Chemical Analyses of Ground and Surface Waters, Ester Dome, Central Alaska, 2000-2001

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U.S. Geological Survey

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Abstract

Water analyses are reported for ground and surface waters collected at 33 sites on and near Ester Dome, Fairbanks area, central Alaska during 2000-2001. This interdisciplinary study focused on documenting the temporal and spatial chemical variations in arsenic concentrations to elucidate the processes that lead to elevated arsenic concentrations in ground water. Field parameters and water analyses are reported for 17 domestic wells, 13 monitoring well sites, and 3 surface water sites. Sampling occurred during November 2000, February 2001, May 2001, July 2001, and September 2001. Waters in the study area are primarily Ca-HCO_3 type, with pH values ranging from 5.97 to 7.87. Dissolved arsenic concentrations ranged from less than 3 to 1160 micrograms per liter.

INTRODUCTION

Ester Dome, located along the western margin of the city of Fairbanks, Alaska (fig. 1), is known to contain ground waters with high dissolved arsenic concentrations. For example, in the early 1970's arsenic concentrations in excess of 1 milligram per liter (mg/L) were reported (Harrington and others, 1978). These initial findings led to investigations by researchers from the University of Alaska, Fairbanks and the U. S. Geological Survey on the distribution of arsenic in ground water in the Fairbanks area (for example Johnson and others, 1978; Hawkins and others, 1982; McCrum, 1985). In addition, the Center for Disease Control undertook an epidemiological evaluation of 147 people in the Ester Dome area to investigate the potential health effects related to elevated arsenic concentrations in domestic wells (Harrington and others, 1978).

Process-related studies by U. S. Geological Survey scientists are underway to further delineate the distribution of arsenic in ground water in the Fairbanks area and to assess the factors controlling variations in dissolved arsenic concentrations (Farmer and others, 1998; Mueller and others, 2001; Verplanck and others, 2001; Mueller, 2002). An understanding of arsenic distribution and mobility is important for land use decision-making. The initial phase of this work was a reconnaissance of the Fairbanks area, and this study is a more detailed investigation of an area of major concern within that study area, with the analytical results reported here. Spatial and temporal variability of major, minor, and trace constituents in ground and surface waters in the Ester Dome were determined by sampling both domestic and monitoring wells. Homes on Ester Dome area have individual wells with depths of approximately 25 to 120 m. In addition, monitoring wells have been drilled within and adjacent to Ryan Lode, a gold-bearing quartz vein deposit with excavations along mineralized fractures.

This was a collaboration between the U. S. Geological Survey and Water and Environmental Research Center at the University of Alaska Fairbanks that includes a Master

Figure 1. Study area location.

of Science thesis to evaluate the ground-water flow system of Ester Dome (Youcha, 2003). Ground-water levels were monitored at fifty sites (including all well sites sampled during this study) on Ester Dome for two years to evaluate temporal and spatial fluctuations. A ground-water flow model was developed to aid in the understanding of these geohydrologic processes.

Purpose and Scope

The purpose of this report is to present water-chemistry data including field parameters, major, minor, and trace constituents for water samples collected between November, 2000 and October, 2001 on and near Ester Dome, Alaska (table 1, fig. 2). Analytical results are reported for 139 water samples from 33 sites. Quality-assurance data associated with these water-chemistry data are presented.

Acknowledgements

This cooperative study included personnel from the U. S. Geological Survey, University of Alaska at Fairbanks, Fairbanks Gold Mining Inc., and the University of Colorado at Boulder. In addition, homeowners on Ester Dome allowed us to sample their wells. Manuscript review by Bronwen Wang was appreciated.

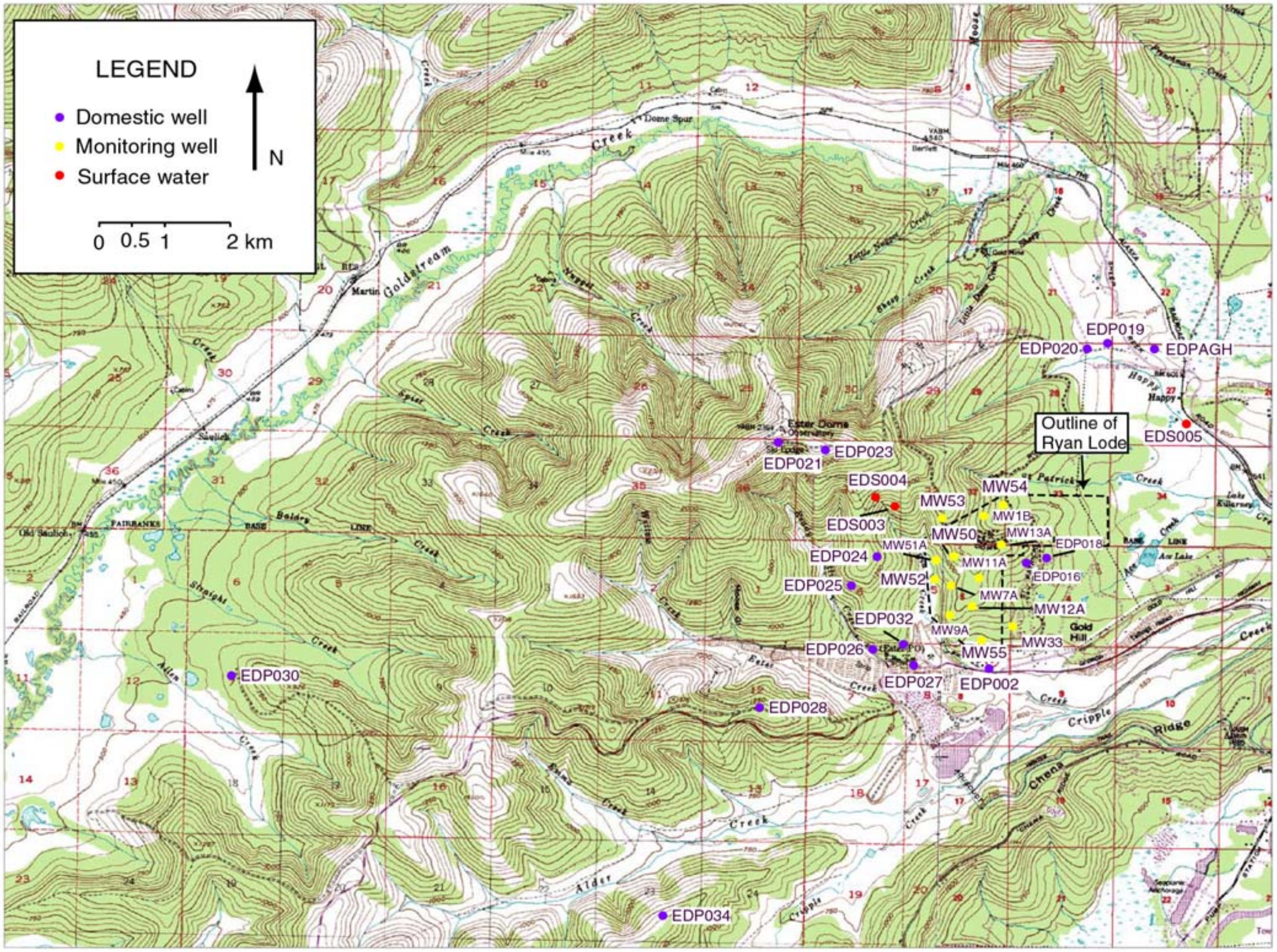

Figure 2. Topographic map of Ester Dome, Alaska with sampling site locations.

Table 1. Sampling site location

[m, meters; Hwy, highway]

SAMPLE NUMBER	LATITUDE	LONGITUDE	LOCATION	ELEVATION (m)
Domestic Wells				
EDP002	64.84707	-147.98485	Townsend Way	188
EDP016	64.86084	-147.97017	Dome Road	264
EDP018	64.86161	-147.96362	Duece Road	238
EDP019	64.89259	-147.94487	Ester Dome Road	206
EDP020	64.89173	-147.95151	Ester Dome Road	213
EDP021	64.87758	-148.05156	Styx River Road	662
EDP023	64.87659	-148.03615	Ullrbahn Road	637
EDP024	64.86142	-148.01878	Stone Road	386
EDP025	64.85720	-148.02699	Azurite Road	342
EDP026	64.84808	-148.01964	Truette Lane	215
EDP027	64.84588	-148.00633	Parks Hwy/Old Nenana Hwy	182
EDP028	64.83941	-148.05612	Old Wood Road	406
EDP030	64.84272	-148.22791	Old Ridge Trail	185
EDP032	64.84886	-148.00974	Upper Ester Loop	226
EDP033	64.87768	-148.05430	Beggars Roost Run	640
EDP034	64.80923	-148.08634	Peartree Lane	417
EDPAGH	64.89144	-147.93083	Sheep Creek Road	184
Monitoring Wells				
MW1B	64.86751	-147.98432	Ryan Lode	279
MW7A	64.85745	-147.99456	Ryan Lode	303
MW9A	64.85316	-147.99476	Ryan Lode	284
MW11A	64.85859	-147.98551	Ryan Lode	303
MW12A	64.85450	-147.98761	Ryan Lode	283
MW13A	64.86344	-147.97843	Ryan Lode	341
MW33[1]	64.85168	-147.97427	--	236
MW50	64.86165	-147.99379	Ryan Lode	338
MW51A	64.86104	-147.99953	Ryan Lode	284
MW52	64.85830	-147.99990	Ryan Lode	263
MW53[1]	64.86714	-147.99776	Ester Drive	394
MW54	64.86930	-147.97748	Ryan Lode	250
MW55	64.84959	-147.98434	Ryan Lode	216
Surface Water				
EDS003	64.869925	-148.018937	Eva Creek-Trench	380
EDS004	64.868439	-148.013535	Eva Creek-Seep	390
EDS005	64.882491	-147.923242	Happy Creeek- Wetland	180

[1]Domestic well used as a monitoring well

DESCRIPTION OF STUDY AREA

Ester Dome covers approximately 260 km^2, ranges in elevation from 180 to 720 m, and lies within the sub-arctic of interior Alaska. The climate of interior Alaska consists of large temperature variations, and is typified by long winters and short summers. For the period 1904-2002, the average annual high temperature at Fairbanks was 2.72˚C and low temperature was –8.72˚C (National Weather Service, 2002). Fairbanks has an arid climate with an average winter snowfall of 179.8 cm, with an average annual-water content of 9.83 cm (National Weather Service, 2002). The average summer precipitation is 17.65 cm (National Weather Service, 2002). Precipitation varies with elevation such that the highest elevations in the uplands receive more precipitation than the valley bottoms.

Permafrost, defined as rock or soil with a temperature below 0° C for two or more years, and seasonally frozen ground play an important role in the ground-water dynamics. Valley bottoms and north-facing slopes of many hills surrounding Fairbanks are underlain by discontinuous permafrost. Confined or artesian conditions may exist in valley-bottom aquifers overlain by ice-rich silt. Additionally, ice-rich permafrost can block vertical recharge from entering the aquifer. Permafrost thickness may be as much as 30 m (Pewe, 1958). In seasonally frozen Fairbanks Silt the vertical hydraulic conductivity of ice-rich silt is two orders of magnitude lower than unfrozen and dry frozen silt (Kane and Stein, 1983).

Regional and Local Geology

The bedrock in the Fairbanks area is part of the Yukon-Tanana terrane (YTT), a displaced pericratonic block of late Paleozoic and older rocks that has been polydeformed and polymetamorphosed (Foster and others, 1994). The YTT is bounded by two major Cenozoic right-lateral strike slip faults, the Tintina fault to the northeast and the Denali fault to the southwest (Foster, 1994). The Fairbanks area has been deformed by multiple, northwest-trending, isoclinal folds, and later by northeast-trending folds. East-to northeast-oriented faults and shears are common, and these faults and shears are often mineralized with gold-bearing quartz veins, and contain extensive sericitic gouge (LeLachuer, 1991; McCoy and others, 1997).

The geology of the Fairbanks area, as described by Robinson (1982), Foster and others (1994), and Newberry and Bundtzen (1996), consists of the following rock types from oldest to youngest: 1) amphibolite facies metasedimetary and metavolcanic rocks of the Proterozic (?) to Paleozoic Fairbanks Schist, a heterogeneous unit comprised of quartzite and muscovite-quartz±garnet±biotite±chlorite schist (Foster and others, 1994), 2) Ordovician to Upper Devonian low-grade metarhyolites, amphibolites, phyllites, and metasiliclastic rocks of the Birch Hill sequence, 3) amphibolite facies metavolcanic and metasedimentary rocks of the Muskox sequence, and 4) ca. 90 Ma granites and granodiorites that underlie Ester Dome, and other domes in the region, which are often spatially and temporally related to gold mineralization (McCoy and others., 1997). Minor lithologies also include amphibolite, magnetite-rich biotite schist, marble, eclogite facies schist, amphibolite, and quartzite of the Devonian to Mississippian Chatinika Group, Devonian orthogniess, and Tertiary basalt (Newberry and Bundtzen, 1996). Loess of late Cenozoic age, has been remobilized into thick alluvial deposits frequently overlain with silt in the valley bottoms (Pewe, 1975; Newberry and Bundtzen, 1996). The thickness of the loess ranges between a few centimeters on ridges and hill tops to as much as 35 m in creek valleys, where the loess can contain organic-rich layers and peat lenses as thick as 3 m (Pewe, 1958; Preece and others, 1999.) Coarse river gravels, interbedded with finer fan gravels, overly the bedrock beneath the loess valley areas. Some of the coarse gravel has been mined for placer gold.

Auriferous vein deposits formed contemporaneously with the 90 Ma intrusions and are hosted either by the granitic rocks themselves (Ft. Knox) or along contacts between the granites and schist (Ryan Lode on Ester Dome), or strictly within the schist (Hi-Yu lode mine; Metz, 1991). Where hosted by granitic rocks, the veins are typically very low in sulfide minerals (less than 1 volume percent), but often show enrichment in bismuth-tellurium-tungsten (McCoy and others, 1997). However, within veins hosted in the schist, the sulfide mineral abundances are higher, typically with 2-3 volume percent arsenopyrite, stibnite, and pyrite (Newberry and Bundtzen, 1996; McCoy and others, 1997). Vein alteration minerals include albite, sericite (white mica), ± ankerite ± carbonaceous material. The sulfide minerals are also commonly formed in these altered rocks. More distal, wallrock alteration is characterized by chloritized biotite and hornblende (McCoy and others, 1997). Scorodite is often present as a weathering phase of arsenopyrite, mainly found as vein coatings, fracture fills, and breccia cement (Metz, 1991; LeLacheur, 1991).

METHODS OF STUDY

Water-Chemistry Sampling

Water-chemistry samples were collected seasonally from water wells during 2000 and 2001, and a few surface water samples were collected during July, 2001. Sampling sites were selected to provide spatial coverage of the study area (fig. 2). No sites were located on the north side of Ester Dome because of the paucity of wells. Five sampling trips (November, 2000, February, 2001, May, 2001, July, 2001, and September, 2001) were made to evaluate temporal variations. Two types of wells, monitoring and domestic wells, were sampled. The monitoring wells are located on or adjacent to Ryan Lode, a lode gold deposit that has been mined, both underground and with open cuts, sporadically since 1912 with the greatest production occurring between 1985 and 1989. Before sampling, monitoring wells were purged of three well volumes, and pH, specific conductance and temperature were monitored after each well volume. The static water level was measured before and after pumping. Domestic wells were sampled using a PVC hose connected to the pressure tank intake. Initially, water was allowed to discharge until the pump turned on. As the water continued to discharge, specific conductance and water temperature were monitored until they were stable, usually at a water temperature between 3 and 4^{o} C. Two monitoring wells (MW33 and MW 53) are domestic wells for homes adjacent to the Ryan Lode deposit, and the domestic well sampling procedure was followed at these sites.

On-site measurements of pH, specific conductance, and temperature were obtained. At each site the pH electrode was calibrated using two buffers that bracketed the measured pH and were thermally equilibrated with the water sample. At selected sites, dissolved oxygen concentration and Eh were measured. Water-chemistry samples consisted of an unfiltered, unacidified sample for oxygen isotopic compositions, an unfiltered, acidified sample preserved with nitric acid for total recoverable cations, two filtered, unacidified samples for 1) anion determinations and alkalinity, and 2) sulfur isotopic determinations, a filtered, acidified sample preserved with nitric acid for dissolved cation determinations, and two filtered samples, acidified with hydrochloric acid, for arsenic and iron redox determinations. Samples were filtered on site using 0.45 μm pore size capsule filters. In addition, during the July sampling, at selected sites, an additional cation sample was collected and filtered using a tangential-flow filtration apparatus, which was equipped with a 10,000 daltons filter membrane, equivalent to ~0.005 μm pore size (Alpers and others, 2000). The purpose of these samples was to determine if the routine filtration with 0.45 μm filter membrane size adequately removed colloidal material in these samples.

Water-Chemistry Analyses

All reagents were of a purity at least equal to the reagent-grade standards of the American Chemical Society. Double-distilled de-ionized water, and re-distilled acids using a sub-boiling purification technique (Kuehner and others, 1972), were used in all preparations. The methods used and the detection limit for each analysis are summarized in table 2. For inductively-coupled plasma atomic-emission spectroscopy (ICP-AES) and inductively-coupled plasma mass spectrometry (ICP-MS), USGS standard reference water samples and blanks were included with each sample suite. Major cations (calcium, magnesium, potassium, and sodium) and silica for total recoverable and dissolved samples were determined using a Perkin Elmer Optima 3000™ ICP-AES (Briggs, 2002).

Minor and trace elements (aluminum, arsenic, barium, beryllium, bismuth, boron, cadmium, cesium, chromium, cobalt, copper, lead, lithium, manganese, molybdenum, nickel, rare earth elements, rhenium, selenium, strontium, tellurium, thorium, uranium, vanadium, yttrium, and zinc) for total recoverable and dissolved samples were analyzed with the ICP-MS using a method developed by the U.S. Geological Survey (Meier and others, 1994; Lamothe and others, 2002). This method is used to directly determine the elements in the water samples without need for any pre-concentration or dilution. Elemental detection limits are in the sub-parts per billion range (table 2), and the working linear range is six or more orders of magnitude.

Concentrations of major anions (chloride, fluoride, nitrate, and sulfate) were determined by ion chromatography (Brinton and others, 1995) using a Dionex 2010i™ ion chromatograph with 10-µL and 50-µL sample loops. Standards were prepared from compounds of the highest commercially available purity. U.S. Geological Survey standard reference water samples were used as independent quality control standards. Alkalinity (as HCO_3^-) was determined using an Orion 960™ autotitrator and standardized H_2SO_4 (Barringer and Johnsson, 1989). Samples were diluted as necessary to bring the analyte concentration within the optimal range of the method. Dissolved organic carbon (DOC) concentrations (Table 3) were determined by the wet persulfate oxidation method (Aiken, 1992).

Iron (II) redox species and total iron, in filtered, HCl acidified samples, were determined using a modification of the FerroZine™ colorimetric method (Stookey, 1970; To and others, 1999) with a Hewlett Packard 8453™ diode array UV/VIS spectrophotometer. After filtration and preservation, samples for As (III) species determination were kept refrigerated and in the dark prior to analysis. Arsenic III species were determined by ICP-MS after ion exchange separation of the inorganic As III species using SAX (Strong Ion Exchange Resin) and elution with malonate/acetate buffer solution at pH 4.7.

Table 2. Methods of analysis and detection limits

[mg/L, milligram per liter; µg/L, microgram per liter; IC, ion chromatography; ICP-MS, inductively coupled plasma-mass spectrometry; ICP-AES, inductively coupled plasma-atomic emission spectroscopy]

Element	Detection limit	Method	Element	Detection limit	Method
Ag	3 µg/L	ICP-MS	Mn	0.02 µg/L	ICP-MS
Al	10 µg/L	ICP-AES	Mo	2 µg/L	ICP-MS
Al	2 µg/L	ICP-MS	Na	0.1 mg/L	ICP-AES
As[1]	3,1 µg/L	ICP-MS	Nb	0.2 µg/L	ICP-MS
As[1] (III)	5,3,O.3 µg/L	ICP-MS	Nd	0.01 µg/L	ICP-MS
Ba	1 µg/L	ICP-AES	Ni	0.4 µg/L	ICP-MS
Ba	0.2 µg/L	ICP-MS	NO_3	0.05 mg/l	IC
Be	0.05 µg/L	ICP-MS	P	10 µg/L	ICP-MS
Bi	0.2 µg/L	ICP-MS	Pb	0.05 µg/L	ICP-MS
Ca	1 mg/L	ICP-AES	Pr	0.01 µg/L	ICP-MS
Cd	0.02 µg/L	ICP-MS	Rb	0.01 µg/L	ICP-MS
Ce	0.01 µg/L	ICP-MS	Sb	0.3 µg/L	ICP-MS
Cl	0.01 mg/l	IC	Sc	0.6 µg/L	ICP-MS
Co	0.02 µg/L	ICP-MS	Se	1 µg/L	ICP-MS
Cr	1 µg/L	ICP-MS	SiO_2	0.4 mg/L	ICP-AES
Cs	0.02 µg/L	ICP-MS	SO_4	0.05 mg/l	IC
Cu	0.5 µg/L	ICP-MS	Sm	0.01 µg/L	ICP-MS
Dy	0.005 µg/L	ICP-MS	Sr	1 µg/L	ICP-AES
Er	0.005 µg/L	ICP-MS	Sr	0.5 µg/L	ICP-MS
Eu	0.005 µg/L	ICP-MS	Ta	0.02 µg/L	ICP-MS
F	0.05 mg/l	IC	Tb	0.005 µg/L	ICP-MS
Fe	20 µg/L	ICP-AES	Te	0.1 µg/L	ICP-MS
Fe	2 µg/L	FerroZine	Th	0.2 µg/L	ICP-MS
Fe (II)	2 µg/L	FerroZine	Ti	0.5 µg/L	ICP-MS
Ga	0.05 vg/L	ICP-MS	Tl	0.15 µg/L	ICP-MS
Gd	0.005 µg/L	ICP-MS	Tm	0.005 µg/L	ICP-MS
Ge	0.02 µg/L	ICP-MS	U	0.1 µg/L	ICP-MS
Ho	0.005 µg/L	ICP-MS	V	0.5 µg/L	ICP-MS
K	30 µg/L	ICP-MS	W	0.5 µg/L	ICP-MS
La	0.01 µg/L	ICP-MS	Y	0.01 µg/L	ICP-MS
Li	0.1 µg/L	ICP-MS	Yb	0.005 µg/L	ICP-MS
Lu	0.1 µg/L	ICP-MS	Zn	0.5 µg/L	ICP-MS
Mg	0.1 mg/L	ICP-AES	Zr	0.2 µg/L	ICP-MS
Mn	10 µg/L	ICP-AES			

[1] Detection limit changed during course of study

Table 3. Dissolved organic carbon determination for selected sites, Ester Dome, Alaska

[DOC, dissolved organic carbon; mg/L, milligrams per liter]

Site	Date	DOC (mg/L)
MW01B	07/09/01	2.6
MW07A	07/08/01	1.3
MW09A	07/10/01	1.1
MW11A	07/10/01	2.2
MW12A	07/10/01	2.1
MW13A	07/09/01	1.1
MW33	07/09/01	2.9
MW51	07/09/01	1.1
MW52	07/08/01	1.5
MW54	07/08/01	6.1
MW55	07/08/01	2.6
EDS03	07/11/01	2.7
EDS04	07/11/01	1.5
EDS05	07/12/01	59

The oxygen and sulfur isotopic compositions of a subset of samples were determined (table 4). For oxygen analyses, one microliter of each sample was pipetted into a glass vial, and then the sample and vial were put into a glove bag and atmospheric oxygen was flushed using CO_2. Tops with rubber septa were screwed on to the vials. The samples were allowed to equilibrate with the CO_2 gas for 10 hours. Oxygen isotopic compositions were determined using a Micromass Optima, with an on-line equilibration method similar to the off-line method described by Epstein and Mayeda (1953). For the sulfur isotopic analyses, the sulfate ion was removed from the samples using the barium sulfate precipitation method. Sulfur isotopic analyses are done by combustion using continuous flow methods described by Giesemann et al. (1994), with a Carlo Erba NC2500 elemental analyzer coupled to either a Micromass Optima or a Finnigan Delta Plus XL mass spectrometer.

QUALITY ASSURANCE

Quality-control included replicate samples, field equipment blanks, analyses by alternative methods, and calculation of charge imbalance. Replicate samples are two samples that are considered to be essentially identical in composition and were used to estimate variability in environmental data. These samples were collected immediately following the water-chemistry sample and were pumped from the same collection vessel. Each replicate sample is processed through all the steps of the routine water-chemistry sample using a new filter and clean equipment. Replicate samples were analyzed at the same time and using the same instruments as the other samples collected during the same sampling trip. Analytical results of replicate samples are included in table 5, and follow the corresponding water sampled (labeled as *duplicate*). Most major, minor, and trace element replicate concentrations are within ±10 percent of the corresponding water-chemistry sample.

Table 4. ^{34}S and ^{18}O isotope determinations.

[^{34}S in permil relative to Canyon Diablo meteorite; ^{18}O in permil relative to VSMOW; --, not analyzed]

SITE	DATE	$\delta^{34}S$	$\delta^{18}O$
EDP016	11/13/00	--	-20.0
	02/01/01	--	-20.1
	05/03/01	--	-20.0
	05/03/01	--	-20.0
	07/16/01	7.8	--
	09/29/01	--	-19.9
EDP018	07/13/01	3.5	-18.9
EDP019	07/11/01	11.3	--
EDP020	07/13/01	6.1	-19.5
EDP021	11/13/00	--	-19.3
	02/02/01	--	-19.1
	05/03/01	--	-19.4
	09/28/01	--	-19.5
	09/28/01	--	-19.5
EDP027	07/14/01	16.8	--
EDP028	11/15/00	8.6	--
	07/16/01	--	-19.0
EDP034	07/14/01	-8.2	--
EDPAGH	07/11/01	20.3	--
MW01B	07/09/01	5.8	--
MW07A	07/08/01	--	--
MW09A	01/30/01	--	-19.0
	05/02/01	--	-18.9
	10/01/01	--	-19.2
	10/01/01	--	-19.1
MW11A	07/10/01	4.4	--
MW12A	01/31/01	--	-19.7
	01/31/01	--	-19.6
	05/02/01	--	-19.7
	07/10/01	7.9	-19.7
	10/01/01	--	-19.6
MW13	07/09/01	8.6	--
MW33	07/09/01	4.8	--
MW50	07/09/01	4.9	--
MW51	07/08/01	6.2	--
MW52	07/08/01	4.6	--
MW53	07/10/01	20.6	--
MW55	07/08/01	4.0	-19.8
EDS003	07/11/01	14.8	--
EDS004	07/11/01	24.0	-19.7
EDS005	07/12/01	--	-16.8

A field equipment blank is a sample prepared using blank (deionized) water that has passed through all the sampling and processing equipment. This type of sample is used to check for the potential contamination of the water-chemistry samples during collection, processing, handling, and analysis. Analytical results are presented in table 6. Most analytes were below analytical detection limits.

