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Analyses and descriptions of geochemical samples, RAMSEYS DRAFT WILDERNESS STUDY AREA AND ADDITION, Augusta and Highland Counties, Virginia

by

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ABSTRACT

Semiquantitative spectrographic analyses for 30 or 31 elements on 62 stream-sediment, 431 soil, and 30 rock samples from Ramseys Draft Wilderness Study Area and Ramseys Draft Addition, Augusta and Highland Counties, Va., are reported here in detail. Atomic-absorption analyses for zinc on 57 of the stream-sediment, 143 of the soil, and 22 of the rock samples are also reported. Localities for all samples are given in Universal Transverse Mercator (UTM) coordinates. Brief descriptions of rock samples are also included. Rocks analyzed include sandstone, shale and several alkalic mafic igneous dikes.

INTRODUCTION

The analyses reported here are on 5 stream-sediment, 288 soil, and 5 rock samples from Ramseys Draft Wilderness Study Area; samples were collected by F. G. Lesure, J. M. Motooka, and P. K. Theobald, October 1975, and by Lesure, A. E. Grosz, and C. R. Wrucke, October 1976 (Lesure and Motooka, 1980). In addition, analyses are given for 57 stream-sediment, 143 soil, and 22 rock samples from Ramseys Draft Addition; samples were collected by Lesure and J. D. Bliss, April 1979, and Lesure and Grosz, October 1979. The rock and soil samples are described in separate sections of this report. Maps showing sample localities and discussion of the analytical results are given by Lesure (in press) and Lesure and Motooka (1980). Analytical results on samples collected earlier in the Ramseys Draft Wilderness Study Area and vicinity are in Lesure and others (1977).

Ramseys Draft Addition is a further planning roadless area designated as such by the Second Roadless Area Review and Evaluation (RARE II) conducted by the U.S. Forest Service, January 1979.

ANALYTICAL TECHNIQUES

Rock samples were crushed to approximately 0.25 in. (6 mm) and pulverized to minus 140-mesh (0.105 mm) in a vertical grinder having ceramic plates. Stream sediments and soils were dried and sieved to minus 80-mesh (0.177 mm) and then pulverized.

Each sample was analyzed semiquantitatively for 30 or 31 elements by means of a six-step, D.C.-(direct-current) arc, optical-emission spectrographic method (Grimes and Marranzino, 1968) by J. M. Motooka, C. L. Forn, and D. F. Siems in USGS (U.S. Geological Survey) laboratories, Denver, Colo. In addition, each sample from the addition was analyzed by means of an atomic-absorption technique for zinc (Ward and others, 1969, p. 20) by

K. E. Krill, B. F. Arbogast, and E. P. Carson in USGS laboratories, Denver, Colo. J. T. Hanley and P. G. Schruben formatted the analytical data by computer methods for table 2.

The semiquantitative spectrographic values are reported as six steps per order of magnitude (1, 0.7, 0.5, 0.3, 0.2, 0.15, or multiples of 10 of these numbers) and are approximate geometric midpoints of the concentration ranges. The expected precision is within one adjoining reporting interval on each side of the reported value 83 percent of the time and within two adjoining intervals 96 percent of the time (Motooka and Grimes, 1976).

Soils collected in 1975 were treated with oxalic acid, and the leachate was analyzed. The second listings of samples VRD 119A and B through 433A and B in table 2 are the leachate samples.

Five rock samples were analyzed by means of semiquantitative emission-spectrographic methods by J. L. Harris using computerized equipment in USGS laboratories, Reston, Va. (table 3).

ROCK SAMPLES

Sample No.	Description
VRD 436	1-m chip sample, grayish-brown, fine-grained sandstone. Hampshire Formation.
VRD 438	0.6-m chip sample, greenish-gray, fine-grained, arkosic sandstone. Hampshire Formation.
VRD 442	Composite of float, greenish-gray, fine-grained, arkosic sandstone. Hampshire Formation.
VRD 444	1-m chip sample, grayish-brown, fine-grained sandstone. Hampshire Formation.
VRD 446	1-m chip sample, greenish-gray, fine-grained, arkosic sandstone, contains abundant plant impressions. Hampshire Formation.
VRD 468	2-m chip sample, brownish-gray, fine-grained, arkosic sandstone. Hampshire Formation.
VRD 474	Composite of several boulders, medium-dark-gray igneous dike. Dike may be 2-3 m thick. Poorly exposed.
VRD 488	2-m chip sample, dark-brown, hard, medium-grained sandstone. Hampshire Formation.
VRD 489	1-m chip sample, dark-brown, hard, coarse-grained sandstone. Hampshire Formation.
VRD 490	2-m chip sample, yellowish-gray, fine-grained, arkosic sandstone; thin, dark, organic-rich seams of coalified plant material. Hampshire Formation.
VRD 491	Composite of chips from 6 boulders, medium-dark-gray, alkalic mafic igneous dike. Dike may be 1-2 m thick.
VRD 493	2-m chip sample, grayish-orange, medium-grained, arkosic sandstone, minor iron sulfides. Pocono Formation.
VRD 497	2-m chip sample, yellowish-gray, medium-grained, arkosic sandstone. Jennings Formation.

VRD 519 Grab sample from boulder of an alkalic mafic igneous dike.
VRD 519A Grab sample from boulder of an alkalic mafic igneous dike.
VRD 521 0.3-m chip sample, medium-gray, very fine-grained, hard siltstone. Jennings Formation.
VRD 524 1-m chip sample, grayish-brown, medium-grained sandstone. Hampshire Formation.
VRD 544 2-m chip sample, pale-orange to moderate-brown, fine-grained, arkosic sandstone; contains minor limonite stain and coaly plant remains. Hampshire Formation.
VRD 549 0.6-m chip sample, light-olive-gray, very fine-grained, arkosic sandstone, upper part; grayish-brown to moderate-yellowish-brown, medium-grained, micaceous, arkosic sandstone containing coalified plant remains and limonitic plant impressions, lower part. Resample of area of sample VRD 524. Hampshire Formation.
VRD 550 1-m chip sample, olive-gray, very fine-grained, micaceous, arkosic sandstone. Hampshire Formation.
VRD 551 1-m chip sample, crossbedded, brownish-gray, fine-grained, arkosic sandstone. Hampshire Formation.
VRD 552 1-m chip sample, olive-drab, fine-grained, micaceous, arkosic sandstone. Hampshire Formation.
VRD 562 Composite sample of chips from several boulders of an alkalic mafic dike that may be 1-2 m thick and greater than 100 m long.
VRD 604 1-m chip sample, yellowish-gray, fine-grained, arkosic sandstone. Hampshire Formation.
VRD 628 Grab sample from a boulder of alkalic mafic igneous dike.
VRD 657 0.6-m chip sample, light-brown to tan, medium-fine-grained, micaceous, arkosic sandstone. Hampshire Formation.
VRD 658 0.6-m chip sample, light-brown to tan, fine-grained, micaceous, arkosic sandstone. Hampshire Formation.
VRD 659 1-m chip sample, dark-reddish-brown, fine-grained, arkosic sandstone. Hampshire Formation.
VRD 660 1-m chip sample, olive-gray to grayish-orange, fine-grained, micaceous, arkosic sandstone. Lower part contains coaly material and limonite coated plant impressions. Hampshire Formation.
VRD 661 0.25-m chip sample, greenish-gray, fine-grained, arkosic sandstone, minor plant remains. Hampshire Formation.

SOIL SAMPLES

The soil samples collected in 1975 and 1976 include, for most sample sites, two samples: one from the A_1 soil zone is dark colored and organic rich and is designated A; the other is from the A_2 or upper B soil zone, just below the organic-rich surface soil, and is designated B. Soil samples collected in 1979 were all of the B type. In the 1975-76 sampling, 142 sample sites were in residual or colluvial soils on Hampshire Formation of Devonian age, and 37 sites were on Pocono Formation of Mississippian age (Lesure and Motooka, 1980, p. 230). The 1979 samples include 79 from soils on the Jennings Formation of Devonian age, 50 from the Hampshire Formation, and 14 from the Pocono Formation (table 1).

Table 1.--Sample numbers of soil samples collected in 1979, listed by rock formation

Soils on Jennings Formation

467, 498, 499, 509-511, 517, 518, 527-530, 539, 541, 553, 561, 563, 564, 571-578, 581-583, 586-589, 592-597, 693, 610-612, 614, 629, 631, 632, 641, 650, 668-672, 676-685, 688-694, 698, 699, 702-706.

Soils on Hampshire Formation

469-473, 475, 476, 496, 508, 514-516, 525, 526, 548, 554-560, 565-569, 579, 580, 605-609, 619, 639, 647, 655, 656, 622-667, 673-675, 686, 687.

Soils on Pocono Formation

477-480, 492, 545-547, 618, 620, 621, 652-654.

EXPLANATION OF TABLE 2

The table shows the results of geochemical analyses of stream-sediment, soil, and rock samples from Ramseys Draft Wilderness Study Area and Addition, and vicinity.

The X and Y coordinates are Universal Transverse Mercator (UTM) grid, zone 17. The X coordinate is the easting value in meters; the Y is the northing value in meters.

Iron, magnesium, calcium, and titanium concentrations are reported in percent (pct.); all others are in parts per million (ppm). Letters beneath chemical symbols indicate the method of analysis: S, six-step semiquantitative spectrographic method; AA, atomic absorption. Other symbols used in the table are: N, not detected; --, not determined; <, amount detected is below the lowest limit of determination which is figure shown; >, amount detected is above the highest limit of determination, which is figure shown; P, partial digestion.

Elements looked for spectrographically but not found, except as noted, and the lower limits of determination are: for stream sediments, Ag(0.5), As(200), Au(10), Bi(10), Cd(20), Mo(5), Sb(100), Sn(10), Th(100), W(50), and Zn(200); for 1975 soil samples, As(200), Au(10), Bi(10), Sb(100), and W(50); for 1976 soil samples, As(200), Au(10), Bi(10), Cd(20), Mo(5), Sb(100), Sn(10), W(50), and Zn(200); for 1979 soil samples, Ag(0.5), As(200), Au(10), Bi(10), Cd(20), Mo(5), Sb(100), Sn(10), Th(100), Zn(200); for rock samples; As(200), Au(10), Bi(10), Cd(20), Sb(100), Sn(10), Th(100), and W(50).

Exceptions for stream sediments: sample VRD 482 reported to contain <0.5 ppm Ag; sample VRD 540 reported to contain 5 ppm Mo. Exceptions for soils: sample VRD 184B reported to contain 700 ppm As in regular sample and 1500 ppm As in oxalic acid leachate; samples VRD 107 and 213 reported to contain <50 ppm W; samples VRD 498 and 612 reported to contain <0.5 Ag; sample VRD 510 reported to contain 0.5 ppm Ag; samples VRD 498, 499, and 614 reported to contain 5 ppm Mo. Exception for rocks: sample VRD 549 reported to contain <200 ppm As.

Table 2.--Analyses of stream-sediment, soil, and rock samples.

Ramseys Draft Stream Sediments

Sample	X coor-dinate	Y coor-dinate	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	B-ppm s	Ba-ppm s	Be-ppm s	Co-ppm s	Cr-ppm s
VRD424	646,670	4,244,720	3.0	.30	.20	.3	1,500	50	500	5.0	15	50
VRD425	646,520	4,244,580	5.0	.70	.10	.3	2,000	50	300	5.0	20	50
VRD426	645,190	4,244,500	1.5	.15	.07	.2	2,000	30	500	5.0	10	15
VRD427	645,040	4,244,570	3.0	.70	.10	.3	2,000	70	700	5.0	20	70
VRD428	644,740	4,244,750	3.0	.30	.15	.3	1,500	50	300	3.0	10	30
VRD481	649,540	4,249,930	1.5	.20	.15	.5	3,000	100	500	2.0	20	50
VRD482	648,690	4,252,790	1.5	.20	.07	.5	1,000	150	300	1.0	15	50
VRD483	649,250	4,252,400	1.5	.30	.15	.3	3,000	100	500	3.0	15	50
VRD484	648,840	4,250,220	1.5	.20	.10	.3	5,000	100	500	3.0	20	50
VRD485	648,850	4,250,310	2.0	.20	.15	.3	5,000	100	500	2.0	20	50
VRD486	649,030	4,249,070	1.5	.15	.07	.3	5,000	100	500	5.0	20	50
VRD487	648,830	4,248,830	2.0	.20	.07	.3	>5,000	100	500	3.0	30	70
VRD494	649,760	4,249,380	1.5	.15	.07	.3	2,000	100	300	1.5	20	30
VRD495	645,750	4,251,900	2.0	.50	.07	.5	1,000	150	500	1.5	30	100
VRD500	646,560	4,250,030	2.0	.50	.50	.5	2,000	150	700	1.5	20	70
VRD512	649,200	4,245,060	1.5	.20	.10	.3	1,500	150	300	1.0	15	50
VRD513	649,110	4,244,950	2.0	.50	.20	.3	2,000	200	500	1.5	20	70
VRD519	649,940	4,244,130	2.0	.30	.07	.5	1,000	200	300	1.0	15	50
VRD520	649,690	4,243,090	2.0	.30	.05	.5	1,000	200	300	1.5	30	70
VRD522	649,460	4,243,050	2.0	.20	.05	.5	700	200	300	1.0	20	70
VRD523	647,650	4,242,560	1.5	.30	.15	.3	1,500	150	300	1.5	15	50
VRD531	648,160	4,241,420	1.5	.15	.05	.5	700	150	300	1.5	20	50
VRD532	646,390	4,249,990	2.0	.50	.20	.3	1,500	200	500	1.5	15	70
VRD533	645,740	4,250,630	2.0	.30	.15	.7	2,000	200	700	1.5	30	70
VRD534	645,920	4,250,560	1.5	.30	.15	.5	1,500	150	300	1.0	15	50
VRD535	645,990	4,250,730	2.0	.30	.15	.7	2,000	150	500	1.0	20	70
VRD536	643,640	4,249,470	2.0	.50	.10	.7	1,500	200	500	1.5	20	70
VRD537	643,020	4,249,060	1.5	.20	.10	.3	5,000	100	500	2.0	20	50
VRD540	646,720	4,251,970	2.0	.15	.05	.7	1,000	150	300	1.5	30	70
VRD542	647,800	4,252,620	2.0	.50	.20	.5	3,000	150	500	2.0	30	70
VRD543	650,580	4,248,230	2.0	.50	.20	.5	2,000	100	500	2.0	15	50
VRD584	649,050	4,252,050	3.0	.50	.30	.5	5,000	70	500	5.0	30	50
VRD585	649,490	4,250,410	1.0	.15	.10	.3	5,000	30	200	5.0	20	15
VRD590	639,950	4,243,150	3.0	.50	.10	.5	1,000	100	200	3.0	20	50
VRD591	639,990	4,243,220	5.0	.50	.10	.5	1,500	100	300	3.0	30	70
VRD598	640,860	4,243,500	5.0	.70	.10	.5	1,000	100	200	2.0	20	70
VRD599	640,880	4,243,600	7.0	.70	.15	.7	2,000	100	300	3.0	20	100
VRD601	646,860	4,252,030	2.0	.30	.10	.5	1,000	100	300	1.5	15	50
VRD602	647,130	4,252,390	1.5	.20	.05	.5	500	150	300	1.5	15	50
VRD615	648,670	4,252,530	2.0	.30	.15	.5	1,500	150	500	1.5	15	70
VRD616	648,800	4,252,710	1.5	.50	.15	.5	2,000	150	700	2.0	20	70
VRD617	648,960	4,252,280	2.0	.30	.20	.3	2,000	150	500	2.0	15	50
VRD622	649,670	4,251,090	1.5	.20	.07	.5	3,000	100	500	1.5	15	30
VRD623	650,260	4,250,870	1.5	.20	.10	.3	3,000	100	500	1.5	20	70
VRD624	646,350	4,252,830	2.0	.50	.15	.5	1,500	150	700	2.0	20	70

Table 2.--Analyses of stream-sediment, soil, and rock samples--continued

Ramseys Draft Stream Sediments

Sample	Cu-ppm s	La-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	Sr-ppm s	V-ppm s	Y-ppm s	Zn-ppm aa	Zr-ppm s
VRD424	15	50	20	30	15	15	<100	100	70	--	300
VRD425	20	30	20	30	15	15	<100	150	50	--	150
VRD426	10	20	N	20	N	10	N	50	50	--	200
VRD427	30	50	20	30	20	15	100	100	50	--	300
VRD428	20	30	<20	20	20	10	N	70	50	--	200
VRD481	20	30	<20	50	30	10	<100	100	30	70	200
VRD482	10	30	<20	20	30	10	N	100	30	45	500
VRD483	20	30	<20	50	50	10	<100	100	30	45	300
VRD484	15	30	<20	50	50	10	<100	100	30	90	300
VRD485	20	30	<20	50	50	10	<100	100	30	75	200
VRD486	15	30	<20	70	70	10	<100	70	20	70	200
VRD487	30	30	<20	70	50	10	N	100	30	140	200
VRD494	15	30	<20	70	30	7	<100	70	20	110	200
VRD495	15	50	<20	50	30	15	<100	150	30	90	200
VRD500	20	30	<20	50	50	15	<100	100	30	95	200
VRD512	10	20	<20	30	30	10	<100	70	20	55	300
VRD513	15	30	<20	30	30	10	100	100	30	70	150
VRD519	15	30	<20	30	20	10	<100	100	30	60	300
VRD520	20	30	<20	50	50	15	<100	100	30	70	300
VRD522	15	30	<20	30	30	10	<100	100	30	60	300
VRD523	10	20	<20	30	30	10	<100	70	30	65	300
VRD531	15	30	<20	50	30	10	<100	70	30	70	500
VRD532	20	30	<20	30	50	15	<100	70	30	85	200
VRD533	20	30	<20	50	50	15	<100	100	30	75	300
VRD534	20	20	<20	30	20	10	<100	100	30	60	200
VRD535	20	50	<20	50	50	15	100	100	30	85	300
VRD536	20	50	<20	50	30	15	100	100	30	85	300
VRD537	20	20	<20	50	50	10	<100	70	30	55	200
VRD540	15	30	<20	30	30	10	<100	70	30	90	500
VRD542	20	50	<20	50	50	15	<100	100	30	85	300
VRD543	20	50	<20	50	50	10	<100	70	30	45	500
VRD584	15	30	<20	30	20	20	100	150	50	35	500
VRD585	15	30	N	50	50	10	N	100	20	80	100
VRD590	10	30	<20	50	20	10	<100	150	30	85	300
VRD591	20	50	<20	70	50	20	100	150	30	100	200
VRD598	20	70	20	30	30	20	100	150	30	90	300
VRD599	20	70	20	50	50	20	150	200	50	85	500
VRD601	10	30	<20	50	30	10	N	70	30	55	300
VRD602	10	30	<20	30	20	7	N	70	30	55	700
VRD615	15	30	<20	50	30	10	<100	100	30	60	500
VRD616	20	30	<20	50	30	15	<100	100	30	45	200
VRD617	20	30	<20	30	30	10	<100	70	30	45	200
VRD622	15	20	<20	70	20	10	<100	70	30	70	500
VRD623	20	30	<20	100	30	10	N	100	50	75	700
VRD624	15	30	<20	50	30	15	<100	100	50	90	300

Table 2.--Analyses of stream-sediment, soil, and rock samples--continued

Ramseys Draft Stream Sediments--continued

Sample	X coordinate	Y coordinate	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	B-ppm s	Ba-ppm s	Be-ppm s	Co-ppm s	Cr-ppm s
VRD625	646,030	4,252,450	3.0	.50	.10	.5	1,500	150	500	2.0	30	70
VRD626	645,520	4,251,620	3.0	.50	.07	.5	1,500	150	500	2.0	30	100
VRD627	645,160	4,251,260	2.0	.20	.05	.5	500	150	300	1.0	15	70
VRD633	644,650	4,250,420	3.0	.70	.10	.7	1,500	150	500	1.5	50	100
VRD634	644,110	4,250,340	2.0	.30	.10	.5	1,000	150	300	1.5	15	70
VRD637	651,100	4,247,890	2.0	.50	.20	.5	1,500	150	300	2.0	15	70
VRD638	650,000	4,245,770	2.0	.30	.15	.3	2,000	150	300	2.0	15	30
VRD640	649,750	4,245,770	1.5	.20	.10	.3	3,000	100	300	1.5	10	30
VRD642	647,590	4,242,830	2.0	.50	.15	.5	2,000	150	300	1.5	15	50
VRD643	647,650	4,242,900	1.5	.30	.15	.5	1,500	150	300	1.0	10	70
VRD651	648,380	4,241,780	2.0	.30	.05	.5	500	150	300	1.5	10	70
VRD695	641,490	4,244,040	3.0	.50	.10	.3	700	70	200	2.0	20	50
VRD696	641,580	4,244,100	3.0	.30	.10	.5	700	100	200	3.0	20	50
VRD697	641,490	4,244,230	3.0	.30	.15	.5	1,500	100	200	3.0	20	30
VRD700	641,920	4,245,280	5.0	.50	.15	.7	3,000	100	300	3.0	50	150
VRD701	640,680	4,243,850	3.0	.50	.10	.3	1,000	70	200	3.0	20	50
VRD707	641,260	4,245,940	3.0	.50	.07	.3	500	100	200	3.0	20	50

