

*Spills
Re-OUT*

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6/28/91

GEOTECHNICAL REPORT
for
GROUNDWATER MONITORING NETWORK

Fort Richardson, Alaska

1. INTRODUCTION AND PURPOSE

Fuels, petroleum products and many other substances having hazardous properties that are included under the provisions of the Resource Conservation and Recovery Act (RCRA) are routinely used in work activities associated with the missions and operations of Department of Defense units assigned to Fort Richardson. Spills and disposal of such substances on post commonly have occurred. Once released, migration of the substances typically results if not controlled. This migration not only creates a larger area of contamination but can adversely affect groundwater quality. Even small losses of these substances are important due to the toxicity and carcinogenic properties of some compounds and because the damage that results can be cumulative. Therefore, the establishment of a groundwater monitoring network is considered necessary to detect contaminants and the potential migration of those contaminants both on and off post. Furthermore, an established and utilized network can provide data promptly which can quicken the response to a spill or the restoration of a waste disposal site.

The purpose of this study is to provide information pertinent to the development of a better understanding of the groundwater regime of Fort Richardson so that an adequate groundwater monitoring network can be established. The purpose is also to develop a data base of groundwater quality and hydrogeological information.

2. SCOPE OF WORK

The assessment consists primarily of inventorying existing wells and utilizing these wells to map the groundwater and to obtain a data base of groundwater quality parameters. The study area is limited to the vicinity of the central complex of Fort Richardson. Inventorying the wells was accomplished by researching pertinent literature, researching and collecting available data for existing wells, performing site reconnaissance to collect additional data and surveying selected wells. Developing a data base of groundwater quality parameters was accomplished by collecting water samples from selected wells and performing applicable chemical analyses. Wells used in the study include previously constructed monitoring wells and supply wells. This report presents a general description of the area geology and hydrogeologic conditions, the manner in which the inventory was conducted, the physical data collected for each well in tabular format and the results

Area Hydrogeology: Little is known of the hydrogeology of Fort Richardson due to the limited data available and to the random nature and composition of the glacial deposits. More is known of the somewhat more orderly system that underlies most of the Anchorage bowl to the south and southwest. This system consists of an unconfined aquifer, a confining layer (Bootlegger Cove Clay) and a confined aquifer. Well logs indicate that this Bootlegger Cove Clay confining layer encroaches upon the southwestern and southern reaches of the study area, but "pinches out" in the vicinity of Ship Creek. It is thought that along the perimeter of this system that a confining layer consisting predominantly of till and till-like deposits is present, but the extent is not known. Additionally, perched groundwater is common on Fort Richardson due to the random nature of the glacial deposits which results in discontinuous units of permeable and impermeable materials.

Water is known to recharge the groundwater system of Fort Richardson in several ways. Groundwater seeps from bedrock fractures into the sediments along the Chugach Mountains. Snowmelt and rainfall infiltrate to the groundwater. Streams feed groundwater in areas where the elevation of the streambed is above the groundwater table. Discharge is either by groundwater flow into Knik Arm or by groundwater flow into streams that consequently discharge into Knik Arm. Wells indicate that the depth of the groundwater table varies from near the surface in the vicinity of Ship Creek to in excess of 200 feet within the study area. Groundwater is typically thought to flow in a westerly direction similar to Ship Creek toward Knik Arm.

Groundwater Contour Maps: The construction of a groundwater contour map for the entire study area was not possible due to the limited number of wells, the nature of the glacial deposits and the distance between wells. However, contour maps were constructed in two regions within the study area where sufficient data were available. These areas are designated the Ship Creek area and the landfill area. The Ship Creek area is located just south of Ship Creek and approximately 3/4 mile west of the Alaska Department of Fish and Game (ADFG) fish hatchery. The landfill area is located at the Fort Richardson landfill and includes the surrounding area nearby. Water levels were measured with an electronic water level indicator (manufactured by Soiltest).

Groundwater measurements for the contour map of the Ship Creek area were taken 12 September 1989 and those for the landfill area were taken 5 June 1991. The maps presented are computer-generated, employing the triangulation method, and modified manually. The map for the Ship Creek area has a contour interval of 5 feet and the one for the landfill area has a contour interval of 1 foot.

Discussion of Findings: The well data presented in this report should be considered representative only for the time collected and only for each well and its immediate vicinity. This information should be used only to gain a general understanding of groundwater conditions in the study area. Groundwater and subsurface conditions for any area will require site-specific information due to the random nature of the glacial stratigraphy of Fort Richardson.

5. GROUNDWATER QUALITY - SAMPLING AND RESULTS

Field Effort: Water samples were collected from selected wells for chemical analysis by a chemist from the Corps (CENPA-EN-G-M) during two field trips. The first was in May and June 1990 and the second was in September 1990. Sampling plans are on file at CENPA-EN-G-M (refr. 8a.)

Sample Locations: The following list shows wells that were sampled during the field trips.

WELL DESIGNATION

ADFG C
ADFG E
ADFG K
A-6
A-1
TW-1
Sump A
ADFG 9
Well-1
Well-2
Well-3
Otter
W-B
AK-2127
FR-1
FR-2
FR-3

Chemical Analysis and Results: The samples procured from the selected wells were analyzed for specific polluting elements and compounds. The data from the chemical analyses are reported in Tables I through VII. Condensed tables showing only the wells with possible contamination are included after the complete tables. The analytical methods employed are presented in the tables and are published in Environmental Protection Agency (EPA) Methods Manuals. Caveats are given in the discussion of each test procedure if necessary. The data and associated quality control and quality assurance materials have been evaluated by chemists at North Pacific Division Laboratory (CENPD-PE-GT-L), and accepted. The Quality Assurance Report and the Laboratory Reports are filed at CENPA-EN-G-M (refr. 8k). Chemical results of special interest are noted below:

a. The negative values reported for the Langlier Index in Table I indicate that scale is not likely to deposit inside area piping systems. Slow corrosion is likely.

The level of total organic carbon was elevated in some samples, and certain well samples ranged in color from whitish to yellow to brown.

b. Fuel Identification and Quantification (Modified EPA Method 8015). The data are given in Table II. Although none of the specified compounds in modified Method 8015 were detected, chromatograms of samples from wells FR-1, FR-2, and FR-3 taken in September 1990 indicate the presence of heavy hydrocarbons. Precise quantification is impossible because the observed

detected amount of lead was 47 ug/L, found in the September sample from well ADFG 9.

d. Semivolatile Organic Compounds (EPA Method 8270). There are no contaminants acknowledged from site history. The presence of semivolatile compounds was not suspected from the record, but samples were tested as a baseline measurement. The data are given in Table IV.

Di-n-octylphthalate was detected at very low levels in samples from wells FR-1, FR-2 and FR-3 in September 1990. Since that compound was also detected in a number of laboratory blanks, it is concluded that di-n-octylphthalate is a laboratory contaminant.

Tentatively identified compounds detected in several samples included unknown alkanes, decanoic acid and its ester, and substituted phenols. No definitive identification of these compounds was made because of the low levels detected. No individual compound was found at a concentration in excess of 1 ppm.

e. Volatile Organics (EPA Method 8240). The data are shown in Table V. The gas chromatography separation method with mass spectrometric determination was used.

Although methylene chloride, acetone, and chloroform were detected in some samples, the levels were low and these compounds were also found in blank samples. These are common laboratory contaminants, and the levels detected in well samples do not exceed ten times the level found in any blank. Consequently, their presence may be discounted.

Samples taken in September from five wells contained small amounts of a compound tentatively identified as 1,1,2-trichloro-1,2,2-trifluoroethane. The amount of this contaminant detected ranged from 0.047 to 0.081 ppm. The five affected wells were ADFG C, ADFG E, Sump A, ADFG 9, and Well-2.

The May-June 1990 sample from Sump A contained 0.005 ppm toluene. This amount of toluene is not significant. It is at the analyte detection limit and no toluene was found in the September 1990 sample. Toluene was detected in samples from both Well-2 and Well-3 in September 1990. Three different samples from the September 1990 sampling of Well-2 were tested; only one was determined to contain toluene (23 ug/L). The other two Well-2 samples exhibited a level of toluene lower than the detection limit of 5 ug/L. The September sample from Well-3 contained toluene at 73 ug/L. The MCL for toluene in water is 5 ug/L. The May-June 1990 samples collected from Well-2 and Well-3 showed no toluene present above detection limits.

The September sample from Well-3 contained m-xylene (13 ug/L) and o- & p-xylene (23 ug/L). No xylenes were detected in the May-June sample from Well-3.

f. Organophosphorous Pesticides, Chlorinated Pesticides and polychlorinated biphenyls (PCBs) (EPA SW846 Methods 8140 and 8080). The data are shown in Tables VI and VII. No established maximum contaminant level is exceeded for any of these analytes. No pesticides were detected. No PCBs were detected.

e. Chemical Data Report, North Pacific Materials Laboratory, Corps of Engineers (Fort Richardson Groundwater Studies), Columbia Analytical Services, Kelso, Washington, dated 11 July 1990 and (Fort Richardson Groundwater Studies), Columbia Analytical Services, Kelso, Washington, dated 27 September 1990).

f. Chemical Data Report, Portland Corp., Fort Richardson Groundwater (2728.01 to 2728.03), Southwest Laboratory of Oklahoma, dated 12 July 1990.

g. Memorandum, CENPD-PE-GT-L, dated 21 August 1990, Subject: W.O. 90-HM-157f, Results of Chemical Analyses.

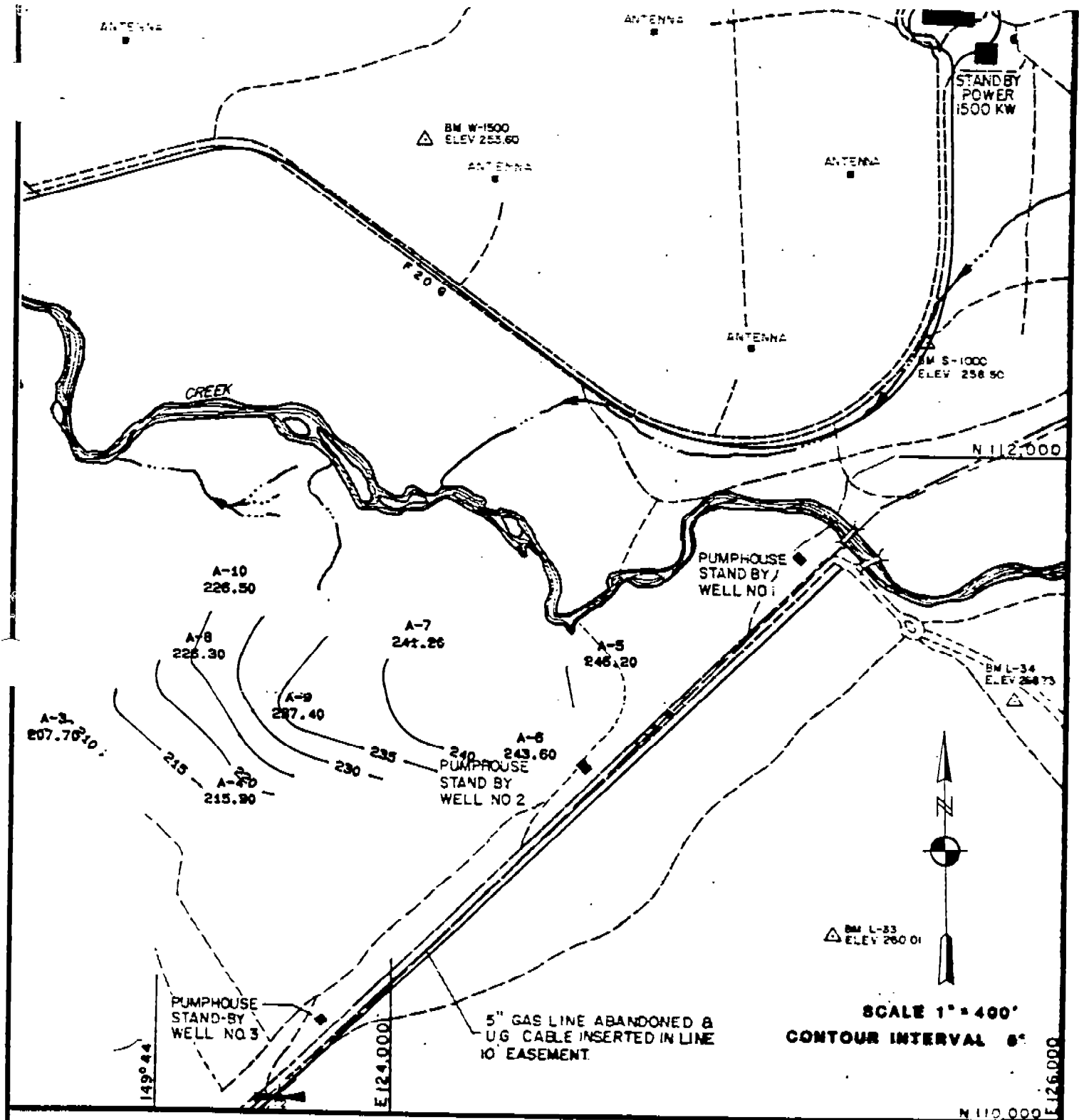
h. Chemical Quality Assurance Report, CENPD-PE-GT-L, dated 21 August 1990, Subject: W.O. 90-HM-157f, Fort Richardson Groundwater Monitoring.

i. Chemical Data Report, North Pacific Division Laboratory, dated 25 July 1990 (90-HM-157f) and Chemical Data Report, North Pacific Division Laboratory, dated 28 November 1990 (90-HM-157g).

j. Memorandum, CENPD-PE-GT-L, dated 4 January 1991, Subject: W.O. 91-HM-157g, Results of Chemical Analyses.

k. Chemical Quality Assurance Report, CENPD-PE-GT-L, dated 4 January 1991, Subject: W.O. 90-HM-157g, Fort Richardson, Groundwater Monitoring.

l. Memorandum for Record, CENPA-EN-G-M dated 10 April 1991, subject: Summary of Field Work and Chemical Data for Water Samples, Groundwater Monitoring, Fort Richardson, Alaska.



GROUNDWATER CONTOUR MAP

SHIP CREEK AREA - FT RICHARDSON, AK.

GROUNDWATER MONITORING NETWORK

TABLE 2 MONITORING WELL DATA - FORT RICHARDSON																							
WELL NUMBER	INSTALLATION DATE	NORTH	EAST	ELEVATION T.O.P.	STICKUP DATE/ HEIGHT (FT)	WELL USE	DRILLING METHOD	BORING DEPTH BELOW GROUND (FT)	CASING DIAMETER (in)	SCREEN INFORMATION LENGTH / DIAMETER (FT) (in)	T.O.S./OPENING (elev) (in)	BACKFILL MATERIAL	GROUNDWATER ELEVATION WHILE DRILLING	GROUNDWATER READING T.O.P. 7 THRU 22 SEP 89 +8 AND 6 JAN 90 +8 THRU 10 SEP 90 +5 JAN 91	GROUNDWATER ELEVATION 7 THRU 22 SEP 89 +5 AND 6 JAN 90 +8 THRU 10 SEP 90 +5 JAN 91	REMARKS							
FR-1	15 JAN 85	122,614	126,843	306.83	25 SEP 90/2.8	MONITORING GW	C.T.P.	147	2	10	2	167.8	0.01	PEA GRAVEL/BENTONITE/SAND	174	131.7	+128.4	+127.0	+131.9	1731	+178.4	+179.8	+174.9
FR-2	27 JUN 85	122,518	126,771	321.73	25 SEP 90/2.8	MONITORING GW	R.C.R.	163	2	10	2	-167	0.01	NO INFO	134	119.45	+166.14	+145.1	+149.4	172.28	+175.95	+176.6	+172.3
FR-3	9 JUL 85	124,030	132,660	351.32	25 SEP 90/1.7	MONITORING GW	R.C.R.	170	2	10	2	-200	0.01	NO INFO	133	+132.6	+130.35	+140.2		+218.9	+221.17	+231.2	
AP-2971	1 AUG 90	112,733	127,991	282.58	1 AUG 90/1.4	MONITORING GW	H.S.A.	19	3	10	4.213	272.6	0.01	PREPACK/SAND/BENTONITE/GRAVEL	267.7	-----	-----	-----	-----	-----	-----	-----	
AP-2974	2 AUG 90	112,708	127,957	282.74	2 AUG 90/1.2	MONITORING GW	H.S.A.	19	3	10	4.215	272.7	0.01	PREPACK/SAND/BENTONITE/GRAVEL	267.0	-----	-----	-----	-----	-----	-----	-----	
AP-2976	6 AUG 90	112,721	127,733	317.68	6 AUG 90/1.3	MONITORING GW	H.S.A.	24	3	10	4.215	282.1	0.01	PREPACK/SAND/BENTONITE/GRAVEL	266.9	-----	-----	-----	-----	-----	-----	-----	
AP-2980	15 AUG 90	112,193	127,971	296.68	15 AUG 90/1.3	MONITORING GW	H.S.A.	29	3	10	4.213	277.4	0.01	PREPACK/SAND/BENTONITE/GRAVEL	273.4	-----	-----	-----	-----	-----	-----	-----	
AP-2982	21 AUG 90	112,158	127,562	263.47	21 AUG 90/1.1	MONITORING GW	H.S.A.	24	3	10	4.215	248.1	0.01	PREPACK/SAND/BENTONITE/GRAVEL	246.4	-----	-----	-----	-----	-----	-----	-----	
AP-2983	21 AUG 90	112,120	127,767	264.17	21 AUG 90/1.5	MONITORING GW	H.S.A.	24	3	10	4.215	249.0	0.01	PREPACK/SAND/BENTONITE/GRAVEL	245.7	-----	-----	-----	-----	-----	-----	-----	
AP-2984	22 AUG 90	112,124	127,767	261.73	22 AUG 90/1.3	MONITORING GW	H.S.A.	19	3	10	4.215	251.1	0.01	PREPACK/SAND/BENTONITE/GRAVEL	245.7	-----	-----	-----	-----	-----	-----	-----	
AP-2985	23 AUG 90	112,086	125,716	251.45	23 AUG 90/2.4	MONITORING GW	H.S.A.	14	3	10	4.215	253.2	0.01	PREPACK/SAND/BENTONITE/GRAVEL	246.6	-----	-----	-----	-----	-----	-----	-----	
AP-2986	23 AUG 90	112,111	125,713	263.97	23 AUG 90/1.3	MONITORING GW	H.S.A.	19	3	10	4.213	255.5	0.01	PREPACK/SAND/BENTONITE/GRAVEL	245.1	-----	-----	-----	-----	-----	-----	-----	
AP-2987	24 AUG 90	112,123	125,644	261.35	24 AUG 90/1.3	MONITORING GW	H.S.A.	19	3	10	4.215	251.3	0.01	PREPACK/SAND/BENTONITE/GRAVEL	246.6	-----	-----	-----	-----	-----	-----	-----	
AP-3010	18 DEC 90	124,838	131,781	403.33	18 APR 91/3.8	MONITORING GW	A.R.	234	10	-----	-----	-----	-----	NA	171	+228.1	-----	-----	-----	-----	-----	-----	
AP-3011	19 NOV 90	122,486	131,267	340.41	19 APR 91/3.7	MONITORING GW	A.R.	150	10	-----	-----	-----	-----	NA	211	-----	-----	-----	-----	-----	-----	-----	
AP-3012	22 NOV 90	122,725	131,151	332.91	20 APR 91/3.1	MONITORING GW	A.R.	171	10	-----	-----	-----	-----	NA	140	-----	-----	-----	-----	-----	-----	-----	
FR-1213	27 JUL 90	122,335	127,227	311.63	24 APR 91/3.6	MONITORING GW	A.R.	130	10	-----	-----	-----	-----	NA	169	+136.2	-----	-----	-----	-----	-----	-----	
AP-3277	21 DEC 90	124,122	129,422	296.53	16 APR 91/4.6	MONITORING GW	A.R.	10	10	-----	-----	-----	-----	NA	276	+130.7	-----	-----	-----	-----	-----	-----	
AP-3215	6 JAN 91	122,184	129,173	294.21	6 APR 91/4.3	MONITORING GW	A.R.	26	10	-----	-----	-----	-----	NA	178	+122.7	-----	-----	-----	-----	-----	-----	

H.S.A. FOLLOW SICK AUGER H.S.T. NOT SURVEYED TO DATE H.T. PLUM T.O.P. G.T. TEMPERATURE
 H.A. TOP OF PIPE R.C.R. TOP OF SCREEN O.H. HAZARDOUS SUBSTANCE NA NOT APPLICABLE
 A.R. H.T. DEPTH C.T.P. TABLE TOOL PENETRATION R.C.R. REVERSE CIRCULATION ACTIVITY

TABLE 1 SUPPLY WELL AND PIEZOMETER DATA - FORT RICHARDSON																		
WELL NUMBER	INSTALLATION DATE	NORTH	EAST	ELEVATION T.O.P.	STICKUP DATE/ HEIGHT (FT)	WELL USE	DRILLING METHOD	BORING DEPTH BELOW GROUND (FT)	CASING DIAMETER (in)	SCREEN INFORMATION				BACKFILL MATERIAL	GROUNDWATER ELEVATION WHILE DRILLING	GROUNDWATER READING T.O.P. 7 THRU 22 SEPT 89	GROUNDWATER ELEVATION 7 THRU 22 SEPT 89	REMARKS
										LENGTH (FT)	DIAMETER (in)	T.O.S./OPENING (elev) (in)						
ADFG 10	1 JAN 83	112,126	127,833	284.60	21 SEP 89/26	SUPPLY/P.T.	NO INFO	85	12	10	12	-207	825	NA	NO INFO	42.4	242.4	NEAR ADFG 9 IN PRODUCTION
4-1	24 AUG 82	118,420	127,840	284.51	21 SEP 89/19	SUPPLY/P.T.	A.R.	818	6	20	6	-203	PERFORATED	NA	NO INFO	42.6	241.9	NEAR ADFG 9 IN PRODUCTION
GALLERY B	29 APR 83	118,594	127,906	292.39	21 SEP 89/19	SUPPLY/P.T.	A.R.	39	6	0	NA	NA	NA	NA	262	18.7	273.9	
GALLERY C	29 APR 83	118,596	127,823	289.87	21 SEP 89/20	SUPPLY/P.T.	A.R.	39	6	0	NA	NA	NA	NA	277	251	259.8	
GALLERY D	2 MAY 83	118,212	127,928	290.44	21 SEP 89/22	SUPPLY/P.T.	A.R.	39	6	3	6	236.4	PERFORATED	NA	278	11.9	278.3	
GALLERY E	3 MAY 83	118,283	127,944	288.49	21 SEP 89/25	SUPPLY/P.T.	A.R.	39	6	5	6	256.0	PERFORATED	NA	280	10.3	278.2	
GALLERY F	4 MAY 83	118,339	127,885	289.20	21 SEP 89/21	SUPPLY/P.T.	A.R.	39	6	7	6	259.1	PERFORATED	NA	NOT RECORDED	11.3	277.7	
GALLERY G	9 MAY 83	118,241	127,900	289.72	21 SEP 89/20	SUPPLY/P.T.	A.R.	38	6	10	6	261.7	PERFORATED	NA	274	12.2	277.5	
AP-2933	3 DEC 86	128,782.6	135,419.1	437.8	22 SEP 89/26	PIEZOMETER	HSA	29	13	13	13	-----	201	CUTTINGS	-----	-----	-----	

NOTES:

HSA HOLLOW STEEL AUGER N.S.T.B. NOT SURVEYED TO DATE AT PUMP TEST ITS TEMPERATURE
T.O.P. TOP OF PIPE T.O.P. TOP OF SCREEN (H) HAZARDOUS SUBSTANCE NA NOT APPLICABLE
AR AIR ROTARY

GROUNDWATER CONTOUR MAP
LANDFILL AREA - FT RICHARDSON, AK.

GROUNDWATER MONITORING NETWORK

TABLE 1. Results of Chemical Tests for Water Samples from Fort Richardson, Alaska.
Ground Water Monitoring Project. May-June, 1990.
Non-Metallic Parameters.

PROJECT: Ft. Richardson Ground Water

	ADFG C	ADFG E	ADFG K	SUMP A	ADFG 9	WELL-1	DUP. WELL-1	WELL-2	WELL-3	AK-2127
LOCATION:	ADFG C	ADFG E	ADFG K	SUMP A	ADFG 9	WELL-1	WELL-1	WELL-2	WELL-3	AK-2127
DATE OF SAMPLING:	900529	900529	900529	900529	900529	900530	900530	900530	900530	900529
TIME OF SAMPLING:	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
FIELD SAMPLE ID#: 90FRGW	01WA	02WA	03WA	08WA	09WA	10WA	13WA	11WA	12WA	17WA
TESTING LABORATORY:	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD
LABORATORY SAMPLE #:	0067	0068	0069	0070	0071	0072	0075	0073	0074	0076

Physical Properties:

Alkalinity, as CaCO ₃										
to pH 4.5, mg/L	37.7	47.5	92.5	65.8	82.8	96.0	96.9	105.4	110.7	96.9
pH (to the nearest 100th)	6.95	6.75	7.20	7.00	7.00	7.42	7.40	7.4	7.60	7.18
Solids, Ttl Dissolved, mg/L	28.0	50.6	38.1	57.9	94.9	81.5	108	103	130	121
Turbidity, FTU	0.08	0.53	0.13	0.08	0.01	0.53	0.05	0.97	0.03	8.20
Corrosivity										
(Langlier Index)	-1.69	-1.76	-1.03	-1.22	-1.07	-0.56	-0.57	-0.51	-0.28	-0.86
Color:	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear
Conductivity, umhos/cm	367	146	136	226	340	233	233	250	316	239
ORP, mV	236	196	200	232	238	244	244	264	248	203

Anions:

Chloride, mg/L	1.0	1.0	1.1	1.4	3.4	2.0	2.0	2.3	2.3	2.5
Sulfate, mg/L	12.0	12.0	11.5	8.0	12.5	9.0	13.8	11.0	13.0	12.0

Organics:

Total Organic Carbon, mg/L	<3.0	<3.0	<3.0	4.5	<3.0	<3.0	<3.0	<3.0	4.7	6.5
Methylene Blue Active										
Substances (MBAS), mg/L	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15

Comments: Less than (<) or "U" means not detected at the concentration level shown.

NR means not reported.

CENPD means North Pacific Division Laboratory.

Continued

Sheet 1 of 4

TABLE 1. Results of Chemical Tests for Water Samples from Fort Richardson, Alaska.
(Continued) Ground Water Monitoring Project. May-June, 1990.
Non-Metallic Parameters.