Concentrations of cations were determined by ICP-AES and ICP-MS, and if concentrations of trace elements were at least three times the detection limit, good agreement between ICP-AES and ICP-MS results was observed (fig. 3). Barium, manganese, and strontium were chosen for this comparison because the range in concentrations of these elements was within the working range of both analytical techniques.

Data for all samples with complete analyses were checked using the computer program WATEQ4F (Ball and Nordstrom, 1991) for charge imbalance (C.I.), using the following calculation:

$$\text{C.I. (percent)} = \frac{100 * (\text{sum cations - sum anions})}{(\text{sum cations} + \text{sum anions}) \div 2}$$

where sum cations is the sum of the cations in milliequivalents per liter and sum anions is the sum of the anions in milliequivalents per liter. Note that the results of this calculation are twice the value typically reported by an analytical laboratory because the denominator of the equation is the average of the cations and anions rather than the sum of the ions.

The percent charge imbalance reflects how well the major anions and cations balance and usually is an independent measure of the accuracy of the analytical techniques. The percent charge imbalance was low (<10%) for most samples (table 5). Some dilute waters samples had charge imbalances that were greater because of analytical imprecisions when determining concentrations at or near the detection limits.

CHEMICAL DATA

Chemical results were compiled and are presented in table 5. These circumneutral, Ca-HCO_3-dominated waters had a range of filtered As concentrations from less than 3 to 1160 micrograms per liter. One well (EDP021), located at the top of the dome, exhibits the greatest temporal variability in filtered As concentration (44.6 to 387 μg/L), which correlated inversely to the static water level. Spatially, dissolved As concentrations are also quite variable, with wells located a few hundred meters apart having < 3 and 390 μg/L. Although redox chemistry and elemental ratios suggest that a number of processes likely affect the dissolved As concentrations, proximity to mineralized shear zones appears to be the primary control on As concentrations in the ground water (Verplanck and others, 2001).

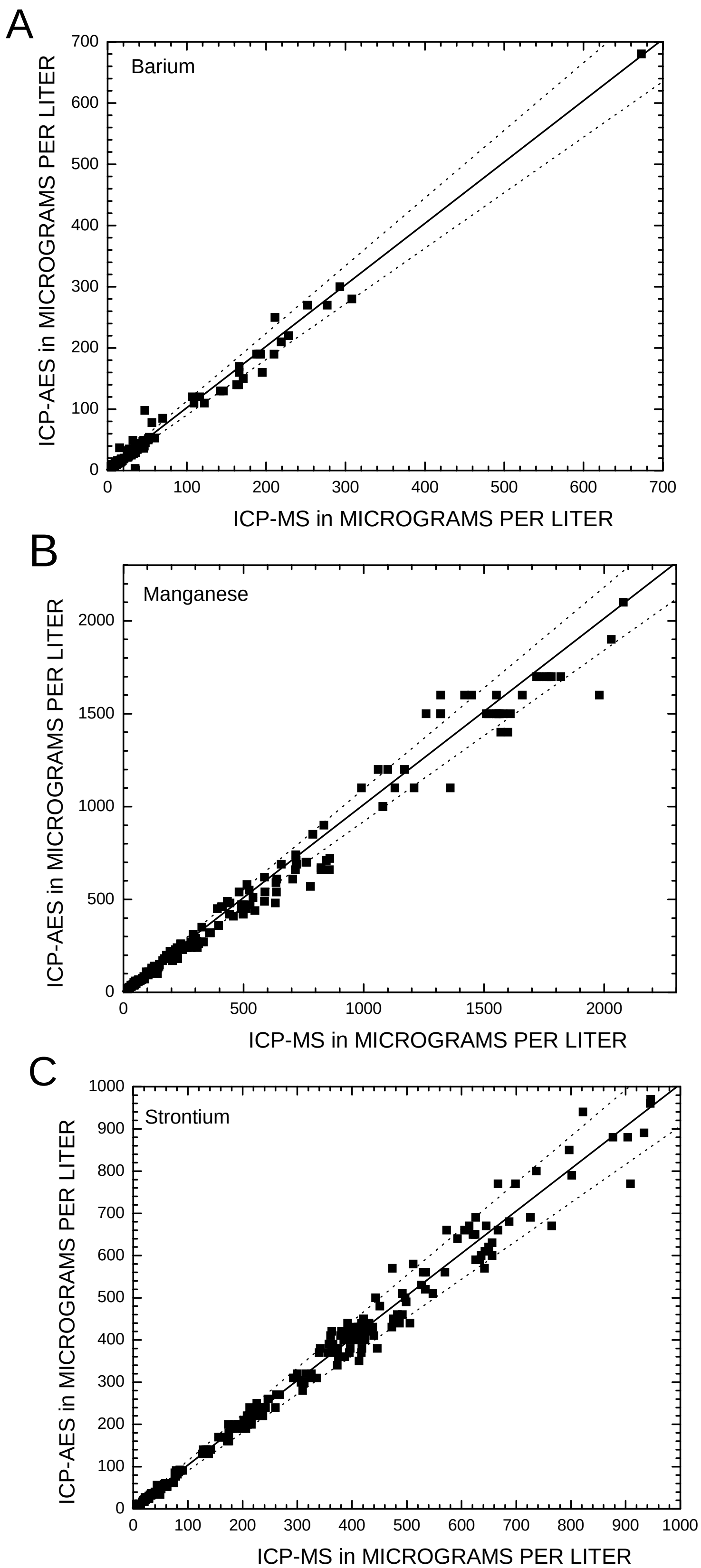

Figure 3. Comparison of analytical results by ICP-AES and ICP-MS for Ba, Mn, and Sr. All samples were filtered and acidified. Diagonal line is 1:1 correspondence; dashed lines are ± 10 percent.

Table 5. Results of water analyses of Ester Dome, Alaska

[μS/cm, microseimens per centimeter; T, temperature; °C, degrees Celsius; DO, dissolved oxygen; mg/L, milligram per liter; %, percent; μg/L, microgram per liter; --, not analyzed; <, less than; meq/L milliequivalents per liter; D, dalton

Field No.	DATE	TIME	pH	SC (μS/cm)	T_{water} (°C)	DO (mg/L)	DO (%)	Filtration	Alkalinity, HCO_3^- (mg/L)	Br (mg/L)	Ca (mg/L)	Cl (mg/L)	F (mg/L)	Fe (mg/L)	Fe(II) (mg/L)	K (mg/L)	Mg (mg/L)	Na (mg/L)	NO_3 (mg/L)	SiO_2 (mg/L)	SO_4 (mg/L)
EDP002	11/12/00	1430	6.60	801	--	--	--	0.45	642	<0.1	150	0.8	0.2	6.36	5.48	3.1	44	22	<0.5	21.4	58
								unfiltered	--	--	150	--	--	6.8	--	3.1	44	22	--	23.5	--
	02/01/01	1715	6.98	1011	2.5	--	--	0.45	633	<0.1	150	2.0	0.2	5.00	5.00	2.8	41	20	<0.1	21.2	53
								unfiltered	--	--	160	--	--	74	--	3.0	44	22	--	25.7	--
	09/30/01	1105	7.18	1022	3.0	3.6	27.6	0.45	640	<0.1	140	1.2	0.3	7.15	6.97	3.1	46	24	<0.5	21.4	54
								unfiltered	--	--	140	--	--	7.6	--	3.1	47	24	--	23.5	--
EDP016	11/13/00	1530	7.09	1003	--	--	--	0.45	424	<0.1	210	220	0.2	0.041	0.004	13	35	16	24	13.5	18
								unfiltered	--	--	200	--	--	0.31	--	12	33	15	--	12.8	--
	02/01/01	1345	7.50	1514	4.4	--	--	0.45	418	<0.1	250	250	<0.1	0.039	0.009	13	40	17	29	13.3	16
								unfiltered	--	--	250	--	--	0.057	--	13	40	17	--	13.3	--
	05/03/01	1550	7.22	1466	4.3	--	--	0.45	423	<0.1	230	260	1.1	0.016	<0.002	13	40	16	27	12.8	16
								unfiltered	--		240	--	--	0.072	--	13	41	16	--	15.5	--
	07/16/01	915	7.07	1970	5.3	--	--	0.45	433	<0.1	280	400	1.3	0.044	0.001	16	53	19	33	13.1	15
								unfiltered	--	--	280	--	--	0.075	--	15	52	18	--	12.2	--
	09/29/01	930	7.01	2070	3.9	6.0	49.3	0.45	413	<0.1	280	426	<0.1	0.017	<0.002	15	52	19	35	11.8	13
								unfiltered	--	--	280	--	--	0.065	--	15	54	19	--	12.8	--
EDP018	11/14/00	18:30	7.02	654	--	--	--	0.45	523	<0.1	120	0.5	0.3	0.023	0.002	6.6	30	14	35	15.0	29
								unfiltered	--	--	120	--	--	0.058	--	6.5	30	14	--	15.0	--
	02/02/01	1030	7.09	844	3.7	--	--	0.45	509	<0.1	120	1.3	<0.1	0.008	0.001	6.6	31	14	30	15.6	30
								unfiltered	--	--	130	--	--	<0.02	--	6.8	32	14	--	16.0	--
	05/03/01	1700	7.04	823	7.6	--	--	0.45	507	<0.1	130	0.66	<0.2	0.006	<0.002	7.6	35	15	29	16.9	30
								unfiltered	--		130	--	--	<0.02	--	7.0	34	14	--	20.0	--
	07/13/01	1300	6.97	793	5.8	6.63	--	0.45	503	<0.1	110	0.9	0.2	0.031	0.001	7.3	34	14	28	15.6	30
								unfiltered	--	--	110	--	--	0.041	--	7.2	33	14	--	15.2	--
	09/27/01	1650	7.05	823	7.4	6.25	55.1	0.45	507	<0.1	110	0.7	0.1	0.014	<0.002	7.2	34	15	29	15.8	30
								unfiltered	--	--	120	--	--	0.021	--	7.2	34	15	--	17.1	--
EDP019	11/13/00	1300	6.59	813	--	--	--	0.45	377	<0.1	120	0.9	0.2	0.022	0.002	3.0	59	15	82	17.3	200
								unfiltered		--	120	--	--	0.60	--	3.1	60	15	--	17.3	--
	02/01/01	840	6.76	1033	13	--	--	0.45	380	<0.1	130	1.4	<0.1	0.058	0.003	3.1	62	15	92	17.8	190
								unfiltered	--	--	130	--	--	6.2	--	3.1	60	15	--	18.0	--
	05/04/01	1000	6.62	1032	10.1	--	--	0.45	372	<0.1	120	1.0	0.2	0.065	0.002	3.2	61	15	110	18.4	200
								unfiltered	--		130	--	--	16	--	3.3	66	16	--	29.9	--
	07/11/01	1500	6.56	1044	9.9	--	--	0.45	351	<0.1	120	1.5	0.2	0.128	0.064	3.4	64	16	120	19.5	200
								unfiltered	--	--	120	--	--	0.54	--	3.3	64	15	--	19.7	--
	09/29/01	1314	6.86	1046	4.1	4.8	42.8	0.45	356	<0.1	120	1.2	0.1	0.273	0.007	3.2	64	16	120	19.9	210
								unfiltered	--	--	120	--	--	1.0	--	3.2	63	15	--	21.4	--
EDP020	11/13/00	1350	6.39	731	--	--	--	0.45	451	<0.1	120	1.0	0.2	0.853	0.029	2.7	55	12	12	16.3	160
								unfiltered		--	110	--	--	0.85	--	2.8	54	12	--	16.0	--
	02/02/01	1500	6.89	935	7.5	--	--	0.45	457	<0.1	120	1.4	0.1	0.713	0.000	2.7	55	12	11	16.3	160
								unfiltered	--		120	--	--	0.78	--	2.8	58	12	--	17.1	--
	05/04/01	1630	6.91	914	7.6	--	--	0.45	455	<0.1	120	1.6	0.2	0.720	0.257	2.9	61	13	11	17.1	160
								unfiltered	--		120	--	--	1.0	--	2.7	60	12	--	20.2	--
	07/13/01	1340	6.87	899	5.8	1.02	--	0.45	450	<0.1	110	1.2	0.2	1.17	0.857	2.9	58	12	11	15.8	160
								10,000 D	--	--	100	--	--	1.06	0.788	2.8	57	12	--	15.8	--
								unfiltered	--	--	100	--	--	1.7	--	2.8	58	12	--	15.6	--
	09/29/01	1610	6.81	927	3.7	2.25	20.1	0.45	440	<0.1	100	1.3	0.3	0.483	0.295	2.8	57	12	12	15.8	160
								unfiltered	--	--	110	--	--	0.50	--	2.8	60	13	--	17.8	--

Table 5. Results of water analyses of Ester Dome, Alaska--Continued

SITE	DATE	TIME	pH	SC (μS/cm)	T_{water} (^{o}C)	DO (mg/L)	DO (%)	Filtration	Alkalinity, HCO_3^- (mg/L)	Br (mg/L)	Ca (mg/L)	Cl (mg/L)	F (mg/L)	Fe (mg/L)	Fe(II) (mg/L)	K (mg/L)	Mg (mg/L)	Na (mg/L)	NO_3 (mg/L)	SiO_2 (mg/L)	SO_4 (mg/L)
EDP002	11/12/00	1430	6.60	801	--	--	--	0.45	642	<0.1	150	0.8	0.2	6.36	5.48	3.1	44	22	<0.5	21.4	58
								unfiltered	--	--	150	--	--	6.8	--	3.1	44	22	--	23.5	--
	02/01/01	1715	6.98	1011	2.5	--	--	0.45	633	<0.1	150	2.0	0.2	5.00	5.00	2.8	41	20	<0.1	21.2	53
								unfiltered	--	--	160	--	--	74	--	3.0	44	22	--	25.7	--
	09/30/01	1105	7.18	1022	3.0	3.6	27.6	0.45	640	<0.1	140	1.2	0.3	7.15	6.97	3.1	46	24	<0.5	21.4	54
								unfiltered	--	--	140	--	--	7.6	--	3.1	47	24	--	23.5	--
EDP016	11/13/00	1530	7.09	1003	--	--	--	0.45	424	<0.1	210	220	0.2	0.041	0.004	13	35	16	24	13.5	18
								unfiltered	--	--	200	--	--	0.31	--	12	33	15	--	12.8	--
	02/01/01	1345	7.50	1514	4.4	--	--	0.45	418	<0.1	250	250	<0.1	0.039	0.009	13	40	17	29	13.3	16
								unfiltered	--	--	250	--	--	0.057	--	13	40	17	--	13.3	--
	05/03/01	1550	7.22	1466	4.3	--	--	0.45	423	<0.1	230	260	1.1	0.016	<0.002	13	40	16	27	12.8	16
								unfiltered	--		240	--	--	0.072	--	13	41	16	--	15.5	--
	07/16/01	915	7.07	1970	5.3	--	--	0.45	433	<0.1	280	400	1.3	0.044	0.001	16	53	19	33	13.1	15
								unfiltered	--	--	280	--	--	0.075	--	15	52	18	--	12.2	--
	09/29/01	930	7.01	2070	3.9	6.0	49.3	0.45	413	<0.1	280	426	<0.1	0.017	<0.002	15	52	19	35	11.8	13
								unfiltered	--	--	280	--	--	0.065	--	15	54	19	--	12.8	--
EDP018	11/14/00	18:30	7.02	654	--	--	--	0.45	523	<0.1	120	0.5	0.3	0.023	0.002	6.6	30	14	35	15.0	29
								unfiltered	--	--	120	--	--	0.058	--	6.5	30	14	--	15.0	--
	02/02/01	1030	7.09	844	3.7	--	--	0.45	509	<0.1	120	1.3	<0.1	0.008	0.001	6.6	31	14	30	15.6	30
								unfiltered	--	--	130	--	--	<0.02	--	6.8	32	14	--	16.0	--
	05/03/01	1700	7.04	823	7.6	--	--	0.45	507	<0.1	130	0.66	<0.2	0.006	<0.002	7.6	35	15	29	16.9	30
								unfiltered	--		130	--	--	<0.02	--	7	34	14	--	20.0	--
	07/13/01	1300	6.97	793	5.8	6.63	--	0.45	503	<0.1	110	0.9	0.2	0.031	0.001	7.3	34	14	28	15.6	30
								unfiltered	--	--	110	--	--	0.041	--	7.2	33	14	--	15.2	--
	09/27/01	1650	7.05	823	7.4	6.25	55.1	0.45	507	<0.1	110	0.7	0.1	0.014	<0.002	7.2	34	15	29	15.8	30
								unfiltered	--	--	120	--	--	0.021	--	7.2	34	15	--	17.1	--
EDP019	11/13/00	1300	6.59	813	--	--	--	0.45	377	<0.1	120	0.9	0.2	0.022	0.002	3.0	59	15	82	17.3	200
								unfiltered		--	120	--	--	0.6	--	3.1	60	15	--	17.3	--
	02/01/01	840	6.76	1033	13	--	--	0.45	380	<0.1	130	1.4	<0.1	0.058	0.003	3.1	62	15	92	17.8	190
								unfiltered	--	--	130	--	--	6.2	--	3.1	60	15	--	18.0	--
	05/04/01	1000	6.62	1032	10.1	--	--	0.45	372	<0.1	120	1.0	0.2	0.065	0.002	3.2	61	15	110	18.4	200
								unfiltered	--		130	--	--	16	--	3.3	66	16	--	29.9	--
	07/11/01	1500	6.56	1044	9.9	--	--	0.45	351	<0.1	120	1.5	0.2	0.128	0.064	3.4	64	16	120	19.5	200
								unfiltered	--	--	120	--	--	0.54	--	3.3	64	15	--	19.7	--
	09/29/01	1314	6.86	1046	4.1	4.8	42.8	0.45	356	<0.1	120	1.2	0.1	0.273	0.007	3.2	64	16	120	19.9	210
								unfiltered	--	--	120	--	--	1.0	--	3.2	63	15	--	21.4	--
EDP020	11/13/00	1350	6.39	731	--	--	--	0.45	451	<0.1	120	1.0	0.2	0.853	0.029	2.7	55	12	12	16.3	160
								unfiltered		--	110	--	--	0.85	--	2.8	54	12	--	16.0	--
	02/02/01	1500	6.89	935	7.5	--	--	0.45	457	<0.1	120	1.4	0.1	0.713	0.000	2.7	55	12	11	16.3	160
								unfiltered	--		120	--	--	0.78	--	2.8	58	12	--	17.1	--
	05/04/01	1630	6.91	914	7.6	--	--	0.45	455	<0.1	120	1.6	0.2	0.720	0.257	2.9	61	13	11	17.1	160
								unfiltered	--		120	--	--	1.0	--	2.7	60	12	--	20.2	--
	07/13/01	1340	6.87	899	5.8	1.02	--	0.45	450	<0.1	110	1.2	0.2	1.17	0.857	2.9	58	12	11	15.8	160
								10,000 D	--	--	100	--	--	1.06	0.788	2.8	57	12	--	15.8	--
								unfiltered	--	--	100	--	--	1.7	--	2.8	58	12	--	15.6	--
	09/29/01	1610	6.81	927	3.7	2.25	20.1	0.45	440	<0.1	100	1.3	0.3	0.483	0.295	2.8	57	12	12	15.8	160
								unfiltered	--	--	110	--	--	0.5	--	2.8	60	13	--	17.8	--

Table 5. Results of water analyses of Ester Dome, Alaska--Continued

SITE	DATE	Filtration	Ag (µg/L)	Al (µg/L)	As (µg/L)	As (III) (µg/L)	Ba (µg/L)	Be (µg/L)	Bi (µg/L)	Cd (µg/L)	Ce (µg/L)	Co (µg/L)	Cr (µg/L)	Cs (µg/L)	Cu (µg/L)	Dy (µg/L)	Er (µg/L)	Eu (µg/L)	Ga (µg/L)	Gd (µg/L)	Ge (µg/L)
EDP027	11/14/00	0.45	< 3	1.9	58.3	31.7	35.6	0.05	< 0.005	< 0.02	0.06	0.77	1.6	0.2	3.2	0.01	0.02	0.008	0.03	0.02	0.04
		unfiltered	< 3	5.8	211	--	41.2	0.1	0.005	0.11	1.0	1.0	1.2	0.23	830	0.17	0.13	0.04	0.06	0.17	0.09
	02/01/01	0.45	< 3	1.6	65.0	51.6	37.3	< 0.05	< 0.005	< 0.02	0.14	0.77	9.1	0.19	0.62	0.03	0.03	0.01	0.05	0.03	0.04
		unfiltered	< 3	1.5	74.1	--	37.7	< 0.05	< 0.005	< 0.02	0.26	0.80	8.0	0.20	9.4	0.050	0.03	0.02	0.04	0.04	0.05
Duplicate	02/01/01	0.45	< 3	1.3	67.8	55.2	37.9	< 0.05	0.01	< 0.02	0.15	0.76	8.9	0.19	0.60	0.03	0.03	0.01	0.04	0.02	0.04
		unfiltered	< 3	1.7	83.7	--	38.0	0.06	< 0.005	< 0.02	0.34	0.79	8.2	0.20	55.0	0.056	0.05	0.02	0.04	0.065	0.06
	05/04/01	0.45	< 3	< 2	66.2	58	39.3	< 0.05	< 0.2	< 0.02	0.13	0.83	< 1	0.27	< 0.5	0.03	0.03	0.01	< 0.05	0.03	< 0.05
		unfiltered	< 3	2.8	70.4	--	37.5	< 0.05	< 0.2	< 0.02	0.22	0.78	< 1	0.26	2.9	0.04	0.03	0.02	< 0.05	0.04	< 0.05
		tap	< 3	4.0	55.3	--	0.64	< 0.05	< 0.2	< 0.02	0.01	0.11	< 1	0.09	5.7	< 0.005	< 0.005	< 0.005	< 0.05	< 0.005	< 0.05
	07/14/01	0.45	< 3	< 2	78.4	35	35.8	< 0.05	< 0.2	< 0.02	0.20	0.71	12	0.19	0.52	0.04	0.03	0.01	< 0.05	0.04	< 0.05
		10,000 D	< 3	4.3	73.9	48	35.1	< 0.05	< 0.2	< 0.02	0.11	0.72	12	0.18	0.87	0.02	0.02	0.008	< 0.05	0.02	< 0.05
		unfiltered	< 3	3.4	81.4	--	35.3	< 0.05	< 0.2	< 0.02	0.25	0.69	12	0.19	2.0	0.050	0.03	0.01	< 0.05	0.04	0.05
Duplicate	07/14/01	0.45	< 3	< 2	76.1	43	35.2	< 0.05	< 0.2	< 0.02	0.18	0.70	12	0.19	0.54	0.03	0.03	0.01	< 0.05	0.03	< 0.05
		unfiltered	< 3	2.7	79.0	--	35.0	< 0.05	< 0.2	< 0.02	0.24	0.71	9.6	0.17	2.0	0.04	0.03	0.01	< 0.05	0.04	< 0.05
	09/28/01	0.45	< 3	0.23	60.2	<5	32.8	0.06	< 0.005	< 0.02	0.14	0.56	3.1	0.16	0.50	0.02	0.03	0.01	0.02	0.03	0.04
		unfiltered	< 3	5.02	80.4	--	36.8	0.07	< 0.005	< 0.02	0.30	0.58	6.0	0.17	9.9	0.051	0.04	0.02	0.03	0.050	0.05
Duplicate	09/28/01	0.45	< 3	< 0.1	59.2	--	32.5	< 0.05	< 0.005	< 0.02	0.12	0.56	3.2	0.15	0.60	0.04	0.03	0.008	0.02	0.03	0.06
		unfiltered	< 3	5.3	78.9	--	35.1	< 0.05	< 0.005	0.02	0.30	0.59	6.3	0.16	8.5	0.053	0.05	0.02	0.03	0.051	0.04
EDP028	11/15/00	0.45	< 3	6.5	11.6	< 0.3	14.2	< 0.05	0.01	0.08	< 0.01	0.46	< 1	0.09	7.8	< 0.005	< 0.005	< 0.005	< 0.02	< 0.005	< 0.02
		unfiltered	< 3	76.2	39.9	--	16.2	< 0.05	0.007	0.11	0.45	0.77	< 1	0.11	19	0.02	0.02	0.007	0.03	0.04	< 0.02
	02/01/01	0.45	< 3	1.85	9.1	0.3	12.5	< 0.05	0.01	0.10	< 0.01	0.44	1.9	0.09	8.7	< 0.005	< 0.005	< 0.005	< 0.02	< 0.005	< 0.02
		unfiltered	< 3	14.6	47.7	--	13.4	< 0.05	0.005	0.12	0.15	1.2	2.0	0.09	20	0.01	0.006	0.005	< 0.02	0.009	< 0.02
	07/16/01	0.45	< 3	< 2	9.5	<5	12.4	< 0.05	< 0.2	0.08	< 0.01	0.46	12	0.07	12	< 0.005	< 0.005	< 0.005	< 0.05	< 0.005	< 0.05
		unfiltered	< 3	18.4	36.7	--	12.7	< 0.05	< 0.2	0.09	0.10	0.78	12	0.08	50.5	0.008	0.005	< 0.005	< 0.05	0.01	< 0.05
	09/28/01	0.45	< 3	< 0.1	5.3	<5	11.9	< 0.05	< 0.005	0.10	< 0.01	0.47	2.0	0.07	5.7	< 0.005	< 0.005	< 0.005	< 0.02	< 0.005	< 0.02
		unfiltered	< 3	6.3	44.5	--	13.2	< 0.05	< 0.005	0.11	0.08	0.84	2.8	0.09	11	0.009	0.005	< 0.005	< 0.02	0.009	< 0.02
EDP030	11/12/00	0.45	< 3	9.6	< 3	--	8.30	< 0.05	< 0.005	< 0.02	< 0.01	0.15	< 1	< 0.01	29	< 0.005	< 0.005	< 0.005	< 0.02	< 0.005	< 0.02
		unfiltered	< 3	3	< 3	--	8.50	< 0.05	< 0.005	0.04	< 0.01	0.15	< 1	< 0.01	29.6	< 0.005	0.007	< 0.005	< 0.02	< 0.005	0.03
	05/05/01	0.45	< 3	< 2	30.9	13	25.7	< 0.05	< 0.2	< 0.02	< 0.01	1.6	< 1	0.19	< 0.5	0.005	0.006	< 0.005	< 0.05	< 0.005	0.10
		unfiltered	< 3	2.9	56.5	--	25.7	< 0.05	< 0.2	0.06	0.02	1.7	< 1	0.17	3.4	0.01	0.009	< 0.005	< 0.05	0.005	0.10
	07/13/01	0.45	< 3	< 2	3.9	<5	8.55	< 0.05	< 0.2	< 0.02	< 0.01	0.18	< 1	< 0.02	21	< 0.005	< 0.005	< 0.005	< 0.05	< 0.005	< 0.05
		unfiltered	< 3	3.3	3.4	--	8.47	< 0.05	< 0.2	< 0.02	< 0.01	0.18	< 1	< 0.02	23	< 0.005	< 0.005	< 0.005	< 0.05	< 0.005	< 0.05
	09/29/01	0.45	< 3	0.45	< 3	<0.5	7.39	< 0.05	< 0.005	< 0.02	< 0.01	0.13	3.3	< 0.01	23	0.005	< 0.005	< 0.005	< 0.02	< 0.005	< 0.02
		unfiltered	< 3	4.60	< 3	--	7.72	< 0.05	< 0.005	< 0.02	< 0.01	0.13	4.7	< 0.01	24	< 0.005	0.006	< 0.005	< 0.02	< 0.005	< 0.02
EDP032	02/01/01	0.45	< 3	1.91	29.5	4.5	24.8	< 0.05	< 0.005	< 0.02	< 0.01	1.3	11	0.12	0.62	< 0.005	0.006	< 0.005	0.02	< 0.005	0.20
		unfiltered	< 3	1.78	48.5	--	25.8	< 0.05	< 0.005	< 0.02	0.02	1.4	11	0.13	1.5	0.01	0.01	< 0.005	< 0.02	0.005	0.20
	05/05/01	0.45	< 3	< 2	< 1	<5	9.03	< 0.05	< 0.2	0.04	< 0.01	0.20	< 1	0.07	21	0.005	< 0.005	< 0.005	< 0.05	< 0.005	< 0.05
		unfiltered	< 3	2.5	3.1	--	8.74	< 0.05	< 0.2	0.05	< 0.01	0.20	< 1	0.06	22	< 0.005	< 0.005	< 0.005	< 0.05	< 0.005	< 0.05
EDP033	11/14/00	0.45	< 3	6.21	< 3	--	9.33	0.06	< 0.005	6.1	0.82	32	< 1	0.44	37	0.087	0.057	0.02	0.27	0.091	0.02
		unfiltered	< 3	877	< 3	--	9.41	0.07	< 0.005	6.2	2.2	31	< 1	0.43	110	0.32	0.18	0.061	0.31	0.33	0.04
EDP034	11/13/00	0.45	< 3	2.2	< 3	--	2.02	< 0.05	< 0.005	< 0.02	< 0.01	0.11	< 1	< 0.01	5.8	< 0.005	< 0.005	< 0.005	< 0.02	< 0.005	< 0.02
		unfiltered	< 3	24.6	< 3	--	2.17	< 0.05	< 0.005	0.02	0.01	0.15	< 1	< 0.01	13	0.01	0.009	< 0.005	< 0.02	0.01	< 0.02
	02/01/01	0.45	< 3	1.8	< 3	--	1.68	< 0.05	0.007	0.02	< 0.01	0.10	< 1	< 0.01	3.4	< 0.005	< 0.005	< 0.005	< 0.02	< 0.005	< 0.02
		unfiltered	< 3	2.77	< 3	--	1.70	< 0.05	0.008	0.02	< 0.01	0.10	1.1	< 0.01	5.5	0.008	0.005	< 0.005	< 0.02	0.006	< 0.02
	05/03/01	0.45	< 3	< 2	6.1	<5	1.78	< 0.05	< 0.2	0.04	< 0.01	0.10	< 1	0.03	3.7	< 0.005	< 0.005	< 0.005	< 0.05	< 0.005	< 0.05
		unfiltered	< 3	3.0	6.1	--	2.14	< 0.05	< 0.2	0.03	< 0.01	0.10	< 1	0.04	9.2	0.008	0.008	< 0.005	< 0.05	0.008	< 0.05
	07/14/01	0.45	< 3	< 2	5.4	<5	2.06	< 0.05	< 0.2	< 0.02	< 0.01	0.39	58	< 0.02	3.4	< 0.005	< 0.005	< 0.005	< 0.05	< 0.005	< 0.05
		unfiltered	< 3	19.7	4.2	--	2.32	< 0.05	< 0.2	< 0.02	0.02	0.23	21	< 0.02	5.0	0.008	0.007	< 0.005	< 0.05	0.006	< 0.05
	09/28/01	0.45	< 3	0.6	< 3	<0.5	1.81	< 0.05	< 0.005	< 0.02	< 0.01	0.08	1.3	0.02	4.7	< 0.005	< 0.005	< 0.005	< 0.02	< 0.005	< 0.02
		unfiltered	< 3	18.9	< 3	--	2.22	< 0.05	< 0.005	0.02	0.02	0.10	2.9	< 0.01	6.2	0.01	0.006	< 0.005	< 0.02	< 0.005	< 0.02