Ramseys Draft Stream Sediments--continued

Sample	Cu-ppm s	La-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	Sr-ppm s	V-ppm s	Y-ppm s	Zn-ppm aa	Zr-ppm s
VRD625	20	30	<20	70	30	15	<100	100	30	85	500
VRD626	20	50	<20	70	30	15	<100	150	30	90	300
VRD627	10	50	<20	30	30	7	<100	100	30	60	700
VRD633	15	50	<20	50	30	15	100	150	30	90	500
VRD634	15	20	<20	50	30	10	<100	100	30	90	700
VRD637	20	30	<20	50	50	10	<100	100	30	70	300
VRD638	15	20	<20	50	30	7	<100	70	30	45	200
VRD640	15	20	<20	30	30	7	N	70	30	40	300
VRD642	15	20	<20	30	30	10	<100	100	30	55	200
VRD643	15	30	<20	30	30	10	<100	100	30	60	300
VRD651	15	30	<20	30	15	10	N	100	30	50	200
VRD695	20	50	<20	50	50	20	100	100	30	85	200
VRD696	15	50	<20	30	20	15	100	100	30	85	300
VRD697	20	50	<20	50	50	15	100	100	30	85	500
VRD700	30	70	20	50	100	30	150	200	50	70	300
VRD701	15	50	<20	30	30	20	<100	150	30	95	200
VRD707	20	50	<20	50	20	20	100	100	20	95	200

Table 2.--Analyses of stream-sediment, soil, and rock samples--continued

Ramseys Draft Soils Collected in 1975

Sample	X coordinate	Y coordinate	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	B-ppm s	Ba-ppm s	Be-ppm s	Cd-ppm s
VRD119A	647,050	4,246,160	1.50	.15	.20	.50	3,000	N	50	700	1.5	N
VRD119A	647,050	4,246,160	20.00	--	--	--	>10,000	N	--	--	--	N
VRD120A	647,210	4,246,180	1.50	.15	.15	.50	3,000	N	50	700	2.0	N
VRD120A	647,210	4,246,180	20.00	--	--	--	>10,000	N	--	--	--	N
VRD121A	647,350	4,246,170	.50	.05	<.05	.30	150	N	30	300	<1.0	N
VRD121A	647,350	4,246,170	30.00	--	--	--	10,000	1.0	--	--	--	N
VRD122A	647,570	4,246,070	.20	.10	<.05	.50	1,000	N	50	150	<1.0	N
VRD122A	647,570	4,246,070	30.00	--	--	--	>10,000	N	--	--	--	N
VRD123A	647,780	4,246,000	.30	.02	<.05	.30	150	N	30	100	<1.0	N
VRD123A	647,780	4,246,000	20.00	--	--	--	10,000	1.0	--	--	--	100
VRD124A	647,600	4,245,780	1.00	.15	<.05	.30	3,000	<.5	30	500	2.0	N
VRD124A	647,600	4,245,780	20.00	--	--	--	>10,000	N	--	--	--	N
VRD125A	647,440	4,245,670	.70	.05	<.05	.70	100	N	50	150	<1.0	N
VRD125A	647,440	4,245,670	30.00	--	--	--	7,000	<1.0	--	--	--	N
VRD126A	647,280	4,245,570	.70	.07	<.05	.50	1,000	N	30	200	<1.0	N
VRD126A	647,280	4,245,570	20.00	--	--	--	>10,000	N	--	--	--	N
VRD127A	647,110	4,245,490	1.00	.07	<.05	.70	700	<.5	50	300	1.0	N
VRD127A	647,110	4,245,490	20.00	--	--	--	10,000	N	--	--	--	N
VRD128A	646,990	4,245,420	.50	.05	<.05	.50	70	N	30	150	<1.0	N
VRD128A	646,990	4,245,420	15.00	--	--	--	2,000	N	--	--	--	N
VRD129A	646,880	4,245,320	.70	.07	<.05	.50	70	N	50	200	<1.0	N
VRD129A	646,880	4,245,320	20.00	--	--	--	1,500	<1.0	--	--	--	N
VRD130A	646,810	4,245,250	.70	.10	<.05	.50	200	N	100	200	<1.0	N
VRD130A	646,810	4,245,250	20.00	--	--	--	7,000	1.0	--	--	--	N
VRD131A	647,990	4,246,030	.50	.05	<.05	.30	150	N	50	150	<1.0	N
VRD131A	647,990	4,246,030	30.00	--	--	--	10,000	2.0	--	--	--	N
VRD132A	648,200	4,246,320	.70	.07	<.05	.30	50	N	30	100	<1.0	N
VRD132A	648,200	4,246,320	50.00	--	--	--	5,000	2.0	--	--	--	N
VRD133A	648,000	4,246,470	.20	.02	<.05	.70	20	N	70	70	N	N
VRD133A	648,000	4,246,470	50.00	--	--	--	5,000	3.0	--	--	--	N
VRD134A	647,810	4,246,660	.15	.03	<.05	.50	30	N	50	100	<1.0	N
VRD134A	647,810	4,246,660	20.00	--	--	--	5,000	7.0	--	--	--	70
VRD135A	647,690	4,246,820	2.00	.10	<.05	.50	500	N	50	200	1.0	N
VRD135A	647,690	4,246,820	30.00	--	--	--	10,000	N	--	--	--	N
VRD136A	646,920	4,246,340	2.00	.15	<.05	.50	200	N	50	300	<1.0	N
VRD136A	646,920	4,246,340	20.00	--	--	--	3,000	N	--	--	--	N
VRD137A	646,910	4,246,500	2.00	.20	<.05	.50	1,000	N	50	200	1.5	N
VRD137A	646,910	4,246,500	50.00	--	--	--	>10,000	N	--	--	--	N
VRD138A	646,980	4,246,090	.20	.03	<.05	.50	70	N	30	200	<1.0	N
VRD138A	646,980	4,246,090	30.00	--	--	--	5,000	3.0	--	--	--	50
VRD139A	647,030	4,246,840	.20	.07	<.05	.50	100	N	50	200	<1.0	N
VRD139A	647,030	4,246,840	20.00	--	--	--	7,000	5.0	--	--	--	100
VRD140A	647,060	4,247,000	.70	.10	<.05	.30	100	N	30	150	<1.0	N
VRD140A	647,060	4,247,000	30.00	--	--	--	5,000	2.0	--	--	--	N
VRD141A	647,090	4,247,140	.15	.02	<.05	.20	50	N	20	50	<1.0	N

Table 2.--Analyses of stream-sediment, soil, and rock samples--continued

Ramseys Draft Soils Collected in 1975

Sample	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	Sn-ppm s	Sr-ppm s	V-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s
VRD119A	15	20	70	20	N	30	30	10	7	N	100	70	20	N	300
VRD119A	--	--	1,500	--	70	--	--	300	--	20	--	--	--	1,000	--
VRD120A	10	20	15	30	N	30	30	70	10	N	100	50	30	N	200
VRD120A	--	--	300	--	70	--	--	700	--	50	--	--	--	700	--
VRD121A	N	10	<5	30	N	20	<5	10	5	N	N	30	15	N	500
VRD121A	--	--	200	--	100	--	--	1,000	--	150	--	--	--	700	--
VRD122A	5	15	10	20	N	30	5	30	7	N	<100	50	20	N	300
VRD122A	--	--	150	--	70	--	--	700	--	50	--	--	--	700	--
VRD123A	N	<10	<5	N	N	N	<5	10	5	N	N	10	15	N	500
VRD123A	--	--	300	--	300	--	--	7,000	--	150	--	--	--	1,500	--
VRD124A	10	15	15	20	N	20	20	30	7	N	N	30	30	N	200
VRD124A	--	--	200	--	50	--	--	700	--	<20	--	--	--	700	--
VRD125A	N	20	7	30	N	30	<5	15	7	N	N	50	30	N	500
VRD125A	--	--	200	--	100	--	--	1,000	--	100	--	--	--	700	--
VRD126A	N	10	7	<20	N	N	<5	30	7	N	N	20	20	N	300
VRD126A	--	--	200	--	100	--	--	2,000	--	100	--	--	--	700	--
VRD127A	<5	15	7	N	N	30	<5	15	10	N	N	50	30	N	300
VRD127A	--	--	150	--	50	--	--	500	--	70	--	--	--	500	--
VRD128A	N	<10	5	<20	N	<20	<5	10	7	N	N	20	20	N	300
VRD128A	--	--	150	--	50	--	--	500	--	50	--	--	--	500	--
VRD129A	N	10	10	20	N	20	<5	20	7	N	N	50	20	N	700
VRD129A	--	--	300	--	50	--	--	1,000	--	70	--	--	--	700	--
VRD130A	N	20	10	20	N	20	<5	30	7	N	N	50	20	N	700
VRD130A	--	--	200	--	70	--	--	2,000	--	50	--	--	--	1,000	--
VRD131A	N	15	5	N	N	<20	<5	10	5	N	N	15	10	N	150
VRD131A	--	--	500	--	300	--	--	5,000	--	150	--	--	--	1,000	--
VRD132A	N	150	5	20	N	<20	<5	10	7	N	N	30	15	N	300
VRD132A	--	--	300	--	300	--	--	3,000	--	150	--	--	--	1,000	--
VRD133A	N	10	<5	30	N	50	<5	N	7	N	N	20	50	N	700
VRD133A	--	--	300	--	700	--	--	2,000	--	150	--	--	--	1,000	--
VRD134A	N	<10	<5	N	N	20	<5	N	5	N	N	20	20	N	700
VRD134A	--	--	500	--	300	--	--	7,000	--	150	--	--	--	1,500	--
VRD135A	5	30	10	30	N	20	<5	20	10	N	N	70	30	N	500
VRD135A	--	--	150	--	50	--	--	500	--	30	--	--	--	700	--
VRD136A	10	20	10	20	N	70	10	30	7	N	N	70	20	N	300
VRD136A	--	--	100	--	50	--	--	500	--	30	--	--	--	500	--
VRD137A	7	30	15	50	N	50	10	70	10	N	N	70	30	N	500
VRD137A	--	--	150	--	70	--	--	700	--	50	--	--	--	500	--
VRD138A	<5	<10	7	20	N	20	<5	30	5	N	N	30	15	N	300
VRD138A	--	--	300	--	150	--	--	7,000	--	150	--	--	--	2,000	--
VRD139A	<5	10	7	<20	N	20	<5	20	7	N	N	30	150	N	700
VRD139A	--	--	500	--	150	--	--	5,000	--	150	--	--	--	3,000	--
VRD140A	N	30	7	30	N	N	<5	15	7	N	N	30	20	N	300
VRD140A	--	--	200	--	100	--	--	1,500	--	100	--	--	--	700	--
VRD141A	N	<10	5	<20	N	N	<5	N	5	N	N	15	20	N	200

Table 2.--Analyses of stream-sediment, soil, and rock samples--continued

Ramseys Draft Soils Collected in 1975--continued

Sample	X coordinate	Y coordinate	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	B-ppm s	Ba-ppm s	Be-ppm s	Cd-ppm s
VRD141A	647,090	4,247,140	15.00	--	--	--	5,000	7.0	--	--	--	70
VRD142A	646,790	4,247,070	.30	.02	<.05	.20	50	N	20	70	<1.0	N
VRD142A	646,790	4,247,070	20.00	--	--	--	3,000	1.0	--	--	--	50
VRD143A	646,850	4,247,200	1.00	.05	<.05	.20	150	N	30	100	<1.0	N
VRD143A	646,850	4,247,200	30.00	--	--	--	10,000	N	--	--	--	N
VRD144A	646,920	4,247,340	.50	.03	<.05	.20	200	N	20	70	<1.0	N
VRD144A	646,920	4,247,340	20.00	--	--	--	>10,000	1.0	--	--	--	N
VRD145A	646,800	4,247,510	1.50	.05	<.05	.20	500	N	20	100	<1.0	N
VRD145A	646,800	4,247,510	20.00	--	--	--	10,000	N	--	--	--	N
VRD146A	646,640	4,247,860	1.50	.07	<.05	.20	150	N	30	100	<1.0	N
VRD146A	646,640	4,247,860	20.00	--	--	--	3,000	<1.0	--	--	--	50
VRD147A	646,450	4,247,930	1.50	.07	<.05	.20	200	N	20	100	<1.0	N
VRD147A	646,450	4,247,930	15.00	--	--	--	3,000	N	--	--	--	N
VRD148A	646,240	4,248,020	1.50	.07	<.05	.20	100	N	30	100	<1.0	N
VRD148A	646,240	4,248,020	15.00	--	--	--	3,000	1.0	--	--	--	N
VRD149A	646,050	4,248,110	.70	.03	<.05	.15	200	N	20	100	1.0	N
VRD149A	646,050	4,248,110	15.00	--	--	--	7,000	N	--	--	--	N
VRD150A	646,030	4,247,870	.70	.03	<.05	.30	50	<.5	30	100	<1.0	N
VRD150A	646,030	4,247,870	20.00	--	--	--	3,000	1.0	--	--	--	N
VRD151A	645,920	4,247,740	.50	.07	<.05	.30	200	N	30	100	1.0	N
VRD151A	645,920	4,247,740	20.00	--	--	--	5,000	N	--	--	--	N
VRD152A	645,820	4,247,640	1.00	.10	<.05	.30	700	<.5	30	150	1.0	N
VRD152A	645,820	4,247,640	20.00	--	--	--	>10,000	N	--	--	--	N
VRD153A	645,770	4,247,500	.20	<.02	<.05	.30	20	N	30	50	<1.0	N
VRD153A	645,770	4,247,500	20.00	--	--	--	5,000	<1.0	--	--	--	50
VRD154A	645,800	4,247,350	2.00	.20	<.05	.30	100	<.5	30	150	1.0	N
VRD154A	645,800	4,247,350	30.00	--	--	--	3,000	N	--	--	--	N
VRD155A	645,920	4,247,430	.70	.10	<.05	.30	200	N	30	100	<1.0	N
VRD155A	645,920	4,247,430	30.00	--	--	--	10,000	300.0	--	--	--	N
VRD156A	646,040	4,247,510	.50	.05	<.05	.30	20	<.5	30	100	<1.0	N
VRD156A	646,040	4,247,510	20.00	--	--	--	2,000	50.0	--	--	--	50
VRD157A	647,760	4,247,470	.50	.07	<.05	.30	30	N	30	70	<1.0	N
VRD157A	647,760	4,247,470	20.00	--	--	--	2,000	7.0	--	--	--	N
VRD158A	647,340	4,247,500	.50	.05	<.05	.30	20	N	30	50	<1.0	N
VRD158A	647,340	4,247,500	30.00	--	--	--	1,500	20.0	--	--	--	70
VRD159A	647,080	4,247,600	.50	.03	<.05	.30	150	N	30	100	<1.0	N
VRD159A	647,080	4,247,600	30.00	--	--	--	7,000	3.0	--	--	--	N
VRD160A	646,940	4,247,700	.50	.02	<.05	.20	700	N	20	70	<1.0	N
VRD160A	646,940	4,247,700	20.00	--	--	--	>10,000	N	--	--	--	N
VRD161A	646,560	4,247,650	.70	.07	<.05	.30	700	N	20	150	1.0	N
VRD161A	646,560	4,247,650	--	--	--	--	--	--	--	--	--	--
VRD162A	646,470	4,247,500	.70	.07	.05	.30	2,000	N	20	200	1.0	N
VRD162A	646,470	4,247,500	30.00	--	--	--	7,000	N	--	--	--	N
VRD163A	646,300	4,247,320	1.00	.10	<.05	.30	1,000	N	30	300	1.5	N
VRD163A	646,300	4,247,320	30.00	--	--	--	>10,000	N	--	--	--	50

Table 2.--Analyses of stream-sediment, soil, and rock samples--continued

Ramseys Draft Soils Collected in 1975--continued

Sample	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	Sn-ppm s	Sr-ppm s	V-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s
VRD141A	--	--	500	--	150	--	--	2,000	--	150	--	--	--	1,000	--
VRD142A	N	10	<5	N	N	N	<5	N	5	N	N	20	10	N	100
VRD142A	--	--	300	--	70	--	--	1,000	--	70	--	--	--	700	--
VRD143A	<5	10	5	20	N	20	5	15	7	N	N	30	20	N	500
VRD143A	--	--	150	--	70	--	--	700	--	70	--	--	--	700	--
VRD144A	N	10	<5	<20	N	N	<5	N	5	N	N	20	20	N	150
VRD144A	--	--	200	--	70	--	--	1,000	--	70	--	--	--	500	--
VRD145A	<5	10	5	20	N	<20	5	15	5	N	N	50	15	N	100
VRD145A	--	--	100	--	50	--	--	500	--	30	--	--	--	500	--
VRD146A	<5	15	7	20	N	20	5	15	7	N	N	50	20	N	300
VRD146A	--	--	150	--	50	--	--	500	--	20	--	--	--	500	--
VRD147A	N	20	10	<20	N	20	5	10	7	N	N	50	15	N	150
VRD147A	--	--	150	--	30	--	--	300	--	<20	--	--	--	<500	--
VRD148A	N	15	7	20	N	<20	<5	10	7	N	N	50	15	N	200
VRD148A	--	--	150	--	50	--	--	300	--	30	--	--	--	500	--
VRD149A	N	<10	<5	<20	N	N	<5	N	5	N	N	20	15	N	150
VRD149A	--	--	150	--	30	--	--	300	--	20	--	--	--	500	--
VRD150A	N	10	5	20	N	20	<5	10	5	N	N	30	15	N	500
VRD150A	--	--	150	--	70	--	--	700	--	70	--	--	--	700	--
VRD151A	N	15	5	20	N	<20	<5	15	7	N	N	50	30	N	500
VRD151A	--	--	150	--	30	--	--	700	--	50	--	--	--	500	--
VRD152A	<5	20	7	<20	N	N	5	20	5	N	N	50	15	N	300
VRD152A	--	--	150	--	50	--	--	700	--	50	--	--	--	700	--
VRD153A	<5	<10	<5	<20	N	N	<5	<10	5	N	N	15	15	N	500
VRD153A	--	--	200	--	70	--	--	2,000	--	70	--	--	--	1,000	--
VRD154A	5	30	10	20	N	20	5	30	7	N	N	70	30	N	300
VRD154A	--	--	200	--	50	--	--	700	--	50	--	--	--	500	--
VRD155A	<5	30	<5	<20	N	N	<5	10	5	N	N	50	20	N	300
VRD155A	--	--	200	--	50	--	--	700	--	50	--	--	--	700	--
VRD156A	<5	10	7	30	N	20	<5	15	5	N	N	30	20	N	500
VRD156A	--	--	300	--	50	--	--	1,500	--	100	--	--	--	700	--
VRD157A	N	15	7	30	N	<20	<5	15	5	N	N	30	20	N	200
VRD157A	--	--	200	--	50	--	--	1,500	--	70	--	--	--	700	--
VRD158A	N	<10	5	<20	N	20	<5	10	5	N	N	30	20	N	300
VRD158A	--	--	200	--	100	--	--	1,000	--	70	--	--	--	700	--
VRD159A	N	50	5	20	N	20	<5	15	5	N	N	30	30	N	300
VRD159A	--	--	200	--	70	--	--	1,000	--	50	--	--	--	500	--
VRD160A	N	<10	<5	N	N	N	<5	N	<5	N	N	20	10	N	150
VRD160A	--	--	200	--	50	--	--	700	--	30	--	--	--	700	--
VRD161A	5	15	7	20	N	20	5	10	7	N	N	30	20	N	200
VRD161A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VRD162A	7	15	10	20	N	20	7	30	7	N	N	50	20	N	200
VRD162A	--	--	200	--	100	--	--	1,500	--	100	--	--	--	700	--
VRD163A	7	15	15	<20	N	20	10	15	7	N	N	50	20	N	200
VRD163A	--	--	200	--	70	--	--	700	--	30	--	--	--	1,000	--