PROJECT: Ft. Richardson Ground Water

	A-6	A-1	TW-1	OTTER	W-B	DUP. W-B	FR-1	FR-2	FR-3
LOCATION:									
DATE OF SAMPLING:	900601	900601	900601	900604	900603	900603	900605	900605	900605
TIME OF SAMPLING:	1102	0930	1305	1400	1300	1300	NR	NR	0930
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	5.96	37.0	26.4	NR	96.9	96.9	NR	NR	NR
FIELD SAMPLE ID#: 90FRGW	04WA	06WA	07WA	14WA	15WA	16WA	18WA	19WA	20WA
TESTING LABORATORY:	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD
LABORATORY SAMPLE #:	0089	0090	0091	0096	0094	0095	0107	0110	0097

Physical Properties:

Alkalinity, as CaCO ₃									
to pH 4.5, mg/L	53.6	88.1	113.4	151.5	157.8	157.8	146.6	178	139.7
pH (to the nearest 100th)	6.30	7.58	7.47	7.35	7.45	7.51	7.50	6.85	7.42
Solids, Ttl Dissolved, mg/L	89.3	109	135	219	183	191	215	221	298
Turbidity, FTU	9.5	2.3	11.5	0.38	0.26	0.19	13	23.5	420
Corrosivity									
(Langlier Index)	-2.09	-0.46	-0.40	-0.26	-0.22	-0.19	-0.13	-0.64	-0.88
Color:	Clear	Clear	Cloudy	Clear	Clear	Clear	Whitish	Grey	Brown
Conductivity, umhos/cm	161	220	266	360	345	345	364	412	303
ORP, mV	173	163	171	183	139	139	131	143	137

Anions:

Chloride, mg/L	3.3	1.9	4.0	11.4	3.0	2.5	7.10	8.3	4.8
Sulfate, mg/L	13.0	15.0	12.5	13.0	12.5	12.8	17.0	17.0	13.0

Organics:

Total Organic Carbon, mg/L	<3.0	3.1	3.8	20	<3.0	<3.0	8.3	8.4	17
Methylene Blue Active									
Substances (MBAS), mg/L	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15

Comments: Less than (<) or "U" means not detected at the concentration level shown.

NR means not reported.

CENPD means North Pacific Division Laboratory.

Continued

Sheet 2 of 4

TABLE I. Results of Chemical Tests for Water Samples from Fort Richardson, Alaska.
(Continued) Ground Water Monitoring Project. September 1990.
Non-Metallic Parameters.

PROJECT: Ft. Richardson Ground Water

LOCATION:	ADFG C	ADFG E	ADFG K	A-6	A-1	TW-1	SUMP A	ADFG 9	OTTER	WELL-3
DATE OF SAMPLING:	900905	900905	900905	900906	900907	900905	900905	900905	900907	900905
TIME OF SAMPLING:	NR	NR	NR	1700	1545	1025	NR	NR	1130	NR
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	7.33	28.75	21.7	NR	NR	NR	NR
FIELD SAMPLE ID#: 90FRGW	51WA	52WA	53WA	54WA	56WA	57WA	58WA	59WA	64WA	62WA
TESTING LABORATORY:	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD
LABORATORY SAMPLE #:	0322	0323	0324	0338	0339	0340	0325	0326	0341	0328
DATE RECEIVED:	900907	900907	900907	900910	900910	900910	900907	900907	900907	900907

Physical Properties:

Alkalinity, as CaCO ₃										
to pH 4.5, mg/L	50.4	50.8	49.7	52.9	91.3	116.7	55.8	81.8	162.2	91.6
pH (to the nearest 100th)	6.80	6.85	6.85	6.75	7.80	7.60	6.80	6.85	7.30	7.30
Solids, Ttl Dissolved, mg/L	85	78	84	114	156	174	86	112	236	131
Turbidity, FTU	0.08	0.11	0.12	0.22	0.54	8.60	0.08	0.11	0.17	0.12
Corrosivity										
(Langlier Index)	-1.63	-1.59	-1.62	-1.70	-0.24	-0.28	-1.59	-1.27	-0.29	-0.73
Color:	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear
Conductivity, umhos/cm	152	149	145	146	219	275	161	215	367	226
ORP, mV	250	254	255	260	284	246	226	233	265	239

Anions:

Chloride, mg/L	0.90	0.95	1.05	1.45	1.95	3.25	1.55	2.85	10.35	2.15
Sulfate, mg/L	20	18	18	18	17	15	18	17.0	13	18

Organics:

Total Organic Carbon, mg/L	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	3.3	<3.0
Methylene Blue Active										
Substances (MBAS), mg/L	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15

Comments: Less than (<) or "U" means not detected at the concentration level shown.

NR means not reported.

CENPD means North Pacific Division Laboratory.

Continued

Sheet 3 of 4

TABLE 1. Results of Chemical Tests for Water Samples from Fort Richardson, Alaska.
(Concluded) Ground Water Monitoring Project. September, 1990.
Non-Metallic Parameters.

Project: Ft. Richardson Ground Water

		DUP.	DUP.		DUP.				
LOCATION:	WELL-2	WELL-2	WELL-2	W-B	W-B	AK-2127	FR-1	FR-2	FR-3
DATE OF SAMPLING:	900905	900905	900905	900904	900904	900904	900909	900908	900910
TIME OF SAMPLING:	NR	NR	NR	1445	1445	1210	0800	1230	NR
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	96.75	96.75	72.85	127.2	145.1	130.35
FIELD SAMPLE ID#: 90FRGW	61WA	63WA	60WA	65WA	66WA	67WA	68WA	69WA	70WA
TESTING LABORATORY:	CENPD	CENPD	AMTEST	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD
LABORATORY SAMPLE #:	0327	0329	021268	0316	0317	0318	0346	0347	0348
DATE RECEIVED:	900907	900907	900908	900905	900905	900905	900911	900911	900911

Physical Properties:

Alkalinity, as CaCO ₃									
to pH 4.5, mg/L	108.8	108.2	110	164	164	91.9	152.3	187.6	153.2
pH (to the nearest 100th)	7.35	7.35	7.40	7.40	7.45	7.35	7.45	7.25	7.25
Solids, Ttl Dissolved, mg/L	147	127	300	190	198	126	274	244	203
Turbidity, FTU	0.47	0.53	1.7	0.23	0.23	0.20	6.40	12.00	230
Corrosivity									
(Langlier Index)	-0.56	-0.56	-0.50	-0.28	-0.21	-0.75	-0.20	-0.22	0.43
Color:	Clear	Clear	Clear	Clear	Clear	Clear	NR	NR	Brown
Conductivity, umhos/cm	264	264	264	351	351	220	370	422	328
ORP, mV	237	237	237	188	188	254	215	221	221

Anions:

Chloride, mg/L	2.60	2.50	1.5	3.00	2.95	2.05	8.05	7.90	4.85
Sulfate, mg/L	15	16	14	16	16	14	19	19	19

Organics:

Total Organic Carbon, mg/L	<3.0	<3.0	2.9	<3.0	<3.0	<3.0	33	56	51
Methylene Blue Active									
Substances (MBAS), mg/L	<0.15	<0.15	<0.1	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15

Comments: Less than (<) or "U" means not detected at the concentration level shown.
NR means not reported.
CENPD means North Pacific Division Laboratory.

TABLE II. Results of Chemical Tests for samples from Fort Richardson, Alaska.
Ground Water Monitoring. May-June, 1990.
Fuels Identification and Measurement. Modified Method 8015.

PROJECT: Ft. Richardson Ground Water

	ADFG C	ADFG E	ADFG K	A-6	A-1	TW-1	SUMP A	ADFG 9	WELL-1	DUP. WELL-1
LOCATION:										
DATE OF SAMPLING:	900529	900529	900529	900601	900601	900601	900529	900529	900530	900530
TIME OF SAMPLING:	NR	NR	NR	1102	0930	1305	NR	NR	NR	NR
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	5.96	37.0	26.4	NR	NR	NR	NR
FIELD SAMPLE ID No.: 90FRGW	01WA	02WA	03WA	04WA	06WA	07WA	08WA	09WA	10WA	13WA
TESTING LABORATORY:	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD
LABORATORY SAMPLE #:	0067	0068	0069	0089	0090	0091	0070	0071	0072	0075
DATE EXTRACTED:	900601	900601	900601	900607	900607	900606	900601	900601	900601	900605
DATE TESTED:	900618	900618	900618	900618	900618	900618	900618	900618	900618	900618
COMPOUND										
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Diesel Fuel No. 2	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
Gasoline	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
Jet Fuel	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
Kerosene	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
Bunker Oil (Diesel Fuel #5.)	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
Miscellaneous Fuel	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0

COMMENTS: CENPD means North Pacific Division Laboratory. NR means not reported.

A less than symbol "<" means that the compound was not detected at the concentration level shown.

CONTINUED

Sheet 1 of 4

TABLE II. Results of Chemical Tests for samples from Fort Richardson, Alaska.
 (Continued). Ground Water Monitoring. May-June, 1990.
 Fuels Identification and Measurement. Modified Method 8015.

PROJECT: Ft. Richardson Ground Water

	WELL-2	WELL-3	OTTER	W-B	DUP. W-B	AK-2127	FR-1	FR-2	FR-3	Bldg. 21-700
LOCATION:	900530	900530	900604	900603	900603	900529	900606	900606	900605	900522
DATE OF SAMPLING:	NR	NR	1400	1300	1300	1245	NR	NR	0930	TRIP
TIME OF SAMPLING:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
TYPE OF SAMPLE:	NR	NR	NR	96.9	96.9	70.2	128.4	146.2	132.6	BLANK
SAMPLE DEPTH, FEET:	11WA	12WA	14WA	15WA	16WA	17WA	18WA	19WA	20WA	24WA
SAMPLE ID No.: 90FRGW	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD
TESTING LABORATORY:	0073	0074	0096	0094	0095	0076	0107	0110	0097	0109
LABORATORY SAMPLE #:	900605	900531	900608	900608	900608	900605	900611	900612	900608	900611
DATE EXTRACTED:	900618	900618	900618	900618	900618	900618	900618	900618	900618	900618
DATE TESTED:	COMPOUND									
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Diesel Fuel No. 2	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
Gasoline	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
Jet Fuel	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
Kerosene	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
Bunker Oil (Diesel Fuel #5.)	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
Miscellaneous Fuel	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0

COMMENTS: CENPD means North Pacific Division Laboratory. NR means not reported.

A less than symbol "<" means that the compound was not detected at the concentration level shown.

TABLE II. Results of Chemical Tests for samples from Fort Richardson, Alaska.
(Continued). Ground Water Monitoring. September, 1990.
Fuels Identification and Measurement. Modified Method 8015.

PROJECT: Ft. Richardson Ground Water

										DUP.
LOCATION:	ADFG C	ADFG E	ADFG K	A-6	A-1	TW-1	SUMP A	ADFG 9	WELL-2	WELL-2
DATE OF SAMPLING:	900905	900905	900905	900906	900906	900907	900905	900905	900905	900905
TIME OF SAMPLING:	NR	NR	NR	1700	1545	1025	NR	NR	NR	NR
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	7.33	28.75	21.7	NR	NR	NR	NR
FIELD SAMPLE ID No.: 90FRGW	51WA	52WA	53WA	54WA	56WA	57WA	58WA	59WA	60WA	61WA
TESTING LABORATORY:	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	AMTEST	ARDL
LABORATORY SAMPLE #:	791-1	791-2	791-3	794-1	794-2	794-3	791-4	791-5	021268	791-6
DATE RECEIVED:	900908	900908	900908	900911	900911	900911	900908	900908	900908	900908
DATE EXTRACTED:	900910	900910	900910	900912	900912	900912	900910	900910	900910	900910
DATE TESTED:	900919	900917	900917	900926	900926	900926	900917	900917	900917	900917
COMPOUND										
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Diesel Fuel No. 2	63 U	50 U	50 U	62 U	50 U	50 U	50 U	50 U	100 ND	50 U
Gasoline	63 U	50 U	50 U	62 U	50 U	50 U	50 U	50 U	100 ND	50 U
Jet Fuel	63 U	50 U	50 U	62 U	50 U	50 U	50 U	50 U	100 ND	50 U
Kerosene	63 U	50 U	50 U	62 U	50 U	50 U	50 U	50 U	100 ND	50 U
Bunker Oil (Diesel Fuel #6.)	310 U	250 U	250 U	300 U	250 U	250 U	250 U	250 U	100 ND	250 U

COMMENTS: CENPD means North Pacific Division Laboratory. AMTEST means AmTest, Inc. (Laboratory), Redmond, Washington.
Tests by AMTEST are Diesel #2, Gasoline, Jet A, JP-5 and Diesel #1 respectively.

ARDL means ARDL, Inc. (Laboratory), Mt. Vernon, Illinois.

A "U" or "ND" means that the compound was not detected at the concentration level shown. A "***" indicates a measurable quantity. NR means Not Reported.

CONTINUED

Sheet 3 of 4

TABLE II. Results of Chemical Tests for samples from Fort Richardson, Alaska.
(Concluded). Ground Water Monitoring. September, 1990.
Fuels Identification and Measurement. Modified Method 8015.

PROJECT: Ft. Richardson Ground Water

	DUP.				DUP.		DUP.			
LOCATION:	WELL-2	WELL-3	OTTER	W-B	W-B	W-B	AK-2127	FR-1	FR-2	FR-3
DATE OF SAMPLING:	900905	900905	900907	900904	900904	900904	900904	900909	900908	900910
TIME OF SAMPLING:	NR	NR	1130	1445	1445	1445	1210	0800	1230	NR
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	96.75	96.75	96.75	72.85	127.2	145.1	130.35
FIELD SAMPLE ID No.:90FRGW	63WA	62WA	64WA	65WA	66WA	65WA-QA	67WA	68WA	69WA	70WA
TESTING LABORATORY:	ARDL	ARDL	ARDL	ARDL	ARDL	AMTEST	ARDL	ARDL	ARDL	ARDL
LABORATORY SAMPLE #:	791-8	791-7	794-4	789-1	789-2	021113	789-3	795-1	795-2	795-3
DATE RECEIVED:	900908	900908	900911	900906	900906	900906	900906	900912	900912	900912
DATE EXTRACTED:	900910	900910	900912	900907	900907	NR	900907	900913	900913	900913
DATE TESTED:	900917	900917	900926	900910	900910	NR	900911	901001	901002	901002
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Diesel Fuel No. 2	50 U	50 U	50 U	62 U	50 U	100 ND	50 U	63 U	50 U	50 U
Gasoline	50 U	50 U	50 U	62 U	50 U	100 ND	50 U	63 U	50 U	50 U
Jet Fuel	50 U	50 U	50 U	62 U	50 U	100 ND	50 U	63 U	50 U	50 U
Kerosene	50 U	50 U	50 U	62 U	50 U	100 ND	50 U	63 U	50 U	50 U
Bunker Oil (Diesel Fuel #6.)	250 U	250 U	250 U	312 U	250 U	100 ND	250 U	310 U	250 U	250 U

COMMENTS: CENPD means North Pacific Division Laboratory. AMTEST means AmTest, Inc. (Laboratory), Redmond, Washington.
Tests by AMTEST are Diesel #2, Gasoline, Jet A, JP-5 and Diesel #1 respectively.
ARDL means ARDL, Inc. (Laboratory), Mt. Vernon, Illinois.
A "U" or "ND" means that the compound was not detected at the concentration level shown.
A * indicates a measurable quantity. NR means Not Reported.

TABLE III. Results of Chemical Tests for Water Samples from Fort Richardson, Alaska.
Ground Water Monitoring Project. May, 1990.
Metals. Total.

PROJECT: Ft. Richardson Ground Water

	ADFG C	ADFG E	ADFG K	SUMP A	ADFG 9	WELL-1	DUP. WELL-1	WELL-2	WELL-3	AK-2127
LOCATION:	ADFG C	ADFG E	ADFG K	SUMP A	ADFG 9	WELL-1	DUP. WELL-1	WELL-2	WELL-3	AK-2127
DATE OF SAMPLING:	900529	900529	900529	900529	900529	900530	900530	900530	900530	900529
TIME OF SAMPLING:	NR	NR	NR	NR	NR	NR	NR	NR	NR	1245
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	NR	NR	NR	NR	NR	NR	70.2
FIELD SAMPLE ID No.: 90FRGW	01WA	02WA	03WA	08WA	09WA	10WA	13WA	11WA	12WA	17WA
TESTING LABORATORY:	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL
LABORATORY SAMPLE #:	0067	0068	0069	0070	0071	0072	0075	0073	0074	0076
DATE EXTRACTED:	900529	900529	900529	900529	900529	900530	900530	900530	900530	900530
DATE TESTED:	900531	900531	900531	900531	900531	900531	900531	900531	900531	900531
ELEMENT, TOTAL CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	<100	120 *	140 *	<100	<100	<100	<100	<100	<100	100 *
Antimony	<60	<60	<60	<60	<60	<60	<60	<60	<60	<60
Arsenic	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Barium	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Beryllium	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Cadmium	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Calcium	16000 *	18000 *	17000 *	25000 *	30000 *	32000 *	33000 *	35000 *	37000 *	29000 *
Chromium	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Cobalt	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Copper	15 *	120 *	14 *	<10	<10	26 *	<10	54 *	<10	<10
Iron	33 *	1500 *	180 *	<30	<30	1400 *	54 *	280 *	400 *	2100 *
Lead	<3	7 *	<3	<3	<3	18 *	<3	5.1 *	<3	<3
Magnesium	2600 *	2800 *	2500 *	3600 *	4600 *	6800 *	6900 *	880 *	14000 *	8200 *
Manganese	<10	19 *	<10	<10	14 *	45 *	<10	12 *	<10	22 *
Mercury	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Nickel	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Potassium	<500	<500	<500	<500	<500	530 *	<500	<500	550 *	560 *
Selenium	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Silver	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sodium	4200 *	3100 *	3700 *	3300 *	3400 *	3600 *	4800 *	4600 *	4300 *	6600 *
Thallium	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Vanadium	<10	12 *	<10	<10	<10	<10	<10	<10	<10	<10
Zinc	17 *	81 *	10 *	10 *	10 *	150 *	17 *	21 *	54 *	21 *

COMMENTS: ARDL means ARDL, Inc. (Laboratory), Mt. Vernon, Illinois.

A "<" means that the compound was not detected at the concentration level shown. A "*" indicates a measurable quantity. NR means not reported.

Continued

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TABLE III. Results of Chemical Tests for Water Samples from Fort Richardson, Alaska.
(Continued). Ground Water Monitoring Project. May, 1990.
Metals, Dissolved.

PROJECT: Ft. Richardson Ground Water

	DUP.									
LOCATION:	ADFG C	ADFG E	ADFG K	SUMP A	ADFG 9	WELL-1	WELL-1	WELL-2	WELL-3	AK-2127
DATE OF SAMPLING:	900529	900529	900529	900529	900529	900530	900530	900530	900530	900529
TIME OF SAMPLING:	NR	NR	NR	NR	NR	NR	NR	NR	NR	1245
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	NR	NR	NR	NR	NR	NR	70.2
FIELD SAMPLE ID No.: 90FRGW	101WA	102WA	103WA	108WA	109WA	110WA	113WA	111WA	112WA	117WA
TESTING LABORATORY:	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL
LABORATORY SAMPLE #:	0077	0078	0079	0080	0081	0082	0085	0083	0084	0086
DATE EXTRACTED:	900529	900529	900529	900529	900520	900530	900530	900530	900530	900530
DATE TESTED:	900531	900531	900531	900531	900531	900531	900531	900531	900531	900604
ELEMENT, DISSOLVED										
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	150 *	<100	<100	<100	500 *	400 *	100 *	<100	<100	<100
Antimony	<60	<60	<60	<60	<60	<60	<60	<60	<60	<60
Arsenic	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Barium	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Beryllium	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Cadmium	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Calcium	16000 *	17000 *	16000 *	24000 *	30000 *	33000 *	33000 *	35000 *	38000 *	28000 *
Chromium	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Cobalt	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Copper	<10	14 *	<10	<10	<10	<10	<10	<10	<10	<10
Iron	<30	33 *	<30	<30	<30	<30	33 *	<30	32 *	<30
Lead	<3	<3	<3	<3	<3	<3	<3	4.4 *	<3	<3
Magnesium	<500	2800 *	2700 *	3600 *	4500 *	5000 *	4900 *	7600 *	12000 *	8300 *
Manganese	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Mercury	<0.2	<0.2	0.43 *	<0.2	<0.2	<0.2	0.27 *	<0.2	<0.2	<0.2
Nickel	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Potassium	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
Selenium	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Silver	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sodium	2300 *	3100 *	3600 *	4200 *	3900 *	5000 *	4400 *	3700 *	3900 *	6200 *
Thallium	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Vanadium	<10	12 *	<10	<10	<10	<10	<10	<10	<10	<10
Zinc	<10	<10	<10	<10	<10	<10	<10	13 *	<10	<10

COMMENTS: ARDL means ARDL, Inc. (Laboratory), Mt. Vernon, Illinois. NR means not reported.

A "<" means that the compound was not detected at the concentration level shown. A "*" indicates a measurable quantity.

Continued

Sheet 2 of 10

TABLE III. Results of Chemical Tests for Water Samples from Fort Richardson, Alaska.
(Continued). Ground Water Monitoring Project. May, 1990.
Metals. Total.

PROJECT: Ft. Richardson Ground Water

	A-6	A-1	TW-1	OTTER	W-B	DUP. W-B	FR-1	FR-2	FR-3	BLDG. 21-700
LOCATION:	900601	900601	900601	900604	900603	900603	900606	900607	900605	900522
DATE OF SAMPLING:	1102	0930	1305	1400	1300	1300	NR	NR	0930	TRIP
TIME OF SAMPLING:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
TYPE OF SAMPLE:	5.96	37.0	26.4	NR	96.9	96.9	128.4	146.2	132.6	BLANK
SAMPLE DEPTH, FEET:	04WA	06WA	07WA	14WA	15WA	16WA	18WA	19WA	20WA	24WA
FIELD SAMPLE ID No.: 90FRGW	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL
TESTING LABORATORY:	0089	0090	0091	0096	0094	0095	0107	0110	0097	0109
LABORATORY SAMPLE #:	900601	900601	900601	900604	900603	900603	900606	900607	900605	900606
DATE EXTRACTED:	900604	900604	900604	900606	900606	900606	900607	900608	900606	900607
DATE TESTED:										
ELEMENT, TOTAL										
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	340 *	300 *	4800 *	110 *	<100	<100	1600 *	2000 *	50000 *	<100
Antimony	<60	<60	<60	<60	<60	<60	<60	<60	<60	<60
Arsenic	<10	<10	<10	<10	<10	<10	<10	<10	12 *	<10
Barium	<20	<20	<20	24 *	<20	<20	32 *	20 *	260 *	<20
Beryllium	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Cadmium	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Calcium	22000 *	32000 *	37000 *	56000 *	44000 *	43000 *	55000 *	65000 *	27000 *	<500
Chromium	<5	<5	<5	<5	<5	<5	<5	<5	42 *	<5
Cobalt	<10	<10	<10	<10	<10	<10	<10	<10	17 *	<10
Copper	<10	<10	<10	45 *	<10	<10	18 *	18 *	47 *	<10
Iron	1000 *	3200 *	2300 *	300 *	170 *	120 *	780 *	2100 *	35000 *	59 *
Lead	<3	<3	<3	<3	4.6 *	<3	5.3 *	6.0 *	28 *	<3
Magnesium	3400 *	4400 *	9000 *	8400 *	16000 *	16000 *	8400 *	9800 *	19000 *	<500
Manganese	18 *	38 *	40 *	12 *	14 *	<10	25 *	180 *	700 *	<10
Mercury	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.28 *	0.39 *	<0.2
Nickel	<10	<10	<10	<10	<10	<10	<10	<10	40 *	<10
Potassium	<500	<500	620 *	560 *	690 *	800 *	1100 *	1100 *	3500 *	<500
Selenium	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Silver	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sodium	4400 *	4300 *	5600 *	5100 *	6600 *	5000 *	4700 *	3900 *	6100 *	<500
Thallium	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Vanadium	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Zinc	15 *	20 *	19 *	540 *	23 *	17 *	35 *	35 *	880 *	17 *

COMMENTS: ARDL means ARDL, Inc. (Laboratory), Mt. Vernon, Illinois. NR means not reported.

A "<" means that the compound was not detected at the concentration level shown. A "*" indicates a measurable quantity.

Continued

Sheet 3 of 10

TABLE III. Results of Chemical Tests for Water Samples from Fort Richardson, Alaska.
(Continued). Ground Water Monitoring Project. May, 1990.
Metals. Dissolved.

PROJECT: Ft. Richardson Ground Water

	DUP.									
LOCATION:	A-6	A-1	TW-1	OTTER	W-B	W-B	FR-1	FR-2	FR-3	BLDG. 21-
DATE OF SAMPLING:	900601	900601	900601	900604	900603	900603	900606	900607	900605	
TIME OF SAMPLING:	1102	0930	1305	1400	1300	1300	NR	NR	0930	TRIP
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	5.96	37.0	26.4	NR	96.9	96.9	128.4	146.2	132.6	BLANK
FIELD SAMPLE ID No.: 90FRGW	104WA	106WA	107WA	114WA	115WA	116WA	118WA	119WA	120WA	27WA
TESTING LABORATORY:	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL
LABORATORY SAMPLE #:	0092A	0093A	0094A	0100	0098	0099	0108	0111	0101	0112
DATE EXTRACTED:	900601	900601	900601	900604	900603	900603	900606	900607	900605	900607
DATE TESTED:	900604	900604	900604	900606	900606	900606	900607	990608	900606	900608
ELEMENT, DISSOLVED										
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	<100	270 *	<100	<100	300 *	<100	<100	<100	300 *	<100
Antimony	<60	<60	<60	<60	<60	<60	<60	<60	<60	<60
Arsenic	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Barium	<20	<20	<20	26 *	<20	<20	<20	<20	37 *	<20
Beryllium	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Cadmium	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Calcium	21000 *	31000 *	36000 *	56000 *	42000 *	42000 *	51000 *	55000 *	41000 *	<500
Chromium	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Cobalt	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Copper	<10	<10	<10	23 *	<10	<10	<10	<10	<10	<10
Iron	110 *	180 *	31 *	<30	32 *	32 *	49 *	68 *	350 *	<30
Lead	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Magnesium	4700 *	6100 *	8200 *	8500 *	16000 *	14000 *	8700 *	9900 *	9100 *	<500
Manganese	<10	<10	<10	<10	11 *	<10	<10	<10	14 *	<10
Mercury	0.64 *	0.33 *	0.51 *	0.23 *	<0.2	0.38 *	0.23 *	0.33 *	<0.2	<0.2
Nickel	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Potassium	<500	<500	500 *	500 *	780 *	790 *	1200 *	950 *	1750 *	<500
Selenium	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Silver	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Sodium	3500 *	3200 *	5500 *	2800 *	4300 *	4600 *	6000 *	3800 *	3600 *	<500
Thallium	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Vanadium	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Zinc	<10	<10	<10	520 *	<10	<10	15 *	14 *	28 *	<10

COMMENTS: ARDL means ARDL, Inc. (Laboratory), Mt. Vernon, Illinois. NR means not reported.

A "<" means that the compound was not detected at the concentration level shown. A "*" indicates a measurable quantity.

Continued

Sheet 4 of 10

TABLE III. Results of Chemical Tests for Water Samples from Fort Richardson, Alaska.
(Continued) Ground Water Monitoring Project. September, 1990.
Metals. Total.