Table 5. Results of water analyses of Ester Dome, Alaska--Continued

SITE	DATE	Filtration	Ag (µg/L)	Al (µg/L)	As (µg/L)	As (III) (µg/L)	Ba (µg/L)	Be (µg/L)	Bi (µg/L)	Cd (µg/L)	Ce (µg/L)	Co (µg/L)	Cr (µg/L)	Cs (µg/L)	Cu (µg/L)	Dy (µg/L)	Er (µg/L)	Eu (µg/L)	Ga (µg/L)	Gd (µg/L)	Ge (µg/L)
EDPAGH	07/11/01	0.45	< 3	2.0	1160	864	219	< 0.05	< 0.2	< 0.02	< 0.01	2.4	< 1	< 0.02	0.61	< 0.005	< 0.005	0.02	< 0.05	< 0.005	0.30
		unfiltered	< 3	3.4	1170	--	228	< 0.05	< 0.2	0.04	< 0.01	2.4	< 1	< 0.02	6.3	< 0.005	< 0.005	0.02	< 0.05	< 0.005	0.28
	09/28/01	0.45	< 3	1.0	713	265	166	< 0.05	< 0.005	< 0.02	< 0.01	1.5	3.7	0.02	0.76	< 0.005	< 0.005	0.02	< 0.02	< 0.005	0.28
		unfiltered	< 3	9.3	1230	--	188	< 0.05	< 0.005	0.05	0.04	1.5	6.3	0.02	5.0	0.008	0.009	0.02	< 0.02	0.01	0.31
MW1B	01/31/01	0.45	< 3	2.5	845	--	2.42	< 0.05	< 0.005	0.02	0.02	0.19	8.0	0.02	0.64	< 0.005	< 0.005	< 0.005	< 0.02	< 0.005	< 0.02
		unfiltered	< 3	43.2	862	--	2.62	< 0.05	< 0.005	0.02	0.73	0.22	8.4	0.04	0.96	0.04	0.02	0.01	0.02	0.05	< 0.02
	05/03/01	0.45	< 3	2.6	545	85	5.32	< 0.05	< 0.2	< 0.02	0.05	0.66	< 1	0.06	0.89	0.007	0.005	< 0.005	< 0.05	0.006	< 0.05
		unfiltered	< 3	5200	1360	--	27.4	0.3	0.36	0.03	63	4.7	11	1.33	15.6	2.22	0.93	0.70	2.2	3.7	0.1
	07/09/01	0.45	< 3	2.3	650	--	6.50	< 0.05	< 0.2	< 0.02	0.07	0.42	< 1	< 0.02	0.50	0.005	0.006	< 0.005	< 0.05	0.009	< 0.05
		unfiltered	< 3	13700	2270	--	56.1	0.7	0.28	0.10	150	9.3	23	2.17	27	4.63	1.98	1.5	5.0	7.7	0.2
	10/02/01	0.45	< 3	0.93	676	62	3.27	< 0.05	< 0.005	< 0.02	0.04	0.29	3.1	0.02	< 0.5	0.006	0.006	< 0.005	< 0.02	0.008	< 0.02
		unfiltered	< 3	493	777	--	5.82	< 0.05	< 0.005	< 0.02	8.2	0.60	5.3	0.18	1.4	0.37	0.16	0.10	0.2	0.55	0.04
MW7A	11/16/00	0.45	< 3	130	400	< 0.3	1.26	< 0.05	< 0.005	0.03	0.34	0.49	< 1	< 0.01	0.85	0.02	0.01	< 0.005	0.03	0.03	0.03
		unfiltered	< 3	5720	647	--	46.9	0.3	< 0.005	0.08	27	2.2	13	2.63	7.5	1.05	0.47	0.34	1.7	1.7	0.21
	01/30/01	0.45	< 3	5.63	379	--	1.13	< 0.05	< 0.005	0.02	0.01	0.44	< 1	< 0.01	< 0.5	< 0.005	< 0.005	< 0.005	< 0.02	< 0.005	< 0.02
		unfiltered	< 3	1660	456	--	15.0	0.09	0.04	0.04	9.7	0.98	4.0	0.85	2.4	0.41	0.18	0.14	0.59	0.69	0.1
	05/01/01	0.45	< 3	4.1	448	7	0.86	< 0.05	< 0.2	< 0.02	0.01	0.37	< 1	< 0.02	< 0.5	< 0.005	< 0.005	< 0.005	< 0.05	< 0.005	< 0.05
		unfiltered	< 3	1680	538	--	9.31	0.08	< 0.2	0.03	7.2	0.91	2.9	0.39	3.1	0.29	0.14	0.069	0.42	0.45	0.06
	07/08/01	0.45	< 3	5.2	473	<5	0.58	< 0.05	< 0.2	< 0.02	< 0.01	0.46	< 1	< 0.02	< 0.5	< 0.005	< 0.005	< 0.005	< 0.05	< 0.005	< 0.05
		unfiltered	< 3	8810	1120	--	69.6	0.3	0.43	0.06	48	3.6	14	2.88	13	1.6	0.63	0.50	2.8	2.5	0.10
	10/01/01	0.45	< 3	12.6	356	<5	4.59	< 0.05	0.02	0.03	0.01	0.24	< 1	< 0.01	< 0.5	< 0.005	0.005	< 0.005	< 0.02	0.005	< 0.02
		unfiltered	< 3	2010	460	--	25.8	0.7	< 0.005	0.07	52	1.4	3.4	0.44	3.1	3.49	1.55	0.31	0.90	4.3	0.10
MW09A	01/30/01	0.45	< 3	3290	422	--	34.7	0.2	0.06	0.15	14	18	12	2.1	7.0	0.96	0.43	0.37	1.3	1.4	0.10
		unfiltered	< 3	1900	665	--	32.0	0.2	0.62	0.06	17	5.4	10	1.0	8.3	0.67	0.32	0.22	0.77	1.0	0.10
	05/02/01	0.45	< 3	< 2	560	128	2.80	< 0.05	< 0.2	< 0.02	0.06	2.7	< 1	0.09	< 0.5	0.008	0.01	< 0.005	< 0.05	0.006	< 0.05
		unfiltered	< 3	1250	777	--	27.1	0.09	0.24	0.05	9.7	3.3	5.0	0.59	6.8	0.36	0.18	0.13	0.46	0.61	0.06
	07/10/01	0.45	< 3	2.4	499	58	2.59	< 0.05	< 0.2	< 0.02	0.03	1.5	< 1	0.02	< 0.5	0.006	0.01	< 0.005	< 0.05	< 0.005	< 0.05
		10,000 D	< 3	4.5	497	44	2.57	< 0.05	< 0.2	0.04	0.03	1.4	< 1	< 0.02	0.88	0.007	0.01	< 0.005	< 0.05	< 0.005	< 0.05
		unfiltered	< 3	1020	662	--	16.3	0.08	< 0.2	0.03	5.5	2.3	4.8	0.35	4.3	0.24	0.12	0.082	0.29	0.35	< 0.05
	10/01/01	0.45	< 3	0.17	587	196	3.61	< 0.05	< 0.005	< 0.02	0.15	2.4	2.6	0.03	< 0.5	0.01	0.02	< 0.005	< 0.02	0.01	0.02
		unfiltered	< 3	509	686	--	12.6	0.06	< 0.005	0.02	5.0	2.7	7.2	0.30	2.4	0.21	0.12	0.068	0.2	0.29	0.03
MW11A	01/30/01	0.45	< 3	18.2	157	--	16.4	< 0.05	< 0.005	0.02	0.18	0.90	8.0	0.02	0.70	0.01	0.007	< 0.005	< 0.02	0.008	0.02
		unfiltered	< 3	5.15	165	--	16.6	< 0.05	< 0.005	0.03	0.20	0.93	7.0	0.02	0.68	0.008	0.007	< 0.005	< 0.02	0.008	< 0.02
	05/02/01	0.45	< 3	< 2	175	84	16.7	< 0.05	< 0.2	0.02	0.18	0.87	< 1	0.09	0.52	0.008	0.007	< 0.005	< 0.05	0.007	< 0.05
		unfiltered	< 3	8.4	167	--	15.8	< 0.05	< 0.2	0.03	0.25	0.89	< 1	0.08	1.6	0.01	0.008	< 0.005	< 0.05	0.009	< 0.05
	07/10/01	0.45	< 3	3.5	132	50	14.6	< 0.05	< 0.2	0.02	0.20	0.83	< 1	< 0.02	< 0.5	0.006	0.005	< 0.005	< 0.05	0.008	< 0.05
		10,000 D	< 3	7.0	133	42	14.7	< 0.05	< 0.2	0.05	0.19	0.83	< 1	< 0.02	1.2	0.008	0.008	< 0.005	< 0.05	0.005	< 0.05
		unfiltered	< 3	5.0	137	--	14.4	< 0.05	< 0.2	0.02	0.20	0.85	< 1	< 0.02	1.2	0.01	0.006	< 0.005	< 0.05	0.007	< 0.05
	07/12/01	0.45	< 3	2.7	103	47	14.6	< 0.05	< 0.2	0.03	0.27	0.90	< 1	< 0.02	< 0.5	0.01	0.008	< 0.005	< 0.05	0.008	< 0.05
		unfiltered	< 3	23.9	108	--	14.8	< 0.05	< 0.2	0.03	0.33	0.95	< 1	< 0.02	1.5	0.01	0.009	0.005	< 0.05	0.01	< 0.05
	10/02/01	0.45	< 3	0.44	115	33	12.7	< 0.05	< 0.005	0.02	0.21	0.65	3.1	0.02	< 0.5	0.008	< 0.005	< 0.005	< 0.02	0.01	< 0.02
		unfiltered	< 3	3.16	123	--	13.6	< 0.05	< 0.005	0.03	0.23	0.64	5.6	0.01	0.60	0.01	0.006	< 0.005	< 0.02	0.01	< 0.02
MW12A	01/31/01	0.45	< 3	5.81	146	116	8.65	< 0.05	0.005	0.10	0.05	12	1.5	0.23	0.86	0.01	0.009	< 0.005	0.02	0.009	< 0.02
		unfiltered	< 3	3290	422	--	34.7	0.2	0.06	0.15	14	18	12	2.1	7.0	0.96	0.43	0.37	1.3	1.4	0.10
	05/02/01	0.45	< 3	4.5	135	87	9.49	< 0.05	< 0.2	0.08	0.04	12	< 1	0.28	0.79	0.01	0.008	< 0.005	< 0.05	0.01	< 0.05
		unfiltered	< 3	688	195	--	16.8	0.06	< 0.2	0.10	3.5	10	2.7	0.54	3.6	0.19	0.091	0.058	0.27	0.27	< 0.05
	07/10/01	0.45	< 3	6.6	106	49	10.1	< 0.05	< 0.2	0.07	0.06	12	< 1	0.16	0.67	0.01	0.007	< 0.005	< 0.05	0.01	< 0.05
		10,000 D	< 3	101	98.3	38	11.3	< 0.05	< 0.2	0.15	0.18	12	< 1	0.16	3.3	0.02	0.02	< 0.005	< 0.05	0.02	< 0.05
		unfiltered	< 3	3130	237	--	45.4	0.2	< 0.2	0.11	11	14	8.2	0.99	6.2	0.64	0.29	0.17	0.89	0.87	< 0.05
	10/01/01	0.45	< 3	6.1	169	46	9.02	< 0.05	< 0.005	0.06	0.04	13	2.1	0.23	0.92	0.01	0.01	< 0.005	< 0.02	0.02	0.03
		unfiltered	< 3	902	335	--	45.8	0.1	< 0.005	0.09	6.4	14	7.6	0.73	3.6	0.54	0.24	0.12	0.39	0.65	0.05

Table 5. Results of water analyses of Ester Dome, Alaska--Continued

SITE	DATE	Filtration	Ag (µg/L)	Al (µg/L)	As (µg/L)	As (III) (µg/L)	Ba (µg/L)	Be (µg/L)	Bi (µg/L)	Cd (µg/L)	Ce (µg/L)	Co (µg/L)	Cr (µg/L)	Cs (µg/L)	Cu (µg/L)	Dy (µg/L)	Er (µg/L)	Eu (µg/L)	Ga (µg/L)	Gd (µg/L)	Ge (µg/L)
MW13A	11/15/00	0.45	< 3	367	236	< 0.3	59.8	< 0.05	< 0.005	0.05	1.35	2.3	1.7	0.46	1.1	0.055	0.04	0.03	0.1	0.09	0.04
		unfiltered	< 3	18500	472	--	673	1	< 0.005	0.36	67	24	59	6.38	26	3.74	1.8	1.12	5.5	5.5	0.66
	01/30/01	0.45	< 3	3.44	217	--	52.8	< 0.05	< 0.005	0.06	0.04	1.9	1.0	0.63	0.50	0.007	0.009	0.009	< 0.02	0.008	< 0.02
		unfiltered	< 3	3480	285	--	211	0.2	0.05	0.14	21	7.2	15	2.51	6.0	0.95	0.45	0.33	1.3	1.5	0.20
	05/03/01	0.45	< 3	2.2	290	14	51.8	< 0.05	< 0.2	0.06	0.05	1.9	< 1	0.54	< 0.5	0.01	0.01	0.007	< 0.05	0.02	< 0.05
		unfiltered	< 3	3110	338	--	171	0.2	< 0.2	0.10	19	5.0	12	1.5	7.6	0.72	0.35	0.25	1.3	1.26	0.20
	07/09/01	0.45	< 3	2.2	268	83	51.3	< 0.05	< 0.2	0.06	0.04	1.5	< 1	0.55	0.62	0.01	0.008	0.007	< 0.05	0.006	< 0.05
		unfiltered	< 3	4800	326	--	195	0.2	< 0.2	0.11	16	4.9	15	1.8	7.8	0.69	0.34	0.24	1.4	1.17	0.20
	10/02/01	0.45	< 3	1.17	262	<5	44.4	< 0.05	< 0.005	0.06	0.04	1.4	2.4	0.56	< 0.5	0.006	0.01	0.005	< 0.02	0.007	< 0.02
		unfiltered	< 3	1400	308	--	109	0.08	< 0.005	0.11	7.2	2.5	9.7	1.3	2.8	0.33	0.16	0.10	0.46	0.51	0.06
MW33	01/31/01	0.45	< 3	1.7	10.2	3.3	0.35	< 0.05	< 0.005	< 0.02	< 0.01	0.06	9.2	0.09	2.4	< 0.005	< 0.005	< 0.005	< 0.02	< 0.005	0.02
		unfiltered	< 3	2.1	11.9	--	0.43	< 0.05	< 0.005	0.03	< 0.01	0.06	9.2	0.10	8.4	< 0.005	< 0.005	< 0.005	< 0.02	< 0.005	0.04
	05/02/01	0.45	< 3	< 2	9.4	<5	3.15	< 0.05	< 0.2	< 0.02	< 0.01	0.28	< 1	0.30	0.93	< 0.005	< 0.005	< 0.005	< 0.05	< 0.005	< 0.05
		unfiltered	< 3	12.4	4.1	--	3.54	< 0.05	< 0.2	0.03	0.02	0.32	< 1	0.30	4.6	< 0.005	< 0.005	< 0.005	< 0.05	< 0.005	< 0.05
	07/09/01	0.45	< 3	< 2	9.4	0.7	0.25	< 0.05	< 0.2	< 0.02	0.02	0.02	< 1	0.05	< 0.5	< 0.005	< 0.005	< 0.005	< 0.05	< 0.005	< 0.05
		unfiltered	< 3	3.4	9.8	--	0.37	< 0.05	< 0.2	< 0.02	< 0.01	0.03	< 1	0.05	1.7	< 0.005	< 0.005	< 0.005	< 0.05	< 0.005	< 0.05
	10/03/01	0.45	< 3	< 0.1	9.2	1	0.10	< 0.05	< 0.005	< 0.02	< 0.01	< 0.02	4.1	0.04	< 0.5	< 0.005	< 0.005	< 0.005	< 0.02	< 0.005	0.06
		unfiltered	< 3	< 0.1	11.4	--	0.10	< 0.05	< 0.005	< 0.02	< 0.01	< 0.02	7.4	0.03	0.85	< 0.005	< 0.005	< 0.005	< 0.02	< 0.005	< 0.02
MW50	01/30/01	0.45	< 3	3.4	570	--	16.2	< 0.05	0.005	< 0.02	0.07	1.30	1.9	0.05	< 0.5	0.008	0.006	< 0.005	< 0.02	0.006	< 0.02
		unfiltered	< 3	931	592	--	24.9	< 0.05	0.01	0.04	5.1	2.5	4.4	0.41	1.8	0.18	0.084	0.063	0.32	0.31	0.03
	05/02/01	0.45	< 3	< 2	621	239	17.3	< 0.05	< 0.2	0.04	0.08	0.78	< 1	0.20	< 0.5	0.007	0.007	< 0.005	< 0.05	0.008	< 0.05
		unfiltered	< 3	1520	737	--	31.5	0.05	< 0.2	0.04	9.2	1.8	3.1	0.50	3.9	0.30	0.13	0.11	0.48	0.56	0.06
	07/09/01	0.45	< 3	< 2	578	<5	16.5	< 0.05	< 0.2	< 0.02	0.07	0.88	< 1	0.05	< 0.5	0.006	0.006	< 0.005	< 0.05	0.006	< 0.05
		unfiltered	< 3	1310	634	--	26.2	0.05	< 0.2	0.04	5.3	1.9	2.8	0.34	3.3	0.20	0.077	0.065	0.33	0.32	< 0.05
	10/01/01	0.45	< 3	0.2	597	122	15.6	< 0.05	< 0.005	< 0.02	0.05	0.72	1.3	0.06	< 0.5	0.009	0.006	< 0.005	< 0.02	0.007	< 0.02
		unfiltered	< 3	330	629	--	19.0	< 0.05	< 0.005	0.03	2.2	0.97	4.0	0.19	1.1	0.11	0.052	0.02	0.1	0.15	< 0.02
MW51A	01/30/01	0.45	< 3	2.29	191	--	5.04	< 0.05	< 0.005	< 0.02	0.02	1.8	< 1	< 0.01	< 0.5	< 0.005	< 0.005	< 0.005	< 0.02	< 0.005	< 0.02
		unfiltered	< 3	144	190	--	6.44	< 0.05	< 0.005	0.02	0.81	2.2	1.2	0.04	0.78	0.04	0.02	0.01	0.05	0.053	0.02
	05/01/01	0.45	< 3	< 2	187	<5	5.09	< 0.05	< 0.2	< 0.02	0.01	1.6	< 1	< 0.02	< 0.5	< 0.005	< 0.005	< 0.005	< 0.05	< 0.005	< 0.05
		unfiltered	< 3	483	208	--	9.02	< 0.05	< 0.2	< 0.02	1.9	2.7	1.5	0.08	3.1	0.079	0.04	0.02	0.10	0.11	< 0.05
	07/08/01	0.45	< 3	< 2	199	<5	5.07	< 0.05	< 0.2	< 0.02	0.01	2.3	< 1	< 0.02	< 0.5	< 0.005	< 0.005	< 0.005	< 0.05	< 0.005	< 0.05
		unfiltered	< 3	1030	203	--	14.2	< 0.05	< 0.2	0.02	2.4	3.0	1.8	0.12	3.2	0.12	0.059	0.03	0.26	0.17	< 0.05
	10/01/01	0.45	< 3	< 0.1	181	<5	3.70	< 0.05	0.009	< 0.02	0.01	2.0	< 1	< 0.01	< 0.5	< 0.005	< 0.005	< 0.005	< 0.02	< 0.005	< 0.02
		unfiltered	< 3	100	193	--	4.94	< 0.05	< 0.005	< 0.02	0.37	2.3	2.2	0.02	0.50	0.02	0.01	0.006	0.04	0.02	< 0.02
MW52	11/15/00	0.45	< 3	4.9	197	< 0.3	5.48	< 0.05	< 0.005	< 0.02	0.01	1.7	< 1	< 0.01	< 0.5	< 0.005	0.005	< 0.005	< 0.02	< 0.005	< 0.02
		unfiltered	< 3	1200	210	--	14.0	< 0.05	< 0.005	0.04	4.2	3.0	3.8	0.20	4.7	0.17	0.094	0.054	0.35	0.26	0.04
	01/30/01	0.45	< 3	1.31	291	--	1.02	< 0.05	< 0.005	< 0.02	< 0.01	0.15	2.1	0.08	0.66	< 0.005	< 0.005	< 0.005	< 0.02	< 0.005	< 0.02
		unfiltered	< 3	25.9	303	--	1.12	< 0.05	< 0.005	< 0.02	0.15	0.19	3.1	0.10	0.98	0.006	< 0.005	< 0.005	< 0.02	0.01	< 0.02
	05/01/01	0.45	< 3	< 2	324	<5	1.05	< 0.05	< 0.2	< 0.02	< 0.01	0.18	< 1	0.09	< 0.5	< 0.005	< 0.005	< 0.005	< 0.05	< 0.005	< 0.05
		unfiltered	< 3	23.0	326	--	1.38	< 0.05	< 0.2	< 0.02	0.13	0.20	< 1	0.09	3.3	0.007	< 0.005	< 0.005	< 0.05	0.01	< 0.05
	07/08/01	0.45	< 3	2.1	283	<5	1.08	< 0.05	< 0.2	< 0.02	< 0.01	0.19	< 1	0.08	< 0.5	< 0.005	< 0.005	< 0.005	< 0.05	< 0.005	< 0.05
		unfiltered	< 3	59.8	306	--	1.35	< 0.05	< 0.2	< 0.02	0.36	0.25	< 1	0.11	1.6	0.009	0.005	0.005	< 0.05	0.02	< 0.05
	10/01/01	0.45	< 3	< 0.1	290	<5	0.90	< 0.05	< 0.005	< 0.02	< 0.01	0.14	2.3	0.09	1.1	< 0.005	< 0.005	< 0.005	< 0.02	< 0.005	< 0.02
		unfiltered	< 3	5.8	292	--	1.05	< 0.05	< 0.005	< 0.02	0.04	0.14	4.2	0.09	0.55	< 0.005	< 0.005	< 0.005	< 0.02	< 0.005	< 0.02