Table 2.--Analyses of stream-sediment, soil, and rock samples--continued

Ramseys Draft Soils Collected in 1975--continued

Sample	X coordinate	Y coordinate	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	B-ppm s	Ba-ppm s	Be-ppm s	Cd-ppm s
VRD164A	646,100	4,247,290	.50	.07	<.05	.50	30	N	50	150	<1.0	N
VRD164A	646,100	4,247,290	--	--	--	--	--	--	--	--	--	--
VRD165A	646,390	4,247,130	.50	.03	<.05	.50	30	N	30	150	<1.0	N
VRD165A	646,390	4,247,130	50.00	--	--	--	5,000	2.0	--	--	--	N
VRD166A	646,340	4,246,990	.70	.05	<.05	.30	200	N	30	150	<1.0	N
VRD166A	646,340	4,246,990	50.00	--	--	--	>10,000	1.0	--	--	--	N
VRD167A	646,090	4,247,070	1.00	.15	<.05	.30	150	N	50	150	<1.0	N
VRD167A	646,090	4,247,070	50.00	--	--	--	>10,000	N	--	--	--	N
VRD168A	646,100	4,246,920	2.00	.30	<.05	.30	500	N	50	300	1.0	N
VRD168A	646,100	4,246,920	30.00	--	--	--	>10,000	N	--	--	--	N
VRD169A	647,920	4,247,440	1.00	.07	<.05	.30	1,000	N	20	150	<1.0	N
VRD169A	647,920	4,247,440	50.00	--	--	--	>10,000	N	--	--	--	N
VRD170A	644,670	4,244,740	.30	.05	.05	.20	200	N	15	200	1.0	N
VRD170A	644,670	4,244,740	30.00	--	--	--	>10,000	1.0	--	--	--	N
VRD171A	644,610	4,244,890	.15	.02	.05	.20	2,000	N	15	300	2.0	N
VRD171A	644,610	4,244,890	30.00	--	--	--	>10,000	N	--	--	--	N
VRD172A	644,650	4,245,050	.10	<.02	<.05	.10	1,000	N	10	150	1.5	N
VRD172A	644,650	4,245,050	50.00	--	--	--	>10,000	N	--	--	--	N
VRD173A	644,680	4,245,200	1.00	.10	<.05	.70	500	<.5	50	200	<1.0	N
VRD173A	644,680	4,245,200	50.00	--	--	--	>10,000	N	--	--	--	N
VRD174A	644,730	4,245,340	.30	.05	.05	.20	1,500	N	15	300	1.5	N
VRD174A	644,730	4,245,340	30.00	--	--	--	>10,000	N	--	--	--	N
VRD175A	644,800	4,245,530	.20	.02	<.05	.10	3,000	N	10	300	3.0	N
VRD175A	644,800	4,245,530	20.00	--	--	--	>10,000	N	--	--	--	N
VRD176A	644,910	4,245,730	1.00	.10	<.05	.30	1,500	N	20	300	1.5	N
VRD176A	644,910	4,245,730	30.00	--	--	--	>10,000	N	--	--	--	N
VRD177A	645,140	4,245,840	1.00	.10	<.05	.30	500	N	30	150	<1.0	N
VRD177A	645,140	4,245,840	30.00	--	--	--	>10,000	N	--	--	--	N
VRD178A	645,340	4,245,800	.30	.02	<.05	.20	20	N	20	100	N	N
VRD178A	645,340	4,245,800	30.00	--	--	--	5,000	5.0	--	--	--	N
VRD179A	645,530	4,245,840	1.00	.03	<.05	.50	300	N	20	150	<1.0	N
VRD179A	645,530	4,245,840	50.00	--	--	--	>10,000	N	--	--	--	N
VRD180A	645,650	4,245,850	1.00	.07	.30	.30	1,500	N	20	500	<1.0	N
VRD180A	645,650	4,245,850	30.00	--	--	--	>10,000	N	--	--	--	N
VRD181A	645,720	4,245,630	1.50	.10	<.05	.50	500	N	20	200	<1.0	N
VRD181A	645,720	4,245,630	50.00	--	--	--	>10,000	N	--	--	--	N
VRD182A	645,630	4,245,490	.70	.03	<.05	.30	50	N	20	100	<1.0	N
VRD182A	645,630	4,245,490	30.00	--	--	--	5,000	1.0	--	--	--	N
VRD183A	645,450	4,245,310	1.00	.10	<.05	.70	70	N	50	200	<1.0	N
VRD183A	645,450	4,245,310	50.00	--	--	--	7,000	N	--	--	--	50
VRD184A	645,290	4,245,220	.50	.03	<.05	.15	2,000	2.0	15	150	2.0	N
VRD184A	645,290	4,245,220	50.00	--	--	--	>10,000	N	--	--	--	N
VRD185A	645,110	4,245,070	.70	.07	.10	.70	200	N	100	200	<1.0	N
VRD185A	645,110	4,245,070	30.00	--	--	--	>10,000	1.5	--	--	--	50
VRD186A	645,040	4,244,940	.50	.07	.05	.30	100	N	20	150	1.0	N

Table 2.--Analyses of stream-sediment, soil, and rock samples--continued

Ramseys Draft Soils Collected in 1975--continued

Sample	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	Sn-ppm s	Sr-ppm s	V-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s
VRD164A	N	15	5	<20	N	20	<5	N	5	N	N	20	50	N	700
VRD164A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VRD165A	N	10	<5	20	N	20	<5	<10	5	N	N	20	20	N	500
VRD165A	--	--	300	--	100	--	--	2,000	--	100	--	--	--	500	--
VRD166A	N	10	7	<20	N	20	<5	15	5	N	N	20	15	N	300
VRD166A	--	--	300	--	100	--	--	5,000	--	100	--	--	--	1,000	--
VRD167A	N	15	10	20	N	<20	<5	30	7	N	N	30	20	N	500
VRD167A	--	--	200	--	50	--	--	700	--	30	--	--	--	700	--
VRD168A	7	30	15	30	N	30	10	30	7	N	N	70	20	N	300
VRD168A	--	--	200	--	50	--	--	500	--	20	--	--	--	1,000	--
VRD169A	7	10	7	<20	N	<20	5	15	7	N	N	30	15	N	300
VRD169A	--	--	200	--	50	--	--	500	--	20	--	--	--	1,000	--
VRD170A	N	<10	5	N	N	N	<5	20	<5	N	N	20	10	N	200
VRD170A	--	--	700	--	100	--	--	5,000	--	100	--	--	--	1,500	--
VRD171A	N	<10	<5	N	N	N	5	10	5	N	N	20	15	N	300
VRD171A	--	--	500	--	70	--	--	700	--	30	--	--	--	1,500	--
VRD172A	N	<10	N	N	N	N	N	10	N	N	N	10	<10	N	70
VRD172A	--	--	300	--	70	--	--	5,000	--	50	--	--	--	2,000	--
VRD173A	5	20	5	30	N	20	<5	30	7	N	N	50	50	N	700
VRD173A	--	--	300	--	100	--	--	2,000	--	70	--	--	--	700	--
VRD174A	N	<10	<5	N	N	N	<5	15	5	N	N	20	20	N	500
VRD174A	--	--	300	--	70	--	--	5,000	--	50	--	--	--	3,000	--
VRD175A	N	<10	10	N	N	N	15	N	<5	N	N	10	15	N	150
VRD175A	--	--	200	--	50	--	--	300	--	N	--	--	--	1,500	--
VRD176A	5	15	10	20	N	<20	7	20	7	N	N	50	20	N	200
VRD176A	--	--	200	--	70	--	--	700	--	20	--	--	--	1,000	--
VRD177A	N	15	10	20	N	N	<5	30	7	N	N	50	20	N	300
VRD177A	--	--	300	--	100	--	--	3,000	--	50	--	--	--	1,500	--
VRD178A	N	<10	<5	N	N	N	<5	N	5	N	N	10	15	N	500
VRD178A	--	--	200	--	100	--	--	1,500	--	70	--	--	--	1,000	--
VRD179A	N	<10	5	N	N	N	5	N	7	N	N	20	20	N	150
VRD179A	--	--	300	--	100	--	--	2,000	--	70	--	--	--	1,500	--
VRD180A	<5	10	10	<20	N	<20	5	10	7	N	N	30	20	N	150
VRD180A	--	--	300	--	70	--	--	300	--	20	--	--	--	1,500	--
VRD181A	<5	20	5	20	N	20	<5	10	7	N	N	50	20	N	300
VRD181A	--	--	200	--	70	--	--	1,500	--	50	--	--	--	700	--
VRD182A	N	<10	<5	<20	N	N	<5	N	7	N	N	30	20	N	150
VRD182A	--	--	200	--	70	--	--	700	--	50	--	--	--	700	--
VRD183A	N	20	10	20	N	20	<5	20	7	N	N	50	30	N	700
VRD183A	--	--	300	--	100	--	--	5,000	--	70	--	--	--	2,000	--
VRD184A	10	<10	500	N	N	N	7	<10	5	N	N	20	20	N	70
VRD184A	--	--	5,000	--	50	--	--	1,500	--	30	--	--	--	500	--
VRD185A	N	20	7	<20	N	30	<5	10	7	N	N	30	50	N	>1,000
VRD185A	--	--	1,000	--	150	--	--	3,000	--	150	--	--	--	2,000	--
VRD186A	N	20	7	N	N	N	<5	15	5	N	N	30	15	N	300

Table 2.--Analyses of stream-sediment, soil, and rock samples--continued

Ramseys Draft Soils Collected in 1975--continued

Sample	X coordinate	Y coordinate	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	B-ppm s	Ba-ppm s	Be-ppm s	Cd-ppm s
VRD186A	645,040	4,244,940	20.00	--	--	--	3,000	N	--	--	--	N
VRD187A	644,980	4,244,820	.70	.10	.05	.50	500	N	70	300	<1.0	N
VRD187A	644,980	4,244,820	15.00	--	--	--	10,000	N	--	--	--	N
VRD188A	644,980	4,244,700	.70	.07	<.05	.50	150	<.5	50	500	1.5	N
VRD188A	644,980	4,244,700	5.00	--	--	--	1,500	N	--	--	--	N
VRD189A	644,990	4,244,590	3.00	.30	.20	.70	2,000	N	70	700	2.0	N
VRD189A	644,990	4,244,590	20.00	--	--	--	>10,000	N	--	--	--	N
VRD190A	646,690	4,246,210	1.50	.10	<.05	.50	1,500	N	50	500	1.0	N
VRD190A	646,690	4,246,210	20.00	--	--	--	10,000	N	--	--	--	N
VRD191A	646,540	4,246,110	2.00	.20	.05	.70	1,500	N	70	500	1.5	N
VRD191A	646,540	4,246,110	30.00	--	--	--	>10,000	N	--	--	--	<50
VRD192A	646,320	4,246,110	.50	.10	.05	.70	700	<.5	50	200	<1.0	N
VRD192A	646,320	4,246,110	20.00	--	--	--	10,000	N	--	--	--	<50
VRD193A	646,180	4,246,130	3.00	.20	.05	.70	2,000	N	50	300	1.5	N
VRD193A	646,180	4,246,130	20.00	--	--	--	>10,000	N	--	--	--	N
VRD194A	645,990	4,246,160	.70	.10	.05	.70	1,000	<.5	50	700	1.0	N
VRD194A	645,990	4,246,160	30.00	--	--	--	>10,000	N	--	--	--	N
VRD195A	645,840	4,246,120	1.50	.20	.20	.50	3,000	N	50	700	1.5	N
VRD195A	645,840	4,246,120	20.00	--	--	--	>10,000	N	--	--	--	50
VRD196A	645,750	4,246,290	1.00	.10	<.05	.50	30	N	50	200	<1.0	N
VRD196A	645,750	4,246,290	30.00	--	--	--	5,000	1.0	--	--	--	<50
VRD197A	645,660	4,246,470	.70	.07	<.05	.50	150	N	50	150	<1.0	N
VRD197A	645,660	4,246,470	20.00	--	--	--	7,000	3.0	--	--	--	<50
VRD198A	645,480	4,246,620	2.00	.20	<.05	.50	500	N	50	300	1.0	N
VRD198A	645,480	4,246,620	30.00	--	--	--	10,000	N	--	--	--	N
VRD199A	645,820	4,245,460	1.00	.10	<.05	.50	150	<.5	30	200	<1.0	N
VRD199A	645,820	4,245,460	30.00	--	--	--	3,000	N	--	--	--	N
VRD400A	645,880	4,245,280	2.00	.15	<.05	.50	100	N	50	200	<1.0	N
VRD400A	645,880	4,245,280	30.00	--	--	--	1,500	1.0	--	--	--	N
VRD401A	646,100	4,245,170	2.00	.20	.05	.50	5,000	N	50	1,000	5.0	N
VRD401A	646,100	4,245,170	30.00	--	--	--	>10,000	150.0	--	--	--	N
VRD402A	646,320	4,245,090	1.50	.10	.05	.50	5,000	N	30	700	3.0	N
VRD402A	646,320	4,245,090	20.00	--	--	--	>10,000	15.0	--	--	--	50
VRD403A	646,310	4,244,960	1.50	.20	.05	.50	150	N	70	300	1.0	N
VRD403A	646,310	4,244,960	30.00	--	--	--	>10,000	5.0	--	--	--	<50
VRD404A	646,350	4,244,820	1.00	.15	<.05	.50	100	N	70	200	1.0	N
VRD404A	646,350	4,244,820	30.00	--	--	--	7,000	3.0	--	--	--	N
VRD406A	646,810	4,246,190	3.00	.30	.07	.50	1,000	N	70	500	1.5	N
VRD406A	646,810	4,246,190	30.00	--	--	--	7,000	N	--	--	--	--
VRD407A	646,700	4,244,770	1.00	.15	.05	.50	70	N	70	200	<1.0	N
VRD407A	646,700	4,244,770	10.00	--	--	--	5,000	3.0	--	--	--	50
VRD408A	646,860	4,244,800	.50	.07	.05	.70	150	N	100	150	<1.0	N
VRD408A	646,860	4,244,800	10.00	--	--	--	7,000	N	--	--	--	N
VRD409A	647,010	4,244,750	.50	.07	<.05	.70	100	N	70	150	<1.0	N
VRD409A	647,010	4,244,750	30.00	--	--	--	7,000	2.0	--	--	--	N

Table 2.--Analyses of stream-sediment, soil, and rock samples--continued

Ramseys Draft Soils Collected in 1975--continued

Sample	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	Sn-ppm s	Sr-ppm s	V-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s
VRD186A	--	--	200	--	70	--	--	2,000	--	100	--	--	--	700	--
VRD187A	<5	15	5	20	N	20	<5	10	7	N	N	50	20	N	700
VRD187A	--	--	200	--	70	--	--	1,000	--	70	--	--	--	700	--
VRD188A	<5	15	7	20	N	30	7	15	7	N	N	30	20	N	500
VRD188A	--	--	50	--	30	--	--	200	--	<20	--	--	--	<500	--
VRD189A	15	30	15	30	N	30	15	70	10	N	100	70	30	N	500
VRD189A	--	--	200	--	50	--	--	300	--	20	--	--	--	700	--
VRD190A	5	20	7	30	N	20	5	20	7	N	N	50	30	N	500
VRD190A	--	--	200	--	30	--	--	300	--	20	--	--	--	<500	--
VRD191A	10	30	15	30	N	30	15	15	10	N	N	70	30	N	500
VRD191A	--	--	200	--	50	--	--	700	--	20	--	--	--	500	--
VRD192A	<5	10	7	30	N	30	<5	30	7	N	N	30	50	N	500
VRD192A	--	--	300	--	100	--	--	1,000	--	100	--	--	--	700	--
VRD193A	15	50	10	30	N	20	15	20	10	N	N	100	50	N	500
VRD193A	--	--	150	--	30	--	--	500	--	20	--	--	--	500	--
VRD194A	<5	15	10	30	N	30	5	15	7	N	N	70	30	N	500
VRD194A	--	--	200	--	50	--	--	700	--	50	--	--	--	700	--
VRD195A	15	20	15	30	N	30	10	50	7	N	N	70	20	N	300
VRD195A	--	--	300	--	50	--	--	700	--	20	--	--	--	1,000	--
VRD196A	<5	10	5	20	N	20	<5	30	7	N	N	30	20	N	300
VRD196A	--	--	200	--	70	--	--	1,500	--	70	--	--	--	700	--
VRD197A	5	10	5	20	N	30	<5	10	5	N	N	30	15	N	700
VRD197A	--	--	200	--	70	--	--	1,000	--	100	--	--	--	700	--
VRD198A	7	20	10	30	N	20	10	20	7	N	N	70	20	N	500
VRD198A	--	--	200	--	30	--	--	500	--	30	--	--	--	700	--
VRD199A	<5	10	5	<20	N	20	5	20	7	N	N	50	15	N	300
VRD199A	--	--	200	--	50	--	--	1,500	--	70	--	--	--	500	--
VRD400A	N	20	7	<20	N	30	5	20	7	N	N	70	20	N	300
VRD400A	--	--	150	--	70	--	--	500	--	30	--	--	--	<500	--
VRD401A	15	20	15	50	N	20	50	50	7	N	N	70	50	N	300
VRD401A	--	--	200	--	30	--	--	500	--	<20	--	--	--	500	--
VRD402A	7	15	10	<20	N	20	15	70	7	N	N	50	20	N	300
VRD402A	--	--	200	--	50	--	--	1,500	--	50	--	--	--	1,000	--
VRD403A	5	30	15	<20	N	20	7	70	7	N	N	70	30	N	500
VRD403A	--	--	200	--	100	--	--	2,000	--	100	--	--	--	1,000	--
VRD404A	<5	30	7	30	N	20	5	30	7	N	N	50	20	N	500
VRD404A	--	--	200	--	70	--	--	2,000	--	100	--	--	--	1,000	--
VRD406A	10	30	15	30	N	30	10	30	10	N	N	70	30	N	500
VRD406A	--	--	--	--	--	--	--	700	--	20	--	--	--	700	--
VRD407A	10	15	10	<20	N	20	7	20	7	N	N	50	20	N	700
VRD407A	--	--	300	--	100	--	--	2,000	--	100	--	--	--	700	--
VRD408A	<5	15	10	30	N	30	<5	10	7	N	N	50	30	N	>1,000
VRD408A	--	--	300	--	70	--	--	1,500	--	100	--	--	--	700	--
VRD409A	<5	10	7	20	N	30	<5	10	7	N	N	50	50	N	>1,000
VRD409A	--	--	300	--	100	--	--	2,000	--	100	--	--	--	700	--