PROJECT: Ft. Richardson Ground Water

	ADFG C	ADFG E	ADFG K	A-6	A-1	TW-1	SUMP A	ADFG 9	WELL-2	DUP. WELL-2
LOCATION:	900905	900905	900905	900906	900906	900907	900905	900905	900905	900905
DATE OF SAMPLING:	NR	NR	NR	1700	1545	1025	NR	NR	NR	NR
TIME OF SAMPLING:	NR	NR	NR	7.33	28.75	21.7	NR	NR	NR	NR
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	7.33	28.75	21.7	NR	NR	NR	NR
FIELD SAMPLE ID No.: 90FRGW	51WA	52WA	53WA	54WA	56WA	57WA	58WA	59WA	60WA	61WA
TESTING LABORATORY:	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	AMTEST	CENPD
LABORATORY SAMPLE #:	0322	0323	0324	0338	0339	0340	0325	0326	021268	0327
DATE RECEIVED:	900907	900907	900907	900910	900910	900910	900907	900907	900908	900907

ELEMENT, TOTAL CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	<45	<45	<45	<45	<45	360*	<45	<45	100 *	<45
Antimony	<10	<10	<10	<10	<10	<10	<10	<10	<1	<10
Arsenic	<2	<2	<2	<2	3.1 *	2.9 *	<2	2.1 *	1 *	<2
Barium	10 *	10 *	<10	<10	<10	<10	<10	<10	5 *	<10
Beryllium	<1	<1	<1	<1	<1	<1	<1	<1	<7	<1
Cadmium	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5
Calcium	19000 *	20000 *	19000 *	20000 *	32000 *	37000 *	21000 *	28000 *	35000. *	36000 *
Chromium	<2	<2	<2	<2	<2	2.6 *	<2	<2	<6	<2
Cobalt	<5	<5	<5	<5	<5	<5	<5	<5	<3	<5
Copper	32 *	<5	<5	<5	<5	<5	<5	<5	8 *	8.3 *
Iron	66 *	65 *	66 *	100 *	310 *	2100 *	75 *	54 *	3100 *	140 *
Lead	3.5 *	<2	2.1 *	<2	<2	2.2 *	<2	47 *	16 *	6.9 *
Magnesium	3100 *	3300 *	3200 *	3400 *	4900 *	7400 *	3500 *	5100 *	1700 *	6300 *
Manganese	20 *	22 *	14 *	3 *	5 *	25 *	6 *	<2	3 *	<2
Mercury	<0.2	0.3 *	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Nickel	<5	<5	<5	<5	<5	<5	<5	<5	<10	<5
Potassium	440 *	430 *	400 *	390 *	540 *	820 *	430 *	450 *	1900 *	510 *
Selenium	<5	<5	<5	<5	<5	<5	<5	<5	1 *	<5
Silver	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5
Sodium	4200 *	4200 *	3100 *	3100 *	2800 *	3200 *	3700 *	3200 *	3100 *	3600 *
Thallium	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium	<5	<5	<5	<5	<5	<5	<5	<5	<2	<5
Zinc	28 *	8.2 *	10 *	8.0 *	6.7 *	14 *	6.1 *	37 *	43 *	12 *

COMMENTS: ARDL means ARDL, Inc. (Laboratory), Mt. Vernon, Illinois. NR means not reported.

A "<" means that the compound was not detected at the concentration level shown. A "*" indicates a measurable quantity.

Continued

Sheet 5 of 10

TABLE III. Results of Chemical Tests for Water Samples from Fort Richardson, Alaska.
(Continued). Ground Water Monitoring Project. September, 1990.
Metals. Dissolved.

PROJECT: Ft. Richardson Ground Water

	ADFG C	ADFG E	ADFG K	A-6	A-1	TW-1	SUMP A	ADFG 9	WELL-2	DUP. WELL-2
LOCATION:	900905	900905	900905	900906	900906	900907	900905	900905	900905	900905
DATE OF SAMPLING:	NR	NR	NR	1700	1545	1025	NR	NR	NR	NR
TIME OF SAMPLING:	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	7.33	28.75	21.7	NR	NR	NR	NR
FIELD SAMPLE ID No.: 90FRGW	151WA	152WA	153WA	154WA	156WA	157WA	158WA	159WA	160WA	161WA
TESTING LABORATORY:	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	AMTEST	CENPD
LABORATORY SAMPLE #:	0330	0331	0332	0342	0343	0344	0333	0334	021269	0335
DATE RECEIVED:	900907	900907	900907	900910	900910	900910	900907	900907	900908	900907

ELEMENT, DISSOLVED
CONCENTRATION UNITS:

	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L
Aluminum	<45	<45	<45	<45	<45	<45	<45	<45	110*	<45
Antimony	<10	<10	<10	<10	<10	<10	<10	<10	1*	<10
Arsenic	2.1*	<2	<2	<2	3.5*	<2	<2	<2	1*	<2
Barium	10*	<10	<10	10*	<10	<10	<10	<10	17*	<10
Beryllium	<1	<1	<1	<1	<1	<1	<1	<1	<7	<1
Cadmium	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5
Calcium	19000*	20000*	19000*	45000*	31000*	41000*	21000*	30000*	48000*	37000*
Chromium	<2	<2	<2	2.1*	<2	<2	<2	<2	<6	<2
Cobalt	<5	<5	<5	<5	<5	<5	<5	<5	<3	<5
Copper	<5	<5	<5	<5	<5	<5	<5	<5	9*	<5
Iron	<5	<5	<5	38*	<5	<5	<5	6*	90*	<5
Lead	<2	<2	<2	<2	<2	<2	<2	<2	<1	<2
Magnesium	2800*	2900*	2900*	3200*	4600*	6800*	3200*	4600*	7000*	6500*
Manganese	<2	<2	<2	5*	<2	4*	<2	<2	8*	2*
Mercury	<0.2	0.3*	<0.2	<0.2	<0.2	<0.2	0.3*	<0.2	<0.2	<0.2
Nickel	<5	<5	<5	<5	<5	<5	<5	<5	<0.01	<5
Potassium	380*	350*	340*	370*	510*	660*	360*	400*	<1000	480*
Selenium	<5	<5	<5	<5	<5	<5	<5	<5	<1	<5
Silver	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5
Sodium	2300*	3600*	2300*	2500*	2500*	3400*	3800*	2400*	3600*	3400*
Thallium	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium	<5	<5	<5	<5	<5	<5	<5	<5	<2	<5
Zinc	4.9*	<2	2.5*	2.7*	2.2*	<2	16*	4.9*	114*	<2

COMMENTS: ARDL means ARDL, Inc. (Laboratory), Mt. Vernon, Illinois. NR means not reported.
A "<" means that the compound was not detected at the concentration level shown. A "*" indicates a measurable quantity.

Continued

Sheet 6 of 10

TABLE III. Results of Chemical Tests for Water Samples from Fort Richardson, Alaska.
(Continued). Ground Water Monitoring Project. September, 1990.
Metals. Total.

PROJECT: Ft. Richardson Ground Water

	DUP.				DUP.	DUP.			DUP.
LOCATION:	WELL-2	WELL-3	OTTER	W-8	W-8	W-8	AK-2127	FR-1	FR-1
DATE OF SAMPLING:	900905	900905	900907	900904	900904	900904	900904	900909	900909
TIME OF SAMPLING:	NR	NR	1130	1445	1445	1445	1210	0800	0800
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	96.75	96.75	96.75	72.85	127.2	127.2
FIELD SAMPLE ID No.: 90FRGW	63WA	62WA	64WA	65WA	65WA	66WA	67WA	68WA	68WA
TESTING LABORATORY:	CENPD	CENPD	CENPD	CENPD	AMTEST	CENPD	CENPD	CENPD	AMTEST
LABORATORY SAMPLE #:	0329	0328	0341	0316	021113	0317	0318	0346	021435
DATE RECEIVED:	900907	900907	900910	900905	900906	900905	900905	900907	900912

ELEMENT, TOTAL

CONCENTRATION UNITS:

	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	<45	<45	<45	<45	90 *	<45	<45	400*	200 *
Antimony	<10	<10	<10	<10	1 *	<10	<10	<10	2 *
Arsenic	<2	2.6*	<2	<2	1 *	<2	<2	2.2*	1 *
Barium	<10	13*	21*	<10	6 *	<10	15*	16*	8 *
Beryllium	<1	<1	<1	<1	<7	<1	<1	<1	<7
Cadmium	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.5	<2
Calcium	36000*	32000*	55000*	43000*	46000. *	46000*	27000*	52000*	50000. *
Chromium	3.0*	4.8*	3.0*	4.5	<6	4.0*	4.1*	3.6*	<6
Cobalt	<5	<5	<5	<5	<3	<5	<5	<5	<3
Copper	12*	<5	13*	<5	<2	<5	<5	13*	8 *
Iron	150*	130*	39*	57*	110*	140*	120*	1000*	260*
Lead	3.7*	<2	2.8*	<2	3 *	<2	<2	2.0*	5 *
Magnesium	6200*	5000*	7700*	13000*	16000 *	14000*	6300*	8200*	7600 *
Manganese	8*	<2	9.3*	23*	7 *	15*	16*	39*	42 *
Mercury	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Nickel	<5	<5	<5	<5	<10	<5	<5	<5	<10
Potassium	510*	530*	710*	1000*	<1000	1100*	670*	2200*	<1000
Selenium	<5	<5	<5	<5	1 *	<5	<5	<5	1 *
Silver	<0.5	<0.5	<0.5	<0.5	0.5 *	<0.5	<0.5	<0.5	<10 *
Sodium	4500*	3400*	2700*	4900*	5300	4400*	5000*	3500*	3900 *
Thallium	<1	<1	<1	<1	<30	<1	<1	<1	<1
Vanadium	<5	<5	<5	<5	<2	<5	<5	<5	<2
Zinc	16*	13*	310*	<2	4*	<2	15*	42*	32*

COMMENTS: ARDL means ARDL, Inc. (Laboratory), Mt. Vernon, Illinois. NR means not reported.

A "<" means that the compound was not detected at the concentration level shown. A "*" indicates a measurable quantity.

Continued .

Sheet 7 of 10

TABLE III. Results of Chemical Tests for Water Samples from Fort Richardson, Alaska.
(Continued). Ground Water Monitoring Project. September, 1990.
Metals. Dissolved.

PROJECT: Ft. Richardson Ground Water

	DUP.				DUP.		DUP.		DUP.
LOCATION:	WELL-2	WELL-3	OTTER	W-B	W-B	W-B	AK-2127	FR-1	FR-1
DATE OF SAMPLING:	900905	900905	900907	900904	900904	900904	900904	900909	900909
TIME OF SAMPLING:	NR	NR	NR	1445	1445	1445	1210	0800	0800
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	96.75	96.75	96.75	72.85	127.2	127.2
FIELD SAMPLE ID No.: 90FRGW	163WA	162WA	164WA	165WA	165WA	166WA	167WA	168WA	168WA
TESTING LABORATORY:	CENPD	CENPD	CENPD	CENPD	AMTEST	CENPD	CENPD	CENPD	AMTEST
LABORATORY SAMPLE #:	0337	0336	0345	0319	021114	0320	0321	0349	021439
DATE EXTRACTED:	900907	900907	900910	900905	900906	900905	900905	900911	900912

ELEMENT, DISSOLVED
CONCENTRATION UNITS:

	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	mg/L
Aluminum	<45	<45	<45	<45	140*	<45	<45	<45	100*
Antimony	<10	<10	<10	<10	<1	<10	<10	<10	2*
Arsenic	<2	2.6*	<2	<2	1*	2.1*	<2	2.1*	1*
Barium	<10	<10	12*	11*	8*	10*	11*	14*	8*
Beryllium	<1	<1	<1	<1	<7	<1	<1	<1	<7
Cadmium	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.9	<2
Calcium	38000*	32000*	58000*	43000*	40000*	43000*	27000*	53000*	52000*
Chromium	<2	<2	<2	2.6*	<6	2.2*	<2	2.9*	<6
Cobalt	<5	<5	<5	<5	<3	<5	<5	<5	<3
Copper	<5	<5	11*	<5	17*	<5	<5	12*	10*
Iron	11*	<5	<5	<5	120*	<5	<5	18*	10*
Lead	<2	<2	<2	<2	3*	<2	<2	<2	4*
Magnesium	6500*	4900*	7300*	14000*	13000*	13000*	6300*	7600*	7900*
Manganese	<2	<2	<2	11*	69*	11*	14*	<2	5*
Mercury	<0.2	<0.2	<0.2	<0.2	<0.2	0.3*	<0.2	<0.2	<0.2
Nickel	<5	<5	<5	<5	<10	<5	<5	<5	<10
Potassium	480*	480*	680*	1000*	<1000	990*	610*	3400*	1500*
Selenium	<5	<5	<5	<5	1*	<5	<5	<5	<1
Silver	<0.5	<0.5	<0.5	<0.5	<0.2*	<0.5	<0.5	<0.5	<10
Sodium	3400*	2500*	2200*	4600*	4400*	3500*	5300*	3200*	7200*
Thallium	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium	<5	<5	<5	<5	<0.2	<5	<5	<5	<2
Zinc	4.3*	3.1*	240*	2.2*	49*	<2	3*	27*	37*

COMMENTS: ARDL means ARDL, Inc. (Laboratory), Mt. Vernon, Illinois. NR means not reported.
A "<" means that the compound was not detected at the concentration level shown. A "*" indicates a measurable quantity.

Continued

Sheet 8 of 10

TABLE III. Results of Chemical Tests for Water Samples from Fort Richardson, Alaska.
(Continued). Ground Water Monitoring Project. September, 1990.
Metals. Total.

PROJECT: Ft. Richardson Ground Water					
LOCATION:	FR-2	DUP. FR-2	FR-3	DUP. FR-3	BLDG SHOP
DATE OF SAMPLING:	900908	900908	900910	900910	900830
TIME OF SAMPLING:	1230	1230	NR	NR	TRIP
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	145.1	145.1	130.35	130.35	BLANK
FIELD SAMPLE ID No.: 90FRGW	69WA	69WA	70WA	70WA	73WA
TESTING LABORATORY:	CENPD	AMTEST	CENPD	AMTEST	CENPD
LABORATORY SAMPLE #:	0347	021436	0348	021437	0352
DATE RECEIVED:	900911	900909	900911	900912	900911
ELEMENT, TOTAL					
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	<45	170 *	2700 *	1100	<45
Antimony	<10	<1	<10	<1	<10
Arsenic	2.2*	<1	3.8 *	1 *	<2
Barium	17*	9 *	55 *	20 *	<10
Beryllium	<1	<7	<1	<7	<1
Cadmium	0.65*	3 *	0.69 *	<2	<0.5
Calcium	64000*	59000 *	46000 *	45000 *	340 *
Chromium	2.7*	<6	11 *	<6	<2
Cobalt	<5	<3	<5	<3	<5
Copper	12*	39 *	34*	24 *	<5
Iron	320*	200 *	6300*	1700 *	<5
Lead	2.4*	4 *	9.2 *	16 *	<2
Magnesium	9700*	9000 *	12000 *	9800 *	15*
Manganese	29*	23 *	160 *	78 *	<2
Mercury	0.6*	<0.2	0.5 *	<0.2	<0.2
Nickel	<5	<10	14 *	<10	<5
Potassium	1500*	1400 *	1000 *	1500 *	49 *
Selenium	<5	<1	<5	<1	<5
Silver	<0.5	<10	<0.5	<10	<0.5
Sodium	3400*	3400 *	7000*	6500	<100
Thallium	<1	<1	<1	<1	<1
Vanadium	<5	<2	<5	2 *	<5
Zinc	130*	184 *	480 *	168 *	<2

COMMENTS: ARDL means ARDL, Inc. (Laboratory), Mt. Vernon, Illinois. NR means not reported.
A "<" means that the compound was not detected at the concentration level shown. A "*" indicates a measurable quantity.

Continued

Sheet 9 of 10

TABLE III. Results of Chemical Tests for Water Samples from Fort Richardson, Alaska.
(Concluded). Ground Water Monitoring Project. September, 1990.
Metals. Dissolved.

PROJECT: Ft. Richardson Ground Water

	FR-2	DUP. FR-2	FR-3	DUP. FR-3	BLDG SHOP
LOCATION:	FR-2	FR-2	FR-3	FR-3	BLDG SHOP
DATE OF SAMPLING:	900908	900908	900910	900910	900909
TIME OF SAMPLING:	1230	1230	NR	NR	TRIP
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	145.1	145.1	130.35	130.35	BLANK
FIELD SAMPLE ID No.: 90FRGW	169WA	169WA	170WA	170WA	073WA
TESTING LABORATORY:	CENPD	AMTEST	CENPD	AMTEST	AMTEST
LABORATORY SAMPLE #:	0350	021440	0351	021441	021438
DATE RECEIVED:	900911	900912	900911	900912	900912

ELEMENT, DISSOLVED
CONCENTRATION UNITS:

	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	82*	90 *	<45	140 *	120 *
Antimony	<10	<1	<10	<1	<1
Arsenic	<2	1 *	<2	1 *	<1
Barium	17*	8 *	21*	12 *	<3
Beryllium	<1	<7	<1	<7	<7
Cadmium	<2	<2	0.84*	<2	<2
Calcium	67000*	57000 *	46000*	42000 *	1300 *
Chromium	2.3*	<6	2.4*	<6	<6
Cobalt	6.2*	<3	<5	<3	<3
Copper	20*	8 *	7.0*	6 *	4 *
Iron	160*	60 *	5*	80 *	50 *
Lead	<2	15 *	<2	4 *	2 *
Magnesium	9500*	8600 *	9100*	8900 *	<100
Manganese	25*	4 *	10*	3 *	23 *
Mercury	<0.2	<0.2	<0.2	<0.2	<0.2
Nickel	<5	<10	<5	<10	<10
Potassium	2400*	<1000	3700*	1300 *	<1000
Selenium	<5	<1	<5	<1	1 *
Silver	<0.5	<10	<0.5	<10	<10
Sodium	3000*	3400 *	7400*	7900 *	720 *
Thallium	<1	<1	<1	<1	<1
Vanadium	<5	<2	<5	<2	<2
Zinc	110*	93 *	34*	44 *	20 *

COMMENTS: ARDL means ARDL, Inc. (Laboratory), Mt. Vernon, Illinois. NR means not reported.
A "<" means that the compound was not detected at the concentration level shown. A "*" indicates a measurable quantity.

TABLE IV. Results of Chemical Tests for Soil Samples from Fort Richardson, Alaska
Ground Water Monitoring. May-June 1990.
Semivolatile Organic Compounds. SW846 Method 8270.

PROJECT: Ft. Richardson Ground Water

LOCATION:	AFDG C	AFDG E	AFDG K	A-6	A-1	TW-1	SUMP A	DUP. AFDG 9	AFDG 9	WELL-1
DATE OF SAMPLING:	900529	900529	900529	900601	900601	900601	900529	900529	900529	900530
TIME OF SAMPLING:	NR	NR	NR	1102	0930	1305	NR	NR	NR	NR
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	5.96	37.0	26.4	NR	NR	NR	NR
FIELD SAMPLE ID#: 90FRGW	01WA	02WA	03WA	04WA	06WA	07WA	08WA	09WA	09WARE	10WA
DATE SHIPPED:	900530	900530	900530	900601	900601	900601	900530	900530	900530	900530
TESTING LABORATORY:	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL
LABORATORY SAMPLE #:	694-1	694-2	694-3	698-1	698-2	698-3	694-5	694-6	694-6RE	694-7
DATE RECEIVED:	900601	900601	900601	900605	900605	900605	900601	900601	900601	900601
DATE EXTRACTED:	900601	900601	900601	900607	900607	900607	900601	900601	900601	900601
DATE TESTED:	900614	900614	900614	900620	900622	900620	900615	900615	900615	900615
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
COMPOUND										
Phenol	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
bis(-2-Chloroethyl)ether	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
2-Chlorophenol	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
1,3-Dichlorobenzene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
1,4-Dichlorobenzene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
Benzyl alcohol	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
1,2-Dichlorobenzene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
2-Methylphenol	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
bis(2-Chloroisopropyl)ether	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
4-Methylphenol	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
N-Nitroso-Di-n-propylamine	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
Hexachloroethane	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
Nitrobenzene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
Isophorone	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
2-Nitrophenol	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
2,4-Dimethylphenol	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
Benzoic Acid	56. U	56. U	56. U	71. U	56. U	56. U	56. U	56. U	56. U	56. U
bis(-2-Chloroethoxy)methane	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
2,4-Dichlorophenol	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
1,2,4-Trichlorobenzene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
Naphthalene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
4-Chloroaniline	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
Hexachlorobutadiene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
4-Chloro-3-Methylphenol	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
2-Methylnaphthalene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
Hexachlorocyclopentadiene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
2,4,6-Trichlorophenol	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
2,4,5-Trichlorophenol	56. U	56. U	56. U	71. U	56. U	56. U	56. U	56. U	56. U	56. U
2-Chloronaphthalene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
2-Nitroaniline	56. U	56. U	56. U	71. U	56. U	56. U	56. U	56. U	56. U	56. U
Dimethyl phthalate	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
Acenaphthalene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
2,6-Dinitrotoluene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U

Comments: A "U" indicates that the compound was not detected at the concentration level shown. NR means not reported.
* indicates a measurable value. "J" means compound detected below accepted measurable levels. "B" means that compound
was also detected in laboratory blank. ARDL means ARDL, Inc. (Laboratory), Mt. Vernon, Illinois.

Continued

Sheet 1 of 10

TABLE IV. Results of Chemical Test for Soil Samples from Ft. Richardson, Alaska
(Continued) Ground Water Monitoring. May-June 1990.
Semivolatile Organic Compounds. SW846 Method 8270

PROJECT: Ft. Richardson Ground Water

LOCATION:	AFDG C	AFDG E	AFDG K	A-6	A-1	TW-1	SUMP A	DUP. AFDG 9	AFDG 9	WELL-1
DATE OF SAMPLING:	900529	900529	900529	900601	900601	900601	900529	900529	900529	900530
TIME OF SAMPLING:	NR	NR	NR	1102	0930	1305	NR	NR	NR	NR
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	5.96	37.1	26.3	NR	NR	NR	NR
DATE SHIPPED:	900530	900530	900530	900530	900530	900530	900530	900530	900530	900530
FIELD SAMPLE ID#: 90FRGW	01WA	02WA	03WA	04WA	06WA	07WA	08WA	09WA	09WARE	10WA
TESTING LABORATORY:	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL
LABORATORY SAMPLE #:	694-1	694-2	694-3	698-1	698-2	698-3	694-5	694-6	694-6RE	694-7
DATE RECEIVED:	900601	900601	900601	900601	900601	900601	900601	900601	900601	900601
DATE EXTRACTED:	900601	900601	900601	900601	900601	900601	900601	900601	900601	900601
DATE TESTED:	900614	900614	900614	900620	900622	900620	900615	900615	900619	900615
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
COMPOUND										
3-Nitroaniline	56. U	56. U	56. U	71. U	56. U	56. U	56. U	56. U	56. U	56. U
Acenaphthalene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
2,4-Dinitrophenol	56. U	56. U	56. U	71. U	56. U	56. U	56. U	56. U	56. U	56. U
4-Nitrophenol	56. U	56. U	56. U	71. U	56. U	56. U	56. U	56. U	56. U	56. U
Dibenzofuran	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
2,4-Dinitrotoluene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
Diethylphthalate	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
4-Chlorophenylphenylether	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
Fluorene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
4-Nitroaniline	56. U	56. U	56. U	71. U	56. U	56. U	56. U	56. U	56. U	56. U
4,6-Dinitro-2-methylphenol	56. U	56. U	56. U	71. U	56. U	56. U	56. U	56. U	56. U	56. U
N-nitrosodiphenylamine(1)	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
4-Bromophenylphenylether	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
Hexachlorobenzene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
Pentachlorophenol	56. U	56. U	56. U	71. U	56. U	56. U	56. U	56. U	56. U	56. U
Phenanthrene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
Anthracene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
Di-n-butylphthalate	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
Fluoranthene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
Pyrene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
Butylbenzylphthalate	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
3,3'-Dichlorobenzidine	22. U	22. U	22. U	29. U	22. U	22. U	22. U	22. U	22. U	22. U
Benzo(a)anthracene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
Chrysene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
bis-(2-Ethylhexyl)phthalate	3. JB	5. JB	2. JB	14. U	5. J	11. U	5. JB	4. JB	4. JB	4. JB
Di-n-octylphthalate	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
Benzo(b)fluoranthene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
Benzo(k)fluoranthene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
Benzo(a)pyrene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
Indeno(1,2,3-cd)pyrene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
Dibenzo(a,h)anthracene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
Benzo(g,h,i)perylene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	11. U	11. U	11. U
Tentatively Identified Compounds (TICs)	2	2	3	10	7	9	6	4	3	3
Cumulated Est. Conc.	6.	7.	17.	10.8	21.8	10.7	36.	190.	140.	398.

Comments: A "U" indicates that the compound was not detected at the concentration level shown. NR means not reported.
* indicates a measurable value. "J" means compound detected below accepted measurable levels. "B" means that compound was also detected in laboratory blank. ARDL means ARDL, Inc. (Laboratory), Mt. Vernon, Illinois.
(1) - Cannot be separated from Diphenylamine.

TABLE IV. Results of Chemical Tests for Soil Samples from Fort Richardson, Alaska
(Continued) Ground Water Monitoring. May-June 1990.
Semivolatile Organic Compounds. SU846 Method 8270.

PROJECT: Ft. Richardson Ground Water										
	DUP.					DUP.				
LOCATION:	WELL-1	WELL-2	WELL-3	OTTER	W-B	W-B	AK-2127	FR-1	FR-2	FR-3
DATE OF SAMPLING:	900530	900530	900530	900604	900603	900603	900529	900606	900607	900605
TIME OF SAMPLING:	NR	NR	NR	1400	1300	1300	1245	NR	NR	0930
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	NR	96.9	96.9	70.2	128.4	146.2	132.6
FIELD SAMPLE ID#: 90FRGW	13WA	11WA	12WA	14WA	15WA	16WA	17WA	18WA	19WA	20WA
DATE SHIPPED:	900530	900530	900530	900605	900604	900604	900530	900606	900607	900605
TESTING LABORATORY:	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL
LABORATORY SAMPLE #:	694-10	694-8	694-9	700-1	700-2	700-3	694-11	704-1	706-1	700-4
DATE RECEIVED:	900601	900601	900601	900607	900607	900607	900601	900608	900609	900607
DATE EXTRACTED:	900601	900601	900601	900608	900608	900608	900601	900608	900614	900608
DATE TESTED:	900615	900615	900615	900614	900614	900615	900615	900615	900620	900615
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
COMPOUND										
Phenol	11. U	11. U	11. U	14. U	11. U	11. U	11. U	33. U	14. U	11. U
bis(-2-Chloroethyl)ether	11. U	11. U	11. U	14. U	11. U	11. U	11. U	33. U	14. U	11. U
2-Chlorophenol	11. U	11. U	11. U	14. U	11. U	11. U	11. U	33. U	14. U	11. U
1,3-Dichlorobenzene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	33. U	14. U	11. U
1,4-Dichlorobenzene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	33. U	14. U	11. U
Benzyl alcohol	11. U	11. U	11. U	14. U	11. U	11. U	11. U	33. U	14. U	11. U
1,2-Dichlorobenzene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	33. U	14. U	11. U
2-Methylphenol	11. U	11. U	11. U	14. U	11. U	11. U	11. U	33. U	14. U	11. U
bis(2-Chloroisopropyl)ether	11. U	11. U	11. U	14. U	11. U	11. U	11. U	33. U	14. U	11. U
4-Methylphenol	11. U	11. U	11. U	14. U	11. U	11. U	11. U	33. U	14. U	11. U
N-Nitroso-Di-n-propylamine	11. U	11. U	11. U	14. U	11. U	11. U	11. U	33. U	14. U	11. U
Hexachloroethane	11. U	11. U	11. U	14. U	11. U	11. U	11. U	33. U	14. U	11. U
Nitrobenzene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	33. U	14. U	11. U
Isophorone	11. U	11. U	11. U	14. U	11. U	11. U	11. U	33. U	14. U	11. U
2-Nitrophenol	11. U	11. U	11. U	14. U	11. U	11. U	11. U	33. U	14. U	11. U
2,4-Dimethylphenol	11. U	11. U	11. U	14. U	11. U	11. U	11. U	33. U	14. U	11. U
Benzoic Acid	56. U	56. U	56. U	71. U	56. U	56. U	56. U	170. U	71. U	56. U
bis(-2-Chloroethoxy)methane	11. U	11. U	11. U	14. U	11. U	11. U	11. U	33. U	14. U	11. U
2,4-Dichlorophenol	11. U	11. U	11. U	14. U	11. U	11. U	11. U	33. U	14. U	11. U
1,2,4-Trichlorobenzene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	33. U	14. U	11. U
Naphthalene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	33. U	14. U	11. U
4-Chloroaniline	11. U	11. U	11. U	14. U	11. U	11. U	11. U	33. U	14. U	11. U
Hexachlorobutadiene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	33. U	14. U	11. U
4-Chloro-3-Methylphenol	11. U	11. U	11. U	14. U	11. U	11. U	11. U	33. U	14. U	11. U
2-Methylnaphthalene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	33. U	14. U	11. U
Hexachlorocyclopentadiene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	33. U	14. U	11. U
2,4,6-Trichlorophenol	11. U	11. U	11. U	14. U	11. U	11. U	11. U	33. U	14. U	11. U
2,4,5-Trichlorophenol	56. U	56. U	56. U	71. U	56. U	56. U	56. U	170. U	71. U	56. U
2-Chloronaphthalene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	33. U	14. U	11. U
2-Nitroaniline	56. U	56. U	56. U	71. U	56. U	56. U	56. U	170. U	71. U	56. U
Dimethyl phthalate	11. U	11. U	11. U	14. U	11. U	11. U	11. U	33. U	14. U	11. U
Acenaphthalene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	33. U	14. U	11. U
2,6-Dinitrotoluene	11. U	11. U	11. U	14. U	11. U	11. U	11. U	33. U	14. U	11. U

Comments: A "U" indicates that the compound was not detected at the concentration level shown. NR means not reported. * indicates a measurable value. "J" means compound detected below accepted measurable levels. "B" means that compound was also detected in laboratory blank. ARDL means ARDL, Inc. (Laboratory), Mt. Vernon, Illinois.