Table 5. Results of water analyses of Ester Dome, Alaska--Continued

SITE	DATE	Filtration	Ag (µg/L)	Al (µg/L)	As (µg/L)	As (III) (µg/L)	Ba (µg/L)	Be (µg/L)	Bi (µg/L)	Cd (µg/L)	Ce (µg/L)	Co (µg/L)	Cr (µg/L)	Cs (µg/L)	Cu (µg/L)	Dy (µg/L)	Er (µg/L)	Eu (µg/L)	Ga (µg/L)	Gd (µg/L)	Ge (µg/L)
MW53	01/30/01	0.45	< 3	1.6	97.7	101	6.48	< 0.05	< 0.005	0.76	0.03	0.50	< 1	0.09	1.5	< 0.005	< 0.005	< 0.005	< 0.02	< 0.005	< 0.02
		unfiltered	< 3	4.1	144	--	6.32	< 0.05	0.25	0.77	0.13	0.55	< 1	0.11	9.9	< 0.005	< 0.005	< 0.005	< 0.02	< 0.005	< 0.02
	05/02/01	0.45	< 3	< 2	125	122	5.80	< 0.05	< 0.2	0.02	0.03	0.47	< 1	0.32	< 0.5	< 0.005	< 0.005	< 0.005	< 0.05	< 0.005	< 0.05
		unfiltered	< 3	6.0	139	--	6.49	< 0.05	< 0.2	0.02	0.07	0.52	< 1	0.13	2.5	< 0.005	< 0.005	< 0.005	< 0.05	< 0.005	< 0.05
	07/10/01	0.45	< 3	< 2	161	85	6.84	< 0.05	< 0.2	0.02	0.04	0.53	< 1	0.08	< 0.5	< 0.005	< 0.005	< 0.005	< 0.05	< 0.005	< 0.05
		unfiltered	< 3	7.0	187	--	6.64	< 0.05	< 0.2	< 0.02	0.15	0.51	< 1	0.07	1.7	< 0.005	< 0.005	< 0.005	< 0.05	< 0.005	< 0.05
	10/02/01	0.45	< 3	< 0.1	128	<5	5.65	< 0.05	0.009	0.02	0.03	0.35	< 1	0.08	< 0.5	< 0.005	< 0.005	< 0.005	< 0.02	< 0.005	0.02
		unfiltered	< 3	3.3	143	--	6.28	< 0.05	< 0.005	0.03	0.08	0.36	1.8	0.08	1.8	< 0.005	< 0.005	< 0.005	< 0.02	< 0.005	< 0.02
MW54	11/16/00	0.45	< 3	2.1	198	1	17.4	< 0.05	< 0.005	0.05	0.16	1.3	1.3	0.05	1.6	0.03	0.03	0.008	< 0.02	0.04	< 0.02
		unfiltered	< 3	3.2	192	--	17.2	< 0.05	< 0.005	0.03	0.16	1.3	1.1	0.05	1.2	0.04	0.02	0.008	< 0.02	0.03	0.03
	01/30/01	0.45	< 3	1.9	214	--	16.1	< 0.05	0.007	0.04	0.15	1.4	11	0.04	1.0	0.04	0.03	0.007	< 0.02	0.03	< 0.02
		unfiltered	< 3	4.0	211	--	16.0	< 0.05	0.008	0.04	0.15	1.3	10	0.04	1.1	0.05	0.03	0.008	< 0.02	0.04	< 0.02
	05/02/01	0.45	< 3	2.0	227	12	18.8	< 0.05	< 0.2	0.04	0.11	1.6	< 1	0.10	1.0	0.04	0.02	0.005	< 0.05	0.03	< 0.05
		unfiltered	< 3	3.2	232	--	17.0	< 0.05	< 0.2	0.04	0.18	1.3	< 1	0.09	2.2	0.04	0.04	0.008	< 0.05	0.05	< 0.05
	07/08/01	0.45	< 3	2.6	199	10	16.1	< 0.05	< 0.2	0.03	0.13	1.4	< 1	0.03	0.80	0.04	0.03	< 0.005	< 0.05	0.03	< 0.05
		unfiltered	< 3	6.9	207	--	17.4	< 0.05	< 0.2	0.03	0.14	1.4	< 1	0.04	1.6	0.04	0.03	0.008	< 0.05	0.03	< 0.05
	10/02/01	0.45	< 3	< 0.1	191	6	15.6	< 0.05	< 0.005	0.03	0.13	1.2	5.9	0.04	0.93	0.03	0.03	0.007	< 0.02	0.03	< 0.02
		unfiltered	< 3	0.96	208	--	16.3	< 0.05	< 0.005	0.04	0.14	1.1	9.6	0.03	0.91	0.04	0.03	0.006	< 0.02	0.03	< 0.02
MW55	11/16/00	0.45	< 3	6.1	67.7	< 0.3	16.0	< 0.05	< 0.005	< 0.02	0.07	0.13	1.1	< 0.01	0.5	0.01	0.01	< 0.005	< 0.02	0.02	< 0.02
		unfiltered	< 3	6.8	67.7	--	16.0	< 0.05	< 0.005	< 0.02	0.07	0.12	< 1	< 0.01	0.5	0.02	0.01	0.006	< 0.02	0.01	< 0.02
	01/31/01	0.45	< 3	2.2	62.6	<0.3	14.8	< 0.05	< 0.005	< 0.02	0.06	0.15	3.0	< 0.01	0.55	0.01	0.009	0.005	< 0.02	0.01	< 0.02
		unfiltered	< 3	4.2	63.3	--	15.2	< 0.05	< 0.005	< 0.02	0.07	0.14	3.6	< 0.01	0.60	0.01	0.008	< 0.005	< 0.02	0.02	< 0.02
	05/02/01	0.45	< 3	< 2	68.9	<5	17.0	< 0.05	< 0.2	< 0.02	0.04	0.15	< 1	0.06	0.57	0.01	0.008	< 0.005	< 0.05	0.02	< 0.05
		unfiltered	< 3	21.6	69.9	--	16.7	< 0.05	< 0.2	0.12	0.09	0.16	< 1	0.06	1.5	0.01	0.009	< 0.005	< 0.05	0.01	< 0.05
	07/08/01	0.45	< 3	< 2	66.9	<5	15.3	< 0.05	< 0.2	< 0.02	0.05	0.12	< 1	< 0.02	0.50	0.01	0.009	< 0.005	< 0.05	0.01	< 0.05
		unfiltered	< 3	15.5	71.3	--	15.9	< 0.05	< 0.2	< 0.02	0.09	0.12	< 1	< 0.02	1.6	0.01	0.01	< 0.005	< 0.05	0.02	< 0.05
	10/03/01	0.45	< 3	< 0.1	62.3	<0.5	13.4	< 0.05	< 0.005	< 0.02	0.04	0.10	4.6	< 0.01	0.54	0.01	0.006	< 0.005	< 0.02	0.01	< 0.02
		unfiltered	< 3	1.5	69.7	--	14.6	< 0.05	< 0.005	< 0.02	0.05	0.10	7.9	< 0.01	0.60	0.01	0.008	< 0.005	< 0.02	0.01	< 0.02
EDS003	07/11/01	0.45	< 3	2.7	69.1	5	9.22	< 0.05	< 0.2	0.02	0.03	0.34	< 1	< 0.02	< 0.5	0.005	< 0.005	< 0.005	< 0.05	0.008	< 0.05
		unfiltered	< 3	64.6	88.0	--	9.92	< 0.05	< 0.2	0.05	0.13	0.38	< 1	< 0.02	2.0	0.01	< 0.005	< 0.005	< 0.05	0.01	< 0.05
EDS004	07/11/01	0.45	< 3	7.9	8.0	<5	5.89	< 0.05	< 0.2	< 0.02	0.05	0.04	< 1	< 0.02	< 0.5	0.007	0.006	< 0.005	< 0.05	0.008	< 0.05
		unfiltered	< 3	108	7.4	--	6.68	< 0.05	< 0.2	< 0.02	0.19	0.09	< 1	< 0.02	1.6	0.02	0.006	0.005	< 0.05	0.03	< 0.05
EDS005	07/12/01	0.45	< 3	136	11.8	<5	20.2	< 0.05	< 0.2	< 0.02	0.37	0.98	2.2	< 0.02	0.76	0.070	0.04	0.02	< 0.05	0.083	< 0.05
		unfiltered	< 3	169	15.9	--	21.0	< 0.05	0.24	< 0.02	0.41	0.98	1.9	< 0.02	2.2	0.078	0.056	0.02	< 0.05	0.089	< 0.05

Table 5. Results of water analyses of Ester Dome, Alaska--Continued

SITE	DATE	Filtration	Ho (µg/L)	K (µg/L)	La (µg/L)	Li (µg/L)	Lu (µg/L)	Mn (µg/L)	Mo (µg/L)	Nb (µg/L)	Nd (µg/L)	Ni (µg/L)	P (µg/L)	Pb (µg/L)	Pr (µg/L)	Rb (µg/L)	Sb (µg/L)	Sc (µg/L)	Se (µg/L)	Sm (µg/L)	Sr (µg/L)	Ta (µg/L)	Tb (µg/L)
EDP002	11/12/00	0.45	< 0.005	2.5	< 0.01	11.27	< 0.1	1550	0.98	< 0.02	< 0.01	7.2	0.23	0.20	< 0.01	0.47	0.36	3.0	< 5	< 0.01	530	< 0.02	< 0.005
		unfiltered	< 0.005	2.5	0.05	11.27	< 0.1	1550	1.0	< 0.02	0.04	7.0	0.23	0.51	0.01	0.50	0.42	3.0	< 5	0.01	535	< 0.02	< 0.005
	02/01/01	0.45	< 0.005	2.8	< 0.01	11.4	< 0.1	1520	2.8	0.06	< 0.01	6.6	0.1	< 0.05	< 0.01	0.60	2.39	3.2	< 5	< 0.01	534	0.06	< 0.005
		unfiltered	0.03	3.0	0.62	11.7	< 0.1	2080	3.0	0.1	0.65	44	0.70	14	0.17	1.4	4.86	4.1	< 5	0.15	570	0.05	0.03
	09/30/01	0.45	< 0.005	2.8	< 0.01	9.90	< 0.1	1260	0.96	< 0.02	< 0.01	4.9	0.20	< 0.05	< 0.01	0.45	0.22	2.5	< 5	< 0.01	474	< 0.02	< 0.005
		unfiltered	< 0.005	2.7	0.02	10.8	< 0.1	1320	1.0	0.02	0.02	5.0	0.30	1.7	< 0.01	0.46	0.31	2.6	< 5	< 0.01	512	< 0.02	< 0.005
EDP016	11/13/00	0.45	< 0.005	9.9	0.05	19.1	< 0.1	4.37	1.5	< 0.02	0.04	7.2	< 0.01	1.4	0.01	1.0	1.11	1.84	4.9	< 0.01	626	< 0.02	< 0.005
		unfiltered	< 0.005	9.3	0.11	18.4	< 0.1	4.49	1.4	< 0.02	0.10	9.3	< 0.01	15	0.02	0.98	0.76	1.84	4.8	0.02	606	< 0.02	< 0.005
	02/01/01	0.45	< 0.005	12.2	0.05	20.2	< 0.1	4.50	1.5	0.03	0.03	7.5	< 0.01	0.30	< 0.01	1.1	0.78	1.8	5.1	< 0.01	699	0.03	< 0.005
		unfiltered	< 0.005	11.4	0.06	19.9	< 0.1	4.20	1.4	0.02	0.05	7.3	< 0.01	0.58	0.01	1.0	0.79	1.8	4.9	0.01	667	0.03	< 0.005
	05/03/01	0.45	< 0.005	16.5	0.04	20.9	< 0.1	11.1	< 2	< 0.2	0.03	12	0.02	0.20	< 0.01	1.3	0.96	2.4	6.8	< 0.01	909	0.06	< 0.005
		unfiltered	< 0.005	11.4	0.09	21.2	< 0.1	9.20	< 2	< 0.2	0.07	5.8	< 0.01	0.54	0.02	1.1	0.96	1.5	5.3	< 0.01	802	0.07	< 0.005
	07/16/01	0.45	15	0.005	0.10	23.7	< 0.1	12.6	< 2	< 0.2	0.11	14	0.02	0.51	0.02	1.4	1.10	2.2	6.0	0.03	945	0.04	< 0.005
		unfiltered	14	< 0.005	0.06	22.8	< 0.1	11.1	< 2	< 0.2	0.05	13	0.01	1.1	0.01	1.3	1.16	1.8	5.5	0.01	934	< 0.02	< 0.005
	09/29/01	0.45	< 0.005	14.2	0.03	22.3	< 0.1	7.80	0.96	< 0.02	0.03	11	< 0.01	0.30	< 0.01	1.2	0.62	1.6	< 5	< 0.01	822	< 0.02	< 0.005
		unfiltered	< 0.005	14.3	0.06	23.7	< 0.1	9.30	1.0	< 0.02	0.04	11	< 0.01	1.1	0.01	1.4	0.66	1.8	4.9	< 0.01	946	< 0.02	< 0.005
EDP018	11/14/00	0.45	< 0.005	6.1	< 0.01	14.7	< 0.1	4.60	1.4	0.02	< 0.01	6.8	< 0.01	2.6	< 0.01	0.12	1.08	2.0	16	< 0.01	626	< 0.02	< 0.005
		unfiltered	< 0.005	6.1	< 0.01	15.0	< 0.1	4.40	1.4	< 0.02	0.01	6.9	< 0.01	8.2	< 0.01	0.12	1.07	1.9	16	< 0.01	636	< 0.02	< 0.005
	02/02/01	0.45	< 0.005	6.8	< 0.01	15.2	< 0.1	1.10	1.6	0.02	< 0.01	4.8	0.02	1.1	< 0.01	0.10	1.19	2.0	18	< 0.01	643	0.02	< 0.005
		unfiltered	< 0.005	6.9	< 0.01	15.4	< 0.1	1.00	1.6	0.02	0.01	5.0	0.02	1.4	< 0.01	0.10	1.19	2.0	18	< 0.01	650	0.03	< 0.005
	05/03/01	0.45	< 0.005	8.2	< 0.01	16.4	< 0.1	1.10	< 2	< 0.2	< 0.01	6.2	0.04	0.84	< 0.01	0.11	1.32	2.6	17	< 0.01	726	0.10	< 0.005
		unfiltered	< 0.005	7.4	< 0.01	14.7	< 0.1	0.90	< 2	< 0.2	0.01	4.8	0.02	1.1	< 0.01	0.09	1.28	2.2	16	< 0.01	687	< 0.02	< 0.005
	07/13/01	0.45	7.4	< 0.005	< 0.01	13.8	< 0.1	0.50	< 2	< 0.2	0.01	4.3	0.02	0.4	< 0.01	0.09	1.30	2.2	14	< 0.01	656	< 0.02	< 0.005
		unfiltered	7.2	< 0.005	0.02	13.7	< 0.1	0.50	< 2	< 0.2	0.01	3.9	0.02	0.56	< 0.01	0.11	1.35	2.0	15	< 0.01	656	0.06	< 0.005
	09/27/01	0.45	< 0.005	6.9	< 0.01	13.6	< 0.1	0.80	1.4	< 0.02	< 0.01	4.8	< 0.01	0.50	< 0.01	0.11	0.96	1.8	15	< 0.01	593	< 0.02	< 0.005
		unfiltered	< 0.005	6.7	< 0.01	14.4	< 0.1	0.80	1.4	< 0.02	< 0.01	4.6	0.01	0.61	< 0.01	0.10	1.11	2.1	16	< 0.01	622	< 0.02	< 0.005
EDP019	11/13/00	0.45	< 0.005	2.5	< 0.01	29.7	< 0.1	1560	< 0.2	< 0.02	< 0.01	7.8	< 0.01	0.1	< 0.01	0.04	0.26	2.3	< 5	< 0.01	394	< 0.02	< 0.005
		unfiltered	< 0.005	2.6	0.01	29.9	< 0.1	1550	0.20	< 0.02	< 0.01	7.7	< 0.01	0.77	< 0.01	0.05	0.25	2.3	< 5	< 0.01	394	< 0.02	< 0.005
	02/01/01	0.45	< 0.005	3.2	< 0.01	28.1	< 0.1	1780	0.37	0.05	< 0.01	7.2	< 0.01	< 0.05	< 0.01	0.05	0.29	2.6	< 5	< 0.01	402	0.04	< 0.005
		unfiltered	< 0.005	3.3	0.09	28.2	< 0.1	1820	0.29	0.04	0.09	7.6	0.08	5.2	0.02	0.10	0.29	2.8	< 5	0.02	406	0.04	< 0.005
	05/04/01	0.45	< 0.005	3.8	< 0.01	29.9	< 0.1	2320	< 2	< 0.2	< 0.01	9.7	0.02	< 0.05	< 0.01	0.05	0.30	2.9	2.3	< 0.01	506	0.10	< 0.005
		unfiltered	0.03	2.9	0.87	30.8	< 0.1	2030	< 2	0.26	0.87	9.4	0.20	11	0.22	0.74	0.63	3.1	2.0	0.18	451	0.10	0.03
	07/11/01	0.45	3.3	< 0.005	< 0.01	29.2	< 0.1	1210	< 2	< 0.2	0.01	7.9	0.05	0.07	< 0.01	0.10	0.53	2.7	2.2	< 0.01	431	0.09	< 0.005
		unfiltered	3.3	< 0.005	0.07	28.4	< 0.1	1360	< 2	< 0.2	0.06	8.0	0.06	0.50	0.02	0.17	0.63	2.5	2.3	0.02	436	0.03	< 0.005
	09/29/01	0.45	< 0.005	3.0	< 0.01	26.0	< 0.1	1060	0.26	< 0.02	< 0.01	6.9	0.02	0.08	< 0.01	0.06	0.39	2.4	< 5	< 0.01	392	< 0.02	< 0.005
		unfiltered	0.008	3.1	0.22	29.1	< 0.1	1170	0.26	0.03	0.22	6.8	0.05	0.72	0.06	0.21	0.45	2.6	< 5	0.05	416	< 0.02	0.008
EDP020	11/13/00	0.45	< 0.005	2.5	< 0.01	23.3	< 0.1	266	0.30	< 0.02	< 0.01	7.1	0.0345	0.10	< 0.01	0.31	0.34	2.3	< 5	< 0.01	402	< 0.02	< 0.005
		unfiltered	< 0.005	2.5	< 0.01	22.8	< 0.1	261	0.31	< 0.02	< 0.01	7.1	0.046	0.52	< 0.01	0.32	0.36	2.3	< 5	< 0.01	404	< 0.02	< 0.005
	02/02/01	0.45	< 0.005	2.6	< 0.01	22.4	< 0.1	262	0.38	0.02	< 0.01	6.8	0.04	0.20	< 0.01	0.35	0.38	2.0	< 5	< 0.01	418	0.03	< 0.005
		unfiltered	< 0.005	2.5	< 0.01	22.6	< 0.1	260	0.38	< 0.02	< 0.01	6.8	0.05	0.40	< 0.01	0.32	0.39	1.9	< 5	< 0.01	415	0.03	< 0.005
	05/04/01	0.45	< 0.005	2.9	< 0.01	22.6	< 0.1	291	< 2	< 0.2	< 0.01	7.2	0.04	7.7	< 0.01	0.34	0.52	2.1	< 1	< 0.01	476	0.10	< 0.005
		unfiltered	< 0.005	2.6	< 0.01	22.5	< 0.1	283	< 2	0.21	< 0.01	7.8	0.05	19	< 0.01	0.30	0.47	1.9	< 1	< 0.01	421	0.20	< 0.005
	07/13/01	0.45	2.8	< 0.005	0.01	20.7	< 0.1	248	3.8	0.27	< 0.01	8.4	0.05	3.8	< 0.01	0.26	0.75	2.2	< 1	< 0.01	415	0.20	< 0.005
		10,000 D	2.8	< 0.005	< 0.01	21.1	< 0.1	248	< 2	0.25	< 0.01	8.2	0.04	4.1	< 0.01	0.28	0.60	2.4	< 1	< 0.01	413	0.20	< 0.005
		unfiltered	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	09/29/01	0.45	< 0.005	2.5	< 0.01	19.4	< 0.1	204	0.39	< 0.02	< 0.01	6.4	0.04	3.0	< 0.01	0.28	0.32	1.8	< 5	< 0.01	363	0.02	< 0.005
		unfiltered	< 0.005	2.5	0.01	21.0	< 0.1	224	0.42	< 0.02	0.02	6.7	0.05	7.1	< 0.01	0.33	0.38	2.2	< 5	< 0.01	417	0.02	< 0.005