Table 2.--Analyses of stream-sediment, soil, and rock samples--continued

Ramseys Draft Soils Collected in 1975--continued

Sample	X coordinate	Y coordinate	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	B-ppm s	Ba-ppm s	Be-ppm s	Cd-ppm s
VRD410A	647,300	4,244,620	.50	.07	<.05	.50	150	N	70	150	<1.0	N
VRD410A	647,300	4,244,620	30.00	--	--	--	>10,000	1.0	--	--	--	50
VRD411A	647,530	4,244,560	1.00	.07	<.05	.50	200	N	70	200	<1.0	N
VRD411A	647,530	4,244,560	20.00	--	--	--	10,000	N	--	--	--	N
VRD412A	647,530	4,244,260	1.50	.30	.05	.50	100	<.5	70	200	<1.0	N
VRD412A	647,530	4,244,260	20.00	--	--	--	7,000	<1.0	--	--	--	50
VRD413A	647,310	4,244,120	2.00	.20	<.05	.50	70	N	70	150	<1.0	N
VRD413A	647,310	4,244,120	30.00	--	--	--	1,500	<1.0	--	--	--	<50
VRD414A	647,150	4,243,870	2.00	.15	<.05	.50	70	N	70	150	1.0	N
VRD414A	647,150	4,243,870	20.00	--	--	--	3,000	2.0	--	--	--	<50
VRD415A	646,950	4,243,710	2.00	.15	<.05	.50	100	<.5	50	200	<1.0	N
VRD415A	646,950	4,243,710	20.00	--	--	--	2,000	N	--	--	--	N
VRD416A	646,760	4,243,610	3.00	.20	<.05	.70	700	<.5	100	500	<1.0	N
VRD416A	646,760	4,243,610	30.00	--	--	--	10,000	N	--	--	--	N
VRD417A	646,550	4,243,430	2.00	.50	<.05	.50	100	<.5	100	300	1.0	N
VRD417A	646,550	4,243,430	20.00	--	--	--	1,500	N	--	--	--	N
VRD418A	646,320	4,243,410	3.00	.20	<.05	.50	100	<.5	50	300	1.0	N
VRD418A	646,320	4,243,410	30.00	--	--	--	2,000	N	--	--	--	N
VRD419A	646,270	4,243,580	3.00	.50	<.05	.30	700	N	50	200	1.0	N
VRD419A	646,270	4,243,580	30.00	--	--	--	7,000	N	--	--	--	N
VRD420A	646,220	4,243,740	1.50	.15	<.05	.70	50	N	100	200	1.5	N
VRD420A	646,220	4,243,740	20.00	--	--	--	1,000	N	--	--	--	N
VRD421A	646,120	4,243,900	1.00	.15	<.05	.30	50	N	50	150	<1.0	N
VRD421A	646,120	4,243,900	20.00	--	--	--	1,500	1.0	--	--	--	<50
VRD422A	646,030	4,244,090	.50	.05	<.05	.50	50	N	50	150	<1.0	N
VRD422A	646,030	4,244,090	20.00	--	--	--	5,000	5.0	--	--	--	50
VRD423A	645,990	4,244,250	.70	.07	<.05	.50	50	N	70	150	<1.0	N
VRD423A	645,990	4,244,250	20.00	--	--	--	3,000	3.0	--	--	--	<50
VRD429A	646,600	4,243,600	1.00	.15	<.05	.30	50	N	70	200	<1.0	N
VRD429A	646,600	4,243,600	20.00	--	--	--	1,000	1.0	--	--	--	50
VRD430A	646,530	4,243,740	.30	.03	<.05	.15	20	N	20	100	1.0	N
VRD430A	646,530	4,243,740	30.00	--	--	--	2,000	7.0	--	--	--	50
VRD431A	646,420	4,244,120	1.00	.10	.05	.50	100	<.5	70	200	1.5	N
VRD431A	646,420	4,244,120	30.00	--	--	--	3,000	2.0	--	--	--	<50
VRD432A	646,270	4,244,220	1.00	.10	<.05	.50	30	N	100	150	<1.0	N
VRD432A	646,270	4,244,220	30.00	--	--	--	1,000	1.5	--	--	--	N
VRD433A	645,990	4,244,280	1.00	.15	<.05	.50	50	N	50	200	<1.0	N
VRD433A	645,990	4,244,280	30.00	--	--	--	3,000	2.0	--	--	--	<50
VRD119B	647,050	4,246,160	2.00	.20	<.05	.50	1,000	N	70	300	1.0	N
VRD119B	647,050	4,246,160	30.00	--	--	--	10,000	N	--	--	--	N
VRD120B	647,210	4,246,180	3.00	.20	<.05	.70	1,000	N	70	300	1.0	N
VRD120B	647,210	4,246,180	20.00	--	--	--	5,000	N	--	--	--	N
VRD121B	647,350	4,246,170	.70	.05	<.05	.50	150	N	30	200	<1.0	N
VRD121B	647,350	4,246,170	20.00	--	--	--	5,000	100.0	--	--	--	N
VRD122B	647,570	4,246,070	2.00	.10	<.05	.50	700	N	50	200	1.0	N

Table 2.--Analyses of stream-sediment, soil, and rock samples--continued

Ramseys Draft Soils Collected in 1975--continued

Sample	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	Sn-ppm s	Sr-ppm s	V-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s
VRD410A	<5	20	5	20	N	20	<5	<10	7	N	N	30	20	N	700
VRD410A	--	--	300	--	70	--	--	2,000	--	200	--	--	--	700	--
VRD411A	<5	10	10	20	N	20	<5	15	7	N	N	30	30	N	500
VRD411A	--	--	500	--	70	--	--	700	--	100	--	--	--	500	--
VRD412A	<5	30	15	30	N	N	5	30	7	N	N	50	30	N	300
VRD412A	--	--	500	--	100	--	--	3,000	--	200	--	--	--	1,000	--
VRD413A	<5	30	15	30	N	20	5	50	7	N	N	70	30	N	700
VRD413A	--	--	200	--	70	--	--	1,000	--	70	--	--	--	700	--
VRD414A	<5	30	15	30	N	30	5	30	7	N	N	50	30	N	1,000
VRD414A	--	--	300	--	100	--	--	2,000	--	150	--	--	--	700	--
VRD415A	<5	30	15	30	N	20	5	30	7	N	N	50	20	N	500
VRD415A	--	--	100	--	30	--	--	700	--	1,500	--	--	--	700	--
VRD416A	5	30	15	70	N	30	10	50	10	N	N	50	50	N	1,000
VRD416A	--	--	200	--	50	--	--	700	--	100	--	--	--	1,000	--
VRD417A	5	30	15	<20	N	20	10	50	7	N	N	50	30	N	1,000
VRD417A	--	--	200	--	50	--	--	1,000	--	70	--	--	--	700	--
VRD418A	<5	30	15	<20	N	20	10	30	10	N	N	50	30	N	300
VRD418A	--	--	200	--	30	--	--	1,000	--	70	--	--	--	500	--
VRD419A	5	70	15	<20	N	N	10	50	7	N	N	100	30	N	200
VRD419A	--	--	150	--	50	--	--	700	--	20	--	--	--	700	--
VRD420A	<5	20	10	30	N	30	5	20	7	N	N	70	50	N	>1,000
VRD420A	--	--	150	--	30	--	--	500	--	70	--	--	--	500	--
VRD421A	N	30	10	<20	N	<20	<5	15	5	N	N	30	20	N	500
VRD421A	--	--	300	--	70	--	--	700	--	100	--	--	--	700	--
VRD422A	<5	20	7	<20	N	20	<5	10	5	N	N	30	30	N	700
VRD422A	--	--	500	--	100	--	--	3,000	--	200	--	--	--	1,500	--
VRD423A	<5	15	5	<20	N	30	<5	10	5	N	N	30	20	N	700
VRD423A	--	--	300	--	70	--	--	1,500	--	150	--	--	--	700	--
VRD429A	N	20	10	<20	N	20	5	30	7	N	N	50	20	N	500
VRD429A	--	--	200	--	70	--	--	1,500	--	100	--	--	--	1,500	--
VRD430A	<5	<10	5	<20	N	N	5	10	<5	N	N	20	<10	N	100
VRD430A	--	--	700	--	150	--	--	5,000	--	200	--	--	--	3,000	--
VRD431A	<5	15	15	20	N	20	5	50	7	N	N	50	30	N	300
VRD431A	--	--	500	--	150	--	--	5,000	--	150	--	--	--	1,500	--
VRD432A	<5	50	10	20	N	20	<5	15	10	N	N	50	30	N	>1,000
VRD432A	--	--	300	--	70	--	--	1,500	--	150	--	--	--	700	--
VRD433A	<5	30	10	<20	N	20	5	30	7	N	N	50	100	N	300
VRD433A	--	--	300	--	70	--	--	3,000	--	150	--	--	--	1,000	--
VRD119B	15	30	10	20	N	30	15	N	10	N	N	70	30	N	300
VRD119B	--	--	150	--	30	--	--	300	--	N	--	--	--	500	--
VRD120B	15	30	10	50	N	30	20	<10	10	N	N	70	50	N	500
VRD120B	--	--	70	--	30	--	--	100	--	N	--	--	--	<500	--
VRD121B	N	10	N	<20	N	20	<5	N	5	N	N	30	15	N	700
VRD121B	--	--	70	--	50	--	--	300	--	N	--	--	--	700	--
VRD122B	7	20	10	50	N	30	5	<10	10	N	N	70	50	N	500

Table 2.--Analyses of stream-sediment, soil, and rock samples--continued

Ramseys Draft Soils Collected in 1975--continued

Sample	X coordinate	Y coordinate	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	B-ppm s	Ba-ppm s	Be-ppm s	Cd-ppm s
VRD122B	647,570	4,246,070	30.00	--	--	--	7,000	3.0	--	--	--	N
VRD123B	647,780	4,246,000	1.50	.05	<.05	.50	30	N	50	150	<1.0	N
VRD123B	647,780	4,246,000	30.00	--	--	--	1,000	2.0	--	--	--	N
VRD124B	647,600	4,245,780	2.00	.30	<.05	.70	1,000	N	50	300	1.0	N
VRD124B	647,600	4,245,780	30.00	--	--	--	10,000	N	--	--	--	N
VRD125B	647,440	4,245,670	1.50	.10	<.05	.70	200	N	30	150	1.0	N
VRD125B	647,440	4,245,670	30.00	--	--	--	3,000	1.0	--	--	--	N
VRD126B	647,280	4,245,570	2.00	.20	<.05	.70	300	N	30	200	1.0	N
VRD126B	647,280	4,245,570	30.00	--	--	--	2,000	N	--	--	--	N
VRD127B	647,110	4,245,490	2.00	.20	<.05	.70	150	N	70	200	1.0	N
VRD127B	647,110	4,245,490	30.00	--	--	--	2,000	1.0	--	--	--	N
VRD128B	646,990	4,245,420	1.50	.15	<.05	.70	200	N	70	200	<1.0	N
VRD128B	646,990	4,245,420	30.00	--	--	--	5,000	N	--	--	--	N
VRD129B	646,880	4,245,320	1.50	.20	<.05	.50	50	N	70	200	<1.0	N
VRD129B	646,880	4,245,320	20.00	--	--	--	500	<1.0	--	--	--	N
VRD130B	646,810	4,245,250	1.50	.15	<.05	.50	100	N	70	200	<1.0	N
VRD130B	646,810	4,245,250	30.00	--	--	--	1,500	3.0	--	--	--	N
VRD131B	647,990	4,246,030	.50	.05	<.05	.50	150	N	50	150	<1.0	N
VRD131B	647,990	4,246,030	30.00	--	--	--	10,000	1.5	--	--	--	N
VRD132B	648,200	4,246,320	.50	.02	<.05	.50	20	N	50	70	<1.0	N
VRD132B	648,200	4,246,320	30.00	--	--	--	1,500	5.0	--	--	--	N
VRD133B	648,000	4,246,470	.50	.03	<.05	.70	20	N	50	70	<1.0	N
VRD133B	648,000	4,246,470	30.00	--	--	--	1,000	2.0	--	--	--	N
VRD134B	647,810	4,246,660	.20	.02	<.05	.50	15	N	50	50	<1.0	N
VRD134B	647,810	4,246,660	20.00	--	--	--	1,000	1.5	--	--	--	N
VRD135B	647,690	4,246,820	3.00	.10	<.05	.50	500	N	70	200	1.0	N
VRD135B	647,690	4,246,820	20.00	--	--	--	3,000	N	--	--	--	N
VRD136B	646,920	4,246,340	5.00	.50	<.05	.70	500	N	70	500	1.5	N
VRD136B	646,920	4,246,340	50.00	--	--	--	5,000	N	--	--	--	N
VRD137B	646,910	4,246,500	2.00	.15	<.05	.50	1,500	N	70	200	1.5	N
VRD137B	646,910	4,246,500	20.00	--	--	--	7,000	N	--	--	--	N
VRD138B	646,980	4,246,690	.30	.05	<.05	.30	20	N	30	150	<1.0	N
VRD138B	646,980	4,246,690	30.00	--	--	--	2,000	1.5	--	--	--	N
VRD139B	647,030	4,246,840	.20	.03	<.05	.30	10	N	30	100	<1.0	N
VRD139B	647,030	4,246,840	20.00	--	--	--	700	2.0	--	--	--	N
VRD140B	647,060	4,247,000	.70	.05	<.05	.50	100	1.0	50	100	<1.0	N
VRD140B	647,060	4,247,000	20.00	--	--	--	5,000	2.0	--	--	--	N
VRD141B	647,090	4,247,140	.15	.02	<.05	.50	10	N	50	70	N	N
VRD141B	647,090	4,247,140	15.00	--	--	--	1,000	3.0	--	--	--	N
VRD142B	646,790	4,247,070	2.00	.15	<.05	.50	200	N	50	200	1.0	N
VRD142B	646,790	4,247,070	30.00	--	--	--	3,000	N	--	--	--	N
VRD143B	646,850	4,247,200	2.00	.15	<.05	.50	150	N	50	200	1.0	N
VRD143B	646,850	4,247,200	30.00	--	--	--	2,000	10.0	--	--	--	N
VRD144B	646,920	4,247,340	.70	.07	<.05	.50	300	N	30	150	<1.0	N
VRD144B	646,920	4,247,340	50.00	--	--	--	10,000	1.5	--	--	--	N

Table 2.--Analyses of stream-sediment, soil, and rock samples--continued

Ramseys Draft Soils Collected in 1975--continued

Sample	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	Sn-ppm s	Sr-ppm s	V-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s
VRD122B	--	--	100	--	30	--	--	300	--	N	--	--	--	500	--
VRD123B	N	30	<5	N	N	<20	<5	N	7	N	N	50	20	N	500
VRD123B	--	--	100	--	50	--	--	300	--	N	--	--	--	500	--
VRD124B	10	30	10	30	N	20	20	10	10	N	N	100	30	N	500
VRD124B	--	--	150	--	30	--	--	300	--	N	--	--	--	1,000	--
VRD125B	5	20	5	20	N	30	5	N	7	N	N	70	30	N	500
VRD125B	--	--	70	--	30	--	--	300	--	N	--	--	--	700	--
VRD126B	10	30	7	20	N	30	10	N	10	N	N	70	30	N	700
VRD126B	--	--	100	--	30	--	--	100	--	N	--	--	--	<500	--
VRD127B	5	30	7	20	N	50	7	10	10	N	N	70	30	N	500
VRD127B	--	--	150	--	30	--	--	200	--	N	--	--	--	500	--
VRD128B	7	30	7	20	N	50	7	N	10	N	N	70	30	N	500
VRD128B	--	--	150	--	20	--	--	200	--	N	--	--	--	500	--
VRD129B	<5	20	5	20	N	30	7	N	7	N	N	70	20	N	500
VRD129B	--	--	70	--	30	--	--	300	--	150	--	--	--	500	--
VRD130B	<5	20	5	20	N	30	5	N	7	N	N	50	20	N	500
VRD130B	--	--	70	--	20	--	--	300	--	N	--	--	--	700	--
VRD131B	N	10	<5	N	N	20	<5	N	5	N	N	20	20	N	300
VRD131B	--	--	300	--	100	--	--	1,000	--	100	--	--	--	1,000	--
VRD132B	N	15	<5	N	N	N	<5	N	5	N	N	30	15	N	500
VRD132B	--	--	200	--	70	--	--	700	--	30	--	--	--	700	--
VRD133B	N	10	<5	50	N	30	<5	N	5	N	N	30	20	N	300
VRD133B	--	--	200	--	150	--	--	700	--	70	--	--	--	700	--
VRD134B	N	<10	N	N	N	<20	<5	N	5	N	N	15	15	N	200
VRD134B	--	--	150	--	70	--	--	300	--	50	--	--	--	500	--
VRD135B	5	30	7	20	N	20	7	<10	10	N	N	70	20	N	300
VRD135B	--	--	100	--	20	--	--	300	--	N	--	--	--	<500	--
VRD136B	15	70	10	50	N	150	15	15	10	N	100	100	30	N	700
VRD136B	--	--	100	--	20	--	--	300	--	N	--	--	--	700	--
VRD137B	10	20	10	20	N	30	20	N	10	N	N	70	30	N	500
VRD137B	--	--	70	--	20	--	--	150	--	N	--	--	--	500	--
VRD138B	N	30	N	N	N	N	<5	N	5	N	N	20	15	N	300
VRD138B	--	--	100	--	50	--	--	500	--	20	--	--	--	700	--
VRD139B	N	15	N	N	N	N	<5	N	7	N	N	20	20	N	500
VRD139B	--	--	100	--	30	--	--	500	--	70	--	--	--	700	--
VRD140B	N	10	<5	<20	N	20	<5	N	7	N	N	50	20	N	500
VRD140B	--	--	100	--	30	--	--	500	--	30	--	--	--	500	--
VRD141B	N	<10	N	20	N	20	<5	N	7	N	N	30	30	N	300
VRD141B	--	--	300	--	70	--	--	700	--	100	--	--	--	700	--
VRD142B	5	30	10	N	N	30	10	<10	10	N	N	70	30	N	300
VRD142B	--	--	200	--	30	--	--	200	--	N	--	--	--	500	--
VRD143B	10	30	10	20	N	20	20	N	7	N	N	70	30	N	500
VRD143B	--	--	200	--	30	--	--	200	--	N	--	--	--	700	--
VRD144B	<5	50	<5	N	N	20	<5	N	7	N	N	50	30	N	500
VRD144B	--	--	200	--	50	--	--	300	--	20	--	--	--	700	--

Table 2.--Analyses of stream-sediment, soil, and rock samples--continued

Ramseys Draft Soils Collected in 1975--continued

Sample	X coordinate	Y coordinate	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	B-ppm s	Ba-ppm s	Be-ppm s	Cd-ppm s
VRD145B	646,860	4,247,510	2.00	.10	<.05	.50	500	N	50	200	<1.0	N
VRD145B	646,860	4,247,510	30.00	--	--	--	5,000	N	--	--	--	N
VRD146B	646,640	4,247,860	2.00	.15	<.05	.50	500	N	50	200	<1.0	N
VRD146B	646,640	4,247,860	20.00	--	--	--	3,000	N	--	--	--	N
VRD147B	646,450	4,247,930	3.00	.20	<.05	.50	300	N	50	200	1.0	N
VRD147B	646,450	4,247,930	30.00	--	--	--	3,000	N	--	--	--	N
VRD148B	646,240	4,248,020	2.00	.20	<.05	.50	200	N	70	200	1.0	N
VRD148B	646,240	4,248,020	30.00	--	--	--	3,000	<1.0	--	--	--	N
VRD149B	646,050	4,248,110	3.00	.20	<.05	.50	1,000	N	70	300	1.5	N
VRD149B	646,050	4,248,110	30.00	--	--	--	7,000	N	--	--	--	N
VRD150B	646,030	4,247,870	2.00	.20	<.05	.70	150	<.5	70	300	<1.0	N
VRD150B	646,030	4,247,870	30.00	--	--	--	1,500	N	--	--	--	N
VRD151B	645,920	4,247,740	3.00	.50	<.05	.70	300	.7	100	300	1.5	N
VRD151B	645,920	4,247,740	30.00	--	--	--	1,500	N	--	--	--	N
VRD152B	645,820	4,247,640	2.00	.20	<.05	.50	700	N	70	300	1.5	N
VRD152B	645,820	4,247,640	30.00	--	--	--	5,000	1.0	--	--	--	N
VRD153B	645,770	4,247,500	1.50	.07	<.05	.50	20	N	70	150	<1.0	N
VRD153B	645,770	4,247,500	30.00	--	--	--	500	<1.0	--	--	--	N
VRD154B	645,800	4,247,350	1.50	.15	<.05	.50	200	N	70	200	1.0	N
VRD154B	645,800	4,247,350	30.00	--	--	--	5,000	N	--	--	--	N
VRD155B	645,920	4,247,430	3.00	.30	<.05	7.00	150	.5	70	300	1.5	N
VRD155B	645,920	4,247,430	30.00	--	--	--	2,000	1.0	--	--	--	N
VRD156B	646,040	4,247,510	3.00	.15	<.05	.70	30	.5	50	150	<1.0	N
VRD156B	646,040	4,247,510	30.00	--	--	--	200	N	--	--	--	N
VRD157B	647,760	4,247,470	1.00	.15	<.05	.70	100	N	50	200	<1.0	N
VRD157B	647,760	4,247,470	20.00	--	--	--	700	N	--	--	--	N
VRD158B	647,340	4,247,500	2.00	.10	<.05	.50	50	N	50	100	<1.0	N
VRD158B	647,340	4,247,500	30.00	--	--	--	500	1.0	--	--	--	N
VRD159B	647,080	4,247,600	1.00	.05	<.05	.50	150	N	30	150	<1.0	N
VRD159B	647,080	4,247,600	30.00	--	--	--	5,000	1.5	--	--	--	N
VRD160B	646,940	4,247,700	1.50	.10	<.05	.50	2,000	N	30	200	<1.0	N
VRD160B	646,940	4,247,700	30.00	--	--	--	>10,000	N	--	--	--	N
VRD161B	646,560	4,247,650	1.00	.10	<.05	.50	1,500	N	30	200	1.0	N
VRD161B	646,560	4,247,650	30.00	--	--	--	>10,000	N	--	--	--	N
VRD162B	646,470	4,247,500	1.50	.15	<.05	.50	1,500	N	30	300	1.0	N
VRD162B	646,470	4,247,500	30.00	--	--	--	10,000	N	--	--	--	N
VRD163B	646,300	4,247,320	2.00	.20	<.05	.50	1,000	N	70	500	2.0	N
VRD163B	646,300	4,247,320	30.00	--	--	--	10,000	N	--	--	--	N
VRD164B	646,100	4,247,290	.70	.10	<.05	.50	30	N	100	200	<1.0	N
VRD164B	646,100	4,247,290	20.00	--	--	--	700	3.0	--	--	--	N
VRD165B	646,390	4,247,130	.70	.05	<.05	.50	30	N	50	200	<1.0	N
VRD165B	646,390	4,247,130	30.00	--	--	--	1,500	2.0	--	--	--	N
VRD166B	646,340	4,246,990	1.00	.10	<.05	.50	50	N	70	200	<1.0	N
VRD166B	646,340	4,246,990	30.00	--	--	--	2,000	1.5	--	--	--	N
VRD167B	646,090	4,247,070	1.00	.10	<.05	.50	50	N	50	200	<1.0	N