TABLE IV. Results of Chemical Tests for Soil Samples from Ft. Richardson, Alaska
(Continued) Ground Water Monitoring. May-June 1990.
Semivolatile Organic Compounds. SW846 Method 8270.

PROJECT: Ft. Richardson Ground Water										
	DUP.					DUP.				
LOCATION:	WELL-1	WELL-2	WELL-3	OTTER	W-B	W-B	AK-2127	FR-1	FR-2	FR-3
DATE OF SAMPLING:	900530	900530	900530	900604	900603	900603	900529	900606	900607	900605
TIME OF SAMPLING:	NR	NR	NR	1400	1300	1300	1245	NR	NR	0930
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	NR	96.9	96.9	70.2	128.4	146.2	132.6
DATE SHIPPED:	900530	900530	900530	900530	900530	900530	900530	900530	900530	900530
FIELD SAMPLE ID#: 90FRGW	11WA	12WA	13WA	14WA	15WA	16WA	17WA	18WA	19WA	20WA
TESTING LABORATORY:	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL
LABORATORY SAMPLE #:	694-10	694-8	694-9	700-1	700-2	700-3	694-11	704-1	706-1	700-4
DATE RECEIVED:	900601	900601	900601	900607	900607	900607	900601	900608	900609	900607
DATE EXTRACTED:	900601	900601	900601	900608	900608	900608	900601	900608	900614	900608
DATE TESTED:	900615	900615	900615	900614	900614	900615	900615	900615	900620	900615
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
COMPOUND										
3-Nitroaniline	56. U	56. U	56. U	56. U	56. U	56. U	56. U	170. U	71. U	56. U
Acenaphthalene	11. U	11. U	11. U	11. U	11. U	11. U	11. U	33. U	14. U	11. U
2,4-Dinitrophenol	56. U	56. U	56. U	56. U	56. U	56. U	56. U	170. U	71. U	56. U
4-Nitrophenol	56. U	56. U	56. U	56. U	56. U	56. U	56. U	170. U	71. U	56. U
Dibenzofuran	11. U	11. U	11. U	11. U	11. U	11. U	11. U	33. U	14. U	11. U
2,4-Dinitrotoluene	11. U	11. U	11. U	11. U	11. U	11. U	11. U	33. U	14. U	11. U
Diethylphthalate	11. U	11. U	11. U	11. U	11. U	11. U	11. U	33. U	14. U	11. U
4-Chlorophenylphenylether	11. U	11. U	11. U	11. U	11. U	11. U	11. U	33. U	14. U	11. U
Fluorene	11. U	11. U	11. U	11. U	11. U	11. U	11. U	33. U	14. U	11. U
4-Nitroaniline	56. U	56. U	56. U	56. U	56. U	56. U	56. U	170. U	71. U	56. U
4,6-Dinitro-2-methylphenol	56. U	56. U	56. U	56. U	56. U	56. U	56. U	170. U	71. U	56. U
N-nitrosodiphenylamine(1)	11. U	11. U	11. U	11. U	11. U	11. U	11. U	33. U	14. U	11. U
4-Bromophenylphenylether	11. U	11. U	11. U	11. U	11. U	11. U	11. U	33. U	14. U	11. U
Hexachlorobenzene	11. U	11. U	11. U	11. U	11. U	11. U	11. U	33. U	14. U	11. U
Pentachlorophenol	56. U	56. U	56. U	56. U	56. U	56. U	56. U	170. U	71. U	56. U
Phenanthrene	11. U	11. U	11. U	11. U	11. U	11. U	11. U	33. U	14. U	11. U
Anthracene	11. U	11. U	11. U	11. U	11. U	11. U	11. U	33. U	14. U	11. U
Di-n-butylphthalate	11. U	11. U	11. U	11. U	11. U	11. U	11. U	33. U	14. U	11. U
Fluoranthene	11. U	11. U	11. U	11. U	11. U	11. U	11. U	33. U	14. U	11. U
Pyrene	11. U	11. U	11. U	11. U	11. U	11. U	11. U	33. U	14. U	11. U
Butylbenzylphthalate	11. U	11. U	11. U	11. U	11. U	11. U	11. U	33. U	14. U	11. U
3,3'-Dichlorobenzidine	22. U	22. U	22. U	22. U	22. U	22. U	22. U	67. U	29. U	22. U
Benzo(a)anthracene	11. U	11. U	11. U	11. U	11. U	11. U	11. U	33. U	14. U	11. U
Chrysene	11. U	11. U	11. U	11. U	11. U	11. U	11. U	33. U	14. U	11. U
bis-(2-Ethylhexyl)phthalate	4. JB	5. JB	4. JB	4. J	3. J	11. U	5. JB	18. J	15. B	11. U
Di-n-octylphthalate	11. U	11. U	11. U	11. U	11. U	11. U	11. U	33. U	14. U	11. U
Benzo(b)fluoranthene	11. U	11. U	11. U	11. U	11. U	11. U	11. U	33. U	14. U	11. U
Benzo(k)fluoranthene	11. U	11. U	11. U	11. U	11. U	11. U	11. U	33. U	14. U	11. U
Benzo(a)pyrene	11. U	11. U	11. U	11. U	11. U	11. U	11. U	33. U	14. U	11. U
Indeno(1,2,3-cd)pyrene	11. U	11. U	11. U	11. U	11. U	11. U	11. U	33. U	14. U	11. U
Dibenzo(a,h)anthracene	11. U	11. U	11. U	11. U	11. U	11. U	11. U	33. U	14. U	11. U
Benzo(g,h,i)perylene	11. U	11. U	11. U	11. U	11. U	11. U	11. U	33. U	14. U	11. U
Tentatively Identified										
Compounds (TICs)	4	1	3	8	9	8	4	12	20	20
Cumulated Est. Conc.	483	710.	428	659.	409.8	854.	526.	340.	187.	132.

Comments: A "U" indicates that the compound was not detected at the concentration level shown. NR means not reported.
* indicates a measurable value. "J" means compound detected below accepted measurable levels. "B" means that compound was also detected in laboratory blank. ARDL means ARDL, Inc. (Laboratory), Mt. Vernon, Illinois.
(1) - Cannot be separated from Diphenylamine.

TABLE IV. Results of Chemical Tests for Soil Samples from Fort Richardson, Alaska
(Continued) Ground Water Monitoring, September 1990.
Semivolatile Organic Compounds SW846 Method 8270.

PROJECT: Ft. Richardson Ground Water

LOCATION:	AFDG C	AFDG E	AFDG K	A-6	A-1	TW-1	SUMP A	AFDG 9
DATE OF SAMPLING:	900905	900905	900905	900906	900906	900907	900905	900905
TIME OF SAMPLING:	NR	NR	NR	1700	1545	1025	NR	NR
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	7.33	28.75	21.7	NR	NR
FIELD SAMPLE ID#: 90FRGW	51WA	52WA	53WA	54WA	56WA	57WA	58WA	59WA
TESTING LABORATORY:	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL
LABORATORY SAMPLE #:	791-1	791-2	791-3	794-1	794-2	794-3	791-4	791-5
DATE RECEIVED:	900908	900908	900908	900911	900911	900911	900908	900908
DATE EXTRACTED:	900910	900910	900910	900912	900912	900912	900910	900910
DATE TESTED:	900911	900911	900911	900912	900912	900912	900911	900911
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
COMPOUND								
Phenol	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
bis(-2-Chloroethyl)ether	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
2-Chlorophenol	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
1,3-Dichlorobenzene	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
1,4-Dichlorobenzene	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
Benzyl alcohol	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
1,2-Dichlorobenzene	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
2-Methylphenol	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
bis(2-Chloroisopropyl)ether	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
4-Methylphenol	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
N-Nitroso-Di-n-propylamine	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
Hexachloroethane	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
Nitrobenzene	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
Isophorone	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
2-Nitrophenol	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
2,4-Dimethylphenol	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
Benzoic Acid	50. U	50. U	50. U	62. U	50. U	50. U	50. U	50. U
bis(-2-Chloroethoxy)methane	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
2,4-Dichlorophenol	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
1,2,4-Trichlorobenzene	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
Naphthalene	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
4-Chloroaniline	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
Hexachlorobutadiene	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
4-Chloro-3-Methylphenol	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
2-Methylnaphthalene	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
Hexachlorocyclopentadiene	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
2,4,6-Trichlorophenol	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
2,4,5-Trichlorophenol	50. U	50. U	50. U	62. U	50. U	50. U	50. U	50. U
2-Chloronaphthalene	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
2-Nitroaniline	50. U	50. U	50. U	62. U	50. U	50. U	50. U	50. U
Dimethyl phthalate	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
Acenaphthalene	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
2,6-Dinitrotoluene	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U

Comments: A "U" indicates that the compound was not detected at the concentration level shown. NR means not reported. * indicates a measurable value. "J" means compound detected below accepted measurable levels. "B" means that compound was also detected in laboratory blank. ARDL means ARDL, Inc. (Laboratory), Mt. Vernon, Illinois.

Continued

Sheet 5 of 10

TABLE IV. Results of Chemical Tests for Soil Samples from Ft. Richardson, Alaska.
(Continued) Ground Water Monitoring. September 1990.
Semivolatile Organic Compounds. SW846 Method 8270.

PROJECT: Ft. Richardson Ground Water

LOCATION:	AFDG C	AFDG E	AFDG K	A-6	A-1	TW-1	SUMP A	AFDG 9
DATE OF SAMPLING:	900905	900905	900905	900601	900906	900907	900905	900905
TIME OF SAMPLING:	NR	NR	NR	1700	1545	1025	NR	NR
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	7.33	28.75	21.7	NR	NR
FIELD SAMPLE ID#: 90FRGW	51WA	52WA	53WA	54WA	56WA	57WA	58WA	59WA
TESTING LABORATORY:	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL
LABORATORY SAMPLE #:	791-1	791-2	791-3	794-1	794-2	794-3	791-4	791-5
DATE RECEIVED:	900908	900908	900908	900911	900911	900911	900908	900908
DATE EXTRACTED:	900910	900910	900910	900912	900912	900912	900910	900910
DATE TESTED:	900911	900911	900911	900912	900912	900912	900911	900911
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
COMPOUND								
3-Nitroaniline	50. U	50. U	50. U	62. U	50. U	50. U	50. U	50. U
Acenaphthalene	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
2,4-Dinitrophenol	50. U	50. U	50. U	62. U	50. U	50. U	50. U	50. U
4-Nitrophenol	50. U	50. U	50. U	62. U	50. U	50. U	50. U	50. U
Dibenzofuran	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
2,4-Dinitrotoluene	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
Diethylphthalate	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
4-Chlorophenylphenylether	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
Fluorene	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
4-Nitroaniline	50. U	50. U	50. U	62. U	50. U	50. U	50. U	50. U
4,6-Dinitro-2-methylphenol	50. U	50. U	50. U	62. U	50. U	50. U	50. U	50. U
N-nitrosodiphenylamine(1)	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
4-Bromophenylphenylether	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
Hexachlorobenzene	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
Pentachlorophenol	50. U	50. U	50. U	62. U	50. U	50. U	50. U	50. U
Phenanthrene	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
Anthracene	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
Di-n-butylphthalate	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
Fluoranthene	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
Pyrene	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
Butylbenzylphthalate	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
3,3'-Dichlorobenzidine	20. U	20. U	20. U	25. U	20. U	20. U	20. U	20. U
Benzo(a)anthracene	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
Chrysene	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
bis-(2-Ethylhexyl)phthalate	5. JB	5. JB	5. JB	4. JB	4. JB	3. JB	4. JB	6. JB
Di-n-octylphthalate	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
Benzo(b)fluoranthene	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
Benzo(k)fluoranthene	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
Benzo(a)pyrene	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
Indeno(1,2,3-cd)pyrene	10. U	10. U	10. U	12. U	50. U	50. U	10. U	10. U
Dibenzo(a,h)anthracene	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
Benzo(g,h,i)perylene	10. U	10. U	10. U	12. U	10. U	10. U	10. U	10. U
Tentatively Identified								
Compounds (TICs)	4	4	4	4	4	3	5	6
Cumulated Est. Conc.	48	51	49	15	15	12	209	54

Comments: A "U" indicates that the compound was not detected at the concentration level shown. NR means not reported. * indicates a measurable value. "J" means compound detected below accepted measurable levels. "B" means that compound was also detected in laboratory blank. ARDL means ARDL, Inc. (Laboratory), Mt. Vernon, Illinois.
(1) - Cannot be separated from Diphenylamine.

TABLE IV. Results of Chemical Tests for Soil Samples from Fort Richardson, Alaska
(Continued) Ground Water Monitoring. September 1990.
Semivolatile Organic Compounds. SW846 Method 8270.

PROJECT: Ft. Richardson Ground Water

	DUP.	DUP.		DUP.	DUP.				
LOCATION:	WELL-2	WELL-2	WELL-2	WELL-3	W-B	W-B	W-B	OTTER	AK-2127
900905	900905	900905	900905	900905	900904	900904	900904	900907	900904
TIME OF SAMPLING:	NR	NR	NR	NR	1445	1445	1445	1130	1210
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	NR	96.75	96.75	96.75	NR	72.85
FIELD SAMPLE ID#: 90FRGW	61WA	63WA	60WA	62WA	65WA	66WA	65WA	64WA	67WA
TESTING LABORATORY:	ARDL	ARDL	AMTEST	ARDL	ARDL	ARDL	AMTEST	ARDL	ARDL
LABORATORY SAMPLE #:	791-6	791-8	021268	791-7	789-1	789-2	021113	794-4	789-3
DATE RECEIVED:	900908	900908	900908	900908	900906	900906	900906	900911	900906
DATE EXTRACTED:	900910	900910	900911	900910	900907	900907	900911	900912	900907
DATE TESTED:	900912	900912	900911	900912	900907	900907	900911	900913	900907
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
COMPOUND									
Phenol	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
bis(-2-Chloroethyl)ether	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
2-Chlorophenol	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
1,3-Dichlorobenzene	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
1,4-Dichlorobenzene	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
Benzyl alcohol	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
1,2-Dichlorobenzene	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
2-Methylphenol	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
bis(2-Chloroisopropyl)ether	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
4-Methylphenol	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
N-Nitroso-Di-n-propylamine	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
Hexachloroethane	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
Nitrobenzene	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
Isophorone	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
2-Nitrophenol	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
2,4-Dimethylphenol	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
Benzoic Acid	50. U	50. U	6 ND	50. U	50. U	50. U	6 ND	50. U	50. U
bis(-2-Chloroethoxy)methane	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
2,4-Dichlorophenol	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
1,2,4-Trichlorobenzene	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
Naphthalene	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
4-Chloroaniline	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
Hexachlorobutadiene	10. U	10. U	6 ND	10. U	10. U	10. U	6 ND	10. U	10. U
4-Chloro-3-Methylphenol	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
2-Methylnaphthalene	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
Hexachlorocyclopentadiene	10. U	10. U	6 ND	10. U	10. U	10. U	6 ND	10. U	10. U
2,4,6-Trichlorophenol	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
2,4,5-Trichlorophenol	50. U	50. U	2 ND	50. U	50. U	50. U	2 ND	50. U	50. U
2-Chloronaphthalene	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
2-Nitroaniline	50. U	50. U	6 ND	50. U	50. U	50. U	6 ND	50. U	50. U
Dimethyl phthalate	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
Acenaphthalene	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
2,6-Dinitrotoluene	10. U	10. U	6 ND	10. U	10. U	10. U	6 ND	10. U	10. U

Comments: A "U" indicates that the compound was not detected at the concentration level shown. NR means not reported.
* indicates a measurable value. "J" means compound detected below accepted measurable levels. "B" means that compound was also detected in laboratory blank. ARDL means ARDL, Inc. (Laboratory), Mt. Vernon, Illinois.

Continued

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TABLE IV. Results of Chemical Tests for Soil Samples from Ft. Richardson, Alaska
(Continued) Ground Water Monitoring. September 1990.
Semivolatile Organic Compounds. SW846 Method 8270.

PROJECT: Ft. Richardson Ground Water

		DUP.	DUP.			DUP.	DUP.		
LOCATION:	WELL-2	WELL-2	WELL-2	WELL-3	W-B	W-B	W-B	OTTER	AK-2127
DATE OF SAMPLING:	900905	900905	900905	900905	900904	900904	900904	900907	900904
TIME OF SAMPLING:	NR	NR	NR	NR	1445	1445	1445	1130	1210
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	NR	96.75	96.75	96.75	NR	72.85
FIELD SAMPLE ID#: 90FRGW	61WA	63WA	60WA	62WA	65WA	66WA	65WA	64WA	67WA
TESTING LABORATORY:	ARDL	ARDL	AMTEST	ARDL	ARDL	ARDL	AMTEST	ARDL	ARDL
LABORATORY SAMPLE #:	791-6	791-8	021268	791-7	789-1	789-2	021113	794-4	789-3
DATE RECEIVED:	900908	900908	900908	900908	900906	900906	900906	900911	900906
DATE EXTRACTED:	900910	900910	900911	900910	900907	900907	900911	900912	900907
DATE TESTED:	900912	900912	900911	900912	900907	900907	900911	900913	900907
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
COMPOUND									
3-Nitroaniline	50. U	50. U	6 ND	50. U	50. U	50. U	6 ND	50. U	50. U
Acenaphthalene	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
2,4-Dinitrophenol	50. U	50. U	11 ND	50. U	50. U	50. U	11 ND	50. U	50. U
4-Nitrophenol	50. U	50. U	6 ND	50. U	50. U	50. U	6 ND	50. U	50. U
Dibenzofuran	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
2,4-Dinitrotoluene	10. U	10. U	6 ND	10. U	10. U	10. U	6 ND	10. U	10. U
Diethylphthalate	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
4-Chlorophenylphenylether	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
Fluorene	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
4-Nitroaniline	50. U	50. U	6 ND	50. U	50. U	50. U	6 ND	50. U	50. U
4,6-Dinitro-2-methylphenol	50. U	50. U	6 ND	50. U	50. U	50. U	6 ND	50. U	50. U
N-nitrosodiphenylamine(1)	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
4-Bromophenylphenylether	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
Hexachlorobenzene	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
Pentachlorophenol	50. U	50. U	6 ND	50. U	50. U	50. U	6 ND	50. U	50. U
Phenanthrene	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
Anthracene	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
Di-n-butylphthalate	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
Fluoranthene	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
Pyrene	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
Butylbenzylphthalate	26. *	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
3,3'-Dichlorobenzidine	20. U	20. U	3 ND	20. U	20. U	20. U	3 ND	20. U	20. U
Benzo(a)anthracene	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
Chrysene	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
bis-(2-Ethylhexyl)phthalate	5. JB	5. JB	2 ND	5. JB	3. JB	3. JB	2 ND	3. JB	4. JB
Di-n-octylphthalate	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
Benzo(b)fluoranthene	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
Benzo(k)fluoranthene	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
Benzopyrene	10. U	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
Indeno(1,2,3-cd)pyrene	10. U	10. U	4 ND	10. U	10. U	10. U	4 ND	10. U	10. U
Dibenzo(a,h)anthracene	10. U	10. U	4 ND	10. U	10. U	10. U	4 ND	10. U	10. U
Benzo(g,h,i)perylene	10. U	10. U	4 ND	10. U	10. U	10. U	4 ND	10. U	10. U
Tentatively Identified									
Compounds (TICs)	7	5	0	4	7	10	0	3	10
Cumulated Est. Conc.	427	37	0	40	18	28.6	0	11	24.1

Comments: A "U" indicates that the compound was not detected at the concentration level shown. NR means not reported.
* indicates a measurable value. "J" means compound detected below accepted measurable levels. "B" means that compound was also detected in laboratory blank. ARDL means ARDL, Inc. (Laboratory), Mt. Vernon, Illinois.
(1) - Cannot be separated from Diphenylamine.

Continued

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TABLE IV. Results of Chemical Tests for Soil Samples from Fort Richardson, Alaska
(Continued) Ground Water Monitoring. September 1990.
Semivolatile Organic Compounds. SW846 Method 8270.

PROJECT: Ft. Richardson Ground Water

	DUP.		DUP.		DUP.	
LOCATION:	FR-1	FR-1	FR-2	FR-2	FR-3	FR-3
900905	900909	900909	900908	900908	900910	900910
TIME OF SAMPLING:	0800	0800	1230	1230	NR	NR
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	127.2	127.2	145.1	145.1	130.35	130.35
FIELD SAMPLE ID#: 90FRGW	68WA	68WA	69WA	69WA	70WA	70WA
TESTING LABORATORY:	ARDL	AMTEST	ARDL	AMTEST	ARDL	AMTEST
LABORATORY SAMPLE #:	795-1	021435	795-2	021436	795-3	021437
DATE RECEIVED:	900912	900912	900912	900912	900912	900912
DATE EXTRACTED:	900913	900913	900913	900913	900913	900913
DATE TESTED:	900913	900914	900913	900914	900913	900914
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
COMPOUND						
Phenol	12. U	2 ND	10. U	2 ND	10. U	2 ND
bis(-2-Chloroethyl)ether	12. U	2 ND	10. U	2 ND	10. U	2 ND
2-Chlorophenol	12. U	2 ND	10. U	2 ND	10. U	2 ND
1,3-Dichlorobenzene	12. U	2 ND	10. U	2 ND	10. U	2 ND
1,4-Dichlorobenzene	12. U	2 ND	10. U	2 ND	10. U	2 ND
Benzyl alcohol	12. U	2 ND	10. U	2 ND	10. U	2 ND
1,2-Dichlorobenzene	12. U	2 ND	10. U	2 ND	10. U	2 ND
2-Methylphenol	12. U	2 ND	10. U	2 ND	10. U	2 ND
bis(2-Chloroisopropyl)ether	12. U	2 ND	10. U	2 ND	10. U	2 ND
4-Methylphenol	12. U	2 ND	10. U	2 ND	10. U	2 ND
N-Nitroso-Di-n-propylamine	12. U	2 ND	10. U	2 ND	10. U	2 ND
Hexachloroethane	12. U	2 ND	10. U	2 ND	10. U	2 ND
Nitrobenzene	12. U	2 ND	10. U	2 ND	10. U	2 ND
Isophorone	12. U	2 ND	10. U	2 ND	10. U	2 ND
2-Nitrophenol	12. U	2 ND	10. U	2 ND	10. U	2 ND
2,4-Dimethylphenol	12. U	2 ND	10. U	2 ND	10. U	2 ND
Benzoic Acid	62. U	6 ND	50. U	6 ND	50. U	6 ND
bis(-2-Chloroethoxy)methane	12. U	2 ND	10. U	2 ND	10. U	2 ND
2,4-Dichlorophenol	12. U	2 ND	10. U	2 ND	10. U	2 ND
1,2,4-Trichlorobenzene	12. U	2 ND	10. U	2 ND	10. U	2 ND
Naphthalene	12. U	2 ND	10. U	2 ND	10. U	2 ND
4-Chloroaniline	12. U	2 ND	10. U	2 ND	10. U	2 ND
Hexachlorobutadiene	12. U	6 ND	10. U	6 ND	10. U	6 ND
4-Chloro-3-Methylphenol	12. U	2 ND	10. U	2 ND	10. U	2 ND
2-Methylnaphthalene	12. U	2 ND	10. U	2 ND	10. U	2 ND
Hexachlorocyclopentadiene	12. U	6 ND	10. U	6 ND	10. U	6 ND
2,4,6-Trichlorophenol	12. U	2 ND	10. U	2 ND	10. U	2 ND
2,4,5-Trichlorophenol	62. U	2 ND	50. U	2 ND	50. U	2 ND
2-Chloronaphthalene	12. U	2 ND	10. U	2 ND	10. U	2 ND
2-Nitroaniline	62. U	6 ND	50. U	6 ND	50. U	6 ND
Dimethyl phthalate	12. U	2 ND	10. U	2 ND	10. U	2 ND
Acenaphthalene	12. U	2 ND	10. U	2 ND	10. U	2 ND
2,6-Dinitrotoluene	12. U	6 ND	10. U	6 ND	10. U	6 ND

Comments: A "U" indicates that the compound was not detected at the concentration level shown. NR means not reported. * indicates a measurable value. "J" means compound detected below accepted measurable levels. "B" means that compound was also detected in laboratory blank. ARDL means ARDL, Inc. (Laboratory), Mt. Vernon, Illinois.

Continued

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TABLE IV. Results of Chemical Tests for Soil Samples from Ft. Richardson, Alaska
(Concluded). Ground Water Monitoring. September 1990.
Semivolatile Organic Compounds. SW846 Method 8270.