Table 5. Results of water analyses of Ester Dome, Alaska--Continued

SITE	DATE	Filtration	Ho (µg/L)	K (µg/L)	La (µg/L)	Li (µg/L)	Lu (µg/L)	Mn (µg/L)	Mo (µg/L)	Nb (µg/L)	Nd (µg/L)	Ni (µg/L)	P (µg/L)	Pb (µg/L)	Pr (µg/L)	Rb (µg/L)	Sb (µg/L)	Sc (µg/L)	Se (µg/L)	Sm (µg/L)	Sr (µg/L)	Ta (µg/L)	Tb (µg/L)
EDP021	11/13/00	0.45	< 0.005	1.8	< 0.01	31.3	< 0.1	205	< 0.2	0.02	< 0.01	3.0	< 0.01	0.06	< 0.01	5.9	0.23	2.5	< 5	< 0.01	74.2	0.03	< 0.005
		unfiltered	< 0.005	1.8	0.01	31.6	< 0.1	205	< 0.2	0.03	0.01	29	< 0.01	0.5	< 0.01	5.9	0.2	2.6	< 5	< 0.01	74.4	0.03	< 0.005
	02/02/01	0.45	< 0.005	1.8	< 0.01	32.7	< 0.1	144	0.25	0.04	< 0.01	1.5	< 0.01	0.10	< 0.01	6.0	0.10	3.4	< 5	< 0.01	84.9	0.04	< 0.005
		unfiltered	< 0.005	1.9	< 0.01	32.7	< 0.1	148	< 0.2	0.03	< 0.01	1.5	< 0.01	0.20	< 0.01	6.0	0.10	3.6	< 5	< 0.01	86.4	0.04	< 0.005
	05/03/01	0.45	< 0.005	1.6	< 0.01	36.4	< 0.1	128	< 2	< 0.2	< 0.01	2.0	< 0.01	0.05	< 0.01	4.8	< 0.3	2.2	< 1	< 0.01	78.6	0.10	< 0.005
		unfiltered	< 0.005	1.8	< 0.01	34.5	< 0.1	147	< 2	< 0.2	< 0.01	1.5	< 0.01	0.77	< 0.01	5.2	< 0.3	2.7	< 1	< 0.01	85.4	0.10	< 0.005
Duplicate	05/03/01	0.45	< 0.005	1.6	< 0.01	36.7	< 0.1	118	< 2	< 0.2	< 0.01	1.2	< 0.01	< 0.05	< 0.01	4.8	< 0.3	2.1	< 1	< 0.01	78.8	0.20	< 0.005
		unfiltered	< 0.005	1.8	< 0.01	34.5	< 0.1	129	< 2	< 0.2	< 0.01	1.4	< 0.01	0.30	< 0.01	5.2	< 0.3	2.6	< 1	< 0.01	82.9	0.10	< 0.005
	07/13/01	0.45	1.7	< 0.005	< 0.01	30.6	< 0.1	130	< 2	< 0.2	< 0.01	1.4	< 0.01	< 0.05	< 0.01	5.6	< 0.3	2.7	< 1	< 0.01	89.9	0.05	< 0.005
		tap	1.8	< 0.005	< 0.01	31.3	< 0.1	116	< 2	< 0.2	< 0.01	1.5	< 0.01	0.20	< 0.01	4.8	< 0.3	2.4	< 1	< 0.01	77.8	0.06	< 0.005
		unfiltered	1.7	< 0.005	0.01	30.3	< 0.1	128	< 2	< 0.2	0.01	1.3	< 0.01	0.30	< 0.01	5.0	< 0.3	2.4	< 1	< 0.01	83.7	0.04	< 0.005
	09/28/01	0.45	< 0.005	1.6	< 0.01	27.6	< 0.1	97.0	< 0.2	0.04	< 0.01	1.2	< 0.01	< 0.05	< 0.01	5.4	< 0.1	2.1	< 5	< 0.01	77.5	0.05	< 0.005
		unfiltered	< 0.005	1.7	< 0.01	30.3	< 0.1	106	< 0.2	0.03	< 0.01	1.2	< 0.01	0.40	< 0.01	5.6	0.10	2.6	< 5	< 0.01	80.9	0.04	< 0.005
EDP023	11/12/00	0.45	< 0.005	1.1	< 0.01	4.2	< 0.1	226	< 0.2	0.02	< 0.01	1.2	< 0.01	0.06	< 0.01	12	0.22	0.6	< 5	< 0.01	5.82	0.02	< 0.005
		unfiltered	< 0.005	1.1	0.02	4.5	< 0.1	221	< 0.2	0.02	0.03	1.8	< 0.01	5.5	< 0.01	12	0.32	0.8	< 5	0.01	5.88	0.02	< 0.005
	05/04/01	0.45	< 0.005	0.96	< 0.01	5.6	< 0.1	179	< 2	< 0.2	< 0.01	< 0.4	< 0.01	< 0.05	< 0.01	12	< 0.3	< 0.6	< 1	< 0.01	5.43	0.10	< 0.005
		unfiltered	< 0.005	1.2	0.01	5.6	< 0.1	222	< 2	0.22	0.02	0.4	< 0.01	1.1	< 0.01	13	< 0.3	< 0.6	< 1	< 0.01	5.95	0.20	< 0.005
	07/13/01	0.45	0.95	< 0.005	< 0.01	3.3	< 0.1	208	1.9	< 0.2	< 0.01	1.1	< 0.01	< 0.05	< 0.01	10	0.36	< 0.6	< 1	< 0.01	5.84	0.03	< 0.005
		unfiltered	0.93	< 0.005	0.04	3.4	< 0.1	224	< 2	0.20	0.05	1.2	< 0.01	1.0	< 0.01	11	0.55	< 0.6	< 1	0.02	5.96	0.09	< 0.005
	09/27/01	0.45	< 0.005	1.0	< 0.01	3.5	< 0.1	201	1.0	0.05	< 0.01	1.7	< 0.01	< 0.05	< 0.01	11	0.20	0.7	< 5	< 0.01	5.96	0.06	< 0.005
		unfiltered	< 0.005	1.0	0.01	4.1	< 0.1	217	0.33	0.05	0.02	1.7	< 0.01	0.87	< 0.01	11	0.2	0.8	< 5	< 0.01	6.45	0.05	< 0.005
EDP024	05/03/01	0.45	< 0.005	0.76	< 0.01	15.8	< 0.1	95.6	< 2	< 0.2	< 0.01	2.5	< 0.01	0.30	< 0.01	0.41	< 0.3	1.5	1.3	< 0.01	28.7	0.10	< 0.005
		unfiltered	< 0.005	0.88	0.09	16.4	< 0.1	118	< 2	< 0.2	0.08	3.4	0.06	3.4	0.02	0.39	0.35	2.8	1.8	0.02	31.0	0.10	< 0.005
EDP025	11/12/00	0.45	< 0.005	0.48	0.02	4.1	< 0.1	7.90	< 0.2	0.03	0.03	3.0	0.05	0.75	< 0.01	0.37	0.10	2.6	< 5	< 0.01	28.6	0.03	< 0.005
		unfiltered	< 0.005	0.49	0.03	3.9	< 0.1	8.50	< 0.2	0.03	0.04	1.7	0.05	1.1	0.01	0.40	0.10	2.5	< 5	< 0.01	28.9	0.03	< 0.005
	02/01/01	0.45	< 0.005	0.33	< 0.01	3.2	< 0.1	6.90	< 0.2	< 0.02	0.01	0.9	0.03	0.3	< 0.01	0.31	< 0.1	2.3	< 5	< 0.01	25.7	0.02	< 0.005
		unfiltered	< 0.005	0.35	0.02	3.3	< 0.1	7.70	< 0.2	< 0.02	0.02	0.9	0.04	1.2	< 0.01	0.35	< 0.1	2.4	< 5	< 0.01	26.4	0.02	< 0.005
	05/03/01	0.45	0.009	0.20	0.01	2.5	< 0.1	85.2	2.5	< 0.2	0.08	1.4	0.02	< 0.05	0.01	0.29	0.46	1.5	< 1	0.03	17.6	0.08	0.005
		unfiltered	0.02	0.34	0.38	3.0	< 0.1	103	< 2	< 0.2	0.40	3.0	0.06	0.99	0.10	0.71	0.33	2.0	< 1	0.07	19.1	0.03	0.02
	07/14/01	0.45	0.31	< 0.005	0.01	2.3	< 0.1	16.3	< 2	< 0.2	0.04	0.8	0.03	< 0.05	< 0.01	0.34	< 0.3	2.0	< 1	< 0.01	20.0	0.08	< 0.005
		unfiltered	0.36	0.01	0.28	2.9	< 0.1	20.8	< 2	< 0.2	0.26	1.9	0.04	0.70	0.07	0.69	< 0.3	2.3	< 1	0.04	19.8	0.08	0.009
	09/28/01	0.45	< 0.005	0.38	< 0.01	2.6	< 0.1	13.4	0.48	0.05	0.03	0.8	0.02	< 0.05	< 0.01	0.38	0.10	2.0	< 5	< 0.01	20.8	0.06	< 0.005
		unfiltered	0.006	0.40	0.08	3.1	< 0.1	16.9	0.26	0.04	0.13	1.2	0.04	0.72	0.03	0.49	0.10	2.4	< 5	0.03	22.0	0.04	0.007
EDP026	11/14/00	0.45	< 0.005	1.7	0.01	14.0	< 0.1	49.7	< 0.2	< 0.02	0.01	4.4	< 0.01	0.80	< 0.01	1.5	1.88	2.5	5.1	< 0.01	356	< 0.02	< 0.005
		unfiltered	< 0.005	1.7	0.01	13.9	< 0.1	49.1	< 0.2	< 0.02	0.01	4.5	< 0.01	0.99	< 0.01	1.5	1.89	2.5	5.2	< 0.01	356	< 0.02	< 0.005
	02/02/01	0.45	< 0.005	1.9	0.02	13.9	< 0.1	52.8	0.33	0.02	< 0.01	4.3	0.02	0.66	< 0.01	1.6	2.01	2.1	6.7	< 0.01	365	0.03	< 0.005
		unfiltered	< 0.005	1.9	0.01	14.0	< 0.1	52.8	0.20	0.02	0.02	4.3	0.02	0.92	< 0.01	1.7	2.06	2.2	6.8	< 0.01	372	0.02	< 0.005
	05/05/01	0.45	< 0.005	2.4	0.01	14.5	< 0.1	87.3	< 2	< 0.2	< 0.01	4.6	0.03	0.3	< 0.01	1.9	2.17	2.7	6.4	< 0.01	446	0.08	< 0.005
		unfiltered	< 0.005	1.9	0.02	14.1	< 0.1	79.5	< 2	< 0.2	0.02	4.0	0.02	0.77	< 0.01	1.7	1.92	2.2	5.6	< 0.01	381	0.20	< 0.005
	07/15/01	0.45	2.0	< 0.005	0.02	13.1	< 0.1	53.6	< 2	< 0.2	0.01	6.9	0.03	0.40	< 0.01	1.4	1.98	2.5	6.2	< 0.01	374	0.10	< 0.005
		unfiltered	2.0	< 0.005	0.03	13.0	< 0.1	63.0	< 2	< 0.2	0.03	6.4	0.03	0.58	< 0.01	1.4	1.93	2.3	6.2	< 0.01	375	0.06	< 0.005
	09/29/01	0.45	< 0.005	1.9	0.01	11.6	< 0.1	54.6	< 0.2	< 0.02	< 0.01	4.6	0.03	0.40	< 0.01	1.5	1.56	2.2	5.4	< 0.01	340	< 0.02	< 0.005
		unfiltered	< 0.005	1.9	0.01	13.1	< 0.1	59.5	< 0.2	< 0.02	0.01	4.2	0.03	0.59	< 0.01	1.6	1.71	2.4	5.8	< 0.01	369	< 0.02	< 0.005

Table 5. Results of water analyses of Ester Dome, Alaska--Continued

SITE	DATE	Filtration	Ho (µg/L)	K (µg/L)	La (µg/L)	Li (µg/L)	Lu (µg/L)	Mn (µg/L)	Mo (µg/L)	Nb (µg/L)	Nd (µg/L)	Ni (µg/L)	P (µg/L)	Pb (µg/L)	Pr (µg/L)	Rb (µg/L)	Sb (µg/L)	Sc (µg/L)	Se (µg/L)	Sm (µg/L)	Sr (µg/L)	Ta (µg/L)	Tb (µg/L)
EDP027	11/14/00	0.45	0.006	2.3	0.03	7.8	< 0.1	1580	0.38	0.04	0.04	4.2	< 0.01	0.20	< 0.01	3.0	0.23	3.2	< 5	< 0.01	387	0.03	< 0.005
		unfiltered	0.04	2.3	0.54	7.7	< 0.1	1610	0.42	0.04	0.57	6.4	< 0.01	80	0.13	3.0	1.76	3.6	< 5	0.12	395	0.02	0.03
	02/01/01	0.45	0.008	2.4	0.08	7.6	< 0.1	1760	0.46	0.04	0.09	3.5	< 0.01	< 0.05	0.02	2.8	0.21	3.1	< 5	0.02	391	0.04	0.006
		unfiltered	0.01	2.4	0.14	7.6	< 0.1	1770	0.44	0.04	0.16	3.7	< 0.01	0.68	0.03	2.7	0.47	3.1	< 5	0.04	394	0.04	0.008
Duplicate	02/01/01	0.45	0.01	2.4	0.09	7.8	< 0.1	1730	0.69	0.05	0.09	3.7	< 0.01	< 0.05	0.02	2.8	0.23	3.2	< 5	0.02	398	0.05	0.005
		unfiltered	0.01	2.4	0.19	7.7	< 0.1	1720	0.55	0.05	0.21	3.6	< 0.01	6.8	0.05	2.8	0.57	3.1	< 5	0.04	400	0.04	0.009
	05/04/01	0.45	0.007	2.6	0.07	9.4	< 0.1	1980	< 2	0.21	0.08	4.5	0.02	< 0.05	0.02	2.9	0.33	3.5	< 1	0.02	438	0.20	< 0.005
		unfiltered	0.01	2.4	0.13	7.4	< 0.1	1660	< 2	< 0.2	0.15	4.2	< 0.01	0.20	0.03	2.6	0.56	3.1	< 1	0.03	414	0.05	0.006
		tap	< 0.005	0.3	< 0.01	1.7	< 0.1	10.8	< 2	< 0.2	< 0.01	0.8	0.01	0.10	< 0.01	0.22	< 0.3	2.9	< 1	< 0.01	2.78	0.03	< 0.005
	07/14/01	0.45	2.3	0.01	0.12	7.3	< 0.1	1550	4.1	< 0.2	0.11	5.1	< 0.01	0.08	0.03	2.8	0.66	2.8	< 1	0.01	422	0.06	0.006
		10,000 D	2.4	0.006	0.07	7.1	< 0.1	1560	< 2	< 0.2	0.07	5.5	< 0.01	0.20	0.02	2.7	0.43	2.8	< 1	0.02	415	0.03	< 0.005
		unfiltered	2.3	0.009	0.14	7.6	< 0.1	1570	< 2	< 0.2	0.14	4.7	< 0.01	0.20	0.03	2.8	0.57	2.5	< 1	0.02	424	< 0.02	0.008
Duplicate	07/14/01	0.45	2.3	0.008	0.10	7.6	< 0.1	1510	2.4	< 0.2	0.11	4.9	< 0.01	< 0.05	0.02	2.8	0.42	2.7	< 1	0.03	420	0.05	0.005
		unfiltered	2.3	0.009	0.14	7.4	< 0.1	1600	3.8	0.24	0.15	4.2	< 0.01	0.20	0.03	2.8	0.86	2.5	< 1	0.03	423	0.10	0.006
	09/28/01	0.45	0.009	2.3	0.08	6.8	< 0.1	1320	0.42	0.02	0.08	3.4	< 0.01	< 0.05	0.02	2.6	0.20	2.6	< 5	0.02	358	0.03	0.005
		unfiltered	0.01	2.2	0.16	7.2	< 0.1	1450	0.41	0.02	0.16	3.5	< 0.01	2.5	0.04	2.9	0.42	3.2	< 5	0.04	389	0.02	0.01
Duplicate	09/28/01	0.45	0.006	2.3	0.06	6.7	< 0.1	1320	0.39	< 0.02	0.07	3.4	< 0.01	< 0.05	0.02	2.7	0.20	2.6	< 5	0.02	359	0.02	< 0.005
		unfiltered	0.01	2.3	0.16	7.7	< 0.1	1420	0.42	0.02	0.17	3.5	< 0.01	2.6	0.04	2.8	0.42	3.1	< 5	0.04	385	0.02	0.009
EDP028	11/15/00	0.45	< 0.005	1.3	< 0.01	4.7	< 0.1	12.9	0.28	0.03	< 0.01	6.0	< 0.01	1.0	< 0.01	2.2	4.42	1.7	< 5	< 0.01	310	0.04	< 0.005
		unfiltered	< 0.005	1.3	0.24	4.7	< 0.1	22.2	< 0.2	0.03	0.17	6.2	< 0.01	8.8	0.05	2.5	4.62	1.7	< 5	0.03	313	0.03	0.005
	02/01/01	0.45	< 0.005	1.3	< 0.01	4.8	< 0.1	17.2	< 0.2	< 0.02	< 0.01	4.3	< 0.01	1.7	< 0.01	2.0	3.16	1.8	< 5	< 0.01	300	< 0.02	< 0.005
		unfiltered	< 0.005	1.2	0.08	4.8	< 0.1	39.1	< 0.2	< 0.02	0.07	4.6	< 0.01	17	0.02	1.9	3.46	1.7	< 5	0.01	293	< 0.02	< 0.005
	07/16/01	0.45	1.2	< 0.005	< 0.01	4.8	< 0.1	11.6	< 2	< 0.2	< 0.01	6.6	0.01	1.2	< 0.01	1.7	3.52	1.5	< 1	< 0.01	299	0.09	< 0.005
		unfiltered	1.3	< 0.005	0.06	5.0	< 0.1	24.4	< 2	< 0.2	0.04	6.8	0.02	14	0.01	1.7	3.72	1.6	< 1	< 0.01	307	< 0.02	< 0.005
	09/28/01	0.45	< 0.005	1.4	< 0.01	4.6	< 0.1	24.3	0.26	0.02	< 0.01	4.4	< 0.01	0.57	< 0.01	1.9	2.89	1.3	< 5	< 0.01	293	0.03	< 0.005
		unfiltered	< 0.005	1.4	0.05	4.8	< 0.1	49.3	< 0.2	< 0.02	0.04	4.8	< 0.01	14	< 0.01	2.1	3.06	1.5	< 5	< 0.01	316	< 0.02	< 0.005
EDP030	11/12/00	0.45	< 0.005	1.6	< 0.01	8.2	< 0.1	4.40	< 0.2	0.02	< 0.01	3.7	< 0.01	0.4	< 0.01	0.04	< 0.1	2.4	5.6	< 0.01	492	0.02	< 0.005
		unfiltered	< 0.005	1.6	< 0.01	8	< 0.1	4.80	< 0.2	< 0.02	< 0.01	3.3	< 0.01	0.53	< 0.01	0.04	< 0.1	2.4	5.8	< 0.01	483	< 0.02	< 0.005
	05/05/01	0.45	< 0.005	3.1	< 0.01	21.0	< 0.1	705	3.1	< 0.2	< 0.01	9.8	< 0.01	0.2	< 0.01	8.1	6.03	2.6	< 1	< 0.01	373	0.10	< 0.005
		unfiltered	< 0.005	2.9	0.01	21.4	< 0.1	716	< 2	< 0.2	< 0.01	11	< 0.01	3.5	< 0.01	7.4	5.79	2.4	< 1	< 0.01	342	0.02	< 0.005
	07/13/01	0.45	1.7	< 0.005	< 0.01	7.6	< 0.1	2.30	< 2	< 0.2	< 0.01	3.8	0.02	0.2	< 0.01	0.04	< 0.3	2.6	6.0	< 0.01	499	0.03	< 0.005
		unfiltered	1.8	< 0.005	< 0.01	7.5	< 0.1	2.50	< 2	< 0.2	< 0.01	3.8	0.02	0.3	< 0.01	0.04	< 0.3	2.5	6.3	< 0.01	497	0.06	< 0.005
	09/29/01	0.45	< 0.005	1.7	< 0.01	7.1	< 0.1	2.30	0.22	< 0.02	< 0.01	3.2	< 0.01	0.2	< 0.01	0.04	< 0.1	2.3	5.6	< 0.01	443	0.02	< 0.005
		unfiltered	< 0.005	1.7	< 0.01	7.7	< 0.1	2.80	< 0.2	< 0.02	< 0.01	3.6	< 0.01	0.50	< 0.01	0.07	< 0.1	2.4	5.5	< 0.01	492	< 0.02	< 0.005
EDP032	02/01/01	0.45	< 0.005	3.0	< 0.01	20.2	< 0.1	635	0.21	0.03	< 0.01	8.5	< 0.01	0.64	< 0.01	7.7	3.77	2.6	< 5	< 0.01	325	0.03	< 0.005
		unfiltered	< 0.005	3.0	0.01	20.8	< 0.1	638	0.22	0.03	0.02	8.8	< 0.01	4.0	< 0.01	7.8	3.99	2.8	< 5	< 0.01	326	0.03	< 0.005
	05/05/01	0.45	< 0.005	1.9	< 0.01	9.2	< 0.1	2.60	< 2	< 0.2	< 0.01	4.0	0.03	0.2	< 0.01	0.06	< 0.3	3.0	6.5	< 0.01	548	0.20	< 0.005
		unfiltered	< 0.005	1.8	< 0.01	7.9	< 0.1	2.30	< 2	< 0.2	< 0.01	3.5	0.02	0.3	< 0.01	0.05	< 0.3	2.9	6.4	< 0.01	527	0.04	< 0.005
EDP033	11/14/00	0.45	0.02	1.4	0.51	12.6	< 0.1	362	< 0.2	0.03	0.36	52	< 0.01	0.06	0.09	20	< 0.1	2.4	< 5	0.06	20.2	0.04	0.02
		unfiltered	0.063	1.4	0.97	12.8	< 0.1	358	< 0.2	0.03	1.2	51	0.01	5.4	0.3	19	< 0.1	2.6	< 5	0.25	20.0	0.03	0.051
EDP034	11/13/00	0.45	< 0.005	1.8	< 0.01	13.2	< 0.1	44.0	< 0.2	0.02	< 0.01	1.6	< 0.01	0.99	< 0.01	0.32	0.1	1.7	< 5	< 0.01	173	0.03	< 0.005
		unfiltered	< 0.005	1.8	0.02	13.6	< 0.1	46.4	< 0.2	0.02	0.03	1.8	< 0.01	7.0	< 0.01	0.31	< 0.1	1.6	< 5	< 0.01	175	0.03	< 0.005
	02/01/01	0.45	< 0.005	1.6	< 0.01	11.1	< 0.1	33.6	< 0.2	0.02	< 0.01	1.3	< 0.01	0.3	< 0.01	0.24	< 0.1	1.5	< 5	< 0.01	163	0.04	< 0.005
		unfiltered	< 0.005	1.5	0.02	11.0	< 0.1	33.0	< 0.2	< 0.02	0.02	1.3	< 0.01	4.7	< 0.01	0.25	< 0.1	1.6	< 5	< 0.01	161	0.03	< 0.005
	05/03/01	0.45	< 0.005	1.6	< 0.01	12.9	< 0.1	50.1	< 2	< 0.2	< 0.01	1.5	< 0.01	0.4	< 0.01	0.36	< 0.3	1.2	< 1	< 0.01	164	0.10	< 0.005
		unfiltered	< 0.005	1.5	0.03	11.4	< 0.1	49.3	< 2	< 0.2	0.03	1.0	< 0.01	4.8	< 0.01	0.39	< 0.3	1.0	< 1	< 0.01	174	0.08	< 0.005
	07/14/01	0.45	1.6	< 0.005	0.01	10.8	< 0.1	42.9	5.6	< 0.2	< 0.01	12	0.03	0.50	< 0.01	0.32	< 0.3	1.3	1.0	< 0.01	175	0.04	< 0.005
		unfiltered	1.7	< 0.005	0.02	11.2	< 0.1	43.2	1.9	< 0.2	0.03	5.3	0.02	2.0	< 0.01	0.30	< 0.3	1.3	1.0	< 0.01	172	0.05	< 0.005
	09/28/01	0.45	< 0.005	1.6	< 0.01	11.0	< 0.1	38.2	0.20	0.03	< 0.01	1.5	< 0.01	0.4	< 0.01	0.35	< 0.1	1.1	< 5	< 0.01	156	0.04	< 0.005
		unfiltered	< 0.005	1.7	0.02	11.8	< 0.1	41.0	< 0.2	0.03	0.02	1.4	< 0.01	2.5	< 0.01	0.37	< 0.1	1.5	< 5	< 0.01	166	0.03	< 0.005