Table 2.--Analyses of stream-sediment, soil, and rock samples--continued

Ramseys Draft Soils Collected in 1975--continued

Sample	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	Sn-ppm s	Sr-ppm s	V-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s
VRD145B	10	20	10	20	N	30	15	N	7	N	N	70	50	N	300
VRD145B	--	--	100	--	30	--	--	300	--	N	--	--	--	700	--
VRD146B	5	20	10	20	N	20	7	10	7	N	N	70	20	N	300
VRD146B	--	--	100	--	20	--	--	150	--	N	--	--	--	<500	--
VRD147B	10	30	15	30	N	30	15	15	10	N	N	70	70	N	700
VRD147B	--	--	200	--	20	--	--	200	--	N	--	--	--	<500	--
VRD148B	7	20	15	30	N	20	10	10	7	N	100	70	30	N	500
VRD148B	--	--	200	--	30	--	--	300	--	20	--	--	--	500	--
VRD149B	7	30	10	50	N	20	15	<10	7	N	<100	70	30	N	300
VRD149B	--	--	150	--	30	--	--	200	--	N	--	--	--	700	--
VRD150B	5	30	10	50	N	30	5	10	7	N	<100	70	50	N	700
VRD150B	--	--	150	--	20	--	--	200	--	<20	--	--	--	500	--
VRD151B	10	50	15	50	N	50	20	15	15	N	<100	100	50	N	500
VRD151B	--	--	150	--	20	--	--	150	--	N	--	--	--	500	--
VRD152B	10	30	10	30	N	30	20	N	7	N	N	70	30	N	500
VRD152B	--	--	150	--	20	--	--	200	--	N	--	--	--	700	--
VRD153B	N	15	10	50	N	30	<5	N	7	N	N	50	30	N	700
VRD153B	--	--	150	--	30	--	--	200	--	N	--	--	--	500	--
VRD154B	5	20	5	30	N	30	5	N	7	N	N	70	20	N	300
VRD154B	--	--	200	--	15	--	--	300	--	20	--	--	--	700	--
VRD155B	5	50	10	30	N	50	5	10	10	N	N	100	30	N	500
VRD155B	--	--	200	--	30	--	--	300	--	20	--	--	--	<500	--
VRD156B	5	30	7	30	N	50	5	N	10	N	N	70	30	N	700
VRD156B	--	--	70	--	20	--	--	100	--	<20	--	--	--	<500	--
VRD157B	N	30	<5	20	N	30	<5	N	7	N	N	70	20	N	500
VRD157B	--	--	70	--	15	--	--	200	--	100	--	--	--	<500	--
VRD158B	N	20	10	<20	N	30	<5	<10	7	N	N	70	20	N	300
VRD158B	--	--	100	--	30	--	--	300	--	50	--	--	--	N	--
VRD159B	N	15	<5	<20	N	30	<5	N	7	N	N	50	20	N	300
VRD159B	--	--	100	--	20	--	--	300	--	300	--	--	--	N	--
VRD160B	7	20	10	<20	N	30	5	<10	7	N	N	70	20	N	300
VRD160B	--	--	200	--	50	--	--	300	--	150	--	--	--	500	--
VRD161B	7	20	10	<20	N	<20	7	N	7	N	N	70	20	N	300
VRD161B	--	--	200	--	30	--	--	300	--	100	--	--	--	500	--
VRD162B	10	20	10	20	N	30	10	<10	7	N	N	70	20	N	300
VRD162B	--	--	150	--	30	--	--	200	--	100	--	--	--	700	--
VRD163B	10	30	15	20	N	30	20	N	10	N	N	70	20	N	300
VRD163B	--	--	200	--	30	--	--	200	--	100	--	--	--	700	--
VRD164B	N	10	5	<20	N	20	<5	N	7	N	N	50	20	N	300
VRD164B	--	--	200	--	30	--	--	500	--	500	--	--	--	700	--
VRD165B	N	10	<5	N	N	20	<5	N	7	N	N	50	30	N	500
VRD165B	--	--	200	--	50	--	--	500	--	500	--	--	--	500	--
VRD166B	N	10	5	20	N	20	<5	N	5	N	N	30	20	N	700
VRD166B	--	--	200	--	30	--	--	500	--	500	--	--	--	500	--
VRD167B	N	20	7	20	N	20	<5	<10	7	N	N	50	20	N	500

Table 2.--Analyses of stream-sediment, soil, and rock samples--continued

Ramseys Draft Soils Collected in 1975--continued

Sample	X coordinate	Y coordinate	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	B-ppm s	Ba-ppm s	Be-ppm s	Cd-ppm s
VRD167B	646,090	4,247,070	30.00	--	--	--	1,500	2.0	--	--	--	N
VRD168B	646,100	4,246,920	2.00	.30	<.05	.50	500	N	70	500	1.5	N
VRD168B	646,100	4,246,920	30.00	--	--	--	7,000	N	--	--	--	N
VRD169B	647,920	4,247,440	2.00	.20	<.05	.50	2,000	N	50	300	1.5	N
VRD169B	647,920	4,247,440	--	--	--	--	--	--	--	--	--	--
VRD170B	644,670	4,244,740	1.50	.15	<.05	.50	100	N	50	300	1.0	N
VRD170B	644,670	4,244,740	20.00	--	--	--	1,000	1.5	--	--	--	N
VRD171B	644,610	4,244,890	1.00	.15	<.05	.50	500	N	70	300	1.0	N
VRD171B	644,610	4,244,890	30.00	--	--	--	10,000	N	--	--	--	N
VRD172B	644,650	4,245,050	3.00	.20	<.05	.70	700	N	70	500	1.0	N
VRD172B	644,650	4,245,050	20.00	--	--	--	7,000	N	--	--	--	N
VRD173B	644,680	4,245,200	1.50	.15	<.05	.50	70	N	50	200	<1.0	N
VRD173B	644,680	4,245,200	30.00	--	--	--	1,000	<1.0	--	--	--	N
VRD174B	644,730	4,245,340	1.50	.10	<.05	.30	50	N	50	200	<1.0	N
VRD174B	644,730	4,245,340	30.00	--	--	--	1,500	<1.0	--	--	--	N
VRD175B	644,800	4,245,530	2.00	.20	<.05	.50	1,000	N	50	500	1.0	N
VRD175B	644,800	4,245,530	20.00	--	--	--	10,000	N	--	--	--	N
VRD176B	644,910	4,245,730	2.00	.20	<.05	.50	300	N	100	300	1.0	N
VRD176B	644,910	4,245,730	30.00	--	--	--	>10,000	N	--	--	--	N
VRD177B	645,140	4,245,840	2.00	.20	<.05	.50	300	N	70	300	1.0	N
VRD177B	645,140	4,245,840	20.00	--	--	--	2,000	<1.0	--	--	--	N
VRD178B	645,340	4,245,800	2.00	.20	<.05	.50	100	N	70	300	1.0	N
VRD178B	645,340	4,245,800	30.00	--	--	--	700	N	--	--	--	N
VRD179B	645,530	4,245,840	2.00	.15	<.05	.50	150	N	50	300	1.0	N
VRD179B	645,530	4,245,840	30.00	--	--	--	7,000	N	--	--	--	N
VRD180B	645,650	4,245,850	2.00	.15	<.05	.50	1,500	N	50	300	1.0	N
VRD180B	645,650	4,245,850	15.00	--	--	--	10,000	N	--	--	--	N
VRD181B	645,720	4,245,630	3.00	.20	<.05	.70	200	N	50	300	1.0	N
VRD181B	645,720	4,245,630	30.00	--	--	--	5,000	150.0	--	--	--	N
VRD182B	645,630	4,245,490	3.00	.30	<.05	.50	500	N	100	200	1.5	N
VRD182B	645,630	4,245,490	30.00	--	--	--	3,000	1.0	--	--	--	N
VRD183B	645,450	4,245,310	1.50	.10	<.05	.70	50	N	50	200	<1.0	N
VRD183B	645,450	4,245,310	30.00	--	--	--	1,500	15.0	--	--	--	N
VRD184B	645,290	4,245,220	5.00	.50	<.05	.50	>5,000	2.0	70	700	3.0	N
VRD184B	645,290	4,245,220	30.00	--	--	--	>10,000	N	--	--	--	N
VRD185B	645,110	4,245,070	.30	.05	<.05	.50	50	N	100	100	N	N
VRD185B	645,110	4,245,070	30.00	--	--	--	5,000	<1.0	--	--	--	N
VRD186B	645,040	4,244,950	3.00	.20	<.05	.30	200	N	100	200	<1.0	N
VRD186B	645,040	4,244,950	20.00	--	--	--	3,000	N	--	--	--	N
VRD187B	644,980	4,244,820	1.00	.07	<.05	.30	30	N	70	150	<1.0	N
VRD187B	644,980	4,244,820	30.00	--	--	--	1,500	N	--	--	--	N
VRD188B	644,980	4,244,700	1.00	.07	<.05	.30	30	N	50	200	<1.0	N
VRD188B	644,980	4,244,700	20.00	--	--	--	1,000	N	--	--	--	N
VRD189B	644,990	4,244,590	3.00	.30	<.05	.50	500	N	70	300	1.5	N
VRD189B	644,990	4,244,590	30.00	--	--	--	7,000	N	--	--	--	N

Table 2.--Analyses of stream-sediment, soil, and rock samples--continued

Ramseys Draft Soils Collected in 1975--continued

Sample	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	Sn-ppm s	Sr-ppm s	V-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s
VRD167B	--	--	150	--	30	--	--	500	--	300	--	--	--	500	--
VRD168B	10	30	10	20	N	50	15	10	10	N	<100	70	30	N	300
VRD168B	--	--	200	--	15	--	--	300	--	70	--	--	--	500	--
VRD169B	20	30	15	20	N	30	20	20	10	N	N	100	30	N	300
VRD169B	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VRD170B	7	30	7	20	N	20	20	N	7	N	N	70	20	N	300
VRD170B	--	--	150	--	20	--	--	200	--	100	--	--	--	700	--
VRD171B	5	30	<5	20	N	30	<5	N	7	N	N	70	30	N	500
VRD171B	--	--	200	--	30	--	--	200	--	300	--	--	--	500	--
VRD172B	7	50	7	30	N	50	10	<10	10	N	<100	100	30	N	500
VRD172B	--	--	100	--	15	--	--	300	--	150	--	--	--	<500	--
VRD173B	N	20	5	20	N	30	5	N	7	N	N	70	30	N	500
VRD173B	--	--	100	--	20	--	--	200	--	150	--	--	--	500	--
VRD174B	N	20	<5	20	N	20	<5	N	5	N	N	50	30	N	500
VRD174B	--	--	70	--	30	--	--	200	--	200	--	--	--	500	--
VRD175B	7	30	5	20	N	30	15	N	7	N	N	50	20	N	300
VRD175B	--	--	70	--	20	--	--	150	--	100	--	--	--	N	--
VRD176B	5	30	10	30	N	30	5	N	10	N	N	70	50	N	500
VRD176B	--	--	200	--	20	--	--	200	--	150	--	--	--	500	--
VRD177B	5	30	10	20	N	30	<5	N	10	N	N	70	30	N	500
VRD177B	--	--	70	--	20	--	--	100	--	100	--	--	--	N	--
VRD178B	5	30	10	<20	N	30	7	<10	10	N	N	70	30	N	500
VRD178B	--	--	70	--	30	--	--	300	--	100	--	--	--	700	--
VRD179B	<5	30	10	20	N	30	<5	N	10	N	<100	70	30	N	500
VRD179B	--	--	150	--	30	--	--	300	--	200	--	--	--	700	--
VRD180B	5	20	7	20	N	20	7	N	7	N	N	50	20	N	300
VRD180B	--	--	100	--	15	--	--	100	--	70	--	--	--	<500	--
VRD181B	5	30	7	20	N	30	5	N	10	N	N	70	30	N	700
VRD181B	--	--	150	--	20	--	--	200	--	150	--	--	--	500	--
VRD182B	10	50	15	20	N	20	20	15	10	N	<100	100	20	N	300
VRD182B	--	--	300	--	30	--	--	300	--	150	--	--	--	700	--
VRD183B	N	20	7	N	N	30	<5	N	7	N	<100	70	30	N	500
VRD183B	--	--	150	--	30	--	--	500	--	200	--	--	--	<500	--
VRD184B	100	30	3,000	30	N	20	70	70	15	N	<100	100	100	N	300
VRD184B	--	--	5,000	--	30	--	--	300	--	20	--	--	--	N	--
VRD185B	N	10	5	20	N	20	<5	N	7	N	N	30	30	N	700
VRD185B	--	--	200	--	50	--	--	300	--	150	--	--	--	500	--
VRD186B	7	30	10	20	N	20	20	N	7	N	N	70	20	N	300
VRD186B	--	--	70	--	30	--	--	100	--	70	--	--	--	500	--
VRD187B	<5	10	<5	20	N	20	<5	N	5	N	N	30	20	N	200
VRD187B	--	--	70	--	30	--	--	200	--	200	--	--	--	<500	--
VRD188B	5	15	5	<20	N	20	5	N	5	N	N	50	20	N	200
VRD188B	--	--	100	--	30	--	--	200	--	150	--	--	--	<500	--
VRD189B	10	50	7	30	N	50	20	10	10	N	<100	100	30	N	500
VRD189B	--	--	150	--	30	--	--	200	--	200	--	--	--	<500	--

Table 2.--Analyses of stream-sediment, soil, and rock samples--continued

Ramseys Draft Soils Collected in 1975--continued

Sample	X coordinate	Y coordinate	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	B-ppm s	Ba-ppm s	Be-ppm s	Cd-ppm s
VRD190B	646,690	4,246,210	1.50	.10	<.05	.50	1,000	N	70	500	1.0	N
VRD190B	646,690	4,246,210	30.00	--	--	--	>10,000	N	--	--	--	N
VRD191B	646,540	4,246,110	3.00	.20	<.05	.50	1,000	N	70	300	1.5	N
VRD191B	646,540	4,246,110	30.00	--	--	--	10,000	N	--	--	--	N
VRD192B	646,320	4,246,110	.50	.05	.05	.50	70	N	50	150	N	N
VRD192B	646,320	4,246,110	20.00	--	--	--	3,000	3.0	--	--	--	N
VRD193B	646,180	4,246,130	2.00	.10	<.05	.50	1,500	N	50	300	<1.0	N
VRD193B	646,180	4,246,130	30.00	--	--	--	>10,000	N	--	--	--	N
VRD194B	645,990	4,246,160	1.50	.07	<.05	.50	500	N	50	300	1.0	N
VRD194B	645,990	4,246,160	30.00	--	--	--	7,000	N	--	--	--	N
VRD195B	645,840	4,246,120	1.00	.07	<.05	.30	1,500	N	30	300	<1.0	N
VRD195B	645,840	4,246,120	30.00	--	--	--	>10,000	N	--	--	--	N
VRD196B	645,750	4,246,290	2.00	.07	<.05	.30	20	N	30	200	<1.0	N
VRD196B	645,750	4,246,290	30.00	--	--	--	500	<1.0	--	--	--	N
VRD197B	645,660	4,246,470	1.50	.10	<.05	.50	30	N	70	200	N	N
VRD197B	645,660	4,246,470	20.00	--	--	--	700	<1.0	--	--	--	N
VRD198B	645,480	4,246,620	2.00	.15	<.05	.30	700	N	50	200	<1.0	N
VRD198B	645,480	4,246,620	30.00	--	--	--	>10,000	N	--	--	--	N
VRD199B	645,820	4,245,460	3.00	.10	<.05	.30	150	N	50	200	<1.0	N
VRD199B	645,820	4,245,460	30.00	--	--	--	2,000	1.0	--	--	--	N
VRD400B	645,880	4,245,280	2.00	.07	<.05	.30	150	N	30	100	N	N
VRD400B	645,880	4,245,280	30.00	--	--	--	1,500	N	--	--	--	N
VRD401B	646,100	4,245,170	1.50	.10	<.05	.30	3,000	N	30	700	2.0	N
VRD401B	646,100	4,245,170	30.00	--	--	--	>10,000	N	--	--	--	N
VRD402B	646,320	4,245,090	1.50	.10	<.05	.50	1,000	N	50	200	1.0	N
VRD402B	646,320	4,245,090	30.00	--	--	--	>10,000	N	--	--	--	N
VRD403B	646,310	4,244,960	1.50	.10	<.05	.50	50	N	50	200	<1.0	N
VRD403B	646,310	4,244,960	30.00	--	--	--	2,000	<1.0	--	--	--	N
VRD404B	646,350	4,244,820	1.00	.10	<.05	.30	100	N	50	150	<1.0	N
VRD404B	646,350	4,244,820	20.00	--	--	--	2,000	N	--	--	--	N
VRD405B	646,390	4,244,710	2.00	.15	<.05	.30	70	N	50	150	<1.0	N
VRD405B	646,390	4,244,710	20.00	--	--	--	1,500	N	--	--	--	N
VRD406B	646,810	4,246,190	2.00	.15	<.05	.30	500	N	70	200	1.0	N
VRD406B	646,810	4,246,190	30.00	--	--	--	7,000	N	--	--	--	N
VRD407B	646,700	4,244,770	2.00	.15	<.05	.30	50	N	50	200	<1.0	N
VRD407B	646,700	4,244,770	30.00	--	--	--	1,000	N	--	--	--	N
VRD408B	646,860	4,244,800	1.00	.05	<.05	.30	30	N	30	150	<1.0	N
VRD408B	646,860	4,244,800	30.00	--	--	--	500	N	--	--	--	N
VRD409B	647,010	4,244,750	.50	.05	<.05	.30	100	N	50	150	<1.0	N
VRD409B	647,010	4,244,750	20.00	--	--	--	5,000	1.0	--	--	--	N
VRD410B	647,300	4,244,620	.70	.07	<.05	.30	70	N	50	150	<1.0	N
VRD410B	647,300	4,244,620	20.00	--	--	--	2,000	N	--	--	--	N
VRD411B	647,530	4,244,560	1.50	.10	<.05	.30	50	N	30	150	N	N
VRD411B	647,530	4,244,560	30.00	--	--	--	1,000	<1.0	--	--	--	N
VRD412B	647,530	4,244,260	2.00	.07	<.05	.20	15	N	20	70	<1.0	N