PROJECT: Ft. Richardson Ground Water						
	DUP.		DUP.		DUP.	
LOCATION:	FR-1	FR-1	FR-2	FR-2	FR-3	FR-3
DATE OF SAMPLING:	900909	900909	900908	900908	900910	900910
TIME OF SAMPLING:	0800	0800	1230	1230	NR	NR
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	127.2	127.2	145.1	145.1	130.35	130.35
FIELD SAMPLE ID#: 90FRGW	68WA	68WA	69WA	69WA	70WA	70WA
TESTING LABORATORY:	ARDL	AMTEST	ARDL	AMTEST	ARDL	AMTEST
LABORATORY SAMPLE #:	795-1	021435	795-2	021436	795-3	021437
DATE RECEIVED:	900912	900912	900912	900912	900912	900912
DATE EXTRACTED:	900913	900913	900913	900913	900913	900913
DATE TESTED:	900913	900914	900913	900914	900913	900914
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
COMPOUND						
3-Nitroaniline	62. U	6 ND	50. U	6 ND	50. U	6 ND
Acenaphthalene	12. U	2 ND	10. U	2 ND	10. U	2 ND
2,4-Dinitrophenol	62. U	11 ND	50. U	11 ND	50. U	11 ND
4-Nitrophenol	62. U	6 ND	50. U	6 ND	50. U	6 ND
Dibenzofuran	12. U	2 ND	10. U	2 ND	10. U	2 ND
2,4-Dinitrotoluene	12. U	6 ND	10. U	6 ND	10. U	6 ND
Diethylphthalate	12. U	2 ND	10. U	2 ND	10. U	2 ND
4-Chlorophenylphenylether	12. U	2 ND	10. U	2 ND	10. U	2 ND
Fluorene	12. U	2 ND	10. U	2 ND	10. U	2 ND
4-Nitroaniline	62. U	6 ND	50. U	6 ND	50. U	6 ND
4,6-Dinitro-2-methylphenol	62. U	6 ND	50. U	6 ND	50. U	6 ND
N-nitrosodiphenylamine(1)	12. U	2 ND	10. U	2 ND	10. U	2 ND
4-Bromophenylphenylether	12. U	2 ND	10. U	2 ND	10. U	2 ND
Hexachlorobenzene	12. U	2 ND	10. U	2 ND	10. U	2 ND
Pentachlorophenol	62. U	6 ND	50. U	6 ND	50. U	6 ND
Phenanthrene	12. U	2 ND	10. U	2 ND	10. U	2 ND
Anthracene	12. U	2 ND	10. U	2 ND	10. U	2 ND
Di-n-butylphthalate	12. U	2 ND	10. U	2.3 *	10. U	2.2 *
Fluoranthene	12. U	2 ND	10. U	2 ND	10. U	2 ND
Pyrene	12. U	2 ND	10. U	2 ND	10. U	2 ND
Butylbenzylphthalate	12. U	2 ND	10. U	2 ND	10. U	2 ND
3,3'-Dichlorobenzidine	25. U	3 ND	20. U	3 ND	20. U	3 ND
Benzo(a)anthracene	12. U	2 ND	10. U	2 ND	10. U	2 ND
Chrysene	12. U	2 ND	10. U	2 ND	10. U	2 ND
bis-(2-Ethylhexyl)phthalate	9. JB	2 ND	7. JB	2 ND	6. JB	5.9 *
Di-n-octylphthalate	12. U	2 ND	10. U	2 ND	10. U	2 ND
Benzo(b)fluoranthene	12. U	2 ND	10. U	2 ND	10. U	2 ND
Benzo(k)fluoranthene	12. U	2 ND	10. U	2 ND	10. U	2 ND
Benzopyrene	12. U	2 ND	10. U	2 ND	10. U	2 ND
Indeno(1,2,3-cd)pyrene	12. U	4 ND	10. U	4 ND	10. U	4 ND
Dibenzo(a,h)anthracene	12. U	4 ND	10. U	4 ND	10. U	4 ND
Benzo(g,h,i)perylene	12. U	4 ND	10. U	4 ND	10. U	4 ND
Tentatively Identified						
Compounds (TICs)	20	25	20	17	20	26
Cumulated Est. Conc.	610.	683	520	523	1689	1216

Comments: A "U" indicates that the compound was not detected at the concentration level shown. NR means not reported.
* indicates a measurable value. "J" means compound detected below accepted measurable levels. "B" means that compound
was also detected in laboratory blank. ARDL means ARDL, Inc. (Laboratory), Mt. Vernon, Illinois.
(1) - Cannot be separated from Diphenylamine.

Table V. Results of Chemical Tests for Samples from Fort Richardson, Alaska.
Groundwater Monitoring. May-June, 1990.
Volatile Organic Compounds. SW846 Method 8240.

PROJECT: FT. RICHARDSON GROUND WATER

LOCATION:	ADFG C	ADFG E	ADFG K	A-6	21-702	A-1	TW-1	SUMP A	ADFG 9	OTTER
DATE OF SAMPLING:	900529	900529	900529	900601	900522	900601	900601	900529	900529	900604
TIME OF SAMPLING:	NR	NR	NR	1102	TRIP	0930	1305	NR	NR	1400
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	5.96	BLANK	37.0	26.4	NR	NR	NR
FIELD SAMPLE ID#: 90FRGW	01WA	02WA	03WA	04WA	05WA	06WA	07WA	08WA	09WA	14WA
DATE SHIPPED:	900530	900530	900530	900601	900530	900530	900530	900530	900530	900605
TESTING LABORATORY:	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL
LABORATORY SAMPLE #:	694-1	694-2	694-3	698-1	694-4	698-2	698-3	694-5	694-6	700-1
DATE RECEIVED:	900601	900601	900601	900605	900601	900605	900605	900601	900601	900607
DATE TESTED:	900610	900610	900611	900612	900608	900612	900612	900610	900608	900612
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
COMPOUND										
Chloromethane	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U
Bromomethane	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U
Vinyl Chloride	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U
Chloroethane	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U
Methylene Chloride	5. B	4. JB	5. U	8. B	13. B	8. B	13. B	11. *	18. B	15. B
Acetone	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U
Carbon Disulfide	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
1,1-Dichloroethene	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
1,1-Dichloroethane	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
1,2-Dichloroethene (total)	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
Chloroform	5. U	5. U	5. U	2. J	33. *	2. J	5. U	5. U	5. U	5. U
1,2-Dichloroethane	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
2-Butanone	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U
1,1,1-Trichloroethane	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
Carbon Tetrachloride	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
Vinyl Acetate	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U
Bromodichloromethane	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
1,2-Dichloropropane	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
cis-1,3-Dichloropropene	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
Trichloroethene	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
Dibromochloromethane	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
1,1,2-Trichloroethane	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
Benzene	5. U	5. U	5. U	5. U	5. U	5. U	2. J	5. U	5. U	5. U
trans-1,3-Dichloropropene	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
Bromoform	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
4-Methyl-2-pentanone	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U
2-Hexanone	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U
Tetrachloroethene	5. U	5. U	5. U	5. U	5. U	5. U	5. U	4. J	5. U	5. U
1,1,2,2-Tetrachloroethane	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
Toluene	5. U	5. U	5. U	5. U	5. U	5. U	3. J	5. *	5. U	5. U
Chlorobenzene	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
Ethylbenzene	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
Styrene	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
m-Xylene	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
o- & p-Xylene	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
Number of TICs	2	1	1	2	0	1	2	1	1	3
Cumulated Est. Conc.	40	18	3	15	0	13	36	9	9	53

COMMENTS: A "U" means not detected at the concentration level shown. NR means not reported.
A "*" means a measurable concentration was found. TIC means tentatively identified compound.
A "J" means that the compound was seen at a concentration below reportable detection limits.
A "B" means that the compound was also seen in a blank sample.

Table V. Results of Chemical Tests for Samples from Fort Richardson, Alaska.
(Continued). Groundwater Monitoring. May-June, 1990.
Volatile Organic Compounds. SW846 Method 8240.

PROJECT: Ft. Richardson Ground Water

	DUP.					DUP.				
LOCATION:	WELL-1	WELL-1	WELL-2	WELL-3	W-8	W-8	AK-2127	FR-1	FR-2	FR-3
DATE OF SAMPLING:	900530	900530	900530	900530	900603	900603	900529	900606	900607	900605
TIME OF SAMPLING:	NR	NR	NR	NR	1300	1300	1245	NR	NR	0930
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	NR	96.9	96.9	70.2	128.4	146.2	132.6
FIELD SAMPLE ID#: 90FRGW	13WA	10WA	11WA	12WA	15WA	16WA	17WA	18WA	19WA	20WA
DATE SHIPPED:	900530	900530	900530	900530	900604	900604	900530	900606	900607	900605
TESTING LABORATORY:	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL
LABORATORY SAMPLE #:	694-10	694-7	694-8	694-9	700-2	700-3	694-11	704-1	706-6	700-4
DATE RECEIVED:	900601	900601	900601	900601	900607	900607	900601	900608	900609	900607
DATE TESTED:	900610	900608	900611	900610	900612	900612	900610	900614	900615	900612
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
COMPOUND										
Chloromethane	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U
Bromomethane	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U
Vinyl Chloride	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U
Chloroethane	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U
Methylene Chloride	5. J	7. B	5. B	5. J	17. B	18. B	7. *	17. B	31. *	19. B
Acetone	10. U	10. U	10. U	10. U	10. U	10. U	10. U	35. B	10. U	24.
Carbon Disulfide	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
1,1-Dichloroethene	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
1,1-Dichloroethane	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
1,2-Dichloroethene (total)	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
Chloroform	5. U	5. U	5. U	5. U	5. U	5. U	5. U	2. J	5. U	5. U
1,2-Dichloroethane	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
2-Butanone	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U
1,1,1-Trichloroethane	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
Carbon Tetrachloride	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
Vinyl Acetate	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U
Bromodichloromethane	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
1,2-Dichloropropane	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
cis-1,3-Dichloropropene	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
Trichloroethene	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
Dibromochloromethane	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
1,1,2-Trichloroethane	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
Benzene	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
trans-1,3-Dichloropropene	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
Bromoform	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
4-Methyl-2-pentanone	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U
2-Hexanone	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U
Tetrachloroethene	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
1,1,2,2-Tetrachloroethane	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
Toluene	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
Chlorobenzene	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
Ethylbenzene	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
Styrene	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
m-Xylene	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
o- & p-Xylene	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U	5. U
Number of TICs	1	1	2	2	1	2	2	0	0	1
Cumulated Est. Conc.	11	9	14	30	17	19	30	0	0	14

COMMENTS: A "U" means not detected at the concentration level shown. NR means not reported.
A "*" means a measurable concentration was found. TIC means tentatively identified compound.
A "J" means that the compound was seen at a concentration below reportable detection limits.
A "B" means that the compound was also seen in a blank sample.

Table V. Results of Chemical Tests for Samples from Fort Richardson, Alaska.
(Continued). Groundwater Monitoring. May-June, 1990.
Volatile Organic Compounds. SW846 Method 8240.

PROJECT: FT. RICHARDSON GROUND WATER

LOCATION:	21-702	21-700	21-702	21-700	21-702	SHOP	CHECK
DATE OF SAMPLING:	900530	900601	900603	900606	900605	900606	900607
						TRIP	TRIP
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER
						BLANK	BLANK
FIELD SAMPLE ID#: 90FRGW	21WA	22WA	23WA	24WA	25WA	26WA	27WA
DATE SHIPPED:	900601	900605	900607	900608	900607	900608	900609
TESTING LABORATORY:	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL
LABORATORY SAMPLE #:	694-12	698-4	700-5	704-2	700-6	704-3	706-2
DATE RECEIVED:	900601	900605	900607	900608	900607	900608	900609
DATE TESTED:	900611	900612	900613	900614	900613	900614	900615
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
COMPOUND							
Chloromethane	10. U	10. U	10. U	10. U	10. U	10. U	10. U
Bromomethane	10. U	10. U	10. U	10. U	10. U	10. U	10. U
Vinyl Chloride	10. U	10. U	10. U	10. U	10. U	10. U	10. U
Chloroethane	10. U	10. U	10. U	10. U	10. U	10. U	10. U
Methylene Chloride	5. JB	14. B	7. B	20. B	7. B	16. B	29. *
Acetone	10. U	10. U	10. U	10. U	10. U	10. U	10. U
Carbon Disulfide	5. U	5. U	5. U	5. U	5. U	5. U	5. U
1,1-Dichloroethene	5. U	5. U	5. U	5. U	5. U	5. U	5. U
1,1-Dichloroethane	5. U	5. U	5. U	5. U	5. U	5. U	5. U
1,2-Dichloroethene (total)	5. U	5. U	5. U	5. U	5. U	5. U	5. U
Chloroform	29. *	33. *	30. B	42. *	40. B	36. *	41. *
1,2-Dichloroethane	5. U	5. U	5. U	5. U	5. U	5. U	5. U
2-Butanone	10. U	10. U	10. U	10. U	10. U	10. U	10. U
1,1,1-Trichloroethane	5. U	5. U	5. U	5. U	5. U	5. U	5. U
Carbon Tetrachloride	5. U	5. U	5. U	5. U	5. U	5. U	5. U
Vinyl Acetate	10. U	10. U	10. U	10. U	10. U	10. U	10. U
Bromodichloromethane	5. U	5. U	5. U	5. U	5. U	5. U	5. U
1,2-Dichloropropane	5. U	5. U	5. U	5. U	5. U	5. U	5. U
cis-1,3-Dichloropropene	5. U	5. U	5. U	5. U	5. U	5. U	5. U
Trichloroethene	5. U	5. U	5. U	5. U	5. U	5. U	5. U
Dibromochloromethane	5. U	5. U	5. U	5. U	5. U	5. U	5. U
1,1,2-Trichloroethane	5. U	5. U	5. U	5. U	5. U	5. U	5. U
Benzene	5. U	5. U	5. U	5. U	5. U	5. U	5. U
trans-1,3-Dichloropropene	5. U	5. U	5. U	5. U	5. U	5. U	5. U
Bromoform	5. U	5. U	5. U	5. U	5. U	5. U	5. U
4-Methyl-2-pentanone	10. U	10. U	10. U	10. U	10. U	10. U	10. U
2-Hexanone	10. U	10. U	10. U	10. U	10. U	10. U	10. U
Tetrachloroethene	5. U	5. U	5. U	5. U	5. U	5. U	5. U
1,1,2,2-Tetrachloroethane	5. U	5. U	5. U	5. U	5. U	5. U	5. U
Toluene	5. U	5. U	5. U	5. U	5. U	5. U	5. U
Chlorobenzene	5. U	5. U	5. U	5. U	5. U	5. U	5. U
Ethylbenzene	5. U	5. U	5. U	5. U	5. U	5. U	5. U
Styrene	5. U	5. U	5. U	5. U	5. U	5. U	5. U
m-Xylene	5. U	5. U	5. U	5. U	5. U	5. U	5. U
o- & p-Xylene	5. U	5. U	5. U	5. U	5. U	5. U	5. U
Number of TICs	1	1	1	1	0	0	2
Cumulated Est. Conc.	6	84	6	4	0	0	19

COMMENTS: A "U" means not detected at the concentration level shown. NR means not report
A "*" means a measurable concentration was found. TIC means tentatively identified compound.
A "J" means that the compound was seen at a concentration below reportable detection limits.
A "B" means that the compound was also seen in a blank sample.

Table V. Results of Chemical Tests for Samples from Fort Richardson, Alaska.
(Continued). Groundwater Monitoring. September, 1990.
Volatile Organic Compounds. SW846 Method 8240.

PROJECT: FT. RICHARDSON GROUND WATER

LOCATION:	ADFG C	ADFG E	ADFG K	A-6	21-702	21-702	A-1	TW-1	SUMP A	ADFG 9
DATE OF SAMPLING:	900905	900905	900905	900906	900906	900906	900906	900907	900905	900905
TIME OF SAMPLING:	NR	NR	NR	1700	TRIP	TRIP	1545	1025	NR	NR
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	7.33	BLANK	BLANK	28.75	21.7	NR	NR
FIELD SAMPLE ID#: 90FRGW	51WA	52WA	53WA	54WA	55WA	55WA	56WA	57WA	58WA	59WA
TESTING LABORATORY:	ARDL	ARDL	ARDL	ARDL	CESPD	ARDL	ARDL	ARDL	ARDL	ARDL
LABORATORY SAMPLE #:	791-1	791-2	791-3	794-1	QA90-137	789-4	794-2	794-3	791-4	791-5
DATE RECEIVED:	900908	900908	900908	900911	NR	900906	900911	900911	900908	900908
DATE TESTED:	900914	900914	900914	900916	900907	900915	900916	900916	900914	900914
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
COMPOUND										
Acrolein	NR	NR	NR	NR	50 ND	NR	NR	NR	NR	NR
Acrylonitrile	NR	NR	NR	NR	5 ND	NR	NR	NR	NR	NR
2-Chloroethylvinylether	NR	NR	NR	NR	10 ND	NR	NR	NR	NR	NR
Dibromomethane	NR	NR	NR	NR	5 ND	NR	NR	NR	NR	NR
1,2-Dichlorobenzene	NR	NR	NR	NR	5 ND	NR	NR	NR	NR	NR
1,3-Dichlorobenzene	NR	NR	NR	NR	5 ND	NR	NR	NR	NR	NR
1,4-Dichlorobenzene	NR	NR	NR	NR	5 ND	NR	NR	NR	NR	NR
1,4-Dichloro-2-butene	NR	NR	NR	NR	5 ND	NR	NR	NR	NR	NR
Dichlorodifluoromethane	NR	NR	NR	NR	10 ND	NR	NR	NR	NR	NR
Ethyl Methacrylate	NR	NR	NR	NR	5 ND	NR	NR	NR	NR	NR
Iodomethane	NR	NR	NR	NR	5 ND	NR	NR	NR	NR	NR
Trichlorofluoromethane	NR	NR	NR	NR	5 ND	NR	NR	NR	NR	NR
Chloromethane	10 U	10 U	10 U	10 U	10 ND	10 U	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U	10 ND	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U	10 ND	10 U	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U	10 ND	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	6 *	5 U	5 U	5 U	5 ND	7 B	5 U	5 U	5 *	8 *
Acetone	10 U	10 U	10 U	10 U	100 ND	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U	5 ND	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U	5 ND	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U	5 ND	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethene (total)	5 U	5 U	5 U	5 U	5 ND	5 U	5 U	5 U	5 U	5 U
Chloroform	9 *	11 *	8 *	5 U	5 ND	29 B	5 U	29 B	11 *	13 *
1,2-Dichloroethane	5 U	5 U	5 U	5 U	5 ND	5 U	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U	100 ND	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U	5 ND	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U	5 ND	5 U	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U	50 ND	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U	5 ND	5 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U	5 ND	5 U	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U	5 ND	5 U	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U	5 ND	5 U	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U	5 ND	5 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U	5 ND	5 U	5 U	5 U	5 U	5 U

COMMENTS: CESPD means South Pacific Division Laboratory. ARDL means ARDL, Inc. (Laboratory), Mt. Vernon, Illinois.
A "U" means not detected at the concentration level shown. NR means not reported.
A "*" means a measurable concentration was found. TIC means tentatively identified compound.
A "J" means that the compound was seen at a concentration below reportable detection limits.
A "B" means that the compound was also seen in a blank sample.

Table V. Results of Chemical Tests for Samples from Fort Richardson, Alaska.
(Continued). Groundwater Monitoring. September, 1990.
Volatile Organic Compounds. SW846 Method 8240.

PROJECT: FT. RICHARDSON GROUND WATER

LOCATION:	ADFG C	ADFG E	ADFG K	A-6	21-702	21-702	A-1	TW-1	SUMP A	ADFG 9
DATE OF SAMPLING:	900905	900905	900905	900906	900906	900906	900906	900907	900905	900905
TIME OF SAMPLING:	NR	NR	NR	1700	TRIP	TRIP	1545	1025	NR	NR
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	7.33	BLANK	28.75	28.75	21.7	NR	NR
FIELD SAMPLE ID#: 90FRGW	51WA	52WA	53WA	054WA	55WA	55WA	56WA	57WA	58WA	59WA
TESTING LABORATORY:	ARDL	ARDL	ARDL	ARDL	CESPD	ARDL	ARDL	ARDL	ARDL	ARDL
LABORATORY SAMPLE #:	791-1	791-2	791-3	794-1	QA90-137	789-4	794-2	794-3	791-4	791-5
DATE RECEIVED:	900908	900908	900908	900911	NR	900906	900911	900911	900908	900908
DATE TESTED:	900914	900914	900914	900916	900907	900915	900916	900916	900914	900914
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
COMPOUND										
Benzene	5 U	5 U	5 U	5 U	5 ND	5 U	5 U	5 U	5 U	5 U
trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U	5 ND	5 U	5 U	5 U	5 U	5 U
Bromoform	5 U	5 U	5 U	5 U	5 ND	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U	50 ND	10 U	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U	50 ND	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U	5 ND	5 U	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U	5 ND	5 U	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	2 J	5 ND	5 U	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U	5 ND	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U	5 ND	5 U	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U	5 ND	5 U	5 U	5 U	5 U	5 U
o-Xylene	5 U	5 U	5 U	5 U	5 ND	5 U	5 U	5 U	5 U	5 U
m- & p-Xylene	5 U	5 U	5 U	5 U	5 ND	5 U	5 U	5 U	5 U	5 U
Number of TICs	3	3	3	1	NR	1	0	1	3	1
Cumulated Est. Conc.	74	90	24	4	NR	5	0	4	92	67

COMMENTS: CESPD means South Pacific Division Laboratory. ARDL means ARDL, Inc. (Laboratory), Mt. Vernon, Illinois.
A "U" means not detected at the concentration level shown. NR means not reported.
A "*" means a measurable concentration was found. TIC means tentatively identified compound.
A "J" means that the compound was seen at a concentration below reportable detection limits.
A "B" means that the compound was also seen in a blank sample.

Continued

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Table V. Results of Chemical Tests for Samples from Fort Richardson, Alaska.
(Continued). Groundwater Monitoring. September, 1990.
Volatile Organic Compounds. SW846 Method 8240.

PROJECT: FT. RICHARDSON GROUND WATER										
	DUP.		DUP.				DUP.		DUP.	
LOCATION:	WELL-2	WELL-2	WELL-2	WELL-3	OTTER	W-B	W-B	W-B	AK-2127	FR-1
DATE OF SAMPLING:	900905	900905	900905	900905	900907	900904	900904	900904	900904	900909
TIME OF SAMPLING:	NR	NR	NR	NR	1130	1445	1445	1445	1210	0800
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	NR	NR	96.75	96.75	96.75	72.85	127.2
FIELD SAMPLE ID#: 90FRGW	60WA	61WA	63WA	62WA	64WA	65WA	65WA	66WA	67WA	68WA
TESTING LABORATORY:	CESPD	ARDL	ARDL	ARDL	ARDL	CESPD	ARDL	ARDL	ARDL	CESPD
LABORATORY SAMPLE #:	QA90-140	791-6	791-8	791-7	794-4	QA90-138	789-1	789-2	789-3	QA90-141
DATE RECEIVED:	NR	900908	900908	900908	900911	NR	900906	900906	900906	NR
DATE TESTED:	900907	900914	900914	900914	900917	900907	900915	900915	900915	900912
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
COMPOUND										
Acrolein	50 ND	NR	NR	NR	NR	50 ND	NR	NR	NR	50 ND
Acrylonitrile	5 ND	NR	NR	NR	NR	5 ND	NR	NR	NR	5 ND
2-Chloroethylvinylether	10 ND	NR	NR	NR	NR	10 ND	NR	NR	NR	10 ND
Dibromomethane	5 ND	NR	NR	NR	NR	5 ND	NR	NR	NR	5 ND
1,2-Dichlorobenzene	5 ND	NR	NR	NR	NR	5 ND	NR	NR	NR	5 ND
1,3-Dichlorobenzene	5 ND	NR	NR	NR	NR	5 ND	NR	NR	NR	5 ND
1,4-Dichlorobenzene	5 ND	NR	NR	NR	NR	5 ND	NR	NR	NR	5 ND
1,4-Dichloro-2-butene	5 ND	NR	NR	NR	NR	5 ND	NR	NR	NR	5 ND
Dichlorodifluoromethane	10 ND	NR	NR	NR	NR	10 ND	NR	NR	NR	10 ND
Ethyl Methacrylate	5 ND	NR	NR	NR	NR	5 ND	NR	NR	NR	5 ND
Iodomethane	5 ND	NR	NR	NR	NR	5 ND	NR	NR	NR	5 ND
Trichlorofluoromethane	5 ND	NR	NR	NR	NR	5 ND	NR	NR	NR	5 ND
Chloromethane	10 ND	10 U	10 U	10 U	10 U	10 ND	10 U	10 U	10 U	10 ND
Bromomethane	10 ND	10 U	10 U	10 U	10 U	10 ND	10 U	10 U	10 U	10 ND
Vinyl Chloride	10 ND	10 U	10 U	10 U	10 U	10 ND	10 U	10 U	10 U	10 ND
Chloroethane	10 ND	10 U	10 U	10 U	10 U	10 ND	10 U	10 U	10 U	10 ND
Methylene Chloride	5 ND	7 *	8 *	9 *	12 B	5 ND	4 JB	7 B	7 B	5 ND
Acetone	100 ND	10 U	10 U	10 U	10 U	100 ND	10 U	10 U	10 U	100 ND
Carbon Disulfide	5 ND	5 U	5 U	5 U	5 U	5 ND	5 U	5 U	5 U	5 ND
1,1-Dichloroethene	5 ND	5 U	5 U	5 U	5 U	5 ND	5 U	5 U	5 U	5 ND
1,1-Dichloroethane	5 ND	5 U	5 U	5 U	5 U	5 ND	5 U	5 U	5 U	5 ND
1,2-Dichloroethene (total)	5 ND	5 U	5 U	5 U	5 U	5 ND	5 U	5 U	5 U	5 ND
Chloroform	5 ND	12 *	12 *	15 *	5 U	5 ND	1 JB	5 U	1 JB	5 ND
1,2-Dichloroethane	5 ND	5 U	5 U	5 U	5 U	5 ND	5 U	5 U	5 U	5 ND
2-Butanone	100 ND	10 U	10 U	10 U	10 U	100 ND	10 U	10 U	10 U	100 ND
1,1,1-Trichloroethane	5 ND	5 U	5 U	5 U	5 U	5 ND	5 U	5 U	5 U	5 ND
Carbon Tetrachloride	5 ND	5 U	5 U	5 U	5 U	5 ND	5 U	5 U	5 U	5 ND
Vinyl Acetate	50 ND	10 U	10 U	10 U	10 U	50 ND	10 U	10 U	10 U	50 ND
Bromodichloromethane	5 ND	5 U	5 U	5 U	5 U	5 ND	5 U	5 U	5 U	5 ND
1,2-Dichloropropane	5 ND	5 U	5 U	5 U	5 U	5 ND	5 U	5 U	5 U	5 ND
cis-1,3-Dichloropropene	5 ND	5 U	5 U	5 U	5 U	5 ND	5 U	5 U	5 U	5 ND
Trichloroethene	5 ND	5 U	5 U	5 U	5 U	5 ND	5 U	5 U	5 U	5 ND
Dibromochloromethane	5 ND	5 U	5 U	5 U	5 U	5 ND	5 U	5 U	5 U	5 ND
1,1,2-Trichloroethane	5 ND	5 U	5 U	5 U	5 U	5 ND	5 U	5 U	5 U	5 ND

COMMENTS: CESPD means South Pacific Division Laboratory. ARDL means ARDL, Inc. (Laboratory), Mt. Vernon, Illinois.

A "U" means not detected at the concentration level shown. NR means not reported.

A "*" means a measurable concentration was found. TIC means tentatively identified compound.

A "J" means that the compound was seen at a concentration below reportable detection limits.

A "B" means that the compound was also seen in a blank sample.

Table V. Results of Chemical Tests for Samples from Fort Richardson, Alaska.
(Continued). Groundwater Monitoring. September, 1990.
Volatile Organic Compounds. SW846 Method 8240.