Table 5. Results of water analyses of Ester Dome, Alaska--Continued

SITE	DATE	Filtration	Ho (µg/L)	K (µg/L)	La (µg/L)	Li (µg/L)	Lu (µg/L)	Mn (µg/L)	Mo (µg/L)	Nb (µg/L)	Nd (µg/L)	Ni (µg/L)	P (µg/L)	Pb (µg/L)	Pr (µg/L)	Rb (µg/L)	Sb (µg/L)	Sc (µg/L)	Se (µg/L)	Sm (µg/L)	Sr (µg/L)	Ta (µg/L)	Tb (µg/L)
EDPAGH	07/11/01	0.45	3.5	< 0.005	< 0.01	15.7	< 0.1	589	< 2	0.20	< 0.01	5.1	0.5	< 0.05	< 0.01	4.8	< 0.3	2.5	< 1	< 0.01	904	0.10	< 0.005
		unfiltered	3.4	< 0.005	< 0.01	15.2	< 0.1	637	< 2	< 0.2	< 0.01	5.1	0.5	4.8	< 0.01	4.8	< 0.3	2.3	< 1	< 0.01	877	0.05	< 0.005
	09/28/01	0.45	< 0.005	3.1	< 0.01	13.1	< 0.1	515	0.43	< 0.02	< 0.01	4.5	0.02	< 0.05	< 0.01	4.7	< 0.1	2.2	< 5	< 0.01	737	< 0.02	< 0.005
		unfiltered	< 0.005	3.2	0.02	14.7	< 0.1	587	0.47	0.02	0.03	4.2	0.20	0.3	< 0.01	5.1	0.1	2.4	< 5	< 0.01	797	< 0.02	< 0.005
MW1B	01/31/01	0.45	< 0.005	2.9	0.02	18.1	< 0.1	140	0.49	0.04	0.02	2.8	0.08	0.08	< 0.01	0.66	4.55	2.5	< 5	< 0.01	231	0.03	< 0.005
		unfiltered	0.006	2.9	0.36	18.0	< 0.1	143	0.48	0.04	0.31	2.9	0.08	0.3	0.09	0.72	4.68	2.5	< 5	0.05	233	0.03	0.007
	05/03/01	0.45	< 0.005	5.4	0.04	17.4	< 0.1	779	< 2	< 0.2	0.03	9.1	0.07	< 0.05	< 0.01	2.5	7.96	2.6	1.2	< 0.01	413	0.10	< 0.005
		unfiltered	0.36	4.5	32.5	23.2	< 0.1	844	< 2	0.21	25.0	21	0.20	9.6	7.1	11	16.0	4.6	1.2	4.1	397	0.10	0.47
	07/09/01	0.45	3.9	< 0.005	0.07	16.6	< 0.1	396	< 2	< 0.2	0.04	4.0	0.04	< 0.05	0.01	1.5	5.36	1.8	1.0	< 0.01	268	0.03	< 0.005
		unfiltered	5.8	0.79	71.9	30.7	0.2	822	< 2	0.30	53.0	35	0.50	20.0	15	20	11.2	8.7	1.5	8.9	336	0.10	0.98
	10/02/01	0.45	< 0.005	3.5	0.04	16.4	< 0.1	291	0.50	< 0.02	0.03	3.9	0.04	< 0.05	< 0.01	1.5	4.01	1.8	< 5	< 0.01	246	0.02	< 0.005
		unfiltered	0.062	3.6	3.94	17.7	< 0.1	327	0.52	0.05	3.6	5.0	0.08	1.0	1.0	2.5	4.63	2.3	< 5	0.63	262	0.02	0.076
MW7A	11/16/00	0.45	< 0.005	1.8	0.16	12.4	< 0.1	19.8	14	0.06	0.14	2.4	0.30	0.1	0.04	0.66	10.8	3.2	< 5	0.03	18.3	0.03	< 0.005
		unfiltered	0.17	3.3	11.9	15.2	< 0.1	60.4	4.8	0.08	11.4	9.8	0.40	3.1	3.2	16	6.49	6.7	< 5	2.0	43.7	0.05	0.22
	01/30/01	0.45	< 0.005	1.5	< 0.01	11.2	< 0.1	19.0	17	< 0.02	0.01	1.7	0.20	< 0.05	< 0.01	0.61	7.68	2.7	< 5	< 0.01	16.5	0.02	< 0.005
		unfiltered	0.071	1.9	4.32	12.8	< 0.1	32.3	12	0.09	5.0	4.2	0.20	0.96	1.2	5.2	6.91	3.9	< 5	0.80	21.8	< 0.02	0.095
	05/01/01	0.45	< 0.005	1.2	< 0.01	10.8	< 0.1	15.6	11	< 0.2	0.01	1.5	0.20	< 0.05	< 0.01	0.50	11.6	1.4	2.1	< 0.01	11.4	0.10	< 0.005
		unfiltered	0.050	2.0	3.54	12.0	< 0.1	26.0	8.3	0.21	2.8	3.8	0.30	0.79	0.82	3.3	9.90	3.6	2.4	0.50	18.1	0.10	0.062
	07/08/01	0.45	1.5	< 0.005	< 0.01	10.7	< 0.1	19.7	11	< 0.2	< 0.01	1.8	0.20	< 0.05	< 0.01	0.56	10.3	2.4	2.6	< 0.01	11.1	0.06	< 0.005
		unfiltered	4.4	0.25	23.0	15.3	< 0.1	71.0	4.8	0.20	18.1	14	0.40	5.5	5.3	22	9.38	8.0	2.7	3.0	49.2	0.06	0.34
	10/01/01	0.45	< 0.005	2.5	< 0.01	11.0	< 0.1	11.9	11	0.05	0.02	1.1	0.20	< 0.05	< 0.01	1.1	8.56	2.2	< 5	< 0.01	32.7	0.06	< 0.005
		unfiltered	0.61	3.2	24.3	14.6	0.2	43.5	6.2	0.20	22.6	4.5	0.40	11	6.3	4.6	5.12	4.1	< 5	4.9	76.0	0.07	0.67
MW09A	01/30/01	0.45	0.17	3.0	6.84	29.8	< 0.1	1080	6.1	0.10	6.9	48	0.20	3.9	1.84	14	20.8	6.3	< 5	1.5	223	0.02	0.20
		unfiltered	0.12	5.0	7.48	34.7	< 0.1	1130	1.5	0.10	6.2	10	0.10	3.9	1.8	7.9	1.19	4.5	< 5	1.1	217	0.02	0.14
	05/02/01	0.45	< 0.005	4.2	0.03	35.5	< 0.1	857	3.4	0.26	0.02	5.0	0.07	< 0.05	< 0.01	1.2	0.86	2.7	2.5	< 0.01	216	0.28	< 0.005
		unfiltered	0.062	4.4	5.01	31.3	< 0.1	718	2.4	< 0.2	3.9	7.1	0.08	2.9	1.1	4.7	2.47	3.2	2.4	0.68	222	0.04	0.076
	07/10/01	0.45	4.1	< 0.005	0.02	28.8	< 0.1	528	2.3	< 0.2	0.01	4.6	0.05	< 0.05	< 0.01	1.0	0.68	2.4	2.3	< 0.01	207	0.10	< 0.005
		10,000 D	4.2	< 0.005	0.02	28.9	< 0.1	492	2.1	< 0.2	0.01	4.6	0.05	0.2	< 0.01	0.99	0.52	2.5	2.4	< 0.01	208	0.09	< 0.005
		unfiltered	4.5	0.04	2.74	29.3	< 0.1	587	< 2	< 0.2	2.3	7.5	0.10	1.8	0.62	2.8	1.68	3.2	2.3	0.41	216	0.02	0.050
	10/01/01	0.45	< 0.005	4.4	0.06	33.8	< 0.1	789	1.8	0.03	0.05	4.5	0.02	< 0.05	0.01	1.7	0.38	2.1	< 5	< 0.01	217	0.04	< 0.005
		unfiltered	0.04	4.4	2.26	36.0	< 0.1	834	1.5	0.07	2.0	5.4	0.04	1.1	0.55	3.4	0.69	3.0	< 5	0.37	232	0.03	0.04
MW11A	01/30/01	0.45	< 0.005	7.1	0.05	14.8	< 0.1	302	15	0.02	0.04	4.5	< 0.01	< 0.05	0.01	1.1	0.39	1.7	< 5	< 0.01	412	0.03	< 0.005
		unfiltered	< 0.005	7.1	0.05	14.7	< 0.1	300	15	0.02	0.04	4.0	< 0.01	< 0.05	0.01	1.1	0.41	1.7	< 5	< 0.01	416	0.03	< 0.005
	05/02/01	0.45	< 0.005	7.2	0.04	15.5	< 0.1	324	14	< 0.2	0.03	3.7	< 0.01	< 0.05	< 0.01	1.1	0.57	1.8	< 1	< 0.01	473	0.10	< 0.005
		unfiltered	< 0.005	6.9	0.06	15.1	< 0.1	327	17	0.32	0.05	4.0	< 0.01	0.1	0.01	0.99	0.90	1.7	< 1	< 0.01	431	0.29	< 0.005
	07/10/01	0.45	7.1	< 0.005	0.04	13.9	< 0.1	293	13	< 0.2	0.03	4.8	< 0.01	< 0.05	< 0.01	0.83	0.46	1.9	< 1	< 0.01	416	0.04	< 0.005
		10,000 D	7.1	< 0.005	0.04	14.0	< 0.1	294	13	< 0.2	0.04	5.4	< 0.01	0.3	< 0.01	0.88	0.48	1.9	< 1	< 0.01	420	0.04	< 0.005
		unfiltered	7.1	< 0.005	0.05	13.7	< 0.1	308	13	< 0.2	0.04	4.7	0.01	0.05	0.01	0.84	0.48	1.8	< 1	< 0.01	410	0.08	< 0.005
	07/12/01	0.45	7.0	< 0.005	0.05	15.0	< 0.1	314	13	< 0.2	0.04	5.0	< 0.01	< 0.05	0.01	0.74	0.40	1.9	< 1	< 0.01	423	0.04	< 0.005
		unfiltered	7.1	< 0.005	0.08	14.6	< 0.1	334	13	< 0.2	0.06	5.1	0.01	0.1	0.02	0.79	0.48	1.9	< 1	< 0.01	422	0.09	< 0.005
	10/02/01	0.45	< 0.005	6.7	0.04	13.1	< 0.1	238	13	< 0.02	0.03	4.0	< 0.01	< 0.05	< 0.01	0.84	0.35	1.6	< 5	< 0.01	379	< 0.02	< 0.005
		unfiltered	< 0.005	6.7	0.05	14.5	< 0.1	240	13	< 0.02	0.04	3.8	< 0.01	0.06	0.01	0.92	0.44	1.9	< 5	0.01	410	0.02	< 0.005
MW12A	01/31/01	0.45	< 0.005	1.8	0.05	22.6	< 0.1	719	9.3	< 0.02	0.03	33	0.02	< 0.05	< 0.01	3.6	23.7	2.9	< 5	0.01	182	0.02	< 0.005
		unfiltered	0.17	3.0	6.84	29.8	< 0.1	1080	6.1	0.10	6.9	48	0.20	3.9	1.8	14	20.8	6.3	< 5	1.5	223	0.02	0.20
	05/02/01	0.45	< 0.005	1.9	0.04	26.1	< 0.1	822	11	0.29	0.03	34	0.04	< 0.05	< 0.01	3.3	30.0	2.5	4.6	< 0.01	209	0.32	< 0.005
		unfiltered	0.03	1.9	1.81	22.3	< 0.1	657	9.8	< 0.2	1.5	29	0.04	0.84	0.42	4.4	31.5	2.5	3.8	0.30	209	0.06	0.04
	07/10/01	0.45	1.8	< 0.005	0.06	22.9	< 0.1	760	8.6	0.21	0.04	31	0.03	< 0.05	< 0.01	2.4	24.7	2.4	4.0	< 0.01	212	0.10	< 0.005
		10,000 D	1.9	0.005	0.12	22.9	< 0.1	764	8.4	< 0.2	0.08	33	0.03	0.58	0.02	2.5	24.7	2.4	3.9	0.02	213	0.10	< 0.005
		unfiltered	2.7	0.11	4.61	24.5	< 0.1	859	7.1	< 0.2	4.5	37	0.10	2.3	1.2	7.1	22.8	4.6	4.0	0.92	236	0.03	0.12
	10/01/01	0.45	< 0.005	1.9	0.05	30.1	< 0.1	991	6.8	0.04	0.03	24	< 0.01	< 0.05	< 0.01	3.5	17.9	2.5	< 5	< 0.01	226	0.04	< 0.005
		unfiltered	0.095	2.5	2.94	32.8	< 0.1	1100	6.4	0.10	3.2	28	0.10	2.1	0.80	6.8	19.6	3.7	< 5	0.70	247	0.04	0.10

Table 5. Results of water analyses of Ester Dome, Alaska--Continued

SITE	DATE	Filtration	Ho (μg/L)	K (μg/L)	La (μg/L)	Li (μg/L)	Lu (μg/L)	Mn (μg/L)	Mo (μg/L)	Nb (μg/L)	Nd (μg/L)	Ni (μg/L)	P (μg/L)	Pb (μg/L)	Pr (μg/L)	Rb (μg/L)	Sb (μg/L)	Sc (μg/L)	Se (μg/L)	Sm (μg/L)	Sr (μg/L)	Ta (μg/L)	Tb (μg/L)
MW13A	11/15/00	0.45	0.02	5.2	0.72	10.8	< 0.1	44.2	7.5	0.04	0.6	10	0.05	0.1	0.18	12	42.4	2.0	11	0.11	206	0.03	0.01
		unfiltered	0.65	8.5	35.6	25.6	< 0.1	721	3.9	0.10	29.9	68	1.4	6.6	8.3	38	29.4	15	11	5.6	260	0.03	0.73
	01/30/01	0.45	< 0.005	4.4	0.04	9.1	< 0.1	31.6	7.5	< 0.02	0.03	8.2	0.02	< 0.05	< 0.01	12	59.4	1.7	11	< 0.01	185	0.02	< 0.005
		unfiltered	0.18	5.2	11.3	11.8	< 0.1	194	6.2	0.08	9.0	23	0.3	2.0	2.6	19	49.1	4.5	11	1.7	202	0.02	0.21
	05/03/01	0.45	< 0.005	4.5	0.06	9.4	< 0.1	24.5	7.1	< 0.2	0.05	8.2	0.03	< 0.05	< 0.01	12	43.4	1.3	12	< 0.01	204	0.05	< 0.005
		unfiltered	0.13	4.8	9.88	12.7	< 0.1	120	6.3	< 0.2	8.1	18	0.1	1.2	2.3	16	43.7	3.2	13	1.4	214	0.02	0.16
	07/09/01	0.45	4.5	< 0.005	0.04	9.1	< 0.1	17.5	6.3	< 0.2	0.03	7.2	0.04	< 0.05	< 0.01	11	33.8	1.5	12	< 0.01	189	0.09	< 0.005
		unfiltered	5.4	0.12	8.51	13.2	< 0.1	142	4.7	< 0.2	7.0	20	0.2	1.3	1.9	16	32.1	4.4	12	1.2	200	< 0.02	0.15
	10/02/01	0.45	< 0.005	4.6	0.04	8.6	< 0.1	16.5	6.2	0.02	0.03	6.3	0.02	< 0.05	< 0.01	12	30.8	1.3	11	< 0.01	178	0.03	< 0.005
		unfiltered	0.058	5.0	3.75	10.2	< 0.1	64.0	6.0	0.10	3.2	11	0.1	0.76	0.89	15	32.2	2.6	12	0.59	192	0.03	0.082
MW33	01/31/01	0.45	< 0.005	0.91	< 0.01	10.2	< 0.1	5.3	0.76	< 0.02	< 0.01	0.2	< 0.01	0.07	< 0.01	1.1	0.23	1.7	< 5	< 0.01	8.38	0.02	< 0.005
		unfiltered	< 0.005	0.86	< 0.01	10.1	< 0.1	5.0	0.72	< 0.02	< 0.01	0.2	< 0.01	0.2	< 0.01	1.1	0.26	1.6	< 5	< 0.01	8.32	0.02	< 0.005
	05/02/01	0.45	< 0.005	3.0	< 0.01	24.6	< 0.1	131	< 2	< 0.2	< 0.01	1.5	< 0.01	0.06	< 0.01	3.3	0.59	1.4	2.0	< 0.01	207	0.04	< 0.005
		unfiltered	< 0.005	3.4	0.01	24.9	< 0.1	144	< 2	0.21	< 0.01	1.9	< 0.01	0.1	< 0.01	3.5	0.34	1.7	2.4	< 0.01	212	0.20	< 0.005
	07/09/01	0.45	0.88	< 0.005	0.01	9.1	< 0.1	4.10	< 2	< 0.2	< 0.01	< 0.4	< 0.01	< 0.05	< 0.01	0.70	< 0.3	1.8	1.7	< 0.01	6.24	0.08	< 0.005
		unfiltered	0.88	< 0.005	< 0.01	8.8	< 0.1	4.40	2.9	< 0.2	< 0.01	< 0.4	< 0.01	0.1	< 0.01	0.72	0.57	1.6	1.7	< 0.01	6.13	0.03	< 0.005
	10/03/01	0.45	< 0.005	0.57	< 0.01	3.1	< 0.1	1.40	0.72	< 0.02	< 0.01	< 0.1	< 0.01	< 0.05	< 0.01	0.45	0.20	1.5	< 5	< 0.01	2.97	< 0.02	< 0.005
		unfiltered	< 0.005	0.54	< 0.01	3.7	< 0.1	1.60	0.76	< 0.02	< 0.01	0.1	< 0.01	< 0.05	< 0.01	0.49	0.25	1.6	< 5	< 0.01	3.24	< 0.02	< 0.005
MW50	01/30/01	0.45	< 0.005	2.0	0.04	6.2	< 0.1	216	0.45	0.02	0.03	5.6	0.01	< 0.05	< 0.01	1.9	3.58	2.4	< 5	< 0.01	127	0.03	< 0.005
		unfiltered	0.03	2.2	2.6	7.2	< 0.1	281	0.39	0.1	2.0	8.5	0.04	0.66	0.60	3.6	3.94	3.0	< 5	0.36	134	0.03	0.04
	05/02/01	0.45	< 0.005	1.8	0.04	7.0	< 0.1	171	< 2	< 0.2	0.04	3.5	< 0.01	< 0.05	< 0.01	1.9	3.19	1.8	< 1	< 0.01	128	0.10	< 0.005
		unfiltered	0.050	2.1	4.9	7.2	< 0.1	201	< 2	< 0.2	3.7	6.4	0.03	0.91	1.07	4.4	7.12	2.7	< 1	0.68	142	0.07	0.071
	07/09/01	0.45	2.0	< 0.005	0.04	6.3	< 0.1	177	< 2	< 0.2	0.03	4.1	0.01	< 0.05	< 0.01	1.6	3.40	2.2	< 1	< 0.01	132	0.06	< 0.005
		unfiltered	2.3	0.04	2.7	6.8	< 0.1	226	2.2	< 0.2	2.3	7.2	0.04	0.64	0.62	3.2	5.70	2.7	< 1	0.38	138	< 0.02	0.050
	10/01/01	0.45	< 0.005	1.9	0.03	5.8	< 0.1	150	0.28	0.03	0.03	3.3	< 0.01	< 0.05	< 0.01	2.0	2.51	1.8	< 5	< 0.01	134	0.04	< 0.005
		unfiltered	0.02	2.2	1.0	6.6	< 0.1	164	0.31	0.07	0.94	4.0	0.02	0.50	0.26	2.7	2.94	2.4	< 5	0.17	137	0.03	0.02
MW51A	01/30/01	0.45	< 0.005	1.6	0.01	7.5	< 0.1	25.9	1.3	< 0.02	< 0.01	0.9	0.02	< 0.05	< 0.01	0.54	0.56	1.8	< 5	< 0.01	56.4	< 0.02	< 0.005
		unfiltered	0.005	1.6	0.42	7.6	< 0.1	40.4	1.1	0.02	0.32	1.3	0.02	0.3	0.09	0.88	0.58	1.9	< 5	0.06	55.8	< 0.02	0.006
	05/01/01	0.45	< 0.005	1.4	< 0.01	7.1	< 0.1	17.0	< 2	< 0.2	0.01	0.7	< 0.01	< 0.05	< 0.01	0.54	0.63	1.0	2.0	< 0.01	53.3	0.10	< 0.005
		unfiltered	0.01	2.0	1.0	7.8	< 0.1	51.3	< 2	< 0.2	0.77	2.2	0.03	0.50	0.22	1.4	0.79	2.0	2.3	0.12	58.7	0.10	0.02
	07/08/01	0.45	1.8	< 0.005	< 0.01	6.9	< 0.1	15.8	< 2	< 0.2	< 0.01	1.0	0.03	< 0.05	< 0.01	0.54	0.62	1.9	2.4	< 0.01	58.2	0.05	< 0.005
		unfiltered	2.0	0.02	1.2	7.8	< 0.1	77.8	< 2	< 0.2	1.0	3.1	0.05	0.59	0.28	1.9	0.78	2.2	2.4	0.19	56.2	0.05	0.03
	10/01/01	0.45	< 0.005	1.7	< 0.01	7.0	< 0.1	9.9	1.0	0.04	0.01	0.9	< 0.01	< 0.05	< 0.01	0.47	0.48	1.4	< 5	< 0.01	52.3	0.06	< 0.005
		unfiltered	< 0.005	1.8	0.18	7.8	< 0.1	19.0	0.97	0.05	0.15	1.0	0.02	0.1	0.04	0.79	0.54	1.9	< 5	0.03	57.1	0.04	< 0.005
MW52	11/15/00	0.45	< 0.005	2.0	< 0.01	8.6	< 0.1	47.9	1.3	0.04	< 0.01	1.7	0.03	< 0.05	< 0.01	0.53	0.81	2.0	< 5	< 0.01	61.8	0.04	< 0.005
		unfiltered	0.03	2.4	2.1	9.8	< 0.1	133	1.1	0.08	1.6	4.3	0.05	0.98	0.48	3.1	0.68	2.8	< 5	0.30	61.7	0.03	0.04
	01/30/01	0.45	< 0.005	1.6	< 0.01	5.9	< 0.1	0.80	0.46	< 0.02	< 0.01	2.6	0.07	0.1	< 0.01	0.36	5.15	2.6	< 5	< 0.01	221	< 0.02	< 0.005
		unfiltered	< 0.005	1.7	0.08	5.9	< 0.1	1.90	0.58	< 0.02	0.06	3.4	0.07	0.2	0.02	0.40	5.26	2.6	< 5	< 0.01	226	< 0.02	< 0.005
	05/01/01	0.45	< 0.005	1.6	< 0.01	7.7	< 0.1	0.80	< 2	0.23	< 0.01	3.0	0.09	0.1	< 0.01	0.37	5.94	2.6	1.7	< 0.01	242	0.23	< 0.005
		unfiltered	< 0.005	1.6	0.06	6.0	< 0.1	1.00	< 2	< 0.2	0.05	3.1	0.08	0.1	0.02	0.37	6.21	2.3	1.6	0.01	241	0.05	< 0.005
	07/08/01	0.45	1.6	< 0.005	< 0.01	5.8	< 0.1	0.60	< 2	< 0.2	< 0.01	3.1	0.07	0.1	< 0.01	0.32	5.66	2.3	1.5	< 0.01	226	0.07	< 0.005
		unfiltered	1.6	< 0.005	0.19	5.7	< 0.1	2.20	< 2	< 0.2	0.15	3.2	0.08	0.3	0.04	0.41	6.01	2.3	1.4	0.02	237	0.02	< 0.005
	10/01/01	0.45	< 0.005	1.6	< 0.01	5.4	< 0.1	0.70	0.45	0.02	< 0.01	2.5	0.04	0.06	< 0.01	0.39	4.88	1.8	< 5	< 0.01	213	0.04	< 0.005
		unfiltered	< 0.005	1.6	0.03	6.1	< 0.1	0.90	0.42	0.02	0.02	2.5	0.05	0.07	< 0.01	0.40	5.36	2.4	< 5	< 0.01	230	0.03	< 0.005

Table 5. Results of water analyses of Ester Dome, Alaska--Continued

SITE	DATE	Filtration	Ho (μg/L)	K (μg/L)	La (μg/L)	Li (μg/L)	Lu (μg/L)	Mn (μg/L)	Mo (μg/L)	Nb (μg/L)	Nd (μg/L)	Ni (μg/L)	P (μg/L)	Pb (μg/L)	Pr (μg/L)	Rb (μg/L)	Sb (μg/L)	Sc (μg/L)	Se (μg/L)	Sm (μg/L)	Sr (μg/L)	Ta (μg/L)	Tb (μg/L)
MW53	01/30/01	0.45	< 0.005	0.93	0.01	16.3	< 0.1	482	< 0.2	< 0.02	< 0.01	2.2	< 0.01	1.6	< 0.01	5.5	0.1	3.6	< 5	< 0.01	34.7	< 0.02	< 0.005
		unfiltered	< 0.005	1.0	0.06	16.2	< 0.1	524	0.87	0.05	0.03	2.3	0.02	120	< 0.01	5.8	0.44	4.2	< 5	< 0.01	36.2	0.04	< 0.005
	05/02/01	0.45	< 0.005	0.74	0.01	15.7	< 0.1	433	< 2	< 0.2	< 0.01	1.2	< 0.01	0.20	< 0.01	4.7	0.30	1.9	< 1	< 0.01	30.9	0.10	< 0.005
		unfiltered	< 0.005	0.98	0.03	16.6	< 0.1	540	< 2	< 0.2	0.01	1.7	0.02	0.94	< 0.01	5.0	0.36	3.1	< 1	< 0.01	33.4	0.20	< 0.005
	07/10/01	0.45	0.94	< 0.005	0.01	15.3	< 0.1	499	< 2	< 0.2	< 0.01	1.5	0.01	0.05	< 0.01	5.2	< 0.3	3.4	< 1	< 0.01	34.4	0.05	< 0.005
		unfiltered	0.96	< 0.005	0.04	15.1	< 0.1	499	< 2	< 0.2	0.02	1.6	0.02	0.55	< 0.01	4.7	0.38	2.9	< 1	< 0.01	32.7	0.03	< 0.005
	10/02/01	0.45	< 0.005	0.93	0.01	15.6	< 0.1	412	0.20	0.04	< 0.01	1.2	< 0.01	0.06	< 0.01	5.1	< 0.1	2.9	< 5	< 0.01	33.6	0.05	< 0.005
		unfiltered	< 0.005	0.96	0.03	16.3	< 0.1	444	< 0.2	0.04	0.02	1.2	< 0.01	0.74	< 0.01	5.2	0.1	3.6	< 5	< 0.01	33.8	0.03	< 0.005
MW54	11/16/00	0.45	0.01	5.4	0.14	17.3	< 0.1	458	0.67	< 0.02	0.09	11	< 0.01	0.20	0.03	1.7	4.3	2.4	< 5	0.03	642	< 0.02	0.005
		unfiltered	0.01	5.0	0.15	16.7	< 0.1	442	0.65	< 0.02	0.09	11	< 0.01	0.10	0.02	1.7	4.05	2.4	< 5	0.03	634	< 0.02	0.006
	01/30/01	0.45	0.01	6.4	0.15	16.8	< 0.1	502	0.76	0.03	0.12	11	0.02	0.09	0.02	1.5	3.93	2.9	< 5	0.02	625	0.04	0.006
		unfiltered	0.01	6.3	0.15	16.5	< 0.1	495	0.80	0.03	0.10	11	0.02	0.10	0.02	1.5	3.88	2.7	< 5	0.02	614	0.03	0.008
	05/02/01	0.45	0.01	7.3	0.11	18.1	< 0.1	632	< 2	< 0.2	0.08	15	0.03	0.06	0.02	1.8	5.03	3.4	1.8	0.02	765	0.08	0.005
		unfiltered	0.01	5.0	0.17	17.5	< 0.1	511	< 2	< 0.2	0.14	9.0	0.01	0.10	0.03	1.6	4.93	2.0	< 1	0.02	667	0.07	0.008
	07/08/01	0.45	6.14	0.01	0.12	16.8	< 0.1	491	< 2	< 0.2	0.10	12	0.02	0.06	0.02	1.4	4.36	2.8	1.6	0.02	645	0.08	0.005
		unfiltered	6.08	0.008	0.14	15.8	< 0.1	548	< 2	< 0.2	0.10	11	0.02	0.20	0.02	1.5	4.68	2.5	1.4	0.01	650	< 0.02	< 0.005
	10/02/01	0.45	0.008	5.8	0.11	15.5	< 0.1	391	0.71	< 0.02	0.08	11	< 0.01	< 0.05	0.02	1.5	3.70	2.3	< 5	0.02	573	< 0.02	0.005
		unfiltered	0.01	5.5	0.14	16.7	< 0.1	407	0.68	< 0.02	0.10	11	< 0.01	< 0.05	0.03	1.7	3.93	2.6	< 5	0.02	621	< 0.02	0.005
MW55	11/16/00	0.45	< 0.005	3.4	0.09	19.7	< 0.1	2.70	1.7	0.02	0.07	2.8	0.03	0.10	0.02	0.26	0.45	2.6	5.3	0.02	417	0.02	< 0.005
		unfiltered	< 0.005	3.3	0.09	19.9	< 0.1	2.70	1.7	0.02	0.07	2.9	0.02	0.10	0.02	0.24	0.39	2.4	5	< 0.01	418	0.02	< 0.005
	01/31/01	0.45	< 0.005	2.8	0.08	16.7	< 0.1	2.00	1.6	< 0.02	0.06	3.0	0.01	0.10	0.02	0.22	0.34	2.3	< 5	0.01	365	< 0.02	< 0.005
		unfiltered	< 0.005	2.7	0.09	16.9	< 0.1	2.00	1.6	< 0.02	0.06	3.0	0.01	0.20	0.02	0.22	0.34	2.3	< 5	0.01	363	< 0.02	< 0.005
	05/02/01	0.45	< 0.005	3.3	0.07	19.8	< 0.1	2.50	< 2	< 0.2	0.06	3.6	0.03	0.10	0.01	0.24	0.53	2.5	5.9	0.01	440	0.20	< 0.005
		unfiltered	< 0.005	3.2	0.10	16.9	< 0.1	2.50	< 2	< 0.2	0.08	3.4	0.02	0.10	0.02	0.26	0.50	2.3	5.6	0.02	426	0.03	< 0.005
	07/08/01	0.45	3.1	< 0.005	0.09	16.8	< 0.1	1.50	< 2	< 0.2	0.06	2.3	0.02	0.07	0.02	0.22	0.47	2.0	4.9	< 0.01	411	0.04	< 0.005
		unfiltered	3.3	< 0.005	0.11	16.9	< 0.1	1.90	< 2	< 0.2	0.09	2.0	0.02	0.10	0.02	0.26	0.49	1.9	5.4	0.02	424	< 0.02	< 0.005
	10/03/01	0.45	< 0.005	3.0	0.07	15.5	< 0.1	1.10	1.4	< 0.02	0.05	2.7	< 0.01	< 0.05	0.01	0.20	0.32	1.8	5.2	0.01	361	0.02	< 0.005
		unfiltered	< 0.005	3.0	0.07	16.6	< 0.1	1.30	1.5	< 0.02	0.06	2.9	0.01	0.06	0.01	0.22	0.36	2.1	5.8	0.01	393	0.02	< 0.005
EDS003	07/11/01	0.45	0.69	< 0.005	0.02	3.6	< 0.1	23.5	< 2	< 0.2	0.02	1.1	0.01	< 0.05	< 0.01	0.45	9.05	1.9	< 1	< 0.01	39.6	0.06	< 0.005
		unfiltered	0.72	< 0.005	0.06	3.4	< 0.1	25.0	< 2	< 0.2	0.06	1.2	0.02	0.08	0.02	0.43	9.37	1.9	< 1	0.02	38.3	0.06	< 0.005
EDS004	07/11/01	0.45	0.31	< 0.005	0.03	5.1	< 0.1	0.70	< 2	< 0.2	0.04	1.0	< 0.01	< 0.05	< 0.01	0.16	< 0.3	1.7	< 1	0.01	23.5	0.10	< 0.005
		unfiltered	0.32	< 0.005	0.10	5.5	< 0.1	2.70	< 2	< 0.2	0.10	1.1	< 0.01	0.10	0.02	0.21	0.30	1.7	< 1	0.02	22.7	0.09	< 0.005
EDS005	07/12/01	0.45	0.06	0.02	0.21	0.4	< 0.1	104	< 2	0.22	0.28	5.9	0.04	0.07	0.06	0.10	0.51	< 0.6	< 1	0.07	47.1	0.10	0.01
		unfiltered	0.07	0.02	0.23	0.6	< 0.1	102	< 2	0.30	0.30	6.1	0.09	0.10	0.07	0.14	0.48	< 0.6	< 1	0.07	44.1	0.10	0.01