Table 2.--Analyses of stream-sediment, soil, and rock samples--continued

Ramseys Draft Soils Collected in 1975--continued

Sample	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	Sn-ppm s	Sr-ppm s	V-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s
VRD190B	7	20	5	20	N	50	7	N	7	N	<100	70	30	N	300
VRD190B	--	--	200	--	30	--	--	200	--	150	--	--	--	500	--
VRD191B	7	30	10	20	N	50	10	N	10	N	<100	100	30	N	300
VRD191B	--	--	150	--	30	--	--	150	--	150	--	--	--	<500	--
VRD192B	N	15	<5	20	N	30	<5	N	5	N	<100	30	30	N	700
VRD192B	--	--	200	--	50	--	--	500	--	500	--	--	--	700	--
VRD193B	10	20	10	20	N	20	10	N	7	N	N	70	20	N	500
VRD193B	--	--	150	--	30	--	--	300	--	150	--	--	--	500	--
VRD194B	7	15	15	20	N	20	10	N	7	N	N	50	20	N	300
VRD194B	--	--	200	--	30	--	--	300	--	150	--	--	--	1,000	--
VRD195B	7	15	7	<20	N	20	15	N	5	N	N	30	20	N	300
VRD195B	--	--	200	--	30	--	--	300	--	100	--	--	--	1,000	--
VRD196B	<5	15	5	<20	N	<20	7	N	5	N	N	70	15	N	150
VRD196B	--	--	70	--	30	--	--	150	--	70	--	--	--	<500	--
VRD197B	<5	15	5	<20	N	30	<5	N	7	N	N	50	30	N	500
VRD197B	--	--	70	--	20	--	--	200	--	150	--	--	--	<500	--
VRD198B	10	30	7	20	N	20	15	N	7	N	N	70	20	N	200
VRD198B	--	--	200	--	30	--	--	200	--	150	--	--	--	700	--
VRD199B	5	20	7	20	N	20	7	10	7	N	N	70	20	N	700
VRD199B	--	--	100	--	30	--	--	300	--	150	--	--	--	1,000	--
VRD400B	<5	20	7	20	N	N	7	N	5	N	N	70	15	N	150
VRD400B	--	--	70	--	30	--	--	150	--	50	--	--	--	<500	--
VRD401B	10	20	10	30	N	20	30	10	7	N	N	70	50	N	200
VRD401B	--	--	200	--	30	--	--	300	--	100	--	--	--	700	--
VRD402B	7	20	10	20	N	30	15	N	7	N	N	70	30	N	500
VRD402B	--	--	200	--	30	--	--	200	--	150	--	--	--	500	--
VRD403B	5	20	10	20	N	30	7	N	10	N	N	70	30	N	500
VRD403B	--	--	150	--	50	--	--	300	--	150	--	--	--	<500	--
VRD404B	5	15	5	20	N	20	7	N	5	N	N	30	15	N	200
VRD404B	--	--	70	--	30	--	--	300	--	150	--	--	--	<500	--
VRD405B	7	30	7	20	N	20	15	N	7	N	N	70	20	N	300
VRD405B	--	--	70	--	20	--	--	100	--	100	--	--	--	500	--
VRD406B	10	30	15	20	N	30	10	10	10	N	<100	70	20	N	300
VRD406B	--	--	200	--	30	--	--	300	--	200	--	--	--	700	--
VRD407B	10	20	15	20	N	20	15	N	7	N	N	50	20	N	200
VRD407B	--	--	300	--	20	--	--	200	--	150	--	--	--	500	--
VRD408B	7	10	5	20	N	20	7	N	5	N	N	30	15	N	300
VRD408B	--	--	70	--	20	--	--	200	--	150	--	--	--	<500	--
VRD409B	5	<10	5	30	N	30	<5	N	5	N	N	20	20	N	500
VRD409B	--	--	100	--	30	--	--	500	--	700	--	--	--	<500	--
VRD410B	<5	<10	5	<20	N	20	5	N	5	N	N	20	10	N	500
VRD410B	--	--	50	--	20	--	--	300	--	200	--	--	--	500	--
VRD411B	5	15	7	20	N	20	7	N	7	N	N	50	15	N	500
VRD411B	--	--	100	--	20	--	--	200	--	150	--	--	--	<500	--
VRD412B	5	15	10	<20	N	N	10	10	5	N	N	50	<10	N	70

Table 2.--Analyses of stream-sediment, soil, and rock samples--continued

Ramseys Draft Soils Collected in 1975--continued

Sample	X coordinate	Y coordinate	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	B-ppm s	Ba-ppm s	Be-ppm s	Cd-ppm s
VRD412B	647,530	4,244,260	20.00	--	--	--	200	<1.0	--	--	--	N
VRD413B	647,310	4,244,120	3.00	.20	<.05	.50	50	<.5	50	150	1.0	N
VRD413B	647,310	4,244,120	30.00	--	--	--	300	N	--	--	--	N
VRD414B	647,150	4,243,870	2.00	.10	<.05	.30	30	N	50	150	<1.0	N
VRD414B	647,150	4,243,870	30.00	--	--	--	700	<1.0	--	--	--	N
VRD415B	646,950	4,243,710	3.00	.20	<.05	.50	50	N	50	150	1.0	N
VRD415B	646,950	4,243,710	30.00	--	--	--	700	N	--	--	--	N
VRD416B	646,760	4,243,610	2.00	.15	<.05	.50	200	N	50	200	<1.0	N
VRD416B	646,760	4,243,610	30.00	--	--	--	7,000	N	--	--	--	N
VRD417B	646,550	4,243,430	2.00	.20	<.05	.20	30	N	50	150	<1.0	N
VRD417B	646,550	4,243,430	20.00	--	--	--	700	N	--	--	--	N
VRD418B	646,320	4,243,410	1.50	.05	<.05	.20	30	N	15	70	1.0	N
VRD418B	646,320	4,243,410	30.00	--	--	--	500	N	--	--	--	N
VRD419B	646,270	4,243,580	3.00	.30	<.05	.30	100	.5	50	150	1.0	N
VRD419B	646,270	4,243,580	30.00	--	--	--	2,000	N	--	--	--	N
VRD420B	646,220	4,243,740	1.00	.10	<.05	.30	20	N	50	150	<1.0	N
VRD420B	646,220	4,243,740	30.00	--	--	--	300	N	--	--	--	N
VRD421B	646,120	4,243,900	1.00	.07	<.05	.30	10	N	30	100	N	N
VRD421B	646,120	4,243,900	30.00	--	--	--	200	<1.0	--	--	--	N
VRD422B	646,030	4,244,090	.50	.07	<.05	.50	20	N	50	100	<1.0	N
VRD422B	646,030	4,244,090	30.00	--	--	--	500	1.0	--	--	--	N
VRD423B	645,990	4,244,250	1.00	.07	<.05	.50	20	N	50	150	<1.0	N
VRD423B	645,990	4,244,250	30.00	--	--	--	500	1.0	--	--	--	N
VRD429B	646,600	4,243,600	.70	.07	<.05	.30	20	N	50	100	<1.0	N
VRD429B	646,600	4,243,600	20.00	--	--	--	300	2.0	--	--	--	N
VRD430B	646,530	4,243,740	2.00	.15	<.05	.50	50	N	70	150	<1.0	N
VRD430B	646,530	4,243,740	30.00	--	--	--	500	1.5	--	--	--	N
VRD431B	646,420	4,244,120	3.00	.10	<.05	.50	30	N	50	150	<1.0	N
VRD431B	646,420	4,244,120	30.00	--	--	--	200	<1.0	--	--	--	N
VRD432B	646,270	4,244,220	1.50	.10	<.05	.30	30	N	30	150	<1.0	N
VRD432B	646,270	4,244,220	30.00	--	--	--	200	<1.0	--	--	--	N
VRD433B	645,990	4,244,280	1.00	.07	<.05	.30	30	N	30	150	<1.0	N
VRD433B	645,990	4,244,280	30.00	--	--	--	700	1.5	--	--	--	N

Table 2.--Analyses of stream-sediment, soil, and rock samples--continued

Ramseys Draft Soils Collected in 1975--continued

Sample	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	Sn-ppm s	Sr-ppm s	V-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s
VRD412B	--	--	70	--	30	--	--	150	--	70	--	--	--	700	--
VRD413B	7	50	15	20	N	30	20	15	7	N	N	70	50	N	700
VRD413B	--	--	70	--	30	--	--	150	--	70	--	--	--	700	--
VRD414B	<5	20	7	20	N	20	5	10	7	N	N	50	15	N	300
VRD414B	--	--	100	--	30	--	--	300	--	100	--	--	--	<500	--
VRD415B	5	30	10	30	N	20	15	15	7	N	N	70	20	N	300
VRD415B	--	--	50	--	30	--	--	150	--	70	--	--	--	500	--
VRD416B	5	30	7	30	N	30	10	N	7	N	N	70	20	N	500
VRD416B	--	--	150	--	30	--	--	200	--	100	--	--	--	700	--
VRD417B	7	30	5	N	N	N	10	10	5	N	N	70	10	N	150
VRD417B	--	--	70	--	30	--	--	200	--	100	--	--	--	500	--
VRD418B	N	15	7	N	N	N	10	N	5	N	N	30	10	N	100
VRD418B	--	--	70	--	30	--	--	100	--	50	--	--	--	500	--
VRD419B	7	30	10	20	N	20	20	<10	7	N	N	70	20	N	200
VRD419B	--	--	100	--	50	--	--	200	--	70	--	--	--	500	--
VRD420B	<5	10	5	20	N	20	5	<10	5	N	N	30	20	N	300
VRD420B	--	--	30	--	30	--	--	200	--	100	--	--	--	500	--
VRD421B	5	10	<5	<20	N	20	5	N	5	N	N	50	15	N	200
VRD421B	--	--	20	--	30	--	--	150	--	100	--	--	--	<500	--
VRD422B	<5	10	<5	20	N	30	<5	N	5	N	N	30	30	N	700
VRD422B	--	--	70	--	20	--	--	300	--	300	--	--	--	<500	--
VRD423B	5	50	5	20	N	30	5	N	5	N	N	30	15	N	300
VRD423B	--	--	70	--	30	--	--	300	--	300	--	--	--	<500	--
VRD429B	<5	10	5	20	N	20	<5	N	5	N	N	30	10	N	300
VRD429B	--	--	200	--	50	--	--	500	--	700	--	--	--	700	--
VRD430B	5	30	7	20	N	30	<5	N	7	N	N	70	30	N	300
VRD430B	--	--	70	--	30	--	--	300	--	200	--	--	--	<500	--
VRD431B	5	30	7	20	N	30	5	N	7	N	N	70	30	N	300
VRD431B	--	--	50	--	30	--	--	200	--	150	--	--	--	N	--
VRD432B	5	15	5	<20	N	20	10	N	5	N	N	50	20	N	300
VRD432B	--	--	50	--	30	--	--	200	--	100	--	--	--	N	--
VRD433B	<5	15	7	<20	N	N	10	<10	5	N	N	50	20	N	200
VRD433B	--	--	150	--	30	--	--	500	--	300	--	--	--	<500	--

Table 2.--Analyses of stream-sediment, soil, and rock samples--continued

Ramseys Draft Soils Collected in 1976

Sample	X coordinate	Y coordinate	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	B-ppm s	Ba-ppm s	Be-ppm s	Co-ppm s
VRD434A	645,290	4,245,220	1.0	.15	.15	.5	20	<.5	70	500	1.0	<5
VRD435A	645,300	4,245,225	1.0	.15	.07	.5	70	N	70	300	<1.0	<5
VRD437A	645,320	4,245,230	.5	.10	.10	.5	1,000	<.5	70	300	<1.0	<5
VRD439A	645,330	4,245,230	2.0	.30	.07	.7	>5,000	1.5	70	700	3.0	20
VRD440A	645,320	4,245,230	1.5	.30	.20	.5	5,000	<.5	100	500	2.0	7
VRD441A	645,345	4,245,240	1.5	.20	.30	.5	5,000	1.0	70	700	1.5	10
VRD443A	645,350	4,245,245	1.5	.15	.20	.5	>5,000	N	50	700	1.0	15
VRD447A	645,375	4,245,260	1.0	.10	.07	.5	500	N	50	700	<1.0	<5
VRD448A	645,400	4,245,270	.3	.05	.15	.3	200	N	20	200	1.0	N
VRD449A	645,425	4,245,280	1.0	.07	.07	.5	70	N	70	200	<1.0	N
VRD450A	645,455	4,245,290	2.0	.30	<.05	.7	150	<.5	150	300	1.0	<5
VRD451A	645,135	4,245,090	.5	.10	<.05	.5	100	N	50	300	<1.0	<5
VRD452A	645,200	4,245,150	.7	.07	.10	.5	100	N	100	150	<1.0	N
VRD453A	645,240	4,245,180	.7	.10	.05	.7	70	N	70	300	1.0	<5
VRD454A	645,265	4,245,200	1.5	.15	.05	.5	300	N	70	200	<1.0	<5
VRD455A	645,310	4,245,805	1.5	.20	.05	.5	500	N	150	150	<1.0	<5
VRD456A	645,280	4,245,810	3.0	.50	.07	.7	1,000	N	150	300	2.0	10
VRD457A	645,250	4,245,815	2.0	.50	.50	.7	3,000	N	100	700	1.0	10
VRD458A	645,220	4,245,820	1.0	.15	.15	.7	1,000	<.5	100	300	<1.0	<5
VRD459A	645,190	4,245,760	1.0	.15	.07	.7	150	N	100	300	<1.0	<5
VRD462A	645,375	4,245,325	1.5	.20	.05	.7	100	N	100	300	<1.0	<5
VRD463A	645,170	4,245,720	.7	.10	.50	.3	700	N	50	500	1.0	<5
VRD464A	645,140	4,245,640	.7	.10	.15	.5	200	<.5	100	300	<1.0	N
VRD465A	645,100	4,245,570	.7	.10	<.05	.5	50	N	70	300	1.0	N
VRD466A	645,055	4,245,510	.5	.10	.15	.3	150	<.5	50	700	1.5	N
VRD500A	645,080	4,244,535	1.5	.20	.10	.5	700	N	100	700	1.0	5
VRD501A	645,130	4,244,560	3.0	.30	.10	.7	700	N	100	700	1.5	10
VRD502A	645,155	4,244,620	1.5	.20	.05	.7	100	N	150	500	1.0	<5
VRD503A	645,225	4,244,695	1.5	.30	.07	.5	100	N	150	300	<1.0	<5
VRD504A	645,280	4,244,755	1.5	.30	.05	.7	70	N	150	300	<1.0	5
VRD505A	645,350	4,244,795	.5	.10	<.05	.3	70	N	70	200	<1.0	N
VRD506A	645,400	4,244,840	1.0	.10	<.05	.7	70	N	70	300	<1.0	5
VRD507A	645,450	4,244,890	.5	.10	.05	.5	150	<.5	70	300	<1.0	5
VRD434B	645,290	4,245,220	1.5	.15	<.05	.5	300	N	100	300	1.0	5
VRD435B	645,300	4,245,225	2.0	.20	<.05	.5	70	N	100	300	<1.0	<5
VRD437B	645,320	4,245,230	.7	.07	.05	.7	200	<.5	70	300	N	N
VRD439B	645,330	4,245,230	3.0	.30	.05	.7	>5,000	2.0	100	1,000	5.0	50
VRD440B	645,320	4,245,230	2.0	.30	<.05	.7	1,500	<.5	150	700	1.0	15
VRD441B	645,345	4,245,240	1.5	.15	.07	.7	2,000	1.5	100	700	1.5	15
VRD443B	645,350	4,245,245	2.0	.15	.05	.7	5,000	N	70	1,000	1.5	15
VRD445B	645,355	4,245,250	5.0	.30	.05	.7	700	<.5	150	700	1.5	15
VRD447B	645,375	4,245,260	1.0	.10	<.05	.7	70	<.5	100	300	<1.0	N
VRD448B	645,400	4,245,270	3.0	.15	<.05	.7	50	N	70	300	<1.0	7
VRD449B	645,425	4,245,280	1.5	.10	<.05	.7	30	N	70	200	N	N
VRD450B	645,455	4,245,290	3.0	.20	<.05	.7	70	N	150	500	1.0	5

Table 2.--Analyses of stream-sediment, soil, and rock samples--continued

Ramseys Draft Soils Collected in 1976

Sample	Cr-ppm s	Cu-ppm s	La-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	Sr-ppm s	V-ppm s	Y-ppm s	Zr-ppm s
VRD434A	20	10	N	N	5	50	5	N	50	20	500
VRD435A	30	5	N	N	<5	20	5	N	50	15	700
VRD437A	15	5	N	<20	<5	N	5	N	30	20	500
VRD439A	30	300	50	<20	<5	70	10	N	100	50	300
VRD440A	20	20	N	N	20	70	7	N	70	20	300
VRD441A	20	70	N	20	15	70	7	N	70	30	500
VRD443A	15	15	N	N	15	30	5	N	50	20	300
VRD447A	15	10	N	N	15	15	5	N	30	20	700
VRD448A	10	5	N	N	7	15	5	N	20	10	200
VRD449A	15	5	N	<20	5	15	7	N	30	30	500
VRD450A	30	15	20	20	<5	30	10	<100	100	50	500
VRD451A	15	<5	N	<20	7	<10	5	N	30	15	700
VRD452A	10	5	N	N	<5	10	5	N	30	15	700
VRD453A	15	7	20	<20	<5	10	5	N	50	20	1,000
VRD454A	15	5	N	N	<5	10	5	N	30	15	1,000
VRD455A	20	5	N	<20	5	10	5	N	50	15	700
VRD456A	30	10	20	<20	15	20	10	N	100	30	500
VRD457A	30	15	20	<20	10	50	10	<100	100	20	700
VRD458A	20	7	<20	<20	<5	15	7	N	50	20	700
VRD459A	20	7	N	<20	<5	10	5	N	50	20	700
VRD462A	30	7	50	<20	5	10	7	N	70	30	1,000
VRD463A	15	7	N	N	5	<10	5	N	30	10	300
VRD464A	15	7	N	N	<5	<10	5	N	30	15	500
VRD465A	30	5	N	<20	<5	30	5	N	50	20	500
VRD466A	10	10	N	N	15	30	5	N	30	10	200
VRD500A	20	7	N	<20	<5	15	7	N	70	20	700
VRD501A	30	10	N	<20	15	30	10	N	100	20	700
VRD502A	30	7	N	<20	5	20	7	N	70	30	700
VRD503A	20	7	30	N	5	30	7	N	70	30	700
VRD504A	50	7	N	N	5	20	7	N	70	20	1,000
VRD505A	<10	5	N	N	<5	<10	<5	N	30	10	700
VRD506A	15	<5	20	<20	<5	<10	5	N	50	50	1,000
VRD507A	15	5	N	N	5	10	5	N	50	30	500
VRD434B	20	7	20	<20	5	10	7	N	70	30	500
VRD435B	20	7	20	<20	5	20	10	N	70	20	700
VRD437B	15	5	20	<20	<5	<10	5	N	50	20	700
VRD439B	50	1,000	50	<20	30	20	15	N	100	50	300
VRD440B	50	30	20	20	20	10	10	N	100	30	700
VRD441B	30	100	20	20	20	20	10	N	70	50	700
VRD443B	30	10	20	20	15	10	10	N	70	50	500
VRD445B	70	70	20	<20	20	30	15	N	150	50	700
VRD447B	20	7	<20	20	<5	N	10	N	70	50	1,000
VRD448B	50	5	20	<20	10	<10	10	N	70	30	500
VRD449B	30	<5	20	<20	<5	N	10	N	70	30	1,000
VRD450B	50	7	20	20	5	<10	15	150	100	50	500