PROJECT: FT. RICHARDSON GROUND WATER										
		DUP.	DUP.				DUP.	DUP.		
LOCATION:	WELL-2	WELL-2	WELL-2	WELL-3	OTTER	W-B	W-B	W-B	AK-2127	FR-1
DATE OF SAMPLING:	900905	900905	900905	900905	900907	900904	900904	900904	900904	900909
TIME OF SAMPLING:	NR	NR	NR	NR	1130	1445	1445	1445	1210	0800
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	NR	NR	96.75	96.75	96.75	72.85	127.2
FIELD SAMPLE ID#: 90FRGW	60WA	61WA	63WA	62WA	64WA	65WA	66WA	65WA	67WA	68WA
TESTING LABORATORY:	CESPD	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	CESPD	ARDL	CESPD
LABORATORY SAMPLE #:	QA90-140	791-6	791-8	791-7	794-4	789-1	789-2	QA90-138	789-3	QA90-141
DATE RECEIVED:	NR	900908	900908	900908	900911	900906	900906	NR	900906	NR
DATE TESTED:	900907	900914	900914	900914	900917	900915	900915	900907	900915	900912
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
COMPOUND										
Benzene	5 ND	5 U	5 U	5 U	5 U	5 U	5 U	5 ND	5 U	5 ND
trans-1,3-Dichloropropene	5 ND	5 U	5 U	5 U	5 U	5 U	5 U	5 ND	5 U	5 ND
Bromoform	5 ND	5 U	5 U	5 U	5 U	5 U	5 U	5 ND	5 U	5 ND
4-Methyl-2-pentanone	50 ND	10 U	10 U	10 U	10 U	10 U	10 U	50 ND	10 U	50 ND
2-Hexanone	50 ND	10 U	10 U	10 U	10 U	10 U	10 U	50 ND	10 U	50 ND
Tetrachloroethene	5 ND	5 U	5 U	5 U	5 U	5 U	5 U	5 ND	5 U	5 ND
1,1,2,2-Tetrachloroethane	5 ND	5 U	5 U	5 U	5 U	5 U	5 U	5 ND	5 U	5 ND
Toluene	5 ND	5 U	23 *	73 *	5 U	5 U	5 U	5 ND	5 U	5 ND
Chlorobenzene	5 ND	5 U	5 U	5 U	5 U	5 U	5 U	5 ND	5 U	5 ND
Ethylbenzene	5 ND	5 U	5 U	5 U	5 U	5 U	5 U	5 ND	5 U	5 ND
Styrene	5 ND	5 U	5 U	5 U	5 U	5 U	5 U	5 ND	5 U	5 ND
m-Xylene	5 ND	5 U	5 U	13 *	5 U	5 U	5 U	5 ND	5 U	5 ND
o- & p-Xylene	5 ND	5 U	5 U	23 *	5 U	5 U	5 U	5 ND	5 U	5 ND
Number of TICs	NR	3	10	4	1	2	1	NR	1	NR
Cumulated Est. Conc.	NR	88	93	100	19	9	4	NR	3	NR

COMMENTS: CESPD means South Pacific Division Laboratory. ARDL means ARDL, Inc. (Laboratory), Mt. Vernon, Illinois.
A "U" means not detected at the concentration level shown. NR means not reported.
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A "B" means that the compound was also seen in a blank sample.

Continued

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Table V. Results of Chemical Tests for Samples from Fort Richardson, Alaska.
(Continued). Groundwater Monitoring. September, 1990.
Volatile Organic Compounds. SW846 Method 8240.

PROJECT: FT. RICHARDSON GROUND WATER

	DUP.		DUP.		DUP.		DUP.			DUP.
LOCATION:	FR-1	FR-2	FR-2	FR-3	FR-3	21-700	21-700	COE	SHOP	SHOP
DATE OF SAMPLING:	900909	900908	900908	900910	900910	900830	900830	900830	900830	900830
TIME OF SAMPLING:	0800	1230	1230	NR	NR	TRIP	TRIP	TRIP	TRIP	TRIP
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	127.2	145.1	145.1	130.35	130.35	BLANK	BLANK	BLANK	BLANK	BLANK
FIELD SAMPLE ID#: 90FRGW	68WA	69WA	69WA	70WA	70WA	71WA	71WA	72WA	73WA	73WA
TESTING LABORATORY:	ARDL	CESPD	ARDL	CESPD	ARDL	CESPD	ARDL	ARDL	CESPD	ARDL
LABORATORY SAMPLE #:	795-1	QA90-143	795-2	QA90-142	795-3	QA90-144	781-9	794-5	QA90-142	795-4
DATE RECEIVED:	900912	NR	900912	NR	900912	NR	900908	900911	NR	900912
DATE TESTED:	900916	900912	900916	900912	900916	900913	900915	900917	900912	900916
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
COMPOUND										
Acrolein	NR	50 ND	NR	50 ND	NR	50 ND	NR	NR	50 ND	NR
Acrylonitrile	NR	5 ND	NR	5 ND	NR	5 ND	NR	NR	5 ND	NR
2-Chloroethylvinylether	NR	10 ND	NR	10 ND	NR	10 ND	NR	NR	10 ND	NR
Dibromomethane	NR	5 ND	NR	5 ND	NR	5 ND	NR	NR	5 ND	NR
1,2-Dichlorobenzene	NR	5 ND	NR	5 ND	NR	5 ND	NR	NR	5 ND	NR
1,3-Dichlorobenzene	NR	5 ND	NR	5 ND	NR	5 ND	NR	NR	5 ND	NR
1,4-Dichlorobenzene	NR	5 ND	NR	5 ND	NR	5 ND	NR	NR	5 ND	NR
1,4-Dichloro-2-butene	NR	5 ND	NR	5 ND	NR	5 ND	NR	NR	5 ND	NR
Dichlorodifluoromethane	NR	10 ND	NR	10 ND	NR	10 ND	NR	NR	10 ND	NR
Ethyl Methacrylate	NR	5 ND	NR	5 ND	NR	5 ND	NR	NR	5 ND	NR
Iodomethane	NR	5 ND	NR	5 ND	NR	5 ND	NR	NR	5 ND	NR
Trichlorofluoromethane	NR	5 ND	NR	5 ND	NR	5 ND	NR	NR	5 ND	NR
Chloromethane	10 U	10 ND	10 U	10 ND	10 U	10 ND	10 U	10 U	10 ND	10 U
Bromomethane	10 U	10 ND	10 U	10 ND	10 U	10 ND	10 U	10 U	10 ND	10 U
Vinyl Chloride	10 U	10 ND	10 U	10 ND	10 U	10 ND	10 U	10 U	10 ND	10 U
Chloroethane	10 U	10 ND	10 U	10 ND	10 U	10 ND	10 U	10 U	10 ND	10 U
Methylene Chloride	5 U	5 ND	5 U	5 ND	3 J	5 ND	5 B	7 B	5 ND	2 J
Acetone	10 U	100 ND	10 U	100 ND	10 U	100 ND	10 U	10 U	100 ND	10 U
Carbon Disulfide	5 U	5 ND	5 U	5 ND	5 U	5 ND	5 U	5 U	5 ND	5 U
1,1-Dichloroethene	5 U	5 ND	5 U	5 ND	5 U	5 ND	5 U	5 U	5 ND	5 U
1,1-Dichloroethane	5 U	5 ND	5 U	5 ND	5 U	5 ND	5 U	5 U	5 ND	5 U
1,2-Dichloroethene (total)	5 U	5 ND	5 U	5 ND	5 U	5 ND	5 U	5 U	5 ND	5 U
Chloroform	1 J	5 ND	1 J	5 ND	2 J	5 ND	32 B	29 *	5 ND	45 *
1,2-Dichloroethane	5 U	5 ND	5 U	5 ND	5 U	5 ND	5 U	5 U	5 ND	5 U
2-Butanone	10 U	100 ND	10 U	100 ND	10 U	100 ND	10 U	10 U	100 ND	10 U
1,1,1-Trichloroethane	5 U	5 ND	5 U	5 ND	5 U	5 ND	5 U	5 U	5 ND	5 U
Carbon Tetrachloride	5 U	5 ND	5 U	5 ND	5 U	5 ND	5 U	5 U	5 ND	5 U
Vinyl Acetate	10 U	50 ND	10 U	50 ND	10 U	50 ND	10 U	10 U	50 ND	10 U
Bromodichloromethane	5 U	5 ND	5 U	5 ND	5 U	5 ND	5 U	5 U	5 ND	5 U
1,2-Dichloropropane	5 U	5 ND	5 U	5 ND	5 U	5 ND	5 U	5 U	5 ND	5 U
cis-1,3-Dichloropropene	5 U	5 ND	5 U	5 ND	5 U	5 ND	5 U	5 U	5 ND	5 U
Trichloroethene	5 U	5 ND	5 U	5 ND	5 U	5 ND	5 U	5 U	5 ND	5 U
Dibromochloromethane	5 U	5 ND	5 U	5 ND	5 U	5 ND	5 U	5 U	5 ND	5 U
1,1,2-Trichloroethane	5 U	5 ND	5 U	5 ND	5 U	5 ND	5 U	5 U	5 ND	5 U

COMMENTS: CESPD means South Pacific Division Laboratory. ARDL means ARDL, Inc. (Laboratory), Mt. Vernon, Illinois.
A "U" means not detected at the concentration level shown. NR means not reported.
A "*" means a measurable concentration was found. TIC means tentatively identified compound.
A "J" means that the compound was seen at a concentration below reportable detection limits.
A "B" means that the compound was also seen in a blank sample.

Table V. Results of Chemical Tests for Samples from Fort Richardson, Alaska.
(Concluded). Groundwater Monitoring. September, 1990.
Volatile Organic Compounds. SW846 Method 8240.

PROJECT: FT. RICHARDSON GROUND WATER

	FR-1	FR-2	DUP. FR-2	FR-3	DUP. FR-3	21-700	DUP. 21-700	COE BLDG	SHOP	DUP. SHOP
LOCATION:	FR-1	FR-2	FR-2	FR-3	FR-3	21-700	21-700	COE BLDG	SHOP	SHOP
DATE OF SAMPLING:	900909	900908	900908	900910	900910	900830	900830	900830	900830	900830
TIME OF SAMPLING:	0800	1230	1230	NR	NR	TRIP	TRIP	TRIP	TRIP	TRIP
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	127.2	145.1	145.1	130.35	130.35	BLANK	BLANK	BLANK	BLANK	BLANK
FIELD SAMPLE ID#: 90FRGW	68WA	69WA	69WA	70WA	70WA	71WA	71WA	72WA	73WA	73WA
TESTING LABORATORY:	ARDL	CESPD	ARDL	CESPD	ARDL	CESPD	CESPD	ARDL	CESPD	ARDL
LABORATORY SAMPLE #:	795-1	QA90-143	795-2	QA90-142	795-3	QA90-144	781-9	794-5	QA90-142	795-4
DATE RECEIVED:	900912	NR	900912	NR	900912	NR	900908	900911	NR	900912
DATE TESTED:	900916	900912	900916	900912	900916	900913	900915	900917	900912	900916
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
COMPOUND										
Benzene	5 U	5 ND	5 U	5 ND	5 U	5 ND	5 U	5 U	5 ND	5 U
trans-1,3-Dichloropropene	5 U	5 ND	5 U	5 ND	5 U	5 ND	5 U	5 U	5 ND	5 U
Bromoform	5 U	5 ND	5 U	5 ND	5 U	5 ND	5 U	5 U	5 ND	5 U
4-Methyl-2-pentanone	10 U	50 ND	10 U	50 ND	10 U	50 ND	10 U	10 U	50 ND	10 U
2-Hexanone	10 U	50 ND	10 U	50 ND	10 U	50 ND	10 U	10 U	50 ND	10 U
Tetrachloroethene	5 U	5 ND	5 U	5 ND	5 U	5 ND	5 U	5 U	5 ND	5 U
1,1,2,2-Tetrachloroethane	5 U	5 ND	5 U	5 ND	5 U	5 ND	5 U	5 U	5 ND	5 U
Toluene	5 U	5 ND	5 U	5 ND	5 U	5 ND	5 U	5 U	5 ND	5 U
Chlorobenzene	5 U	5 ND	5 U	5 ND	5 U	5 ND	5 U	5 U	5 ND	5 U
Ethylbenzene	5 U	5 ND	5 U	5 ND	5 U	5 ND	5 U	5 U	5 ND	5 U
Styrene	5 U	5 ND	5 U	5 ND	5 U	5 ND	5 U	5 U	5 ND	5 U
m-Xylene	5 U	5 ND	5 U	5 ND	5 U	5 ND	5 U	5 U	5 ND	5 U
o- & p-Xylene	5 U	5 ND	5 U	5 ND	5 U	5 ND	5 U	5 U	5 ND	5 U
Number of TICs	3	NR	1	NR	1	NR	NR	1	NR	0
Cumulated Est. Conc.	131	NR	3	NR	3	NR	NR	5	NR	0

COMMENTS: CESPD means South Pacific Division Laboratory. ARDL means ARDL, Inc. (Laboratory), Mt. Vernon, Illinois.
A "U" means not detected at the concentration level shown. NR means not reported.
A "" means a measurable concentration was found. TIC means tentatively identified compound.
A "J" means that the compound was seen at a concentration below reportable detection limits.
A "B" means that the compound was also seen in a blank sample.

Table VI. Results of Chemical Tests for Samples from Fort Richardson, Alaska.
Groundwater Monitoring. May-June, 1990.
Organophosphorous Pesticide Compounds. SW846 Method 8140.

PROJECT: FT. RICHARDSON GROUND WATER

	ADFG C	ADFG E	ADFG K	A-6	A-1	TW-1	SUMP A	ADFG 9	WELL-1	DUP. WELL-1
LOCATION:	ADFG C	ADFG E	ADFG K	A-6	A-1	TW-1	SUMP A	ADFG 9	WELL-1	DUP. WELL-1
DATE OF SAMPLING:	900529	900529	900529	900601	900601	900601	900529	900529	900530	900530
TIME OF SAMPLING:	NR	NR	NR	1102	0930	1305	NR	NR	NR	NR
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	5.96	37.0	26.4	NR	NR	NR	NR
FIELD SAMPLE ID#: 90FRGW	01WA	02WA	03WA	04WA	06WA	07WA	08WA	09WA	10WA	13WA
DATE SHIPPED:	900530	900530	900530	900601	900601	900601	900530	900530	900530	900530
TESTING LABORATORY:	CAS	CAS	CAS	CAS	CAS	CAS	CAS	CAS	CAS	CAS
LABORATORY SAMPLE #:	1905-1	1905-2	1905-3	1905-11	1905-12	1905-13	1905-4	1905-5	1905-7	1905-10
DATE RECEIVED:	900601	900601	900601	900605	900605	900605	900601	900601	900601	900601
DATE EXTRACTED:	900605	900605	900605	900606	900606	900606	900605	900605	900605	900605
DATE TESTED:	900619	900619	900619	900619	900619	900619	900619	900619	900619	900619
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
COMPOUND										
Azinphos methyl	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Bolstar	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Chlorpyrifos	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Coumaphos	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Demeton-O	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Demeton-S	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Diazinon	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Dichlorvos	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Disulfoton	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Ethoprop	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Fensulfothion	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Fenthion	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Merphos	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Mevinphos	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Naled	1.0 ND	1.0 ND	1.0 ND	1.0 ND	1.0 ND	1.0 ND	1.0 ND	1.0 ND	1.0 ND	1.0 ND
Parathion methyl	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Phorate	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Ronnel	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Stirophos	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Tokuthion (Prothiofos)	2 ND	2 ND	2 ND	2 ND	2 ND	2 ND	2 ND	2 ND	2 ND	2 ND
Trichloronate	2 ND	2 ND	2 ND	2 ND	2 ND	2 ND	2 ND	2 ND	2 ND	2 ND
Malathion	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND

COMMENTS: CAS means Columbia Analytical Services, Inc. (Laboratory), Kelso, Washington.
An "ND" means that the compound was not detected at the concentration level shown.
NR means not reported.

Continued

Sheet 1 of 4

Table VI. Results of Chemical Tests for Samples from Fort Richardson, Alaska.
Groundwater Monitoring. May-June, 1990.
Organophosphorous Pesticide Compounds. SW846 Method 8140.

PROJECT: FT. RICHARDSON GROUND WATER

	DUP.								
LOCATION:	WELL-2	WELL-3	OTTER	W-B	W-B	AK-2127	FR-1	FR-2	FR-3
DATE OF SAMPLING:	900530	900530	900604	900603	900603	900529	900606	900607	900605
TIME OF SAMPLING:	NR	NR	1400	1300	1300	1245	NR	NR	0930
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	96.9	96.9	70.2	128.4	146.2	132.6
FIELD SAMPLE ID#: 90FRGW	11WA	12WA	14WA	15WA	16WA	17WA	18WA	19WA	20WA
DATE SHIPPED:	900530	900530	900605	900604	900604	900530	900606	900607	900605
TESTING LABORATORY:	CAS	CAS	CAS	CAS	CAS	CAS	CAS	CAS	CAS
LABORATORY SAMPLE #:	1905-8	1905-9	1988-1	1988-2	1988-3	1905-6	1905-14	1988-5	1988-4
DATE RECEIVED:	900601	900601	900607	900607	900607	900601	900608	900613	900607
DATE EXTRACTED:	900605	900605	900609	900609	900609	900605	900609	900614	900609
DATE TESTED:	900619	900619	900618	900618	900618	900619	900619	900621	900618
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
COMPOUND									
Azinphos methyl	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Bolstar	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Chlorpyrifos	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Coumaphos	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Demeton-O	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Demeton-S	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Diazinon	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Dichlorvos	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Disulfoton	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Ethoprop	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Fensulfothion	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	< 2.0 *	0.5 ND
Fenthion	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Merphos	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Mevinphos	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Naled	1.0 ND	1.0 ND	1.0 ND	1.0 ND	1.0 ND	1.0 ND	1.0 ND	1.0 ND	1.0 ND
Parathion methyl	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Phorate	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Ronnel	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Stirophos	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Tokuthion (Prothiofos)	2 ND	2 ND	2 ND	2 ND	2 ND	2 ND	2 ND	2 ND	2 ND
Trichloronate	2 ND	2 ND	2 ND	2 ND	2 ND	2 ND	2 ND	2 ND	2 ND
Malathion	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND

COMMENTS: CAS means Columbia Analytical Services, Inc. (Laboratory), Kelso, Washington.
An "ND" means that the compound was not detected at the concentration level shown.
NR means not reported. * indicates a measurable concentration was found.

Table VI. Results of Chemical Tests for Samples from Fort Richardson, Alaska.
Groundwater Monitoring. September, 1990.
Organophosphorous Pesticide Compounds. SW846 Method 3510/8140.

PROJECT: FT. RICHARDSON GROUND WATER

	ADFG C	ADFG E	ADFG K	A-6	A-1	TW-1	SUMP A	ADFG 9	WELL-2	DUP. WELL-2
LOCATION:										
DATE OF SAMPLING:	900905	900905	900905	900906	900906	900907	900905	900905	900905	900905
TIME OF SAMPLING:	NR	NR	NR	1700	1545	1025	NR	NR	NR	NR
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	7.33	28.75	21.7	NR	NR	NR	NR
FIELD SAMPLE ID#: 90FRGW	51WA	52WA	53WA	54WA	56WA	57WA	58WA	59WA	60WA	61WA
DATE SHIPPED:	900905	900905	900905	900906	900906	900907	900905	900905	900905	900905
TESTING LABORATORY:	CAS	CAS	CAS	CAS	CAS	CAS	CAS	CAS	CLI	CAS
LABORATORY SAMPLE #:	3252-4	3252-5	3252-6	3252-12	3252-13	3252-14	3252-7	3252-8	NR	3252-9
DATE RECEIVED:	900908	900908	900908	900911	900911	900911	900908	900908	900910	900908
DATE EXTRACTED:	900913	900913	900913	900913	900913	900913	900913	900913	NR	900913
DATE TESTED:	900919	900919	900919	900919	900919	900919	900919	900919	NR	900919
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
COMPOUND										
Azinphos methyl	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	NR	0.5 ND
Bolstar	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	NR	0.5 ND
Chlorpyrifos	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	1 ND	0.5 ND
Coumaphos	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	1 ND	0.5 ND
Demeton-O	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	1 ND	0.5 ND
Demeton-S	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	1 ND	0.5 ND
Diazinon	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	1 ND	0.5 ND
Dichlorvos	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	1 ND	0.5 ND
Disulfoton	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	1 ND	0.5 ND
Ethoprop	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	1 ND	0.5 ND
Fensulfothion	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	1 ND	0.5 ND
Fenthion	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	1 ND	0.5 ND
Merphos	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	NR	0.5 ND
Mevinphos	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	1 ND	0.5 ND
Naled	1.0 ND	1.0 ND	1.0 ND	1.0 ND	1.0 ND	1.0 ND	1.0 ND	1.0 ND	1 ND	1.0 ND
Parathion methyl	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	1 ND	0.5 ND
Phorate	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	1 ND	0.5 ND
Ronnel	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	1 ND	0.5 ND
Stirophos	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	NR	0.5 ND
Tokuthion (Prothiofos)	2 ND	2 ND	2 ND	2 ND	2 ND	2 ND	2 ND	2 ND	NR	2 ND
Trichloronate	2 ND	2 ND	2 ND	2 ND	2 ND	2 ND	2 ND	2 ND	NR	2 ND
Malathion	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	1 ND	0.5 ND

COMMENTS: CAS means Columbia Analytical Services, Inc. (Laboratory), Kelso, Washington.

CLI means Columbia Laboratories, Inc. (P.O. Box 40, Corbett, OR 97019)

An "ND" means that the compound was not detected at the concentration level shown. NR means not reported

Continued

Sheet 3 of 4

Table VI. Results of Chemical Tests for Samples from Fort Richardson, Alaska.
(Concluded). Groundwater Monitoring. September, 1990.
Organophosphorous Pesticide Compounds. SU846 Method 3510/8140.

PROJECT: FT. RICHARDSON GROUND WATER									
	DUP.				DUP.				
LOCATION:	WELL-2	WELL-3	OTTER	W-B	W-B	AK-2127	FR-1	FR-2	FR-3
DATE OF SAMPLING:	900905	900905	900907	900904	900904	900904	900909	900908	900910
TIME OF SAMPLING:	NR	NR	1130	1445	1445	1210	0800	1230	NR
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	96.75	96.75	72.85	127.2	145.10	130.35
FIELD SAMPLE ID#: 90FRGW	63WA	62WA	64WA	65WA	66WA	67WA	68WA	69WA	70WA
DATE SHIPPED:	900905	900905	900907	900904	900904	900904	900909	900908	900910
TESTING LABORATORY:	CAS	CAS	CAS	CAS	CAS	CAS	CAS	CAS	CAS
LABORATORY SAMPLE #:	3252-11	3252-10	3252-15	3252-1	3252-2	3252-3	3252-16	3252-17	3252-18
DATE RECEIVED:	900911	900911	900911	900907	900907	900907	900908	900908	900908
DATE EXTRACTED:	900913	900913	900913	900911	900911	900911	900913	900913	900913
DATE TESTED:	900919	900919	900919	900919	900919	900919	900919	900919	900919
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
COMPOUND									
Azinphos methyl	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Bolstar	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Chlorpyrifos	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Coumaphos	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Demeton-O	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Demeton-S	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Diazinon	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Dichlorvos	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Disulfoton	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Ethoprop	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Fensulfothion	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Fenthion	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Merphos	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Mevinphos	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Naled	1.0 ND	1.0 ND	1.0 ND	1.0 ND	1.0 ND	1.0 ND	1.0 ND	1.0 ND	1.0 ND
Parathion methyl	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Phorate	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Ronnel	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Stirophos	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND
Tokuthion (Prothiofos)	2 ND	2 ND	2 ND	2 ND	2 ND	2 ND	2 ND	2 ND	2 ND
Trichloronate	2 ND	2 ND	2 ND	2 ND	2 ND	2 ND	2 ND	2 ND	2 ND
Malathion	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND	0.5 ND

COMMENTS: CAS means Columbia Analytical Services, Inc. (Laboratory), Kelso, Washington.
An "ND" means that the compound was not detected at the concentration level shown.
NR means not reported.

TABLE VII. Results of Chemical Tests on Samples from Ft. Richardson, Alaska.
Ground Water Monitoring Project. May, 1990.
Pesticides and PCBs. SW846 Method 8080.

PROJECT: Ft. Richardson Ground Water

	ADFG C	ADFG E	ADFG K	A-6	A-1	TW-1	SUMP A	ADFG 9	WELL-1	DUP. WELL-1
LOCATION:	ADFG C	ADFG E	ADFG K	A-6	A-1	TW-1	SUMP A	ADFG 9	WELL-1	DUP. WELL-1
DATE OF SAMPLING:	900529	900529	900529	900601	900601	900601	900529	900529	900530	900530
TIME OF SAMPLING:	NR	NR	NR	1102	0930	1305	NR	NR	NR	NR
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	5.96	37.0	26.4	NR	NR	NR	NR
FIELD SAMPLE ID No.: 90FRGW	01WA	02WA	03WA	04WA	06WA	07WA	08WA	09WA	10WA	13WA
TESTING LABORATORY:	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD
LABORATORY SAMPLE #:	0067	0068	0069	0089	0090	0091	0070	0071	0072	0075
DATE RECEIVED:	900531	900531	900531	900604	900604	900604	900531	900531	900531	900531
DATE EXTRACTED:	900601	900601	900601	900607	900607	900608	900601	900601	900601	900605
DATE TESTED:	900627	900627	900627	900627	900627	900627	900627	900627	900627	900627
COMPOUND										
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aldrin	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
a-BHC	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
b-BHC	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
d-BHC	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09
g-BHC (Lindane)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Chlordane (technical grade)	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14
DDD (4,4')	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11
DDE (4,4')	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
DDT (4,4')	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12
Dieldrin	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Endosulfan I	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14
Endosulfan II	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14
Endosulfan sulfate	<0.66	<0.66	<0.66	<0.66	<0.66	<0.66	<0.66	<0.66	<0.66	<0.66
Endrin	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
Endrin Aldehyde	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23
Heptachlor	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Heptachlor epoxide	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83
Methoxychlor	<1.76	<1.76	<1.76	<1.76	<1.76	<1.76	<1.76	<1.76	<1.76	<1.76
Toxaphene	<2.40	<2.40	<2.40	<2.40	<2.40	<2.40	<2.40	<2.40	<2.40	<2.40
Aroclor 1016	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Aroclor 1221	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Aroclor 1232	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Aroclor 1242	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Aroclor 1248	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Aroclor 1254	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Aroclor 1260	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
a-Chlordane	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
g-Chlordane	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Endrin ketone	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

Comments: Less than (<) or "U" means not detected at the concentration level shown.

* indicates a measurable concentration. NR means not reported.

CENPD means North Pacific Division Laboratory.

Continued

Sheet 1 of 4

TABLE VII. Results of Chemical Tests on Samples from Ft. Richardson, Alaska.
(Continued) Ground Water Monitoring Project. May, 1990.
Pesticides and PCBs. SW846 Method 8080.