Table 5. Results of water analyses of Ester Dome, Alaska--Continued

SITE	DATE	Filtration	Th (µg/L)	Ti (µg/L)	Tl (µg/L)	Tm (µg/L)	U (µg/L)	V (µg/L)	W (µg/L)	Y (µg/L)	Yb (µg/L)	Zn (µg/L)	Zr (µg/L)	Sum cations meq/L	Sum anions meq/L	Charge Imbalance (%)
EDP002	11/12/00	0.45	0.28	1.2	< 0.05	< 0.005	14	0.69	0.03	0.14	< 0.005	9.1	0.1	12	11	5.8
		unfiltered	0.22	4.7	< 0.05	< 0.005	14	0.92	0.03	0.18	0.009	10.9	0.2			
	02/01/01	0.45	0.65	1.0	0.07	< 0.005	14	3.0	0.10	0.09	< 0.005	5.4	0.2	11	11	4.5
		unfiltered	0.70	39.0	< 0.05	0.01	18	9.6	0.08	1.1	0.08	267	0.71			
	09/30/01	0.45	0.07	1.0	< 0.05	< 0.005	12	1.6	< 0.02	0.08	0.005	4.8	0.1	12	11	4.8
		unfiltered	0.14	1.4	< 0.05	< 0.005	12	2.3	< 0.02	0.13	0.007	8.0	0.2			
EDP016	11/13/00	0.45	< 0.005	0.35	< 0.05	< 0.005	9.6	0.12	< 0.02	0.16	< 0.005	688	< 0.05	14	14	3.6
		unfiltered	< 0.005	0.46	< 0.05	< 0.005	9.7	0.12	< 0.02	0.18	< 0.005	711	< 0.05			
	02/01/01	0.45	0.01	0.40	< 0.05	< 0.005	10	1.2	0.03	0.13	< 0.005	834	< 0.05	16	14	14
		unfiltered	0.01	0.50	< 0.05	< 0.005	10	1.2	0.03	0.13	< 0.005	802	< 0.05			
	05/03/01	0.45	< 0.2	0.60	< 0.1	< 0.005	9.6	< 0.5	< 0.5	0.13	< 0.005	2610	< 0.2	16	15	5.3
		unfiltered	0.20	0.70	< 0.1	< 0.005	9.0	< 0.5	< 0.5	0.14	< 0.005	2360	< 0.2			
	07/16/01	0.45	< 0.2	4.5	< 0.1	< 0.005	9.7	< 0.5	< 0.5	0.24	0.01	3740	0.4	19	19	2.2
		unfiltered	< 0.2	0.80	< 0.1	< 0.005	10.0	< 0.5	< 0.5	0.14	< 0.005	4060	< 0.2			
	09/29/01	0.45	< 0.005	0.40	< 0.05	< 0.005	9.7	0.70	< 0.02	0.13	< 0.005	2920	< 0.05	19	19	-0.04
		unfiltered	0.02	0.40	< 0.05	< 0.005	11	1.0	< 0.02	0.15	< 0.005	3140	< 0.05			
EDP018	11/14/00	0.45	0.06	0.50	< 0.05	< 0.005	11	0.30	0.06	0.18	0.007	1730	< 0.05	9.0	9.4	-5.0
		unfiltered	0.01	0.40	< 0.05	< 0.005	11	0.20	0.05	0.19	< 0.005	1760	< 0.05			
	02/02/01	0.45	0.02	0.40	< 0.05	< 0.005	11	2.8	0.04	0.18	0.006	395	< 0.05	9.0	9.2	-1.6
		unfiltered	0.01	0.40	< 0.05	< 0.005	11	2.8	0.04	0.18	0.009	399	< 0.05			
	05/03/01	0.45	< 0.2	0.60	< 0.1	< 0.005	8.6	< 0.5	< 0.5	0.17	0.006	277	< 0.2	9.9	9.1	8.6
		unfiltered	< 0.2	< 0.5	< 0.1	< 0.005	8.4	< 0.5	< 0.5	0.18	< 0.005	259	< 0.2			
	07/13/01	0.45	< 0.2	0.5	< 0.1	< 0.005	8.3	< 0.5	< 0.5	0.19	0.007	99.0	< 0.2	8.8	9.0	-2.8
		unfiltered	1.6	0.5	< 0.1	< 0.005	8.0	< 0.5	< 0.5	0.18	0.005	106	< 0.2			
	09/27/01	0.45	0.007	0.5	< 0.05	< 0.005	8.4	1.2	0.03	0.16	0.005	128	< 0.05	8.8	9.1	-3.3
		unfiltered	0.12	0.4	< 0.05	< 0.005	8.8	2.0	0.02	0.18	0.005	135	< 0.05			
EDP019	11/13/00	0.45	0.02	3.0	< 0.05	< 0.005	1.7	0.12	0.02	0.02	< 0.005	174	< 0.05	11	11	-0.46
		unfiltered	0.02	3.57	< 0.05	< 0.005	1.7	0.23	< 0.02	0.03	< 0.005	179	< 0.05			
	02/01/01	0.45	0.11	2.8	< 0.05	< 0.005	1.6	1.4	0.05	0.06	< 0.005	160	0.06	11	11	6.5
		unfiltered	0.20	6.4	< 0.05	< 0.005	1.7	2.4	0.05	0.20	0.01	219	0.09			
	05/04/01	0.45	< 0.2	3.6	< 0.1	< 0.005	1.4	< 0.5	< 0.5	0.06	< 0.005	148	< 0.2	11	11	-2.3
		unfiltered	0.67	55.2	< 0.1	0.01	1.6	4.8	< 0.5	0.81	0.07	368	< 0.2			
	07/11/01	0.45	< 0.2	2.9	< 0.1	< 0.005	1.3	< 0.5	< 0.5	0.08	< 0.005	54.5	< 0.2	11	11	1.7
		unfiltered	< 0.2	7.1	< 0.1	< 0.005	1.4	0.90	< 0.5	0.15	< 0.005	69.1	< 0.2			
	09/29/01	0.45	0.02	3.0	< 0.05	< 0.005	1.7	1.2	< 0.02	0.05	< 0.005	30.6	< 0.05	11	11	-1.1
		unfiltered	0.15	13.3	< 0.05	< 0.005	1.9	2.5	0.02	0.30	0.02	38.2	0.1			
EDP020	11/13/00	0.45	0.10	2.5	< 0.05	< 0.005	9.4	0.35	0.05	0.16	0.006	3350	< 0.05	10	10	2.9
		unfiltered	0.11	3.0	< 0.05	< 0.005	9.6	0.35	0.04	0.20	0.007	3420	< 0.05			
	02/02/01	0.45	0.03	2.2	< 0.05	< 0.005	11	2.8	0.03	0.16	0.008	6580	< 0.05	10	10	3.2
		unfiltered	0.04	2.2	< 0.05	< 0.005	11	2.8	0.04	0.17	0.009	6580	< 0.05			
	05/04/01	0.45	< 0.2	2.3	< 0.1	< 0.005	9.4	< 0.5	< 0.5	0.16	0.007	7050	< 0.2	11	9.9	9.3
		unfiltered	< 0.2	2.0	< 0.1	< 0.005	9.1	< 0.5	< 0.5	0.18	0.007	6880	< 0.2			
	07/13/01	0.45	< 0.2	2.2	0.2	< 0.005	6.7	< 0.5	0.54	0.15	< 0.005	3270	< 0.2	10	10.0	0.89
		10,000 D	< 0.2	2.4	< 0.1	< 0.005	6.7	< 0.5	0.50	0.14	< 0.005	3250	< 0.2			
		unfiltered	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	09/29/01	0.45	0.02	2.1	< 0.05	< 0.005	8.8	1.0	0.03	0.12	0.009	444	< 0.05	9.5	10	-5.7
		unfiltered	0.12	2.6	< 0.05	< 0.005	9.9	2.1	0.04	0.18	0.008	501	0.2			

Table 5. Results of water analyses of Ester Dome, Alaska--Continued

SITE	DATE	Filtration	Th (μg/L)	Ti (μg/L)	Tl (μg/L)	Tm (μg/L)	U (μg/L)	V (μg/L)	W (μg/L)	Y (μg/L)	Yb (μg/L)	Zn (μg/L)	Zr (μg/L)	Sum cations meq/L	Sum anions meq/L	Charge Imbalance (%)
EDP021	11/13/00	0.45	0.18	1.1	< 0.05	< 0.005	0.03	< 0.1	0.04	< 0.01	< 0.005	85.9	< 0.05	1.6	1.8	-7.1
		unfiltered	0.20	1.0	< 0.05	< 0.005	0.03	< 0.1	0.04	0.02	< 0.005	91.2	< 0.05			
	02/02/01	0.45	0.17	1.0	< 0.05	< 0.005	0.10	0.20	0.07	0.01	< 0.005	19.0	0.1	2.3	2.2	4.4
		unfiltered	0.10	0.8	< 0.05	< 0.005	0.10	0.10	0.07	0.03	< 0.005	20.8	0.07			
	05/03/01	0.45	< 0.2	0.6	< 0.1	< 0.005	< 0.1	< 0.5	< 0.5	0.01	< 0.005	33.3	< 0.2	2.3	2.2	1.6
		unfiltered	< 0.2	0.9	< 0.1	< 0.005	< 0.1	< 0.5	< 0.5	0.02	< 0.005	11.1	< 0.2			
Duplicate	05/03/01	0.45	< 0.2	< 0.5	< 0.1	< 0.005	< 0.1	< 0.5	< 0.5	< 0.01	< 0.005	16.3	< 0.2	2.3	2.3	3.8
		unfiltered	< 0.2	0.8	< 0.1	< 0.005	< 0.1	< 0.5	< 0.5	0.03	< 0.005	23.4	< 0.2			
	07/13/01	0.45	< 0.2	0.8	< 0.1	< 0.005	< 0.1	< 0.5	< 0.5	0.01	< 0.005	13.6	< 0.2	2.3	2.3	0.57
		tap	< 0.2	0.7	< 0.1	< 0.005	< 0.1	< 0.5	< 0.5	0.02	< 0.005	30.9	< 0.2			
		unfiltered	< 0.2	0.9	< 0.1	< 0.005	< 0.1	< 0.5	< 0.5	0.03	< 0.005	18.3	< 0.2			
	09/28/01	0.45	0.16	0.7	< 0.05	< 0.005	0.07	0.10	0.08	< 0.01	< 0.005	16.8	0.08	2.1	2.2	-0.88
		unfiltered	0.45	0.9	< 0.05	< 0.005	0.08	0.30	0.06	0.03	< 0.005	20.8	0.09			
EDP023	11/12/00	0.45	0.25	0.2	< 0.05	< 0.005	< 0.005	< 0.1	< 0.02	< 0.01	< 0.005	609	< 0.05	0.51	0.33	43.5
		unfiltered	0.26	0.3	< 0.05	< 0.005	< 0.005	< 0.1	< 0.02	0.09	0.01	1160	< 0.05			
	05/04/01	0.45	< 0.2	< 0.5	< 0.1	< 0.005	< 0.1	< 0.5	< 0.5	< 0.01	< 0.005	179	< 0.2	0.62	0.44	34.2
		unfiltered	0.21	< 0.5	0.3	< 0.005	< 0.1	< 0.5	< 0.5	0.03	< 0.005	361	< 0.2			
	07/13/01	0.45	< 0.2	< 0.5	0.2	< 0.005	< 0.1	< 0.5	< 0.5	< 0.01	< 0.005	403	< 0.2	0.47	0.30	46.4
		unfiltered	< 0.2	0.5	1.2	< 0.005	< 0.1	< 0.5	< 0.5	0.11	0.01	541	< 0.2			
	09/27/01	0.45	0.76	< 0.1	0.06	< 0.005	< 0.005	< 0.1	0.09	< 0.01	< 0.005	478	< 0.05	0.53	0.39	31.6
		unfiltered	0.54	0.3	< 0.05	< 0.005	< 0.005	0.50	0.05	0.07	0.009	635	< 0.05			
EDP024	05/03/01	0.45	< 0.2	< 0.5	< 0.1	< 0.005	< 0.1	< 0.5	< 0.5	0.02	< 0.005	214	< 0.2	1.8	1.8	0.47
		unfiltered	0.33	0.7	< 0.1	< 0.005	< 0.1	< 0.5	< 0.5	0.12	0.006	256	< 0.2			
EDP025	11/12/00	0.45	0.16	1.3	< 0.05	< 0.005	0.02	0.10	< 0.02	0.08	0.007	50.6	0.07	0.78	0.83	-5.8
		unfiltered	0.08	1.8	< 0.05	< 0.005	0.02	0.10	< 0.02	0.10	0.006	50.9	< 0.05			
	02/01/01	0.45	0.006	< 0.1	< 0.05	< 0.005	0.02	< 0.1	0.02	0.06	0.005	49.6	< 0.05	0.84	0.82	2.6
		unfiltered	0.01	1.0	< 0.05	< 0.005	0.03	< 0.1	< 0.02	0.08	0.006	53.6	< 0.05			
	05/03/01	0.45	< 0.2	< 0.5	0.2	< 0.005	< 0.1	< 0.5	< 0.5	0.29	0.02	43.8	< 0.2	0.60	0.50	19
		unfiltered	0.22	15.6	< 0.1	0.007	0.15	1.2	< 0.5	0.59	0.04	60.9	0.2			
	07/14/01	0.45	< 0.2	< 0.5	< 0.1	< 0.005	< 0.1	< 0.5	< 0.5	0.15	0.01	43.8	< 0.2	0.62	0.60	2.2
		unfiltered	< 0.2	12.0	0.1	< 0.005	< 0.1	0.80	< 0.5	0.35	0.02	50.6	< 0.2			
	09/28/01	0.45	0.27	0.2	< 0.05	< 0.005	0.02	< 0.1	0.07	0.12	0.006	61.1	0.1	0.68	0.71	-3.8
		unfiltered	0.28	5.7	< 0.05	< 0.005	0.08	0.60	0.04	0.29	0.02	67.4	0.2			
EDP026	11/14/00	0.45	0.02	1.6	< 0.05	< 0.005	12	0.12	0.07	0.10	0.006	10.9	< 0.05	10	9.9	2.1
		unfiltered	0.01	1.6	< 0.05	< 0.005	12	0.12	0.07	0.10	0.007	11.3	< 0.05			
	02/02/01	0.45	0.01	1.4	< 0.05	< 0.005	13	2.9	0.06	0.15	0.005	11.8	< 0.05	10	9.4	7.5
		unfiltered	0.01	1.4	< 0.05	< 0.005	13	3.0	0.06	0.17	0.008	12.2	< 0.05			
	05/05/01	0.45	< 0.2	1.9	< 0.1	< 0.005	12	< 0.5	< 0.5	0.15	0.006	9.3	< 0.2	10	9.8	4.8
		unfiltered	< 0.2	1.7	< 0.1	< 0.005	10	< 0.5	< 0.5	0.13	< 0.005	13.1	< 0.2			
	07/15/01	0.45	< 0.2	1.5	< 0.1	< 0.005	8.4	< 0.5	< 0.5	0.13	0.005	6.9	< 0.2	9.9	10	-0.99
		unfiltered	< 0.2	2.5	< 0.1	< 0.005	8.2	< 0.5	< 0.5	0.14	0.006	11.7	< 0.2			
	09/29/01	0.45	0.02	1.6	< 0.05	< 0.005	10	1.0	0.06	0.09	0.005	12.0	< 0.05	9.8	9.9	-1.4
		unfiltered	0.05	1.7	< 0.05	< 0.005	11	1.6	0.07	0.10	0.005	12.9	< 0.05			

Table 5. Results of water analyses of Ester Dome, Alaska--Continued

SITE	DATE	Filtration	Th (µg/L)	Ti (µg/L)	Tl (µg/L)	Tm (µg/L)	U (µg/L)	V (µg/L)	W (µg/L)	Y (µg/L)	Yb (µg/L)	Zn (µg/L)	Zr (µg/L)	Sum cations meq/L	Sum anions meq/L	Charge Imbalance (%)
EDP027	11/14/00	0.45	1.2	1.4	< 0.05	< 0.005	6.8	0.30	0.05	0.34	0.02	203	0.1	7.2	7.9	-9.7
		unfiltered	0.89	1.6	< 0.05	0.02	7.1	0.30	0.10	2.2	0.11	826	0.2			
	02/01/01	0.45	0.19	1.3	< 0.05	0.005	7.8	2.5	0.06	0.52	0.03	114	0.1	8.7	7.8	11
		unfiltered	0.14	1.3	< 0.05	0.005	7.8	2.3	0.05	0.66	0.03	238	0.1			
Duplicate	02/01/01	0.45	0.56	1.3	< 0.05	< 0.005	7.7	2.5	0.08	0.54	0.02	119	0.2	8.9	6.2	35
		unfiltered	0.33	1.3	< 0.05	0.008	7.7	2.2	0.06	0.84	0.04	265	0.1			
	05/04/01	0.45	0.20	1.6	< 0.1	< 0.005	6.2	< 0.5	< 0.5	0.53	0.02	80.8	< 0.2	8.5	7.8	9.3
		unfiltered	0.39	1.4	< 0.1	< 0.005	5.6	< 0.5	< 0.5	0.59	0.03	165	< 0.2			
		tap	< 0.2	1.2	< 0.1	< 0.005	2.5	< 0.5	< 0.5	0.04	< 0.005	39.8	< 0.2			
	07/14/01	0.45	0.20	1.6	0.3	< 0.005	6.3	< 0.5	< 0.5	0.57	0.03	62.8	< 0.2	8.0	8.0	-0.02
		10,000 D	< 0.2	1.6	< 0.1	< 0.005	6.2	< 0.5	< 0.5	0.50	0.02	67.5	< 0.2			
		unfiltered	0.41	1.7	< 0.1	< 0.005	6.0	< 0.5	< 0.5	0.58	0.03	135	< 0.2			
Duplicate	07/14/01	0.45	< 0.2	1.6	< 0.1	< 0.005	6.2	< 0.5	< 0.5	0.56	0.03	63.1	< 0.2			
		unfiltered	0.29	1.4	0.2	< 0.005	5.9	< 0.5	< 0.5	0.58	0.03	138	< 0.2			
	09/28/01	0.45	0.23	1.3	< 0.05	< 0.005	6.1	0.90	0.05	0.48	0.02	46.9	0.1	7.9	8.0	-0.96
		unfiltered	0.40	1.7	< 0.05	0.005	6.6	1.7	0.04	0.76	0.04	214	0.1			
Duplicate	09/28/01	0.45	0.15	1.3	< 0.05	< 0.005	6.0	0.90	0.05	0.44	0.02	46.6	0.1	7.8	7.9	-0.82
		unfiltered	0.15	1.6	< 0.05	0.006	6.5	1.9	0.05	0.77	0.03	207	0.1			
EDP028	11/15/00	0.45	0.08	0.5	0.07	< 0.005	7.7	0.40	0.08	0.04	< 0.005	1860	< 0.05	4.9	5.7	-15
		unfiltered	0.24	2.1	0.05	< 0.005	7.9	0.40	0.10	0.16	0.01	1900	< 0.05			
	02/01/01	0.45	0.09	0.6	< 0.05	< 0.005	8.5	0.50	0.03	0.06	< 0.005	2170	< 0.05	5.5	5.4	1.9
		unfiltered	0.11	0.9	< 0.05	< 0.005	8.6	0.50	0.04	0.14	0.007	2190	< 0.05			
	07/16/01	0.45	< 0.2	0.8	< 0.1	< 0.005	5.7	< 0.5	< 0.5	0.03	< 0.005	2160	< 0.2	5.4	5.4	-0.70
		unfiltered	0.62	0.9	< 0.1	< 0.005	5.3	< 0.5	< 0.5	0.08	< 0.005	2240	< 0.2			
	09/28/01	0.45	0.04	0.3	< 0.05	< 0.005	6.7	0.60	0.05	0.01	< 0.005	2050	< 0.05	5.3	5.5	-2.7
		unfiltered	0.05	0.5	< 0.05	< 0.005	7.2	0.80	0.03	0.11	< 0.005	2250	0.07			
EDP030	11/12/00	0.45	0.02	1.1	< 0.05	< 0.005	13	0.20	0.03	0.16	< 0.005	47.4	< 0.05	8.9	9.5	-7.0
		unfiltered	0.01	1.1	< 0.05	< 0.005	13	0.20	0.04	0.18	0.005	54.7	< 0.05			
	05/05/01	0.45	< 0.2	1.2	0.3	< 0.005	12	< 0.5	< 0.5	0.15	0.007	1520	< 0.2	9.4	8.8	6.7
		unfiltered	0.82	1.2	< 0.1	< 0.005	11	< 0.5	< 0.5	0.22	0.009	1560	< 0.2			
	07/13/01	0.45	< 0.2	1.0	< 0.1	< 0.005	10	< 0.5	< 0.5	0.14	< 0.005	24.4	< 0.2	9.3	9.6	-3.0
		unfiltered	< 0.2	1.3	< 0.1	< 0.005	9.5	< 0.5	< 0.5	0.14	< 0.005	28.9	< 0.2			
	09/29/01	0.45	0.006	1.1	< 0.05	< 0.005	12	1.0	0.02	0.12	< 0.005	27.4	< 0.05	9.3	9.5	-2.1
		unfiltered	0.02	1.0	< 0.05	< 0.005	13	1.3	< 0.02	0.16	< 0.005	30.7	< 0.05			
EDP032	02/01/01	0.45	0.17	1.0	< 0.05	< 0.005	9.1	2.9	0.06	0.16	< 0.005	2370	0.09	9.3	8.6	7.9
		unfiltered	0.09	0.9	< 0.05	< 0.005	9.2	2.9	0.06	0.22	0.008	2450	0.08			
	05/05/01	0.45	< 0.2	1.3	< 0.1	< 0.005	12	< 0.5	< 0.5	0.14	< 0.005	21.5	< 0.2	9.3	9.5	-1.9
		unfiltered	< 0.2	0.9	< 0.1	< 0.005	11	< 0.5	< 0.5	0.13	< 0.005	26.5	< 0.2			
EDP033	11/14/00	0.45	0.21	0.4	0.1	0.007	0.15	< 0.1	0.03	0.77	0.04	6950	< 0.05	0.71	0.70	1.7
		unfiltered	0.39	0.6	0.1	0.02	0.59	< 0.1	< 0.02	1.7	0.16	6880	< 0.05			
EDP034	11/13/00	0.45	0.06	0.5	< 0.05	< 0.005	2.1	0.10	< 0.02	0.05	< 0.005	624	< 0.05	3.0	3.3	-9.6
		unfiltered	0.06	0.7	< 0.05	< 0.005	2.1	0.20	< 0.02	0.12	0.007	665	< 0.05			
	02/01/01	0.45	0.01	0.5	< 0.05	< 0.005	2.6	0.30	0.02	0.06	0.005	388	< 0.05	3.3	3.3	-0.26
		unfiltered	0.02	0.5	< 0.05	< 0.005	2.6	0.40	0.03	0.10	0.009	395	< 0.05			
	05/03/01	0.45	< 0.2	< 0.5	< 0.1	< 0.005	1.8	< 0.5	< 0.5	0.02	< 0.005	937	< 0.2	3.4	3.3	2.5
		unfiltered	< 0.2	< 0.5	< 0.1	< 0.005	1.7	< 0.5	< 0.5	0.10	0.007	1000	< 0.2			
	07/14/01	0.45	< 0.2	1.3	< 0.1	< 0.005	1.9	< 0.5	< 0.5	0.05	< 0.005	488	< 0.2	3.4	3.4	-0.24
		unfiltered	< 0.2	1.7	< 0.1	< 0.005	1.7	< 0.5	< 0.5	0.09	0.006	502	< 0.2			
	09/28/01	0.45	0.05	0.3	< 0.05	< 0.005	2.0	0.30	0.06	0.04	< 0.005	676	< 0.05	3.3	3.4	-2.9
		unfiltered	0.17	1.4	< 0.05	< 0.005	2.1	0.90	0.03	0.09	< 0.005	752	0.1			