Table 2.--Analyses of stream-sediment, soil, and rock samples--continued

Ramseys Draft Soils Collected in 1976--continued

Sample	X coordinate	Y coordinate	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	B-ppm s	Ba-ppm s	Be-ppm s	Co-ppm s
VRD451B	645,135	4,245,090	.7	.07	<.05	.7	200	N	100	300	N	5
VRD452B	645,200	4,245,150	.7	.07	<.05	.7	70	N	100	200	N	<5
VRD453B	645,240	4,245,180	.5	.07	<.05	.7	50	N	100	300	N	N
VRD454B	645,265	4,245,200	1.0	.10	<.05	.7	30	N	100	200	N	<5
VRD455B	645,310	4,245,805	2.0	.15	<.05	.5	100	N	100	300	<1.0	5
VRD456B	645,280	4,245,810	5.0	.30	<.05	.7	200	N	200	300	1.5	10
VRD457B	645,250	4,245,815	2.0	.20	.05	.7	700	N	150	300	<1.0	5
VRD458B	645,220	4,245,820	1.5	.15	<.05	.7	100	N	70	200	<1.0	<5
VRD459B	645,190	4,245,760	1.5	.15	<.05	.7	70	N	100	200	<1.0	<5
VRD460B	645,355	4,245,295	1.5	.15	<.05	.7	50	N	100	300	<1.0	<5
VRD461B	645,340	4,245,265	1.5	.15	<.05	.7	50	<.5	100	300	<1.0	<5
VRD462B	645,375	4,245,325	2.0	.20	<.05	.7	70	<.5	70	300	<1.0	5
VRD463B	645,170	4,245,720	3.0	.30	<.05	.7	150	N	150	500	1.0	10
VRD464B	645,140	4,245,640	1.5	.15	<.05	.7	70	N	100	300	<1.0	<5
VRD465B	645,100	4,245,570	1.5	.15	<.05	.7	50	<.5	100	300	<1.0	N
VRD466B	645,055	4,245,510	1.0	.15	<.05	.7	50	N	100	300	<1.0	N
VRD500B	645,080	4,244,535	3.0	.20	<.05	.7	100	<.5	100	500	1.0	7
VRD501B	645,130	4,244,560	3.0	.30	<.05	.7	300	N	150	500	1.0	10
VRD502B	645,155	4,244,620	3.0	.30	<.05	.7	70	N	150	300	<1.0	7
VRD503B	645,225	4,244,695	2.0	.30	<.05	.7	70	N	100	300	<1.0	7
VRD504B	645,280	4,244,755	2.0	.20	<.05	.7	70	N	150	300	<1.0	7
VRD505B	645,350	4,244,795	2.0	.20	<.05	.7	70	N	150	300	<1.0	5
VRD506B	645,400	4,244,840	2.0	.10	<.05	.7	50	N	150	200	<1.0	<5
VRD507B	645,450	4,244,890	1.0	.10	<.05	.7	70	N	100	300	<1.0	5

Table 2.--Analyses of stream-sediment, soil, and rock samples--continued

Ramseys Draft Soils Collected in 1976--continued

Sample	Cr-ppm s	Cu-ppm s	La-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	Sr-ppm s	V-ppm s	Y-ppm s	Zr-ppm s
VRD451B	15	7	30	<20	<5	<10	7	N	50	30	>1,000
VRD452B	15	5	<20	<20	<5	N	7	N	50	30	>1,000
VRD453B	15	5	<20	<20	<5	N	7	N	50	30	>1,000
VRD454B	15	<5	<20	<20	<5	N	7	N	50	30	>1,000
VRD455B	30	7	<20	<20	7	<10	7	N	70	30	700
VRD456B	50	7	20	<20	20	15	10	N	100	30	1,000
VRD457B	70	10	20	20	10	10	10	N	100	30	700
VRD458B	30	7	20	20	<5	N	5	N	70	30	>1,000
VRD459B	30	5	20	<20	<5	N	5	N	70	50	1,000
VRD460B	30	7	20	<20	5	<10	7	N	70	30	1,000
VRD461B	30	5	20	20	<5	<10	7	N	70	30	700
VRD462B	30	7	20	20	5	<10	10	N	70	30	700
VRD463B	70	7	20	<20	30	10	10	N	100	30	700
VRD464B	30	7	20	<20	<5	N	7	N	70	30	1,000
VRD465B	30	7	50	<20	<5	<10	10	N	70	30	700
VRD466B	20	5	<20	<20	<5	N	7	N	50	30	500
VRD500B	50	10	20	<20	15	<10	10	N	70	30	500
VRD501B	70	7	20	20	15	10	10	N	100	30	700
VRD502B	30	7	20	<20	10	10	10	N	70	50	1,000
VRD503B	30	5	20	<20	15	<10	10	N	70	30	1,000
VRD504B	30	7	20	<20	15	<10	10	N	70	30	1,000
VRD505B	30	15	20	<20	10	<10	10	N	70	30	700
VRD506B	30	5	20	20	5	N	10	N	70	30	1,000
VRD507B	30	5	20	20	<5	N	10	N	70	30	1,000

Table 2.--Analyses of stream-sediment, soil, and rock samples--continued

Ramseys Draft Soils Collected in 1979

Sample	X coordinate	Y coordinate	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	B-ppm s	Ba-ppm s	Be-ppm s	Co-ppm s	Cr-ppm s
VRD467	647,070	4,251,290	2.00	.30	.07	.7	1,000	150	500	2.0	10	70
VRD469	647,400	4,250,980	2.00	.20	<.05	.5	70	100	300	1.0	N	70
VRD470	647,680	4,250,630	1.00	.07	<.05	.5	70	100	150	<1.0	N	10
VRD471	647,660	4,250,230	2.00	.10	<.05	.7	100	100	200	1.0	5	20
VRD472	647,650	4,249,930	2.00	.15	<.05	.7	1,500	100	300	1.0	10	50
VRD473	647,480	4,249,290	1.50	.20	<.05	1.0	2,000	150	300	1.5	7	50
VRD475	647,100	4,249,220	1.50	.20	<.05	.5	100	100	200	<1.0	5	30
VRD476	646,680	4,249,160	3.00	.20	<.05	.5	2,000	150	300	1.5	7	50
VRD477	647,740	4,249,630	.50	.05	<.05	.5	70	100	200	<1.0	N	30
VRD478	648,380	4,249,730	.70	.07	<.05	.5	1,500	70	150	1.0	5	20
VRD479	648,610	4,249,640	2.00	.10	<.05	.7	700	150	300	1.5	7	50
VRD480	649,110	4,249,710	.70	.03	<.05	.5	500	50	100	<1.0	<5	15
VRD492	648,930	4,248,180	.20	.03	<.05	.7	30	100	100	<1.0	N	30
VRD496	647,320	4,250,800	1.50	.20	<.05	.7	5,000	100	500	1.5	7	50
VRD498	646,920	4,250,650	2.00	.10	<.05	.7	1,000	100	300	1.5	N	20
VRD499	646,580	4,250,390	3.00	.50	<.05	.7	700	150	500	2.0	10	70
VRD508	649,790	4,246,260	2.00	.20	<.05	.7	700	100	300	<1.0	10	50
VRD509	650,120	4,246,300	3.00	.30	<.05	.7	700	200	500	1.5	10	70
VRD510	650,580	4,246,510	1.50	.15	<.05	.7	500	100	200	1.0	5	50
VRD511	650,950	4,246,680	1.50	.20	<.05	1.0	1,500	100	300	1.5	10	70
VRD514	648,410	4,244,620	1.50	.10	<.05	.5	100	100	200	1.0	5	30
VRD515	648,780	4,244,530	2.00	.15	<.05	.7	100	150	300	1.0	5	70
VRD516	649,160	4,244,460	1.50	.15	<.05	1.0	1,000	150	300	1.5	5	70
VRD517	649.530	4,244,250	1.50	.10	<.05	1.0	100	200	300	1.5	<5	70
VRD518	649,680	4,244,070	1.00	.10	<.05	1.0	70	150	300	1.0	5	70
VRD525	646,830	4,242,580	2.00	.15	<.05	1.0	70	200	300	1.0	5	100
VRD526	647,120	4,242,400	1.50	.15	<.05	1.0	70	200	300	1.0	5	70
VRD527	647,390	4,242,150	1.50	.10	<.05	1.0	70	150	200	1.0	5	50
VRD528	647,370	4,241,850	.70	.07	<.05	.7	50	70	150	<1.0	N	30
VRD529	647,710	4,241,680	1.00	.15	<.05	1.0	1,000	150	300	1.0	10	70
VRD530	647,880	4,241,500	.70	.07	<.05	1.0	70	100	150	<1.0	N	30
VRD539	646,430	4,351,460	2.00	.20	<.05	1.0	2,000	150	500	1.5	10	70
VRD541	646,890	4,252,550	1.50	.10	<.05	1.0	100	150	300	1.0	5	70
VRD545	649,810	4,251,160	.50	.07	<.05	.3	150	50	300	<1.0	15	30
VRD546	649,520	4,251,310	.70	.07	<.05	.3	200	50	500	1.0	7	30
VRD547	649,120	4,251,490	2.00	.20	<.05	.5	>5,000	100	1,000	1.5	15	70
VRD548	648,650	4,251,470	1.50	.10	<.05	.5	150	30	200	<1.0	<5	50
VRD553	647,580	4,242,740	1.00	.15	<.05	.5	200	150	500	1.0	7	70
VRD554	647,510	4,242,760	1.50	.20	<.05	.7	200	200	700	1.0	7	100
VRD555	647,390	4,242,790	1.00	.10	<.05	.7	150	200	300	<1.0	<5	50
VRD556	647,260	4,242,820	1.50	.20	<.05	.5	300	200	500	1.0	7	50
VRD557	647,160	4,242,870	1.50	.20	<.05	.7	300	150	700	1.0	7	70
VRD558	647,070	4,242,420	.50	.05	<.05	.3	100	100	200	<1.0	7	50
VRD559	647,240	4,242,440	.70	.10	<.05	.5	700	100	500	1.0	5	50
VRD560	647,380	4,242,460	1.00	.10	<.05	.5	300	100	500	1.0	7	50

Table 2.--Analyses of stream-sediment, soil, and rock samples--continued

Ramseys Draft Soils Collected in 1979

Sample	Cu-ppm s	La-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm aa	Zr-ppm s
VRD467	15	30	<20	20	20	10	<100	150	<50	30	55	150
VRD469	10	20	<20	5	<10	10	N	100	N	50	35	150
VRD470	10	20	<20	<5	N	5	N	50	N	15	15	500
VRD471	7	20	<20	<5	10	10	N	70	<50	30	30	700
VRD472	15	30	<20	5	N	10	N	100	<50	50	50	700
VRD473	15	20	<20	7	10	10	N	100	N	30	70	500
VRD475	10	20	<20	5	15	7	N	70	N	20	15	500
VRD476	15	20	<20	10	20	10	N	100	N	30	40	500
VRD477	5	20	<20	<5	N	5	N	50	70	15	10	500
VRD478	5	20	<20	<5	N	5	N	50	N	30	20	300
VRD479	15	20	<20	7	N	7	N	100	N	30	25	300
VRD480	<5	N	<20	<5	N	5	N	30	N	30	10	500
VRD492	<5	70	<20	N	N	5	N	30	N	30	10	1,000
VRD496	15	20	<20	15	20	7	N	70	N	30	90	300
VRD498	20	20	<20	5	500	7	N	70	50	30	90	300
VRD499	20	20	<20	15	30	15	N	150	<50	30	65	300
VRD508	15	20	<20	5	20	10	N	100	<50	30	20	500
VRD509	20	30	<20	15	20	15	N	150	50	50	40	700
VRD510	50	30	<20	5	15	10	N	100	<50	50	20	700
VRD511	20	30	20	15	20	10	N	150	<50	50	45	500
VRD514	15	30	<20	7	<10	7	N	100	N	30	30	300
VRD515	10	30	20	<5	20	10	N	150	50	50	45	500
VRD516	15	20	20	<5	30	10	N	100	<50	50	40	500
VRD517	15	30	20	<5	30	15	N	150	<50	50	30	500
VRD518	15	30	20	<5	10	10	N	150	N	50	20	700
VRD525	15	50	20	<5	20	10	N	150	N	50	35	700
VRD526	15	50	20	<5	50	10	N	200	N	50	25	700
VRD527	15	50	20	5	20	10	N	100	<50	50	30	700
VRD528	7	20	<20	<5	N	5	N	70	N	50	15	500
VRD529	10	50	30	5	10	15	N	150	<50	70	20	700
VRD530	5	50	20	<5	20	7	N	100	50	30	10	700
VRD539	15	50	20	20	15	15	N	150	<50	50	80	700
VRD541	10	50	20	<5	15	10	N	150	N	50	50	500
VRD545	5	30	<20	<5	20	10	<100	70	N	20	15	300
VRD546	5	20	N	5	20	10	<100	70	N	20	20	300
VRD547	10	50	<20	20	20	15	<100	100	N	30	35	200
VRD548	7	100	<20	<5	30	10	<100	70	N	30	40	300
VRD553	10	50	20	10	20	15	<100	100	N	30	20	200
VRD554	7	70	20	10	30	15	100	100	N	30	30	200
VRD555	5	50	20	<5	20	10	<100	70	N	30	10	500
VRD556	15	30	20	15	20	15	<100	100	N	30	30	500
VRD557	10	50	<20	15	20	15	<100	100	N	30	25	500
VRD558	30	50	<20	<5	30	7	<100	50	N	30	5	300
VRD559	10	50	<20	7	50	10	<100	70	N	20	25	200
VRD560	5	30	<20	5	30	10	<100	70	N	30	15	300

Table 2.--Analyses of stream-sediment, soil, and rock samples--continued

Ramseys Draft Soils Collected in 1979

Sample	X coor-dinate	Y coor-dinate	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	B-ppm s	Ba-ppm s	Be-ppm s	Co-ppm s	Cr-ppm s
VRD561	647,510	4,242,470	.70	.07	<.05	.7	50	150	500	<1.0	5	50
VRD563	650,950	4,246,680	1.00	.15	<.05	.5	700	150	700	1.0	10	50
VRD564	650,800	4,246,630	1.50	.20	<.05	.5	1,000	100	700	1.0	20	70
VRD565	650,690	4,246,540	1.50	.20	<.05	.5	700	100	500	1.0	7	70
VRD566	650,620	4,246,520	1.00	.10	N	.3	50	50	200	<1.0	N	30
VRD567	650,590	4,246,500	1.00	.07	N	.3	50	70	300	1.0	N	50
VRD568	650,410	4,246,400	1.50	.20	<.05	.5	1,000	150	500	1.5	20	50
VRD569	649,290	4,246,440	1.50	.10	<.05	.5	700	100	500	1.0	7	30
VRD570	646,760	4,251,490	.70	.10	<.05	.3	100	100	500	1.0	7	50
VRD571	646,900	4,251,340	1.50	.20	<.05	.5	300	150	700	1.0	10	70
VRD572	646,520	4,250,380	1.50	.30	<.05	.5	300	100	700	1.0	7	70
VRD573	646,610	4,250,400	2.00	.30	<.05	.5	200	100	700	1.0	7	70
VRD574	646,690	4,250,440	2.00	.30	.05	.3	1,000	100	700	1.5	10	70
VRD575	646,840	4,250,590	1.50	.20	.05	.5	2,000	100	1,000	1.5	10	50
VRD576	646,920	4,250,650	1.00	.05	<.05	.2	700	70	300	2.0	5	20
VRD577	647,010	4,250,710	.70	.07	<.05	.5	150	100	200	1.0	5	30
VRD578	647,180	4,250,750	2.00	.30	.20	.3	>5,000	100	1,000	2.0	10	50
VRD579	647,280	4,250,790	2.00	.20	<.05	.5	1,500	150	700	1.5	10	50
VRD580	647,370	4,250,820	1.50	.20	<.05	.3	2,000	100	1,000	1.0	7	70
VRD581	646,520	4,251,490	1.00	.10	<.05	.5	500	100	500	1.5	7	50
VRD582	646,370	4,251,380	2.00	.20	<.05	.5	3,000	150	1,000	2.0	30	50
VRD583	646,250	4,251,280	1.50	.20	.05	.3	3,000	100	1,000	2.0	15	50
VRD586	640,860	4,242,140	3.00	.30	<.05	.5	700	150	700	2.0	30	70
VRD587	640,680	4,242,370	2.00	.30	<.05	.5	500	100	700	1.5	10	70
VRD588	640,170	4,242,420	1.00	.15	<.05	.5	200	70	300	1.5	7	50
VRD589	639,980	4,242,930	1.00	.15	N	.5	200	100	500	1.5	7	70
VRD592	640,280	4,243,230	1.00	.15	<.05	.7	300	150	500	1.5	10	70
VRD593	640,730	4,243,230	1.00	.20	<.05	.5	200	100	500	1.0	10	70
VRD594	640,990	4,242,940	3.00	.50	.05	.5	1,000	200	700	2.0	50	100
VRD595	641,280	4,242,680	.50	.07	<.05	.5	150	100	200	1.0	5	50
VRD596	641,370	4,242,900	.70	.10	<.05	.7	50	100	200	1.0	5	50
VRD597	641,160	4,243,260	3.00	.50	<.05	.5	1,000	150	700	2.0	10	70
VRD603	646,840	4,251,370	1.50	.20	<.05	1.0	1,000	200	300	1.5	7	50
VRD605	647,480	4,250,840	1.50	.15	<.05	.7	1,500	100	300	1.5	7	30
VRD606	647,870	4,250,800	2.00	.20	<.05	.7	200	150	300	1.0	5	50
VRD607	647,980	4,251,010	2.00	.10	<.05	.5	70	70	200	<1.0	N	70
VRD608	647,840	4,251,160	2.00	.10	<.05	.5	70	100	200	<1.0	<5	30
VRD609	647,700	4,251,360	2.00	.15	<.05	.7	70	150	200	1.0	5	50
VRD610	647,580	4,251,780	2.00	.15	<.05	.7	100	150	300	1.0	5	50
VRD611	647,610	4,251,980	2.00	.20	<.05	.7	1,000	150	500	1.0	7	100
VRD612	647,330	4,251,680	1.50	.15	.05	1.0	150	150	300	1.0	5	70
VRD614	647,140	4,251,870	1.00	.15	<.05	.7	200	150	300	1.0	5	70
VRD618	648,760	4,250,780	.30	.05	<.05	1.0	500	70	300	<1.0	<5	20
VRD619	648,680	4,250,940	.50	.05	<.05	1.0	50	70	300	<1.0	N	20
VRD620	648,990	4,250,930	.70	.15	<.05	.7	1,000	100	300	<1.0	7	50

Table 2.--Analyses of stream-sediment, soil, and rock samples--continued

Ramseys Draft Soils Collected in 1979

Sample	Cu-ppm s	La-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm aa	Zr-ppm s
VRD561	5	50	<20	<5	50	10	<100	70	N	20	10	200
VRD563	10	50	<20	20	20	10	100	100	N	30	50	300
VRD564	10	50	<20	20	20	15	100	100	N	30	60	300
VRD565	10	50	<20	7	20	15	<100	100	N	30	40	300
VRD566	<5	30	<20	5	15	7	<100	100	N	20	25	200
VRD567	15	30	<20	5	20	7	<100	70	N	20	25	300
VRD568	15	30	N	20	20	10	100	100	N	20	50	300
VRD569	10	30	N	15	20	10	<100	100	N	30	25	300
VRD570	7	30	N	5	30	10	N	70	N	20	35	300
VRD571	10	30	<20	15	20	15	<100	100	N	20	105	200
VRD572	15	50	<20	15	30	15	<100	100	N	30	60	200
VRD573	15	50	<20	20	20	15	100	100	N	30	55	200
VRD574	10	50	<20	30	30	15	<100	150	N	20	75	150
VRD575	10	30	<20	20	30	15	<100	100	N	30	65	150
VRD576	7	30	N	10	300	5	<100	50	N	15	140	100
VRD577	5	50	N	<5	20	7	<100	50	N	20	40	200
VRD578	15	50	N	50	20	15	<100	100	N	30	100	150
VRD579	10	50	<20	20	30	15	100	100	N	30	85	150
VRD580	10	50	<20	10	30	10	100	70	N	30	60	200
VRD581	7	30	<20	15	20	10	<100	100	N	20	65	200
VRD582	7	50	<20	30	70	10	<100	100	N	30	155	150
VRD583	15	50	<20	20	70	10	<100	100	N	30	120	150
VRD586	15	50	<20	30	20	15	100	150	N	30	100	150
VRD587	7	50	<20	20	15	10	<100	100	N	30	80	150
VRD588	7	50	<20	7	15	7	<100	100	N	30	45	300
VRD589	10	50	<20	10	20	10	<100	100	N	20	25	150
VRD592	7	50	20	15	20	15	<100	100	N	30	75	300
VRD593	7	50	<20	15	20	15	<100	100	N	30	80	200
VRD594	15	50	<20	30	15	20	100	100	N	30	135	150
VRD595	5	30	<20	<5	20	10	N	50	N	20	25	500
VRD596	<5	30	20	<5	20	10	<100	70	N	20	15	500
VRD597	7	70	N	20	20	15	100	100	N	30	70	200
VRD603	15	20	20	15	N	10	N	150	<50	50	60	700
VRD605	10	30	<20	10	10	10	N	70	N	30	20	300
VRD606	20	20	<20	5	20	10	N	100	N	30	25	700
VRD607	15	20	<20	<5	20	10	N	100	N	50	30	700
VRD608	15	30	<20	7	20	7	<100	70	N	20	20	200
VRD609	5	50	<20	7	10	7	<100	70	<50	30	40	300
VRD610	5	20	<20	15	N	7	N	70	N	30	30	500
VRD611	20	30	20'	15	15	10	N	150	<50	50	45	500
VRD612	15	20	<20	10	30	10	N	100	<50	50	40	300
VRD614	15	30	30	5	10	10	N	150	<50	50	35	700
VRD618	<5	<20	<20	<5	10	7	N	30	N	30	20	500
VRD619	5	20	<20	<5	20	7	N	50	N	30	15	700
VRD620	10	20	20	5	10	10	N	150	N	50	15	500