PROJECT: Ft. Richardson Ground Water

LOCATION:	WELL-2	WELL-3	OTTER	W-B	DUP. W-B	DUP. W-B	AK-2127	FR-1	FR-2	FR-3
DATE OF SAMPLING:	900530	900530	900604	900603	900603	900603	900529	900606	900607	900605
TIME OF SAMPLING:	NR	NR	1400	1300	1300	1300	1245	NR	NR	NR
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	96.9	96.9	96.9	70.2	128.4	146.2	132.6
FIELD SAMPLE ID No.: 90FRGW	11WA	12WA	14WA	15WA	15WA	16WA	17WA	18WA	19WA	20WA
TESTING LABORATORY:	CENPD	CENPD	CENPD	CENPD	SWOK	CENPD	CENPD	CENPD	CENPD	CENPD
LABORATORY SAMPLE #:	0073	0074	0096	0094	2770.01	0095	0076	0107	0110	0097
DATE RECEIVED:	900531	900531	900606	900606	NR	900606	900531	900607	900608	900606
DATE EXTRACTED:	900605	900606	900608	900608	900608	900608	900605	900611	900612	900608
DATE TESTED:	900627	900627	900627	900627	900619	900627	900627	900627	900627	900627
COMPOUND										
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aldrin	<0.04	<0.04	<0.04	<0.04	<.05	<0.04	<0.04	<0.04	<0.04	<0.04
a-BHC	<0.03	<0.03	<0.03	<0.03	<.05	<0.03	<0.03	<0.03	<0.03	<0.03
b-BHC	<0.06	<0.06	<0.06	<0.06	<.05	<0.06	<0.06	<0.06	<0.06	<0.06
d-BHC	<0.09	<0.09	<0.09	<0.09	<.05	<0.09	<0.09	<0.09	<0.09	<0.09
g-BHC (Lindane)	<0.04	<0.04	<0.04	<0.04	<.05	<0.04	<0.04	<0.04	<0.04	<0.04
Chlordane (technical grade)	<0.14	<0.14	<0.14	<0.14	NR	<0.14	<0.14	<0.14	<0.14	<0.14
DDD (4,4')	<0.11	<0.11	<0.11	<0.11	<.1	<0.11	<0.11	<0.11	<0.11	<0.11
DDE (4,4')	<0.04	<0.04	<0.04	<0.04	<.1	<0.04	<0.04	<0.04	<0.04	<0.04
DDT (4,4')	<0.12	<0.12	<0.12	<0.12	<.1	<0.12	<0.12	<0.12	<0.12	<0.12
Dieldrin	<0.02	<0.02	<0.02	<0.02	<.1	<0.02	<0.02	<0.02	<0.02	<0.02
Endosulfan I	<0.14	<0.14	<0.14	<0.14	<.05	<0.14	<0.14	<0.14	<0.14	<0.14
Endosulfan II	<0.14	<0.14	<0.14	<0.14	<.1	<0.14	<0.14	<0.14	<0.14	<0.14
Endosulfan sulfate	<0.66	<0.66	<0.66	<0.66	<.1	<0.66	<0.66	<0.66	<0.66	<0.66
Endrin	<0.06	<0.06	<0.06	<0.06	<.1	<0.06	<0.06	<0.06	<0.06	<0.06
Endrin Aldehyde	<0.23	<0.23	<0.23	<0.23	NR	<0.23	<0.23	<0.23	<0.23	<0.23
Heptachlor	<0.03	<0.03	<0.03	<0.03	<.05	<0.03	<0.03	<0.03	<0.03	<0.03
Heptachlor epoxide	<0.83	<0.83	<0.83	<0.83	<.05	<0.83	<0.83	<0.83	<0.83	<0.83
Methoxychlor	<1.76	<1.76	<1.76	<1.76	<.5	<1.76	<1.76	<1.76	<1.76	<1.76
Toxaphene	<2.40	<2.40	<2.40	<2.40	<1.0	<2.40	<2.40	<2.40	<2.40	<2.40
Aroclor 1016	<0.50	<0.50	<0.50	<0.50	NR	<0.50	<0.50	<0.50	<0.50	<0.50
Aroclor 1221	<0.50	<0.50	<0.50	<0.50	<.5	<0.50	<0.50	<0.50	<0.50	<0.50
Aroclor 1232	<0.50	<0.50	<0.50	<0.50	<.5	<0.50	<0.50	<0.50	<0.50	<0.50
Aroclor 1242	<0.50	<0.50	<0.50	<0.50	<.5	<0.50	<0.50	<0.50	<0.50	<0.50
Aroclor 1248	<0.50	<0.50	<0.50	<0.50	<.5	<0.50	<0.50	<0.50	<0.50	<0.50
Aroclor 1254	<1.00	<1.00	<1.00	<1.00	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00
Aroclor 1260	<1.00	<1.00	<1.00	<1.00	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00
a-Chlordane	NR	NR	NR	NR	<.5	NR	NR	NR	NR	NR
g-Chlordane	NR	NR	NR	NR	<.5	NR	NR	NR	NR	NR
Endrin ketone	NR	NR	NR	NR	<.1	NR	NR	NR	NR	NR

Comments: Less than (<) or "U" means not detected at the concentration level shown.

* indicates a measurable concentration. NR means not reported.

CENPD means North Pacific Division Laboratory.

SWOK means Southwest Laboratory of Oklahoma, Inc. (1700 W. Albany, Suite C, Broken Arrow, OK 74012)

Continued

Sheet 2 of 4

TABLE VII. Results of Chemical Tests for Samples from Ft. Richardson, Alaska.
(Continued) Ground Water Monitoring Project. September, 1990.
Pesticides and PCBs. SW846 Method 8080.

PROJECT: Ft. Richardson Ground Water

LOCATION:	ADFG C	ADFG E	ADFG K	A-6	A-1	TW-1	SUMP A	ADFG 9	WELL-2	DUP WELL-2
DATE OF SAMPLING:	900905	900905	900905	900906	900906	900907	900905	900905	900905	900905
TIME OF SAMPLING:	NR	NR	NR	1700	1545	1025	NR	NR	NR	NR
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	7.33	28.75	21.7	NR	NR	NR	NR
FIELD SAMPLE ID No.:90FRGW	51WA	52WA	53WA	54WA	56WA	57WA	58WA	59WA	060WA	061WA
TESTING LABORATORY:	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL
LABORATORY SAMPLE #:	791-1	791-2	791-3	794-1	794-2	794-3	791-4	795-1	021268	791-6
DATE RECEIVED:	900908	900908	900908	900911	900911	900911	900908	900908	900908	900908
DATE EXTRACTED:	900911	900911	NR	900912	900912	900912	900911	900911	900912	900911
DATE TESTED:	900913	900913	NR	900914	900914	900914	900913	900913	900914	900914
COMPOUND										
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aldrin	0.04 U	0.04 U	NR	0.05 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 ND	0.04 U
a-BHC	0.03 U	0.03 U	NR	0.04 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 ND	0.03 U
b-BHC	0.06 U	0.06 U	NR	0.08 U	0.06 U	0.06 U	0.06 U	0.06 U	0.03 ND	0.06 U
d-BHC	0.09 U	0.09 U	NR	0.11 U	0.09 U	0.09 U	0.09 U	0.09 U	0.05 ND	0.09 U
g-BHC (Lindane)	0.04 U	0.04 U	NR	0.05 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 ND	0.04 U
Chlordane (technical grade)	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
DDD (4,4')	0.11 U	0.11 U	NR	0.14 U	0.11 U	0.11 U	0.11 U	0.11 U		0.11 U
DDE (4,4')	0.04 U	0.04 U	NR	0.05 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 ND	0.04 U
DDT (4,4')	0.12 U	0.12 U	NR	0.15 U	0.12 U	0.12 U	0.12 U	0.12 U	0.10 ND	0.12 U
Dieldrin	0.02 U	0.02 U	NR	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 ND	0.02 U
Endosulfan I	0.14 U	0.14 U	NR	0.18 U	0.14 U	0.14 U	0.14 U	0.14 U	0.04 ND	0.14 U
Endosulfan II	0.04 U	0.04 U	NR	0.05 U	0.04 U	0.04 U	0.04 U	0.04 U	0.10 ND	0.04 U
Endosulfan sulfate	0.66 U	0.66 U	NR	0.82 U	0.66 U	0.66 U	0.66 U	0.66 U		0.66 U
Endrin	0.06 U	0.06 U	NR	0.08 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 ND	0.06 U
Endrin Aldehyde	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Heptachlor	0.03 U	0.03 U	NR	0.04 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 ND	0.03 U
Heptachlor epoxide	0.83 U	0.83 U	NR	1.0 U	0.83 U	0.83 U	0.83 U	0.83 U	0.10 ND	0.83 U
Methoxychlor	1.8 U	1.8 U	NR	2.2 U	1.8 U	1.8 U	1.8 U	1.8 U	1.0 ND	1.8 U
Toxaphene	2.4 U	2.4 U	NR	3.0 U	2.4 U	2.4 U	2.4 U	2.4 U	2.0 ND	2.4 U
Aroclor 1016	0.50 U	0.50 U	NR	0.62 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 ND	0.50 U
Aroclor 1221	0.50 U	0.50 U	NR	0.62 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 ND	0.50 U
Aroclor 1232	0.50 U	0.50 U	NR	0.62 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 ND	0.50 U
Aroclor 1242	0.50 U	0.50 U	NR	0.62 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 ND	0.50 U
Aroclor 1248	0.50 U	0.50 U	NR	0.62 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 ND	0.50 U
Aroclor 1254	1.0 U	1.0 U	NR	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U	0.50 ND	1.0 U
Aroclor 1260	1.0 U	1.0 U	NR	1.2 U	1.0 U	1.0 U	1.0 U	1.0 U	0.50 ND	1.0 U
a-Chlordane	0.14 U	0.14 U	NR	0.18 U	0.14 U	0.14 U	0.14 U	0.14 U	0.50 ND	0.14 U
g-Chlordane	0.14 U	0.14 U	NR	0.18 U	0.14 U	0.14 U	0.14 U	0.14 U	0.50 ND	0.14 U
Endrin ketone	0.10 U	0.10 U	NR	0.12 U	0.10 U	0.10 U	0.10 U	0.10 U	0.20 ND	0.10 U

Comments: "U" or "ND" means not detected at the concentration level shown.

ARDL means ARDL, Inc.(Laboratory) Mt. Vernon, Illinois. NR means not reported.

No data are available for the sample from ADFG K due to a laboratory accident.

Continued

Sheet 3 of 4

TABLE VII. Results of Chemical Tests for Samples from Ft. Richardson, Alaska.
(Concluded) Ground Water Monitoring Project. September, 1990.
Pesticides and PCBs. SW846 Method 8080.

PROJECT: Ft. Richardson Ground Water

	DUP			DUP.	DUP.	DUP				
LOCATION:	WELL-2	WELL-3	OTTER	W-B	W-B	W-B	AK-2127	FR-1	FR-2	FR-3
DATE OF SAMPLING:	900905	900905	900907	900904	900904	900904	900529	900909	900909	900910
TIME OF SAMPLING:	NR	NR	1130	1445	1445	1445	1210	0800	1230	NR
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	96.75	96.75	96.75	72.85	127.2	145.1	130.35
FIELD SAMPLE ID No.:90FRGW	63WA	62WA	64WA	65WA	66WA	65WA	67WA	68WA	69WA	70WA
TESTING LABORATORY:	ARDL	ARDL	ARDL	ARDL	ARDL	AMTEST	ARDL	ARDL	ARDL	ADRL
LABORATORY SAMPLE #:	791-8	791-7	794-4	789-1	789-2	021113	789-3	795-1	795-2	795-3
DATE RECEIVED:	900908	900908	900911	900906	900906	900906	900906	900912	900912	900912
DATE EXTRACTED:	900911	900911	900912	900907	900907	900912	900907	900913	900913	900913
DATE TESTED:	900914	900914	900914	900919	900919	900914	900919	900926	900926	901015
COMPOUND										
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aldrin	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 ND	0.04 U	0.05 U	0.04 U	0.04 U
a-BHC	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 ND	0.03 U	0.04 U	0.03 U	0.03 U
b-BHC	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.03 ND	0.06 U	0.08 U	0.06 U	0.06 U
d-BHC	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.05 ND	0.09 U	0.11 U	0.09 U	0.09 U
g-BHC (Lindane)	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 ND	0.04 U	0.05 U	0.04 U	0.04 U
Chlordane (technical grade)	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
DDD (4,4')	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	NR	0.11 U	0.14 U	0.11 U	0.11 U
DDE (4,4')	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 ND	0.04 U	0.05 U	0.04 U	0.04 U
DDT (4,4')	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.10 ND	0.12 U	0.15 U	0.12 U	0.12 U
Dieldrin	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 ND	0.02 U	0.03 U	0.02 U	0.02 U
Endosulfan I	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.04 ND	0.14 U	0.18 U	0.14 U	0.14 U
Endosulfan II	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.10 ND	0.04 U	0.05 U	0.04 U	0.04 U
Endosulfan sulfate	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U	NR	0.66 U	0.82 U	0.66 U	0.66 U
Endrin	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 ND	0.06 U	0.08 U	0.06 U	0.06 U
Endrin Aldehyde	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Heptachlor	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 ND	0.03 U	0.04 U	0.03 U	0.03 U
Heptachlor epoxide	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.10 ND	0.83 U	1.0 U	0.83 U	0.83 U
Methoxychlor	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.0 ND	1.8 U	2.2 U	1.8 U	1.8 U
Toxaphene	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.0 ND	2.4 U	3.0 U	2.4 U	2.4 U
Aroclor 1016	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 ND	0.50 U	0.62 U	0.50 U	0.50 U
Aroclor 1221	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 ND	0.50 U	0.62 U	0.50 U	0.50 U
Aroclor 1232	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 ND	0.50 U	0.62 U	0.50 U	0.50 U
Aroclor 1242	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 ND	0.50 U	0.62 U	0.50 U	0.50 U
Aroclor 1248	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 ND	0.50 U	0.62 U	0.50 U	0.50 U
Aroclor 1254	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.50 ND	1.0 U	1.3 U	1.0 U	1.0 U
Aroclor 1260	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.50 ND	1.0 U	1.3 U	1.0 U	1.0 U
a-Chlordane	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.50 ND	0.14 U	0.18 U	0.14 U	0.14 U
b-Chlordane	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.50 ND	0.14 U	0.18 U	0.14 U	0.14 U
Endrin ketone	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.20 ND	0.10 U	0.13 U	0.10 U	0.10 U

Comments: "U" or "ND" means not detected at the concentration level shown. NR means not reported.
ARDL means ARDL, Inc.(Laboratory) Mt. Vernon, Illinois.

Condensed Tables Showing Data
for Wells with Detected Compounds

Page extracted to show only lines with reportable values.

TABLE I. Results of Chemical Tests for Water Samples from Fort Richardson, Alaska.
Ground Water Monitoring Project. May-June, 1990.
Non-Metallic Parameters.

PROJECT: Ft. Richardson Ground Water

	A-6	A-1	TW-1	OTTER	W-B	W-B	DUP. FR-1	FR-2	FR-3
LOCATION:	A-6	A-1	TW-1	OTTER	W-B	W-B	FR-1	FR-2	FR-3
DATE OF SAMPLING:	900601	900601	900601	900604	900603	900603	900605	900605	900605
TIME OF SAMPLING:	1102	0930	1305	1400	1300	1300	NR	NR	0930
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	5.96	37.0	26.4	NR	96.9	96.9	NR	NR	NR
FIELD SAMPLE ID#: 90FRGW	04WA	06WA	07WA	14WA	15WA	16WA	18WA	19WA	20WA
TESTING LABORATORY:	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD
LABORATORY SAMPLE #:	0089	0090	0091	0096	0094	0095	0107	0110	0097
Turbidity, FTU	9.5	2.3	11.5	0.38	0.26	0.19	13	23.5	420
Corrosivity (Langlier Index)	-2.09	-0.46	-0.40	-0.26	-0.22	-0.19	-0.13	-0.64	-0.88
Color:	Clear	Clear	Cloudy	Clear	Clear	Clear	Whitish	Grey	Brown
Total Organic Carbon, mg/L	<3.0	3.1	3.8	20	<3.0	<3.0	8.3	8.4	17

TABLE I. Results of Chemical Tests for Water Samples from Fort Richardson, Alaska.
(Continued) Ground Water Monitoring Project. September 1990.
Non-Metallic Parameters.

PROJECT: Ft. Richardson Ground Water

	ADFG C	ADFG E	ADFG K	A-6	A-1	TW-1	SUMP A	ADFG 9	OTTER	WELL-3
LOCATION:	ADFG C	ADFG E	ADFG K	A-6	A-1	TW-1	SUMP A	ADFG 9	OTTER	WELL-3
DATE OF SAMPLING:	900905	900905	900905	900906	900907	900905	900905	900905	900907	900905
TIME OF SAMPLING:	NR	NR	NR	1700	1545	1025	NR	NR	1130	NR
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	7.33	28.75	21.7	NR	NR	NR	NR
FIELD SAMPLE ID#: 90FRGW	51WA	52WA	53WA	54WA	56WA	57WA	58WA	59WA	64WA	62WA
TESTING LABORATORY:	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD
LABORATORY SAMPLE #:	0322	0323	0324	0338	0339	0340	0325	0326	0341	0328
DATE RECEIVED:	900907	900907	900907	900910	900910	900910	900907	900907	900907	900907
Corrosivity (Langlier Index)	-1.63	-1.59	-1.62	-1.70	-0.24	-0.28	-1.59	-1.27	-0.29	-0.73

TABLE I. Results of Chemical Tests for Water Samples from Fort Richardson, Alaska.
(Concluded) Ground Water Monitoring Project. September, 1990.
Non-Metallic Parameters.

Project: Ft. Richardson Ground Water

	WELL-2	DUP. WELL-2	DUP. WELL-2	W-B	DUP. W-B	AK-2127	FR-1	FR-2	FR-3
LOCATION:	WELL-2	DUP. WELL-2	DUP. WELL-2	W-B	DUP. W-B	AK-2127	FR-1	FR-2	FR-3
DATE OF SAMPLING:	900905	900905	900905	900904	900904	900904	900909	900908	900910
TIME OF SAMPLING:	NR	NR	NR	1445	1445	1210	0800	1230	NR
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	96.75	96.75	72.85	127.2	145.1	130.35
FIELD SAMPLE ID#: 90FRGW	61WA	63WA	60WA	65WA	66WA	67WA	68WA	69WA	70WA
TESTING LABORATORY:	CENPD	CENPD	AMTEST	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD
LABORATORY SAMPLE #:	0327	0329	021268	0316	0317	0318	0346	0347	0348
DATE RECEIVED:	900907	900907	900908	900905	900905	900905	900911	900911	900911
Turbidity, FTU	0.47	0.53	1.7	0.23	0.23	0.20	6.40	12.00	230
Color:	Clear	Clear	Clear	Clear	Clear	Clear	NR	NR	Brown
Conductivity, umhos/cm	264	264	264	351	351	220	370	422	328
Total Organic Carbon, mg/L	<3.0	<3.0	2.9	<3.0	<3.0	<3.0	33	56	51

Page extracted to show only lines with reportable values.

TABLE III. Results of Chemical Tests for Water Samples from Fort Richardson, Alaska.
Ground Water Monitoring Project. May, 1990.
Metals. Total.

PROJECT: Ft. Richardson Ground Water

LOCATION:	ADFG C	ADFG E	ADFG K	SUMP A	ADFG 9	WELL-1	DUP. WELL-1	WELL-2	WELL-3	AK-2127
DATE OF SAMPLING:	900529	900529	900529	900529	900529	900530	900530	900530	900530	900529
TIME OF SAMPLING:	NR	NR	NR	NR	NR	NR	NR	NR	NR	1245
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	NR	NR	NR	NR	NR	NR	70.2
FIELD SAMPLE ID No.: 90FRGW	01WA	02WA	03WA	08WA	09WA	10WA	13WA	11WA	12WA	17WA
TESTING LABORATORY:	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL
LABORATORY SAMPLE #:	0067	0068	0069	0070	0071	0072	0075	0073	0074	0076
DATE EXTRACTED:	900529	900529	900529	900529	900529	900530	900530	900530	900530	900530
DATE TESTED:	900531	900531	900531	900531	900531	900531	900531	900531	900531	900531
ELEMENT, TOTAL										
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	<100	120 *	140 *	<100	<100	<100	<100	<100	<100	100 *
Calcium	16000 *	18000 *	17000 *	25000 *	30000 *	32000 *	33000 *	35000 *	37000 *	29000 *
Copper	15 *	120 *	14 *	<10	<10	26 *	<10	54 *	<10	<10
Iron	33 *	1500 *	180 *	<30	<30	1400 *	54 *	280 *	400 *	2100 *
Lead	<3	7 *	<3	<3	<3	18 *	<3	5.1 *	<3	<3
Magnesium	2600 *	2800 *	2500 *	3600 *	4600 *	6800 *	6900 *	880 *	14000 *	8200 *
Manganese	<10	19 *	<10	<10	14 *	45 *	<10	12 *	<10	22 *
Potassium	<500	<500	<500	<500	<500	530 *	<500	<500	550 *	560 *
Sodium	4200 *	3100 *	3700 *	3300 *	3400 *	3600 *	4800 *	4600 *	4300 *	6600 *
Vanadium	<10	12 *	<10	<10	<10	<10	<10	<10	<10	<10
Zinc	17 *	81 *	10 *	10 *	10 *	150 *	17 *	21 *	54 *	21 *

TABLE III. Results of Chemical Tests for Water Samples from Fort Richardson, Alaska.
(Continued). Ground Water Monitoring Project. May, 1990
Metals. Dissolved.

PROJECT: Ft. Richardson Ground Water

LOCATION:	ADFG C	ADFG E	ADFG K	SUMP A	ADFG 9	WELL-1	DUP. WELL-1	WELL-2	WELL-3	AK-2127
DATE OF SAMPLING:	900529	900529	900529	900529	900529	900530	900530	900530	900530	900529
TIME OF SAMPLING:	NR	NR	NR	NR	NR	NR	NR	NR	NR	1245
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	NR	NR	NR	NR	NR	NR	70.2
FIELD SAMPLE ID No.: 90FRGW	101WA	102WA	103WA	108WA	109WA	110WA	113WA	111WA	112WA	117WA
TESTING LABORATORY:	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL
LABORATORY SAMPLE #:	0077	0078	0079	0080	0081	0082	0085	0083	0084	0086
DATE EXTRACTED:	900529	900529	900529	900529	900520	900530	900530	900530	900530	900530
DATE TESTED:	900531	900531	900531	900531	900531	900531	900531	900531	900531	900604
ELEMENT, DISSOLVED										
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	150 *	<100	<100	<100	500 *	400 *	100 *	<100	<100	<100
Calcium	16000 *	17000 *	16000 *	24000 *	30000 *	33000 *	33000 *	35000 *	38000 *	28000 *
Copper	<10	14 *	<10	<10	<10	<10	<10	<10	<10	<10
Iron	<30	33 *	<30	<30	<30	<30	33 *	<30	32 *	<30
Lead	<3	<3	<3	<3	<3	<3	<3	4.4 *	<3	<3
Magnesium	<500	2800 *	2700 *	3600 *	4500 *	5000 *	4900 *	7600 *	12000 *	8300 *
Mercury	<0.2	<0.2	0.43 *	<0.2	<0.2	<0.2	0.27 *	<0.2	<0.2	<0.2
Sodium	2300 *	3100 *	3600 *	4200 *	3900 *	5000 *	4400 *	3700 *	3900 *	6200 *
Zinc	<10	<10	<10	<10	<10	<10	<10	13 *	<10	<10

Page extracted to show only lines with reportable values.

TABLE III. Results of Chemical Tests for Water Samples from Fort Richardson, Alaska.
(Continued). Ground Water Monitoring Project. May, 1990.
Metals. Total.

PROJECT: Ft. Richardson Ground Water

LOCATION:	A-6	A-1	TW-1	OTTER	W-B	DUP. W-B	FR-1	FR-2	FR-3	BLDG. 21-700
DATE OF SAMPLING:	900601	900601	900601	900604	900603	900603	900606	900607	900605	900522
TIME OF SAMPLING:	1102	0930	1305	1400	1300	1300	NR	NR	0930	TRIP
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	5.96	37.0	26.4	NR	96.9	96.9	128.4	146.2	132.6	BLANK
FIELD SAMPLE ID No.: 90FRGW	04WA	06WA	07WA	14WA	15WA	16WA	18WA	19WA	20WA	24WA
TESTING LABORATORY:	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL
LABORATORY SAMPLE #:	0089	0090	0091	0096	0094	0095	0107	0110	0097	0109
DATE EXTRACTED:	900601	900601	900601	900604	900603	900603	900606	900607	900605	900606
DATE TESTED:	900604	900604	900604	900606	900606	900606	900607	900608	900606	900607
ELEMENT, TOTAL										
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	340 *	300 *	4800 *	110 *	<100	<100	1600 *	2000 *	50000 *	<100
Arsenic	<10	<10	<10	<10	<10	<10	<10	<10	12 *	<10
Barium	<20	<20	<20	24 *	<20	<20	32 *	20 *	260 *	<20
Calcium	22000 *	32000 *	37000 *	56000 *	44000 *	43000 *	55000 *	65000 *	27000 *	<500
Chromium	<5	<5	<5	<5	<5	<5	<5	<5	42 *	<5
Cobalt	<10	<10	<10	<10	<10	<10	<10	<10	17 *	<10
Copper	<10	<10	<10	45 *	<10	<10	18 *	18 *	47 *	<10
Iron	1000 *	3200 *	2300 *	300 *	170 *	120 *	780 *	2100 *	35000 *	59 *
Lead	<3	<3	<3	<3	4.6 *	<3	5.3 *	6.0 *	28 *	<3
Magnesium	3400 *	4400 *	9000 *	8400 *	16000 *	16000 *	8400 *	9800 *	19000 *	<500
Manganese	18 *	38 *	40 *	12 *	14 *	<10	25 *	180 *	700 *	<10
Mercury	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.28 *	0.39 *	<0.2
Nickel	<10	<10	<10	<10	<10	<10	<10	<10	40 *	<10
Potassium	<500	<500	620 *	560 *	690 *	800 *	1100 *	1100 *	3500 *	<500
Sodium	4400 *	4300 *	5600 *	5100 *	6600 *	5000 *	4700 *	3900 *	6100 *	<500
Zinc	15 *	20 *	19 *	540 *	23 *	17 *	35 *	35 *	880 *	17 *

Page extracted to show only lines with reportable values.

TABLE III. Results of Chemical Tests for Water Samples from Fort Richardson, Alaska.
(Continued). Ground Water Monitoring Project. May, 1990
Metals. Dissolved.

PROJECT: Ft. Richardson Ground Water

LOCATION:	A-6	A-1	TW-1	OTTER	W-B	DUP. W-B	FR-1	FR-2	FR-3	BLDG. 21-
DATE OF SAMPLING:	900601	900601	900601	900604	900603	900603	900606	900607	900605	
TIME OF SAMPLING:	1102	0930	1305	1400	1300	1300	NR	NR	0930	TRIP
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	5.96	37.0	26.4	NR	96.9	96.9	128.4	146.2	132.6	BLANK
FIELD SAMPLE ID No.: 90FRGW	104WA	106WA	107WA	114WA	115WA	116WA	118WA	119WA	120WA	27WA
TESTING LABORATORY:	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL
LABORATORY SAMPLE #:	0092A	0093A	0094A	0100	0098	0099	0108	0111	0101	0112
DATE EXTRACTED:	900601	900601	900601	900604	900603	900603	900606	900607	900605	900607
DATE TESTED:	900604	900604	900604	900606	900606	900606	900607	990608	900606	900608
ELEMENT, DISSOLVED										
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	<100	270 *	<100	<100	300 *	<100	<100	<100	300 *	<100
Barium	<20	<20	<20	26 *	<20	<20	<20	<20	37 *	<20
Calcium	21000 *	31000 *	36000 *	56000 *	42000 *	42000 *	51000 *	55000 *	41000 *	<500
Copper	<10	<10	<10	23 *	<10	<10	<10	<10	<10	<10
Iron	110 *	180 *	31 *	<30	32 *	32 *	49 *	68 *	350 *	<30
Magnesium	4700 *	6100 *	8200 *	8500 *	16000 *	14000 *	8700 *	9900 *	9100 *	<500
Manganese	<10	<10	<10	<10	11 *	<10	<10	<10	14 *	<10
Mercury	0.64 *	0.33 *	0.51 *	0.23 *	<0.2	0.38 *	0.23 *	0.33 *	<0.2	<0.2
Potassium	<500	<500	500 *	500 *	780 *	790 *	1200 *	950 *	1750 *	<500
Sodium	3500 *	3200 *	5500 *	2800 *	4300 *	4600 *	6000 *	3800 *	3600 *	<500
Zinc	<10	<10	<10	520 *	<10	<10	15 *	14 *	28 *	<10

Page extracted to show only lines with reportable values.