Table 5. Results of water analyses of Ester Dome, Alaska--Continued

SITE	DATE	Filtration	Th (µg/L)	Ti (µg/L)	Tl (µg/L)	Tm (µg/L)	U (µg/L)	V (µg/L)	W (µg/L)	Y (µg/L)	Yb (µg/L)	Zn (µg/L)	Zr (µg/L)	Sum cations meq/L	Sum anions meq/L	Charge Imbalance (%)
EDPAGH	07/11/01	0.45	< 0.2	2.7	< 0.1	< 0.005	4.3	< 0.5	< 0.5	0.06	< 0.005	26.2	< 0.2	11	11	-1.3
		unfiltered	0.28	2.4	< 0.1	< 0.005	4.3	< 0.5	< 0.5	0.05	< 0.005	37.1	< 0.2			
	09/28/01	0.45	0.13	2.2	< 0.05	< 0.005	4.5	1.2	0.10	0.08	< 0.005	106	0.1	11	11	-1.3
		unfiltered	0.31	2.4	< 0.05	< 0.005	4.9	1.9	0.2	0.17	0.008	205	0.2			
MW1B	01/31/01	0.45	0.03	1.1	< 0.05	< 0.005	2.9	2.2	0.03	0.07	0.005	4.4	< 0.05	6.9	6.4	8.6
		unfiltered	0.08	1.9	< 0.05	< 0.005	2.9	2.3	0.04	0.19	0.01	4.7	0.09			
	05/03/01	0.45	< 0.2	6.1	< 0.1	< 0.005	7.6	< 0.5	< 0.5	0.17	0.005	1.3	< 0.2	10	10	3.7
		unfiltered	22	27.3	0.1	0.10	9.6	7.7	< 0.5	8.1	0.64	36.3	< 0.2			
	07/09/01	0.45	< 0.2	2.2	< 0.1	< 0.005	4.9	< 0.5	< 0.5	0.12	0.006	0.7	< 0.2	7.7	7.7	-0.68
		unfiltered	54	31.8	0.3	0.24	8.4	15	< 0.5	19	1.3	63.7	< 0.2			
	10/02/01	0.45	0.03	1.7	< 0.05	< 0.005	4.0	0.90	0.03	0.12	< 0.005	1.0	< 0.05	7.1	7.7	-7.8
		unfiltered	1.3	11.7	< 0.05	0.02	4.9	1.7	0.05	1.5	0.11	3.0	0.2			
MW7A	11/16/00	0.45	0.16	2.1	< 0.05	< 0.005	0.01	0.30	0.04	0.10	0.008	12.5	0.1	0.83	0.89	-7.4
		unfiltered	3.5	72.7	0.2	0.057	1.0	7.8	0.06	4.3	0.32	26.7	0.07			
	01/30/01	0.45	0.009	0.1	< 0.05	< 0.005	0.007	0.20	0.04	0.03	< 0.005	5.9	< 0.05	0.93	0.92	0.81
		unfiltered	0.78	38.2	< 0.05	0.02	0.42	2.3	0.04	1.6	0.13	11.7	0.2			
	05/01/01	0.45	< 0.2	< 0.5	< 0.1	< 0.005	< 0.1	< 0.5	< 0.5	0.03	< 0.005	3.2	< 0.2	0.93	0.79	16
		unfiltered	1.1	8.2	0.1	0.02	0.35	1.5	< 0.5	1.2	0.09	10.6	< 0.2			
	07/08/01	0.45	< 0.2	< 0.5	< 0.1	< 0.005	< 0.1	< 0.5	< 0.5	0.02	< 0.005	2.9	< 0.2	0.91	0.93	-2.1
		unfiltered	8.5	66.4	0.2	0.077	1.5	10	< 0.5	6.3	0.49	26.3	< 0.2			
	10/01/01	0.45	0.14	0.2	< 0.05	< 0.005	0.03	0.20	0.08	0.02	< 0.005	4.0	0.1	1.0	1.1	-3.9
		unfiltered	12	9.3	0.09	0.19	5.7	2.3	0.06	14	1.1	22.4	0.2			
MW09A	01/30/01	0.45	3.1	128	0.09	0.054	3.5	10	0.06	4.4	0.32	26.0	0.4	5.8	5.9	-1.3
		unfiltered	2.0	55.1	0.06	0.04	4.2	4.9	0.2	3.2	0.25	13.4	0.5			
	05/02/01	0.45	< 0.2	1.3	< 0.1	< 0.005	2.4	< 0.5	< 0.5	0.11	0.02	2.6	< 0.2	5.2	5.4	-4.6
		unfiltered	2.3	20.2	< 0.1	0.03	2.5	2.4	< 0.5	1.6	0.13	11.9	< 0.2			
	07/10/01	0.45	< 0.2	1.1	< 0.1	< 0.005	2.1	< 0.5	< 0.5	0.10	0.02	2.2	< 0.2	5.3	5.4	-2.7
		10,000 D	< 0.2	1.2	< 0.1	< 0.005	2.0	< 0.5	< 0.5	0.10	0.02	14.5	< 0.2			
		unfiltered	1.3	10.7	< 0.1	0.02	2.1	1.4	< 0.5	1.2	0.10	8.3	< 0.2			
	10/01/01	0.45	0.04	1.5	< 0.05	0.005	3.4	0.80	0.10	0.18	0.03	2.7	0.09	6.1	6.4	-3.9
		unfiltered	0.66	18.5	< 0.05	0.02	3.8	2.5	0.2	1.1	0.09	5.2	0.2			
MW11A	01/30/01	0.45	0.02	2.3	< 0.05	< 0.005	11	2.0	0.10	0.13	0.005	7.8	0.06	9.7	8.8	9.8
		unfiltered	0.02	2.1	< 0.05	< 0.005	11	1.9	0.10	0.16	< 0.005	5.4	0.06			
	05/02/01	0.45	< 0.2	2.3	< 0.1	< 0.005	9.3	< 0.5	< 0.5	0.15	< 0.005	1.7	< 0.2	8.8	8.8	-0.71
		unfiltered	< 0.2	2.3	0.2	< 0.005	8.4	< 0.5	0.67	0.15	0.008	7.3	< 0.2			
	07/10/01	0.45	< 0.2	2.4	< 0.1	< 0.005	7.1	< 0.5	< 0.5	0.13	0.005	1.8	< 0.2	8.7	9.0	-3.5
		10,000 D	< 0.2	2.6	< 0.1	< 0.005	7.3	< 0.5	< 0.5	0.14	0.006	11.8	< 0.2			
		unfiltered	0.30	2.2	< 0.1	< 0.005	6.7	< 0.5	< 0.5	0.13	< 0.005	5.9	< 0.2			
	07/12/01	0.45	< 0.2	2.4	< 0.1	< 0.005	7.2	< 0.5	< 0.5	0.16	0.005	2.4	< 0.2	8.9	9.0	-2.2
		unfiltered	0.71	2.6	< 0.1	< 0.005	6.7	< 0.5	< 0.5	0.17	0.007	7.5	< 0.2			
	10/02/01	0.45	0.02	2.0	< 0.05	< 0.005	8.5	0.90	0.08	0.09	< 0.005	2.3	0.05	8.7	9.0	-4.0
		unfiltered	0.12	2.4	< 0.05	< 0.005	9.1	1.6	0.06	0.13	0.008	2.4	0.06			
MW12A	01/31/01	0.45	0.32	1.7	< 0.05	< 0.005	2.5	0.50	0.04	0.16	0.01	12.2	0.09	4.9	4.8	1.5
		unfiltered	3.1	128	0.09	0.054	3.5	10	0.06	4.4	0.32	26.0	0.4			
	05/02/01	0.45	< 0.2	1.7	< 0.1	< 0.005	2.8	< 0.5	0.53	0.16	0.009	10.1	< 0.2	5.0	4.9	2.1
		unfiltered	1.5	12.7	< 0.1	0.01	2.8	1.5	< 0.5	0.85	0.07	16.8	< 0.2			
	07/10/01	0.45	< 0.2	1.6	< 0.1	< 0.005	2.8	< 0.5	< 0.5	0.17	0.008	9.8	< 0.2	4.9	5.2	-7.1
		10,000 D	< 0.2	4.9	< 0.1	< 0.005	2.8	< 0.5	< 0.5	0.19	0.009	46.6	< 0.2			
		unfiltered	3.8	34.5	< 0.1	0.04	3.3	5.5	< 0.5	2.9	0.21	23.9	< 0.2			
	10/01/01	0.45	0.20	1.9	< 0.05	< 0.005	2.7	0.60	0.08	0.16	< 0.005	9.7	0.1	5.3	5.5	-3.7
		unfiltered	2.6	58.8	< 0.05	0.03	3.6	3.6	0.10	2.5	0.19	16.7	0.4			

Table 5. Results of water analyses of Ester Dome, Alaska--Continued

SITE	DATE	Filtration	Th (µg/L)	Ti (µg/L)	Tl (µg/L)	Tm (µg/L)	U (µg/L)	V (µg/L)	W (µg/L)	Y (µg/L)	Yb (µg/L)	Zn (µg/L)	Zr (µg/L)	Sum cations meq/L	Sum anions meq/L	Charge Imbalance (%)
MW13A	11/15/00	0.45	0.14	7.9	< 0.05	< 0.005	6.6	2.2	0.63	0.44	0.03	8.4	0.07	4.6	5.0	-9.7
		unfiltered	17	316	0.2	0.23	10	57	0.2	19	1.5	101	0.1			
	01/30/01	0.45	0.07	0.4	< 0.05	< 0.005	7.6	1.4	0.82	0.16	0.008	5.2	0.05	4.8	5.0	-2.8
		unfiltered	3.3	100	0.07	0.062	8.5	16	0.33	4.8	0.36	24.3	0.1			
	05/03/01	0.45	< 0.2	< 0.5	< 0.1	< 0.005	6.1	1.4	0.67	0.17	0.009	2.3	< 0.2	5.2	5.1	2.0
		unfiltered	2.4	68.0	< 0.1	0.04	6.5	11	< 0.5	3.0	0.26	23.3	< 0.2			
	07/09/01	0.45	< 0.2	< 0.5	< 0.1	< 0.005	4.8	1.5	0.84	0.16	0.008	1.9	< 0.2	4.9	5.0	-1.6
		unfiltered	3.1	78.0	0.1	0.04	5.0	13	< 0.5	3.4	0.26	25.3	< 0.2			
	10/02/01	0.45	0.03	0.4	< 0.05	< 0.005	5.7	1.9	0.76	0.15	0.006	2.4	< 0.05	4.7	5.0	-5.0
		unfiltered	1.2	48.4	< 0.05	0.02	6.5	7.4	0.50	1.7	0.12	8.5	0.2			
MW33	01/31/01	0.45	0.009	1.5	< 0.05	< 0.005	4.2	2.4	0.04	< 0.01	< 0.005	93.9	< 0.05	9.7	10.4	-6.9
		unfiltered	0.01	1.5	< 0.05	< 0.005	4.1	2.5	0.04	< 0.01	< 0.005	119	< 0.05			
	05/02/01	0.45	< 0.2	1.1	< 0.1	< 0.005	6.1	< 0.5	< 0.5	< 0.01	< 0.005	594	< 0.2	9.8	9.8	-0.07
		unfiltered	< 0.2	1.9	< 0.1	< 0.005	6.1	< 0.5	< 0.5	< 0.01	< 0.005	658	< 0.2			
	07/09/01	0.45	< 0.2	1.3	< 0.1	< 0.005	3.9	< 0.5	< 0.5	< 0.01	< 0.005	61.3	< 0.2	8.8	10.6	-19
		unfiltered	< 0.2	1.4	0.3	< 0.005	4.0	< 0.5	< 0.5	< 0.01	< 0.005	85.6	< 0.2			
	10/03/01	0.45	0.007	1.5	< 0.05	< 0.005	4.5	1.2	0.04	< 0.01	< 0.005	26.1	< 0.05	10	11	-6.1
		unfiltered	0.03	1.3	< 0.05	< 0.005	4.8	2.1	0.04	< 0.01	< 0.005	47.5	< 0.05			
MW50	01/30/01	0.45	0.01	0.6	< 0.05	< 0.005	3.8	0.40	0.56	0.10	0.005	5.0	0.05	3.6	3.6	-2.6
		unfiltered	0.52	26.8	< 0.05	0.009	4.4	1.6	0.82	0.86	0.06	9.3	0.1			
	05/02/01	0.45	< 0.2	< 0.5	< 0.1	< 0.005	2.6	< 0.5	0.52	0.11	0.005	2.1	< 0.2	3.8	3.8	1.6
		unfiltered	1.4	20.8	< 0.1	0.01	2.8	1.4	0.61	1.2	0.08	11.0	< 0.2			
	07/09/01	0.45	< 0.2	0.5	< 0.1	< 0.005	2.2	< 0.5	< 0.5	0.11	0.005	1.8	< 0.2	3.7	3.8	-3.3
		unfiltered	0.77	15.9	0.3	0.01	2.4	1.2	0.50	0.89	0.06	13.3	< 0.2			
	10/01/01	0.45	0.05	0.5	< 0.05	< 0.005	2.5	0.30	0.38	0.11	0.005	2.4	0.06	3.7	3.8	-1.6
		unfiltered	0.41	11.0	< 0.05	0.007	2.8	1.3	0.51	0.48	0.04	4.7	0.2			
MW51A	01/30/01	0.45	0.09	0.2	< 0.05	< 0.005	0.34	0.40	0.09	0.03	0.005	2.3	< 0.05	1.9	2.0	-4.0
		unfiltered	0.11	5.1	< 0.05	< 0.005	0.36	0.60	0.35	0.16	0.01	3.5	0.05			
	05/01/01	0.45	< 0.2	< 0.5	< 0.1	< 0.005	0.29	< 0.5	< 0.5	0.03	< 0.005	1.6	< 0.2	1.9	2.0	-5.5
		unfiltered	0.46	11.4	< 0.1	0.005	0.30	1.2	< 0.5	0.35	0.03	6.4	< 0.2			
	07/08/01	0.45	< 0.2	< 0.5	< 0.1	< 0.005	0.27	< 0.5	< 0.5	0.03	< 0.005	1.6	< 0.2	1.9	2.0	-4.5
		unfiltered	0.63	28.8	< 0.1	0.008	0.27	2.0	< 0.5	0.59	0.05	8.1	< 0.2			
	10/01/01	0.45	0.10	< 0.1	< 0.05	< 0.005	0.27	0.30	0.10	0.02	0.006	1.0	0.07	1.9	2.0	-5.4
		unfiltered	1.5	4.1	< 0.05	< 0.005	0.29	1.0	0.20	0.09	0.01	2.0	0.1			
MW52	11/15/00	0.45	0.16	0.2	< 0.05	< 0.005	0.30	0.30	0.10	0.04	< 0.005	5.4	0.05	1.7	2.0	-11
		unfiltered	0.54	38.4	< 0.05	0.01	0.39	2.7	0.22	0.79	0.05	13.2	0.08			
	01/30/01	0.45	0.02	1.9	< 0.05	< 0.005	5.9	0.70	< 0.02	0.03	< 0.005	3.0	< 0.05	5.8	6.2	-6.5
		unfiltered	0.02	2.6	< 0.05	< 0.005	6.1	0.80	< 0.02	0.05	< 0.005	3.4	< 0.05			
	05/01/01	0.45	< 0.2	1.9	< 0.1	< 0.005	5.2	< 0.5	< 0.5	0.03	< 0.005	2.0	< 0.2	6.2	6.3	-0.78
		unfiltered	0.41	1.9	< 0.1	< 0.005	4.5	< 0.5	< 0.5	0.05	< 0.005	9.0	< 0.2			
	07/08/01	0.45	< 0.2	1.7	< 0.1	< 0.005	4.3	< 0.5	< 0.5	0.03	< 0.005	2.0	< 0.2	6.1	6.3	-3.0
		unfiltered	0.20	2.8	< 0.1	< 0.005	4.0	< 0.5	< 0.5	0.06	< 0.005	6.3	< 0.2			
	10/01/01	0.45	0.02	1.5	< 0.05	< 0.005	5.0	0.60	0.04	0.03	< 0.005	2.4	< 0.05	6.0	6.3	-3.8
		unfiltered	0.09	2.1	< 0.05	< 0.005	5.5	1.2	0.04	0.04	< 0.005	2.8	0.05			

Table 5. Results of water analyses of Ester Dome, Alaska--Continued

SITE	DATE	Filtration	Th (µg/L)	Ti (µg/L)	Tl (µg/L)	Tm (µg/L)	U (µg/L)	V (µg/L)	W (µg/L)	Y (µg/L)	Yb (µg/L)	Zn (µg/L)	Zr (µg/L)	Sum cations meq/L	Sum anions meq/L	Charge Imbalance (%)
MW53	01/30/01	0.45	0.23	0.5	< 0.05	< 0.005	0.02	< 0.1	0.02	0.01	< 0.005	26.4	< 0.05	1.8	1.4	23.4
		unfiltered	0.68	0.8	0.07	< 0.005	0.05	0.20	0.06	0.05	< 0.005	34.9	0.1			
	05/02/01	0.45	< 0.2	< 0.5	< 0.1	< 0.005	< 0.1	< 0.5	< 0.5	0.01	< 0.005	30.1	< 0.2	1.7	1.5	10
		unfiltered	0.82	< 0.5	< 0.1	< 0.005	< 0.1	< 0.5	< 0.5	0.02	< 0.005	37.0	< 0.2			
	07/10/01	0.45	< 0.2	0.6	< 0.1	< 0.005	< 0.1	< 0.5	< 0.5	0.02	< 0.005	9.2	< 0.2	1.8	1.6	12
		unfiltered	0.54	0.7	< 0.1	< 0.005	< 0.1	< 0.5	< 0.5	0.04	< 0.005	12.7	< 0.2			
	10/02/01	0.45	0.63	0.4	< 0.05	< 0.005	0.02	0.20	0.05	0.01	< 0.005	8.5	0.1	1.8	1.7	7.1
		unfiltered	1.7	0.5	< 0.05	< 0.005	0.01	0.50	0.04	0.02	< 0.005	9.5	0.1			
MW54	11/16/00	0.45	0.03	3.1	< 0.05	< 0.005	9.8	0.50	0.03	0.78	0.03	6.4	0.08	14	16	-10
		unfiltered	0.03	3.4	< 0.05	< 0.005	9.8	0.40	0.04	0.77	0.02	4.0	0.07			
	01/30/01	0.45	0.03	3.4	< 0.05	0.005	9.9	3.1	0.04	0.73	0.03	3.1	0.07	17	15	10
		unfiltered	0.02	3.5	< 0.05	0.006	9.8	3.0	0.05	0.72	0.02	3.3	0.07			
	05/02/01	0.45	< 0.2	4.5	< 0.1	< 0.005	9.0	< 0.5	< 0.5	0.74	0.02	2.1	< 0.2	16	15	6.5
		unfiltered	0.89	2.6	< 0.1	< 0.005	8.9	< 0.5	< 0.5	0.70	0.03	6.5	< 0.2			
	07/08/01	0.45	< 0.2	3.1	< 0.1	< 0.005	7.3	< 0.5	< 0.5	0.67	0.02	1.9	< 0.2	15	15	1.4
		unfiltered	< 0.2	3.0	< 0.1	< 0.005	7.7	< 0.5	< 0.5	0.70	0.02	7.5	< 0.2			
	10/02/01	0.45	0.01	3.1	< 0.05	< 0.005	8.8	1.7	< 0.02	0.64	0.02	2.0	0.06	15	15	-0.60
		unfiltered	0.04	2.8	< 0.05	< 0.005	9.7	2.8	< 0.02	0.72	0.02	2.6	0.06			
MW55	11/16/00	0.45	0.40	1.1	< 0.05	< 0.005	5.1	0.50	0.03	0.22	0.007	3.0	< 0.05	7.1	8.0	-12
		unfiltered	0.11	0.7	< 0.05	< 0.005	5.2	0.40	< 0.02	0.23	0.006	3.6	< 0.05			
	01/31/01	0.45	< 0.005	0.5	< 0.05	< 0.005	5.7	1.0	< 0.02	0.19	0.009	3.0	< 0.05	7.6	8.0	-4.8
		unfiltered	< 0.005	0.6	< 0.05	< 0.005	5.6	1.0	< 0.02	0.19	0.007	2.3	< 0.05			
	05/02/01	0.45	< 0.2	< 0.5	< 0.1	< 0.005	4.9	< 0.5	< 0.5	0.18	0.007	0.6	< 0.2	8.0	8.4	-4.5
		unfiltered	< 0.2	0.8	< 0.1	< 0.005	4.4	< 0.5	< 0.5	0.18	0.009	5.9	< 0.2			
	07/08/01	0.45	< 0.2	< 0.5	< 0.1	< 0.005	4.9	< 0.5	< 0.5	0.16	0.006	0.8	< 0.2	7.8	8.0	-2.3
		unfiltered	< 0.2	0.9	< 0.1	< 0.005	4.6	< 0.5	< 0.5	0.17	0.005	6.3	< 0.2			
	10/03/01	0.45	0.01	0.3	< 0.05	< 0.005	4.8	1.5	0.03	0.11	0.007	0.8	< 0.05	8.0	8.0	0.60
		unfiltered	0.04	0.5	< 0.05	< 0.005	5.3	2.4	0.03	0.15	0.006	0.8	0.05			
EDS003	07/11/01	0.45	< 0.2	< 0.5	< 0.1	< 0.005	< 0.1	< 0.5	< 0.5	0.02	< 0.005	2.7	< 0.2	0.78	0.79	-1.2
		unfiltered	< 0.2	1.9	< 0.1	< 0.005	< 0.1	< 0.5	< 0.5	0.05	0.007	5.5	< 0.2			
EDS004	07/11/01	0.45	< 0.2	< 0.5	< 0.1	< 0.005	< 0.1	< 0.5	< 0.5	0.04	0.006	1.6	< 0.2	0.50	0.47	7.2
		unfiltered	< 0.2	3.7	0.2	< 0.005	< 0.1	< 0.5	< 0.5	0.08	0.005	5.4	< 0.2			
EDS005	07/12/01	0.45	0.23	2.0	< 0.1	0.006	< 0.1	0.70	< 0.5	0.51	0.05	1.4	1.0	1.4	0.82	52
		unfiltered	1.6	3.0	< 0.1	0.008	< 0.1	0.80	< 0.5	0.54	0.05	6.9	0.70			

Table 6. Water-quality data for field blanks, Ester Dome, Alaska
[mg/L, milligram per liter; μg/L, microgram per liter; <, less than]

DATE	TIME	ALKALINITY as mg/L HCO_3	Br mg/L	Ca mg/L	Cl mg/L	F mg/L	Fe(T) mg/L	K mg/L	Mg mg/L	Na mg/L
2/2/2001	945	<1	<0.1	<0.1	<0.4	<0.1	<0.002	<0.1	<0.1	<0.1
5/3/2001	1545	0.19	<0.1	0.11	<0.4	<0.2	<0.002	<0.1	<0.1	<0.1
7/13/2001	1245	<1	<0.1	<0.1	<0.4	<0.2	<0.002	<0.1	<0.1	<0.1
9/28/2001	1135	<1	<0.2	<0.1	0.6	<0.1	<0.002	<0.1	<0.1	<0.1

DATE	NO_3 mg/L	SiO_2 mg/L	SO_4 mg/L	Ag μg/L	Al μg/L	As μg/L	Ba μg/L	Be μg/L	Bi μg/L	Cd μg/L
2/2/2001	<0.1	<0.2	<0.1	< 3	0.82	< 3	< 0.1	< 0.05	< 0.005	< 0.02
5/3/2001	<0.3	<0.2	<0.5	< 3	3.5	< 3	< 0.2	< 0.05	< 0.2	< 0.02
7/13/2001	<0.3	<0.2	<0.5	< 3	< 2	< 3	< 0.2	< 0.05	< 0.2	< 0.02
9/28/2001	<0.5	6.1	<0.8	< 3	< 0.1	< 3	< 0.1	< 0.05	< 0.005	< 0.02

DATE	Ce μg/L	Co μg/L	Cr μg/L	Cs μg/L	Cu μg/L	Dy μg/L	Er μg/L	Eu μg/L	Ga μg/L	Gd μg/L
2/2/2001	< 0.01	< 0.02	< 1	0.01	< 0.5	< 0.005	< 0.005	< 0.005	< 0.02	< 0.005
5/3/2001	< 0.01	< 0.02	< 1	0.03	< 0.5	< 0.005	< 0.005	< 0.005	< 0.05	< 0.005
7/13/2001	< 0.01	< 0.02	< 1	< 0.02	< 0.5	< 0.005	< 0.005	< 0.005	< 0.05	< 0.005
9/28/2001	< 0.01	< 0.02	< 1	< 0.01	< 0.5	< 0.005	< 0.005	< 0.005	< 0.02	< 0.005

DATE	Ge μg/L	Ho μg/L	K μg/L	La μg/L	Li μg/L	Lu μg/L	Mn μg/L	Mo μg/L	Nb μg/L	Nd μg/L
2/2/2001	< 0.02	< 0.005	< 0.03	< 0.01	0.2	< 0.1	0.02	< 0.2	< 0.02	< 0.01
5/3/2001	< 0.05	< 0.005	< 0.03	< 0.01	< 0.1	< 0.1	< 0.2	< 2	< 0.2	< 0.01
7/13/2001	< 0.05	< 0.005	< 0.03	< 0.01	< 0.1	< 0.1	< 0.2	< 2	< 0.2	< 0.01
9/28/2001	< 0.02	< 0.005	< 0.03	< 0.01	< 0.1	< 0.1	< 0.01	< 0.2	< 0.02	< 0.01

DATE	Ni μg/L	P μg/L	Pb μg/L	Pr μg/L	Rb μg/L	Sb μg/L	Sc μg/L	Se μg/L	Sm μg/L	Sr μg/L
2/2/2001	< 0.1	< 0.01	< 0.05	< 0.01	< 0.01	< 0.1	< 0.1	< 5	< 0.01	< 0.5
5/3/2001	< 0.4	0.02	< 0.05	< 0.01	< 0.01	< 0.3	< 0.6	< 1	< 0.01	< 0.5
7/13/2001	< 0.4	< 0.01	< 0.05	< 0.01	< 0.01	< 0.3	< 0.6	< 1	< 0.01	< 0.5
9/28/2001	< 0.1	< 0.01	< 0.05	< 0.01	< 0.01	< 0.1	< 0.1	< 5	< 0.01	< 0.5

DATE	Ta μg/L	Tb μg/L	Th μg/L	Ti μg/L	Tl μg/L	Tm μg/L	U μg/L	V μg/L	W μg/L	Y μg/L
2/2/2001	0.02	< 0.005	< 0.005	< 0.1	< 0.05	< 0.005	< 0.005	< 0.1	0.03	< 0.01
5/3/2001	0.03	< 0.005	< 0.2	< 0.5	< 0.1	< 0.005	< 0.1	< 0.5	< 0.5	< 0.01
7/13/2001	0.05	< 0.005	< 0.2	< 0.5	< 0.1	< 0.005	< 0.1	< 0.5	< 0.5	< 0.01
9/28/2001	< 0.02	< 0.005	< 0.005	< 0.1	< 0.05	< 0.005	< 0.005	< 0.1	< 0.02	< 0.01

DATE	Yb μg/L	Zn μg/L	Zr μg/L
2/2/2001	< 0.005	0.7	< 0.05
5/3/2001	< 0.005	< 0.5	< 0.2
7/13/2001	< 0.005	1.8	< 0.2
9/28/2001	< 0.005	< 0.5	< 0.05

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