ₃ = 12 mg/L (37%), Cl = 17 mg/L (21%)
8	31N08E-03L05	Mg, CaHCO ₃	NO ₃ = 23 mg/L
9	31N08E-20L02	Ca, Mg, NaHCO ₃ , SO ₄ , Cl	SO ₄ = 6.0 mg/L, Cl = 4.3 mg/L
10	31N08E-28A01	Ca, MgHCO ₃ , NO ₃	NO ₃ = 11 mg/L
Vashon till confining bed (Qvt)			
11	27N07E-07R02	NaHCO ₃	Na = 53 mg/L
12	30N08E-09K01	Mg, Ca, NaHCO ₃ , Cl, NO ₃	Na = 39 mg/L
13	30N08E-10K01	Na, CaHCO ₃	Na = 67 mg/L
14	32N04E-13K01	NaHCO ₃	Na = 67 mg/L
Vashon advance outwash (Qva)			
15	27N08E-09P02	Mg, CaHCO ₃ , NO ₃	NO ₃ = 10 mg/L, Cl = 16 mg/L
16	27N08E-13L02	Ca, MgHCO ₃ , Cl, NO ₃	NO ₃ = 5.3 mg/L, Cl = 5.6 mg/L
17	27N08E-22K01	NaHCO ₃	Na = 19 mg/L
18	28N08E-31F01	Ca, Mg, NaHCO ₃ , Cl, NO ₃	NO ₃ = 2.7 mg/L, Cl = 4.3 mg/L
19	28N08E-23A01	NaCl	Na = 260 mg/L, Cl = 250 mg/L
20	30N08E-01E01	Mg, Ca, NaHCO ₃ , Cl, NO ₃	NO ₃ = 2.3 mg/L
21	30N08E-17R02	Mg, Ca, NaHCO ₃ , Cl, NO ₃	NO ₃ = 5.7 mg/L, Cl = 17 mg/L (18%)
22	30N08E-20K05	Mg, Ca, NaHCO ₃ , Cl, NO ₃	Cl = 7.4 mg/L (16%), NO ₃ = 2.4 mg/L (13%)
23	30N08E-14K06	Ca, NaHCO ₃ , Cl, NO ₃	Cl = 25 mg/L
24	30N08E-27C01	Ca, NaHCO ₃ , Cl, NO ₃	Cl = 25 mg/L (29%), NO ₃ = 4.3 mg/L (13%)
25	30N08E-31L01	NaHCO ₃	Na = 33 mg/L
26	31N04E-04L03	Mg, Ca, NaHCO ₃ , NO ₃	NO ₃ = 5.9 mg/L
27	31N08E-09K01	Mg, Ca, NaHCO ₃ , NO ₃	NO ₃ = 7.4 mg/L
28	31N08E-10K01	Mg, CaHCO ₃ , SO ₄	SO ₄ = 15 mg/L
29	31N08E-18C01	Na, Ca, MgHCO ₃ , Cl	Cl = 28 mg/L
Transitional confining bed (Qtb)			
30	29N08E-04K01	NaHCO ₃	Na = 43 mg/L
31	29N08E-23R02	NaHCO ₃	Na = 87 mg/L
32	32N04E-28C01	NaHCO ₃	Na = 74 mg/L
Undifferentiated sediments (Qu) aquifer			
33	27N08E-32P01	NaHCO ₃	Na = 72 mg/L
34	27N07E-31K02	Na, Ca, K, HCO ₃	Na = 120 mg/L, Cl = 180 mg/L
35	28N04E-01A03	Na, Ca, MgHCO ₃	Na = 47 mg/L, Cl = 60 mg/L
36	29N08E-09N02	NaHCO ₃	Na = 42 mg/L
37	30N08E-22C01	NaHCO ₃	Na = 33 mg/L
38	30N08E-11C03	NaHCO ₃	Na = 31 mg/L
39	31N08E-06C02	NaHCO ₃	Na = 98 mg/L, Cl = 67 mg/L
40	30N08E-27K03	NaHCO ₃	Na = 69 mg/L, Cl = 67 mg/L
Bedrock confining bed (Tb)			
41	27N08E-17C01	NaHCO ₃	Na = 120 mg/L
42	27N08E-21L03	NaHCO ₃	Na = 83 mg/L
43	27N08E-05C01	NaCl	Na = 188 mg/L, Cl = 210 mg/L
44	28N08E-39F01	NaHCO ₃	Na = 110 mg/L
45	28N08E-12J01	NaHCO ₃	Na = 140 mg/L
46	28N08E-24C02	NaCl	Na = 170 mg/L, Cl = 220 mg/L
47	28N08E-18L01	NaHCO ₃	Na = 28 mg/L
48	29N08E-20F01	NaHCO ₃	Na = 59 mg/L
49	30N08E-11A05	NaCl	Na = 400 mg/L, Cl = 400 mg/L
50	30N07E-30D02	NaHCO ₃	Na = 140 mg/L
51	30N07E-29G02	Mg, Ca, Na, Cl, HCO ₃	Na = 100 mg/L
52	30N07E-30P01D1	NaHCO ₃	Na = 100 mg/L
53	31N08E-20R02	NaHCO ₃ , Cl	Cl = 360 mg/L
54	31N08E-28A01	NaHCO ₃ , Cl	Na = 100 mg/L, Cl = 45 mg/L, CO ₂ = 30 mg/L
55	32N04E-03A01	NaHCO ₃	Na = 160 mg/L
56	32N04E-13N01	NaHCO ₃	Na = 120 mg/L
57	32N08E-07M01	NaHCO ₃	Na = 48 mg/L
58	32N08E-08N01	NaHCO ₃	Na = 92 mg/L
59	32N08E-20P01	NaHCO ₃ , Cl	Na = 120 mg/L, Cl = 84 mg/L
60	32N08E-21D01	NaHCO ₃	Na = 190 mg/L, Cl = 97 mg/L

Example of a trilinear diagram, showing water types represented in each area. Numbers are percentages. See text for further explanation.



The percentages of cations and anions for each sample are plotted on the accompanying trilinear diagrams. Each analysis is plotted in three places in the diagram. A separate diagram is shown for each geologic unit identified in the study. Each area of the diagram corresponds to a specific water type, as shown in the above example. The example shows a magnesium-calcium-bicarbonate type water. The majority of analysis in each unit fall in the same general area and define a characteristic water type for the unit. Anomalous or unusual water types and samples of interest are noted by number on the maps and are listed above.

PLATE 9. WATER TYPES AND TRILINEAR DIAGRAMS FOR GROUND-WATER, WESTERN SNOHOMISH COUNTY, WASHINGTON

By
B.E. Thomas, J.M. Wilkinson, and S.S. Embrey
1997