Table 2.--Analyses of stream-sediment, soil, and rock samples--continued

Ramseys Draft Soils Collected in 1979

Sample	X coor-dinate	Y coor-dinate	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	B-ppm s	Ba-ppm s	Be-ppm s	Co-ppm s	Cr-ppm s
VRD621	649,250	4,250,900	.15	.03	<.05	1.0	30	70	100	<1.0	N	15
VRD629	645,290	4,250,600	1.00	.15	<.05	1.0	200	100	300	1.0	5	50
VRD631	645,630	4,250,040	2.00	.30	<.05	1.0	1,000	150	500	2.0	10	70
VRD632	645,280	4,250,230	1.50	.20	<.05	1.0	150	150	500	1.0	5	70
VRD639	649,610	4,245,510	1.00	.20	<.05	1.0	1,000	150	500	1.0	10	70
VRD641	647,740	4,242,650	1.00	.20	<.05	1.0	1,000	150	500	2.0	7	70
VRD647	647,700	4,243,300	1.50	.20	<.05	1.0	100	200	500	1.0	7	70
VRD650	648,270	4,242,500	1.00	.10	<.05	>1.0	100	200	300	1.5	5	70
VRD652	649,680	4,251,280	.50	.07	<.05	.5	200	70	200	1.0	7	30
VRD653	649,360	4,251,350	.15	.20	<.05	.5	500	70	500	1.0	7	50
VRD654	648,900	4,251,560	3.00	.50	.07	.3	2,000	100	700	2.0	30	50
VRD655	648,480	4,251,320	1.00	.10	<.05	.3	150	50	150	<1.0	5	30
VRD656	648,500	4,250,980	1.00	.10	<.05	.5	700	70	200	<1.0	7	30
VRD662	647,450	4,242,780	2.00	.30	<.05	.5	1,000	100	300	1.5	10	50
VRD663	647,320	4,242,800	1.50	.20	<.05	.5	150	100	300	1.0	7	50
VRD664	647,210	4,242,840	2.00	.30	<.05	.3	500	150	500	1.5	7	70
VRD665	647,010	4,242,450	1.00	.10	<.05	.5	300	100	300	1.0	7	50
VRD666	647,160	4,242,420	.10	.02	N	.2	10	100	50	N	<5	10
VRD667	647,320	4,242,450	1.00	.10	N	.3	500	100	300	1.0	10	50
VRD668	647,440	4,242,470	1.00	.10	<.05	.5	1,000	150	500	1.0	10	50
VRD669	647,560	4,242,460	1.00	.10	<.05	1.0	150	150	700	1.0	7	70
VRD670	650,980	4,246,720	1.00	.07	<.05	.5	1,000	100	500	1.0	7	50
VRD671	650,880	4,246,660	1.50	.15	<.05	.5	2,000	100	500	1.0	15	50
VRD672	650,740	4,246,580	1.50	.20	<.05	.5	1,000	150	500	1.0	7	70
VRD673	650,650	4,246,520	1.00	.15	<.05	.7	200	150	500	1.0	N	50
VRD674	650,570	4,246,490	1.50	.20	<.05	.5	5,000	100	700	1.0	10	50
VRD675	650,490	4,246,440	1.00	.10	<.05	.3	1,500	100	500	1.0	7	50
VRD676	646,640	4,251,510	1.00	.15	<.05	.5	500	150	500	1.0	10	50
VRD677	646,850	4,251,370	1.00	.15	<.05	.5	700	100	500	1.0	10	50
VRD678	646,990	4,251,280	1.50	.20	<.05	.5	200	100	300	1.0	7	50
VRD679	646,580	4,250,380	3.00	.30	<.05	.5	1,500	150	500	1.5	15	100
VRD680	646,650	4,250,420	1.50	.20	<.05	.5	700	150	500	1.0	10	70
VRD681	646,760	4,250,460	1.50	.15	<.05	.3	1,000	100	300	1.5	7	30
VRD682	646,770	4,250,620	3.00	.50	.07	.5	1,000	150	700	2.0	10	70
VRD683	646,900	4,250,630	1.50	.30	.07	.5	2,000	150	700	1.5	7	50
VRD684	646,950	4,250,670	1.00	.20	<.05	.5	300	100	300	1.0	7	70
VRD685	647,110	4,250,730	2.00	.50	.15	.3	5,000	150	500	2.0	15	50
VRD686	647,240	4,250,770	2.00	.30	.20	.2	>5,000	70	2,000	3.0	15	30
VRD687	647,320	4,250,790	1.50	.20	<.05	.2	5,000	70	700	1.5	7	30
VRD688	646,440	4,251,460	1.50	.20	<.05	.5	200	100	700	1.0	7	70
VRD689	646,440	4,251,580	1.50	.20	<.05	.7	150	150	1,000	1.0	7	70
VRD690	646,430	4,251,710	.30	.10	<.05	.5	30	150	300	<1.0	N	50
VRD691	640,960	4,241,920	1.00	.15	<.05	.5	500	150	700	1.0	7	50
VRD692	641,700	4,244,500	1.50	.30	.10	.5	2,000	150	1,500	2.0	20	70
VRD693	641,860	4,244,220	1.50	.20	<.05	.5	300	100	700	1.5	10	50

Table 2.--Analyses of stream-sediment, soil, and rock samples--continued

Ramseys Draft Soils Collected in 1979

Sample	Cu-ppm s	La-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm aa	Zr-ppm s
VRD621	N	N	<20	<5	N	<5	N	30	N	20	5	700
VRD629	7	30	20	10	15	10	N	150	N	50	40	500
VRD631	15	30	20	20	20	10	N	150	N	50	65	500
VRD632	10	30	20	10	20	10	N	150	<50	50	30	500
VRD639	10	20	20	5	15	10	N	100	<50	50	20	500
VRD641	10	20	<20	7	20	10	N	100	<50	30	45	300
VRD647	15	20	20	10	15	10	N	150	50	50	30	500
VRD650	7	20	20	5	10	10	N	150	N	30	20	500
VRD652	7	20	20	<5	20	10	<100	50	N	30	15	500
VRD653	7	50	<20	7	20	10	<100	100	N	30	15	200
VRD654	10	50	<20	20	30	15	<100	100	N	20	40	150
VRD655	10	30	<20	5	30	7	<100	70	N	20	20	200
VRD656	7	50	<20	5	20	10	100	70	N	30	15	300
VRD662	7	30	<20	10	20	10	100	100	N	30	25	300
VRD663	7	50	<20	7	20	10	100	100	N	30	25	300
VRD664	10	50	<20	10	20	10	100	100	N	30	35	200
VRD665	7	50	<20	5	20	10	<100	100	N	30	15	200
VRD666	N	50	N	<5	10	5	<100	20	N	20	<5	200
VRD667	10	50	<20	10	15	10	<100	100	N	30	15	200
VRD668	7	20	<20	15	20	10	N	70	N	20	35	300
VRD669	7	50	20	5	20	15	<100	100	N	30	25	500
VRD670	7	50	<20	7	20	10	<100	70	N	20	30	500
VRD671	10	50	<20	30	20	10	<100	100	N	50	35	300
VRD672	10	50	N	30	20	15	<100	100	N	20	45	300
VRD673	7	50	20	<5	20	10	<100	70	N	30	25	500
VRD674	7	50	<20	20	20	15	<100	100	N	30	55	300
VRD675	7	50	<20	10	20	10	<100	70	N	20	30	200
VRD676	7	50	<20	10	20	10	<100	100	N	30	40	500
VRD677	7	50	<20	10	20	10	<100	70	N	30	40	300
VRD678	7	30	<20	15	15	10	<100	100	N	20	25	300
VRD679	10	50	<20	30	20	15	<100	150	N	30	60	300
VRD680	7	70	<20	15	20	10	<100	100	N	30	85	500
VRD681	5	20	N	15	15	10	N	70	N	20	50	200
VRD682	15	50	<20	30	20	15	<100	100	N	30	45	200
VRD683	10	50	<20	20	70	15	<100	100	N	30	120	300
VRD684	7	30	<20	15	10	10	<100	100	N	20	55	300
VRD685	15	50	<20	20	30	15	100	150	N	20	90	300
VRD686	20	50	N	70	20	10	<100	70	N	30	95	150
VRD687	10	50	N	20	20	10	<100	70	N	20	55	200
VRD688	7	70	<20	15	15	10	<100	100	N	30	75	200
VRD689	7	50	<20	10	15	10	<100	100	N	30	60	200
VRD690	N	70	<20	<5	20	7	<100	70	N	30	10	300
VRD691	5	50	<20	15	15	10	<100	100	N	30	45	300
VRD692	10	50	<20	30	30	15	100	100	N	30	100	300
VRD693	10	50	N	10	15	10	100	100	N	30	60	200

Table 2.--Analyses of stream-sediment, soil, and rock samples--continued

Ramseys Draft Soils Collected in 1979

Sample	X coordinate	Y coordinate	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	B-ppm s	Ba-ppm s	Be-ppm s	Co-ppm s	Cr-ppm s
VRD694	641,920	4,243,820	2.00	.30	<.05	.7	1,500	200	1,500	2.0	30	100
VRD698	642,420	4,244,720	1.50	.20	<.05	.3	1,500	100	1,000	1.5	20	50
VRD699	642,180	4,245,120	.20	.07	N	.5	70	150	300	1.0	<5	50
VRD702	642,600	4,245,000	2.00	.30	<.05	.7	200	150	500	2.0	7	70
VRD703	642,590	4,244,530	3.00	.50	<.05	.5	1,500	150	700	1.5	30	100
VRD704	642,060	4,244,960	2.00	.30	.05	.5	1,500	100	700	2.0	30	70
VRD705	641,720	4,245,950	2.00	.30	.05	.5	2,000	150	1,000	3.0	30	100
VRD706	641,440	4,246,140	2.00	.20	<.05	.7	700	100	500	1.5	15	100

Ramseys Draft Soils Collected in 1979

Sample	Cu-ppm s	La-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm aa	Zr-ppm s
VRD694	15	50	<20	15	20	20	100	150	N	30	75	200
VRD698	10	30	N	20	20	10	<100	100	N	20	90	100
VRD699	N	50	<20	<5	15	10	<100	50	N	20	35	500
VRD702	10	50	20	20	20	20	100	100	N	30	65	200
VRD703	20	50	<20	30	20	20	100	150	N	30	90	200
VRD704	10	50	20	30	15	15	100	100	N	30	90	300
VRD705	20	50	<20	50	30	15	100	100	N	30	230	200
VRD706	15	50	20	15	20	15	100	100	N	30	25	200

Table 2.--Analyses of stream-sediment, soil, and rock samples--continued

Ramseys Draft Rocks

Sample	X coordinate	Y coordinate	Fe-pct. s	Mg-pct. s	Ca-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	B-ppm s	Ba-ppm s	Be-ppm s	Co-ppm s
VRD436	645,320	4,245,230	1.5	.15	<.05	.15	100	.5	50	150	<1.0	10
VRD438	645,330	4,245,230	.7	.20	<.05	.20	1,500	.5	50	200	1.0	15
VRD442	645,345	4,245,240	1.5	.20	<.05	.15	2,000	<.5	50	500	1.0	10
VRD444	645,350	4,245,350	3.0	.30	<.05	.30	300	N	70	300	1.5	20
VRD446	645,355	4,245,355	1.5	.50	<.05	.30	1,000	1.0	70	500	1.0	20
VRD468	647,300	4,251,120	1.5	.30	.05	.50	100	N	150	300	1.0	5
VRD474	647,480	4,249,290	2.0	.10	.10	.03	2,000	N	<10	100	7.0	N
VRD488	648,750	4,248,620	10.0	.70	.30	.07	5,000	N	15	70	2.0	5
VRD489	648,750	4,248,620	7.0	.30	.15	.10	3,000	N	20	100	1.0	5
VRD490	648,220	4,248,740	1.0	.20	<.05	.20	100	N	70	200	<1.0	7
VRD491	648,780	4,248,340	1.5	.10	.20	.01	2,000	N	10	150	3.0	N
VRD493	649,070	4,248,390	2.0	.10	<.05	.30	100	N	50	200	<1.0	5
VRD497	647,200	4,250,760	1.0	.07	<.05	.30	200	N	100	100	<1.0	<5
VRD521	649,460	4,243,050	2.0	.50	<.05	.50	150	N	150	300	1.0	10
VRD524	647,080	4,242,680	2.0	.30	.05	.30	700	1.0	150	500	1.0	50
VRD544	649,880	4,251,030	2.0	.15	.05	.30	5,000	N	50	150	1.5	15
VRD549	647,190	4,242,660	2.0	.20	<.05	.30	500	1.0	70	200	1.0	15
VRD550	647,210	4,242,660	2.0	.70	.10	.50	1,500	N	150	200	2.0	30
VRD551	647,210	4,242,660	5.0	1.50	.30	1.00	300	N	100	300	1.5	20
VRD552	647,220	4,242,660	1.5	.50	.05	.30	300	N	70	100	1.5	20
VRD562	651,040	4,246,830	1.5	.02	.15	.03	1,500	N	N	20	3.0	N
VRD604	647,300	4,251,120	.5	.10	<.05	.20	200	N	100	150	1.5	5
VRD657	647,170	4,242,650	1.5	.20	.05	.30	1,000	N	70	150	1.5	15
VRD658	647,170	4,242,650	1.5	.30	.05	.50	1,500	N	100	20	2.0	20
VRD659	647,170	4,242,650	3.0	.30	.05	.50	100	N	100	150	1.5	15
VRD660	647,190	4,242,660	1.5	.50	.15	.50	1,000	N	100	150	1.5	30
VRD661	647,260	4,242,680	1.0	.30	.30	.30	1,500	N	70	300	2.0	20

Table 2.--Analyses of stream-sediment, soil, and rock samples--continued

Ramseys Draft Rocks

Sample	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Nb-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	Sr-ppm s	V-ppm s	Y-ppm s	Zn-ppm s	Zn-ppm aa	Zr-ppm s
VRD436	N	7	N	N	N	7	N	<5	N	20	10	N	--	150
VRD438	15	50	N	N	N	15	N	5	N	30	10	N	--	200
VRD442	10	50	N	N	N	15	N	<5	N	50	15	N	--	300
VRD444	10	5	<20	N	N	20	N	7	N	50	15	N	--	300
VRD446	15	70	N	N	N	20	100	7	N	70	30	N	--	300
VRD468	30	<5	70	N	<20	10	N	5	N	100	50	N	40	1,000
VRD474	<10	N	100	10	100	N	70	<5	N	N	30	N	130	700
VRD488	<10	7	N	N	N	5	N	5	N	20	30	N	20	150
VRD489	10	10	N	N	N	5	N	5	N	30	20	N	25	70
VRD490	30	10	30	N	N	15	10	7	N	100	20	N	25	200
VRD491	<10	N	30	<5	30	<5	70	N	N	<10	15	N	110	150
VRD493	20	15	N	N	N	7	10	7	N	100	20	N	10	150
VRD497	10	5	N	N	N	<5	50	<5	N	20	10	N	85	150
VRD521	100	10	20	N	<20	20	30	15	N	150	50	N	50	500
VRD524	50	70	20	7	<20	20	1,500	10	N	100	30	300	380	700
VRD544	10	5	20	N	N	20	50	5	<100	100	20	N	20	200
VRD549	20	70	20	10	N	15	1,500	7	N	70	10	200	280	300
VRD550	30	150	50	N	<20	70	20	10	100	150	30	<200	190	500
VRD551	100	N	100	N	20	50	30	20	150	200	70	N	45	1,000
VRD552	20	50	30	N	<20	30	10	7	<100	100	20	N	75	300
VRD562	10	N	70	N	150	N	30	N	N	N	20	N	85	1,000
VRD604	10	15	N	N	N	7	10	5	N	20	15	N	25	200
VRD657	15	30	<20	N	N	30	<10	5	N	70	10	N	35	150
VRD658	20	150	50	N	<20	50	<10	7	N	100	20	N	40	300
VRD659	20	<5	50	N	<20	50	<10	10	<100	100	20	N	40	300
VRD660	30	30	30	<5	<20	50	200	10	N	100	30	300	450	500
VRD661	10	100	30	N	N	30	N	5	N	70	20	N	140	200

EXPLANATION OF TABLE 3

Table 3 shows the results of emission-spectrographic analysis of five rock samples from Ramseys Draft Addition. Elements looked for but not determined and the lower limit of determination in ppm are: As(150); Au(10); Bi(10); Cd(32); Ce(43); Dy(22); Er(10); Eu(2.2); Gd(15); Ge(1.5); Hf(150); Ho(6.9); In(6.8); Ir(15); Li(60); Lu(15); Os(22); Pd(1); Pr(68); Pt(4.6); Re(10); Rh(2.2); Ru(2.2); Sb(32); Sh(10); Ta(460); Tb(32); Th(22); Tl(4.6); Tm(4.6); U(320); and W(10).

Table 3.--Computerized emission-spectrographic analyses of five rock samples from Ramseys Draft Addition.

[Analyses by Joseph S. Harris, USGS laboratories, Reston, Va. The relative standard deviation for each reported concentration is plus 50% and minus 33%.]

Field No.		VRD474	VRD519	VRD519A	VRD524	VRD628
Si	%	20	14	20	>34	19
Al	%	6.6	4.2	8.3	5.1	7.1
Fe	%	1.9	5.7	1.7	2.9	1.5
Mg	%	0.12	5.0	0.15	0.57	0.061
Ca	%	0.30	4.9	0.86	0.084	0.23
Na	%	9.6	2.9	10	0.45	7.4
K	%	4.4	2.4	5.0	1.4	5.0
Ti	%	0.016	0.32	0.085	0.30	0.017
P	%	<0.068	<0.068	0.094	0.10	<0.068
Mn	%	0.29	0.23	0.15	0.23	0.25
Ag	ppm	<0.10	0.23	<0.10	<0.10	<0.10
B	ppm	<4.6	8.5	<4.6	120	<4.6
Ba	ppm	120	1300	390	400	56
Be	ppm	3.4	<1.0	5.0	2.4	3.0
Co	ppm	<1.0	<1.0	1.3	30	1.0
Cr	ppm	1.6	180	<1.0	39	<1.0
Cu	ppm	2.7	<1.5	6.7	490	3.3
Ga	ppm	31	<1.5	33	7.5	29
La	ppm	34	93	59	35	26
Mo	ppm	2.5	<1.0	<1.0	<1.0	<1.0
Nb	ppm	270	43	320	15	250
Nd	ppm	<32	<32	40	<32	<32
Ni	ppm	<1.5	65	2.4	20	1.0
Pb	ppm	41	13	43	18	34
Sc	ppm	1.1	14	<1.0	0.6	<1.0
Sn	ppm	3.3	8.9	1.9	6.2	2.5
Sr	ppm	20	1300	190	86	8.9
V	ppm	1.7	92	9.3	59	1.9
Y	ppm	8.3	12	8.9	22	6.8
Yb	ppm	2.2	2.0	2.0	3.4	2.0
Zn	ppm	110	130	110	34	93
Zr	ppm	590	120	300	250	430

Table 3.--Computerized emission-spectrographic analyses of five rock samples from Ramseys Draft Addition--continued

Major elements recalculated as oxides						
SiO_2	%	43	30	43	>73	41
Al_2O_3	%	13	7.9	16	9.6	13
Fe_2O_3	%	2.7	8.2	2.4	4.2	2.1
MgO	%	0.20	8.0	0.25	0.95	0.10
CaO	%	0.42	6.9	1.2	0.12	0.32
Na_2O	%	13	3.9	14	0.16	10
K_2O	%	5.3	2.9	6.0	1.7	6.0
TiO_2	%	0.027	0.53	0.14	0.50	0.020
P_2O_5	%	<0.16	<0.16	0.22	0.23	0.16
MnO	%	0.37	0.30	0.19	0.30	0.32

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