TABLE III. Results of Chemical Tests for Water Samples from Fort Richardson, Alaska.
(Continued) Ground Water Monitoring Project. September, 1990.
Metals. Total.

PROJECT: Ft. Richardson Ground Water

LOCATION:	ADFG C	ADFG E	ADFG K	A-6	A-1	TW-1	SUMP A	ADFG 9	WELL-2	DUP. WELL-2
DATE OF SAMPLING:	900905	900905	900905	900906	900906	900907	900905	900905	900905	900905
TIME OF SAMPLING:	NR	NR	NR	1700	1545	1025	NR	NR	NR	NR
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	7.33	28.75	21.7	NR	NR	NR	NR
FIELD SAMPLE ID No.: 90FRGW	51WA	52WA	53WA	54WA	56WA	57WA	58WA	59WA	60WA	61WA
TESTING LABORATORY:	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	AMTEST	CENPD
LABORATORY SAMPLE #:	0322	0323	0324	0338	0339	0340	0325	0326	021268	0327
DATE RECEIVED:	900907	900907	900907	900910	900910	900910	900907	900907	900908	900907
ELEMENT, TOTAL CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	<45	<45	<45	<45	<45	360*	<45	<45	100 *	<45
Arsenic	<2	<2	<2	<2	3.1 *	2.9 *	<2	2.1 *	1 *	<2
Barium	10 *	10 *	<10	<10	<10	<10	<10	<10	5 *	<10
Calcium	19000 *	20000 *	19000 *	20000 *	32000 *	37000 *	21000 *	28000 *	35000. *	36000 *
Chromium	<2	<2	<2	<2	<2	2.6 *	<2	<2	<6	<2
Copper	32 *	<5	<5	<5	<5	<5	<5	<5	8 *	8.3 *
Iron	66 *	65 *	66 *	100 *	310 *	2100 *	75 *	54 *	3100 *	140 *
Lead	3.5 *	<2	2.1 *	<2	<2	2.2 *	<2	47 *	16 *	6.9 *
Magnesium	3100 *	3300 *	3200 *	3400 *	4900 *	7400 *	3500 *	5100 *	1700 *	6300 *
Manganese	20 *	22 *	14 *	3 *	5 *	25 *	6 *	<2	3 *	<2
Mercury	<0.2	0.3 *	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Potassium	440 *	430 *	400 *	390 *	540 *	820 *	430 *	450 *	1900 *	510 *
Selenium	<5	<5	<5	<5	<5	<5	<5	<5	1 *	<5
Sodium	4200 *	4200 *	3100 *	3100 *	2800 *	3200 *	3700 *	3200 *	3100 *	3600 *
Zinc	28 *	8.2 *	10 *	8.0 *	6.7 *	14 *	6.1 *	37 *	43 *	12 *

Page extracted to show only lines with reportable values.

TABLE III. Results of Chemical Tests for Water Samples from Fort Richardson, Alaska.
(Continued). Ground Water Monitoring Project. September, 1990.
Metals. Dissolved.

PROJECT: Ft. Richardson Ground Water

	ADFG C	ADFG E	ADFG K	A-6	A-1	TW-1	SUMP A	ADFG 9	WELL-2	DUP. WELL-2
LOCATION:	900905	900905	900905	900906	900906	900907	900905	900905	900905	900905
DATE OF SAMPLING:	NR	NR	NR	1700	1545	1025	NR	NR	NR	NR
TIME OF SAMPLING:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
TYPE OF SAMPLE:	NR	NR	NR	7.33	28.75	21.7	NR	NR	NR	NR
SAMPLE DEPTH, FEET:	151WA	152WA	153WA	154WA	156WA	157WA	158WA	159WA	160WA	161WA
FIELD SAMPLE ID No.: 90FRGW	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	CENPD	AMTEST	CENPD
TESTING LABORATORY:	0330	0331	0332	0342	0343	0344	0333	0334	021269	0335
LABORATORY SAMPLE #:	900907	900907	900907	900910	900910	900910	900907	900907	900908	900907
DATE RECEIVED:										
ELEMENT, DISSOLVED										
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L
Aluminum	<45	<45	<45	<45	<45	<45	<45	<45	110*	<45
Antimony	<10	<10	<10	<10	<10	<10	<10	<10	1*	<10
Arsenic	2.1*	<2	<2	<2	3.5*	<2	<2	<2	1*	<2
Barium	10*	<10	<10	10*	<10	<10	<10	<10	17*	<10
Calcium	19000*	20000*	19000*	45000*	31000*	41000*	21000*	30000*	48000*	37000*
Chromium	<2	<2	<2	2.1*	<2	<2	<2	<2	<6	<2
Copper	<5	<5	<5	<5	<5	<5	<5	<5	9*	<5
Iron	<5	<5	<5	38*	<5	<5	<5	6*	90*	<5
Magnesium	2800*	2900*	2900*	3200*	4600*	6800*	3200*	4600*	7000*	6500*
Manganese	<2	<2	<2	5*	<2	4*	<2	<2	8*	2*
Mercury	<0.2	0.3*	<0.2	<0.2	<0.2	<0.2	0.3*	<0.2	<0.2	<0.2
Potassium	380*	350*	340*	370*	510*	660*	360*	400*	<1000	480*
Sodium	2300*	3600*	2300*	2500*	2500*	3400*	3800*	2400*	3600*	3400*
Zinc	4.9*	<2	2.5*	2.7*	2.2*	<2	16*	4.9*	114*	<2

Page extracted to show only lines with reportable values.

TABLE III. Results of Chemical Tests for Water Samples from Fort Richardson, Alaska.
(Continued). Ground Water Monitoring Project. September, 1990.
Metals. Total.

PROJECT: Ft. Richardson Ground Water									
	DUP.				DUP.	DUP.			DUP.
LOCATION:	WELL-2	WELL-3	OTTER	W-B	W-B	W-B	AK-2127	FR-1	FR-1
DATE OF SAMPLING:	900905	900905	900907	900904	900904	900904	900904	900909	900909
TIME OF SAMPLING:	NR	NR	1130	1445	1445	1445	1210	0800	0800
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	96.75	96.75	96.75	<2.85	127.2	127.2
FIELD SAMPLE ID No.: 90FRGV	63WA	62WA	64WA	65WA	65WA	66WA	67WA	68WA	68WA
TESTING LABORATORY:	CENPD	CENPD	CENPD	CENPD	AMTEST	CENPD	CENPD	CENPD	AMTEST
LABORATORY SAMPLE #:	0329	0328	0341	0316	021113	0317	0318	0346	021435
DATE RECEIVED:	900907	900907	900910	900905	900906	900905	900905	900907	900912
ELEMENT, TOTAL									
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	<45	<45	<45	<45	90 *	<45	<45	400*	200 *
Antimony	<10	<10	<10	<10	1 *	<10	<10	<10	2 *
Arsenic	<2	2.6*	<2	<2	1 *	<2	<2	2.2*	1 *
Beryllium	<1	<1	<1	<1	<7	<1	<1	<1	<7
Cadmium	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.5	<2
Calcium	36000*	32000*	55000*	43000*	46000. *	46000*	27000*	52000*	50000. *
Chromium	3.0*	4.8*	3.0*	4.5	<6	4.0*	4.1*	3.6*	<6
Copper	12*	<5	13*	<5	<2	<5	<5	13*	8 *
Iron	150*	130*	39*	57*	110*	140*	120*	1000*	260*
Lead	3.7*	<2	2.8*	<2	3 *	<2	<2	2.0*	5 *
Magnesium	6200*	5000*	7700*	13000*	16000 *	14000*	6300*	8200*	7600 *
Manganese	8*	<2	9.3*	23*	7 *	15*	16*	39*	42 *
Mercury	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Potassium	510*	530*	710*	1000*	<1000	1100*	670*	2200*	<1000
Selenium	<5	<5	<5	<5	1 *	<5	<5	<5	1 *
Silver	<0.5	<0.5	<0.5	<0.5	0.5 *	<0.5	<0.5	<0.5	<10 *
Sodium	4500*	3400*	2700*	4900*	5300	4400*	5000*	3500*	3900 *
Zinc	16*	13*	310*	<2	4*	<2	15*	42*	32*

Page extracted to show only lines with reportable values.

TABLE III. Results of Chemical Tests for Water Samples from Fort Richardson, Alaska.
(Continued). Ground Water Monitoring Project. September, 1990.
Metals. Dissolved.

PROJECT: Ft. Richardson Ground Water

	DUP.				DUP.	DUP.			DUP.
LOCATION:	WELL-2	WELL-3	OTTER	W-B	W-B	W-B	AK-2127	FR-1	FR-1
DATE OF SAMPLING:	900905	900905	900907	900904	900904	900904	900904	900909	900909
TIME OF SAMPLING:	NR	NR	NR	1445	1445	1445	1210	0800	0800
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	96.75	96.75	96.75	72.85	127.2	127.2
FIELD SAMPLE ID No.: 90FRGW	163WA	162WA	164WA	165WA	165WA	166WA	167WA	168WA	168WA
TESTING LABORATORY:	CENPD	CENPD	CENPD	CENPD	AMTEST	CENPD	CENPD	CENPD	AMTEST
LABORATORY SAMPLE #:	0337	0336	0345	0319	021114	0320	0321	0349	021439
DATE EXTRACTED:	900907	900907	900910	900905	900906	900905	900905	900911	900912

ELEMENT, DISSOLVED

CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	mg/L
Aluminum	<45	<45	<45	<45	140*	<45	<45	<45	100*
Antimony	<10	<10	<10	<10	<1	<10	<10	<10	2*
Arsenic	<2	2.6*	<2	<2	1*	2.1*	<2	2.1*	1*
Barium	<10	<10	12*	11*	8*	10*	11*	14*	8*
Calcium	38000*	32000*	58000*	43000*	40000*	43000*	27000*	53000*	52000*
Chromium	<2	<2	<2	2.6*	<6	2.2*	<2	2.9*	<6
Copper	<5	<5	11*	<5	17*	<5	<5	12*	10*
Iron	11*	<5	<5	<5	120*	<5	<5	18*	10*
Lead	<2	<2	<2	<2	3*	<2	<2	<2	4*
Magnesium	6500*	4900*	7300*	14000*	13000*	13000*	6300*	7600*	7900*
Manganese	<2	<2	<2	11*	69*	11*	14*	<2	5*
Mercury	<0.2	<0.2	<0.2	<0.2	<0.2	0.3*	<0.2	<0.2	<0.2
Potassium	480*	480*	680*	1000*	<1000	990*	610*	3400*	1500*
Selenium	<5	<5	<5	<5	1*	<5	<5	<5	<1
Silver	<0.5	<0.5	<0.5	<0.5	<0.2*	<0.5	<0.5	<0.5	<10
Sodium	3400*	2500*	2200*	4600*	4400*	3500*	5300*	3200*	7200*
Zinc	4.3*	3.1*	240*	2.2*	49*	<2	3*	27*	37*

Page extracted to show only lines with reportable values.

TABLE III. Results of Chemical Tests for Water Samples from Fort Richardson, Alaska.
(Continued). Ground Water Monitoring Project. September, 1990.
Metals. Total.

PROJECT: Ft. Richardson Ground Water

LOCATION:	FR-2	DUP. FR-2	FR-3	DUP. FR-3	BLDG SHOP
DATE OF SAMPLING:	900908	900908	900910	900910	900830
TIME OF SAMPLING:	1230	1230	NR	NR	TRIP
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	145.1	145.1	130.35	130.35	BLANK
FIELD SAMPLE ID No.: 90FRGW	69WA	69WA	70WA	70WA	73WA
TESTING LABORATORY:	CENPD	AMTEST	CENPD	AMTEST	CENPD
LABORATORY SAMPLE #:	0347	021436	0348	021437	0352
DATE RECEIVED:	900911	900909	900911	900912	900911

ELEMENT, TOTAL

CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	<45	170 *	2700 *	1100	<45
Arsenic	2.2*	<1	3.8 *	1 *	<2
Barium	17*	9 *	55 *	20 *	<10
Cadmium	0.65*	3 *	0.69 *	<2	<0.5
Calcium	64000*	59000 *	46000 *	45000 *	340 *
Chromium	2.7*	<6	11 *	<6	<2
Copper	12*	39 *	34*	24 *	<5
Iron	320*	200 *	6300*	1700 *	<5
Lead	2.4*	4 *	9.2 *	16 *	<2
Magnesium	9700*	9000 *	12000 *	9800 *	15*
Manganese	29*	23 *	160 *	78 *	<2
Mercury	0.6*	<0.2	0.5 *	<0.2	<0.2
Nickel	<5	<10	14 *	<10	<5
Potassium	1500*	1400 *	1000 *	1500 *	49 *
Sodium	3400*	3400 *	7000*	6500	<100
Vanadium	<5	<2	<5	2 *	<5
Zinc	130*	184 *	480 *	168 *	<2

Page extracted to show only lines with reportable values.

TABLE III. Results of Chemical Tests for Water Samples from Fort Richardson, Alaska.
(Concluded). Ground Water Monitoring Project. September, 1990.
Metals. Dissolved.

PROJECT: Ft. Richardson Ground Water

LOCATION:	FR-2	DUP. FR-2	FR-3	DUP. FR-3	BLDG SHOP
DATE OF SAMPLING:	900908	900908	900910	900910	900909
TIME OF SAMPLING:	1230	1230	NR	NR	TRIP
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	145.1	145.1	130.35	130.35	BLANK
FIELD SAMPLE ID No.: 90FRGW	169WA	169WA	170WA	170WA	073WA
TESTING LABORATORY:	CENPD	AMTEST	CENPD	AMTEST	AMTEST
LABORATORY SAMPLE #:	0350	021440	0351	021441	021438
DATE RECEIVED:	900911	900912	900911	900912	900912

ELEMENT, DISSOLVED
CONCENTRATION UNITS:

	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	82*	90 *	<45	140 *	120 *
Arsenic	<2	1 *	<2	1 *	<1
Barium	17*	8 *	21*	12 *	<3
Cadmium	<2	<2	0.84*	<2	<2
Calcium	67000*	57000 *	46000*	42000 *	1300 *
Chromium	2.3*	<6	2.4*	<6	<6
Cobalt	6.2*	<3	<5	<3	<3
Copper	20*	8 *	7.0*	6 *	4 *
Iron	160*	60 *	5*	80 *	50 *
Lead	<2	15 *	<2	4 *	2 *
Magnesium	9500*	8600 *	9100*	8900 *	<100
Manganese	25*	4 *	10*	3 *	23 *
Potassium	2400*	<1000	3700*	1300 *	<1000
Sodium	3000*	3400 *	7400*	7900 *	720 *
Zinc	110*	93 *	34*	44 *	20 *

Page extracted to show only lines with reportable values.

TABLE IV. Results of Chemical Test for Soil Samples from Ft. Richardson, Alaska
(Continued) Ground Water Monitoring. May-June 1990.
Semivolatile Organic Compounds. SW846 Method 8270

PROJECT: Ft. Richardson Ground Water

	DUP.									
LOCATION:	AFDG C	AFDG E	AFDG K	A-6	A-1	TW-1	SUMP A	AFDG 9	AFDG 9	WELL-1
DATE OF SAMPLING:	900529	900529	900529	900601	900601	900601	900529	900529	900529	900530
TIME OF SAMPLING:	NR	NR	NR	1102	0930	1305	NR	NR	NR	NR
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	5.96	37.1	26.3	NR	NR	NR	NR
DATE SHIPPED:	900530	900530	900530	900530	900530	900530	900530	900530	900530	900530
FIELD SAMPLE ID#: 90FRGW	01WA	02WA	03WA	04WA	06WA	07WA	08WA	09WA	09WARE	10WA
TESTING LABORATORY:	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL
LABORATORY SAMPLE #:	694-1	694-2	694-3	698-1	698-2	698-3	694-5	694-6	694-6RE	694-7
DATE RECEIVED:	900601	900601	900601	900601	900601	900601	900601	900601	900601	900601
DATE EXTRACTED:	900601	900601	900601	900601	900601	900601	900601	900601	900601	900601
DATE TESTED:	900614	900614	900614	900620	900622	900620	900615	900615	900619	900615
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
COMPOUND										
bis-(2-Ethylhexyl)phthalate	3. JB	5. JB	2. JB	14. U	5. J	11. U	5. JB	4. JB	4. JB	4. JB
Tentatively Identified										
Compounds (TICs)	2	2	3	10	7	9	6	4	3	3
Cumulated Est. Conc.	6.	7.	17.	10.8	21.8	10.7	36.	190.	140.	398.

TABLE IV. Results of Chemical Tests for Soil Samples from Ft. Richardson, Alaska
(Continued) Ground Water Monitoring. May-June 1990.
Semivolatile Organic Compounds. SW846 Method 8270.

PROJECT: Ft. Richardson Ground Water

	DUP.					DUP.				
LOCATION:	WELL-1	WELL-2	WELL-3	OTTER	W-B	W-B	AK-2127	FR-1	FR-2	FR-3
DATE OF SAMPLING:	900530	900530	900530	900604	900603	900603	900529	900606	900607	900605
TIME OF SAMPLING:	NR	NR	NR	1400	1300	1300	1245	NR	NR	0930
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	NR	96.9	96.9	70.2	128.4	146.2	132.6
DATE SHIPPED:	900530	900530	900530	900530	900530	900530	900530	900530	900530	900530
FIELD SAMPLE ID#: 90FRGW	11WA	12WA	13WA	14WA	15WA	16WA	17WA	18WA	19WA	20WA
TESTING LABORATORY:	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL
LABORATORY SAMPLE #:	694-10	694-8	694-9	700-1	700-2	700-3	694-11	704-1	706-1	700-4
DATE RECEIVED:	900601	900601	900601	900607	900607	900607	900601	900608	900609	900607
DATE EXTRACTED:	900601	900601	900601	900608	900608	900608	900601	900608	900614	900608
DATE TESTED:	900615	900615	900615	900614	900614	900615	900615	900615	900620	900615
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
COMPOUND										
bis-(2-Ethylhexyl)phthalate	4. JB	5. JB	4. JB	4. J	3. J	11. U	5. JB	18. J	15. B	11. U
Tentatively Identified										
Compounds (TICs)	4	1	3	8	9	8	4	12	20	20
Cumulated Est. Conc.	483	710.	428	659.	409.8	854.	526.	340.	187.	132.

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TABLE IV. Results of Chemical Tests for Soil Samples from Ft. Richardson, Alaska.
(Continued) Ground Water Monitoring. September 1990.
Semivolatile Organic Compounds. SW846 Method 8270.

PROJECT: Ft. Richardson Ground Water

LOCATION:	AFDG C	AFDG E	AFDG K	A-6	A-1	TW-1	SUMP A	AFDG 9
DATE OF SAMPLING:	900905	900905	900905	900601	900906	900907	900905	900905
TIME OF SAMPLING:	NR	NR	NR	1700	1545	1025	NR	NR
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	7.33	28.75	21.7	NR	NR
FIELD SAMPLE ID#: 90FRGW	51WA	52WA	53WA	54WA	56WA	57WA	58WA	59WA
TESTING LABORATORY:	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL
LABORATORY SAMPLE #:	791-1	791-2	791-3	794-1	794-2	794-3	791-4	791-5
DATE RECEIVED:	900908	900908	900908	900911	900911	900911	900908	900908
DATE EXTRACTED:	900910	900910	900910	900912	900912	900912	900910	900910
DATE TESTED:	900911	900911	900911	900912	900912	900912	900911	900911
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
COMPOUND								
bis-(2-Ethylhexyl)phthalate	5. JB	5. JB	5. JB	4. JB	4. JB	3. JB	4. JB	6. JB
Tentatively Identified								
Compounds (TICs)	4	4	4	4	4	3	5	6
Cumulated Est. Conc.	48	51	49	15	15	12	209	54

TABLE IV. Results of Chemical Tests for Soil Samples from Fort Richardson, Alaska
(Continued) Ground Water Monitoring. September 1990.
Semivolatile Organic Compounds. SW846 Method 8270.

PROJECT: Ft. Richardson Ground Water

LOCATION:	WELL-2	DUP.	DUP.			DUP.	DUP.		
900905	900905	900905	900905	WELL-3	W-B	W-B	W-B	OTTER	AK-2127
TIME OF SAMPLING:	NR	NR	NR	NR	1445	1445	1445	1130	1210
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	NR	96.75	96.75	96.75	NR	72.85
FIELD SAMPLE ID#: 90FRGW	61WA	63WA	60WA	62WA	65WA	66WA	65WA	64WA	67WA
TESTING LABORATORY:	ARDL	ARDL	AMTEST	ARDL	ARDL	ARDL	AMTEST	ARDL	ARDL
LABORATORY SAMPLE #:	791-6	791-8	021268	791-7	789-1	789-2	021113	794-4	789-3
DATE RECEIVED:	900908	900908	900908	900908	900906	900906	900906	900911	900906
DATE EXTRACTED:	900910	900910	900911	900910	900907	900907	900911	900912	900907
DATE TESTED:	900912	900912	900911	900912	900907	900907	900911	900913	900907
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
COMPOUND									
Butylbenzylphthalate	26. *	10. U	2 ND	10. U	10. U	10. U	2 ND	10. U	10. U
bis-(2-Ethylhexyl)phthalate	5. JB	5. JB	2 ND	5. JB	3. JB	3. JB	2 ND	3. JB	4. JB
Tentatively Identified									
Compounds (TICs)	7	5	0	4	7	10	0	3	10
Cumulated Est. Conc.	427	37	0	40	18	28.6	0	11	24.1

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TABLE IV. Results of Chemical Tests for Soil Samples from Ft. Richardson, Alaska
(Concluded). Ground Water Monitoring. September 1990.
Semivolatile Organic Compounds. SW846 Method 8270.

PROJECT: Ft. Richardson Ground Water

		DUP.		DUP.		DUP.
LOCATION:	FR-1	FR-1	FR-2	FR-2	FR-3	FR-3
DATE OF SAMPLING:	900909	900909	900908	900908	900910	900910
TIME OF SAMPLING:	0800	0800	1230	1230	NR	NR
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	127.2	127.2	145.1	145.1	130.35	130.35
FIELD SAMPLE ID#: 90FRGW	68WA	68WA	69WA	69WA	70WA	70WA
TESTING LABORATORY:	ARDL	AMTEST	ARDL	AMTEST	ARDL	AMTEST
LABORATORY SAMPLE #:	795-1	021435	795-2	021436	795-3	021437
DATE RECEIVED:	900912	900912	900912	900912	900912	900912
DATE EXTRACTED:	900913	900913	900913	900913	900913	900913
DATE TESTED:	900913	900914	900913	900914	900913	900914
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
COMPOUND						
Di-n-butylphthalate	12. U	2 ND	10. U	2.3 *	10. U	2.2 *
bis-(2-Ethylhexyl)phthalate	9. JB	2 ND	7. JB	2 ND	6. JB	5.9 *
Tentatively Identified						
Compounds (TICs)	20	25	20	17	20	26
Cumulated Est. Conc.	610.	683	520	523	1689	1216

Table V. Results of Chemical Tests for Samples from Fort Richardson, Alaska.
Groundwater Monitoring. May-June, 1990.
Volatile Organic Compounds. SW846 Method 8240.

PROJECT: FT. RICHARDSON GROUND WATER

	ADFG C	ADFG E	ADFG K	A-6	21-702	A-1	TW-1	SUMP A	ADFG 9	OTTER
LOCATION:										
DATE OF SAMPLING:	900529	900529	900529	900601	900522	900601	900601	900529	900529	900604
TIME OF SAMPLING:	NR	NR	NR	1102	TRIP	0930	1305	NR	NR	1400
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	5.96	BLANK	37.0	26.4	NR	NR	NR
FIELD SAMPLE ID#: 90FRGW	01WA	02WA	03WA	04WA	05WA	06WA	07WA	08WA	09WA	14WA
DATE SHIPPED:	900530	900530	900530	900601	900530	900530	900530	900530	900530	900605
TESTING LABORATORY:	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL
LABORATORY SAMPLE #:	694-1	694-2	694-3	698-1	694-4	698-2	698-3	694-5	694-6	700-1
DATE RECEIVED:	900601	900601	900601	900605	900601	900605	900605	900601	900601	900607
DATE TESTED:	900610	900610	900611	900612	900608	900612	900612	900610	900608	900612
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
COMPOUND										
Methylene Chloride	5. B	4. JB	5. U	8. B	13. B	8. B	13. B	11. *	18. B	15. B
Chloroform	5. U	5. U	5. U	2. J	33. *	2. J	5. U	5. U	5. U	5. U
Toluene	5. U	5. U	5. U	5. U	5. U	5. U	3. J	5. *	5. U	5. U
Number of TICs	2	1	1	2	0	1	2	1	1	3
Cumulated Est. Conc.	40	18	3	15	0	13	36	9	9	53

Page extracted to show only lines with reportable values.

Table V. Results of Chemical Tests for Samples from Fort Richardson, Alaska.
(Continued). Groundwater Monitoring. May-June, 1990.
Volatile Organic Compounds. SW846 Method 8240.

PROJECT: Ft. Richardson Ground Water

	DUP.					DUP.				
LOCATION:	WELL-1	WELL-1	WELL-2	WELL-3	W-B	W-B	AK-2127	FR-1	FR-2	FR-3
DATE OF SAMPLING:	900530	900530	900530	900530	900603	900603	900529	900606	900607	900605
TIME OF SAMPLING:	NR	NR	NR	NR	1300	1300	1245	NR	NR	0930
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	NR	96.9	96.9	70.2	128.4	146.2	132.6
FIELD SAMPLE ID#: 90FRGW	13WA	10WA	11WA	12WA	15WA	16WA	17WA	18WA	19WA	20WA
DATE SHIPPED:	900530	900530	900530	900530	900604	900604	900530	900606	900607	900605
TESTING LABORATORY:	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL
LABORATORY SAMPLE #:	694-10	694-7	694-8	694-9	700-2	700-3	694-11	704-1	706-6	700-4
DATE RECEIVED:	900601	900601	900601	900601	900607	900607	900601	900608	900609	900607
DATE TESTED:	900610	900608	900611	900610	900612	900612	900610	900614	900615	900612
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
COMPOUND										
Methylene Chloride	5. J	7. B	5. B	5. J	17. B	18. B	7. *	17. B	31. *	19. B
Acetone	10. U	10. U	10. U	10. U	10. U	10. U	10. U	35. B	10. U	24.
Chloroform	5. U	5. U	5. U	5. U	5. U	5. U	5. U	2. J	5. U	5. U
Number of TICs	1	1	2	2	1	2	2	0	0	1
Cumulated Est. Conc.	11	9	14	30	17	19	30	0	0	14

Table V. Results of Chemical Tests for Samples from Fort Richardson, Alaska.
(Continued). Groundwater Monitoring. May-June, 1990.
Volatile Organic Compounds. SW846 Method 8240.

PROJECT: FT. RICHARDSON GROUND WATER							
LOCATION:	21-702	21-700	21-702	21-700	21-702	SHOP	CHECK
DATE OF SAMPLING:	900530	900601	900603	900606	900605	900606	900607
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER
						BLANK	BLANK
FIELD SAMPLE ID#: 90FRGW	21WA	22WA	23WA	24WA	25WA	26WA	27WA
DATE SHIPPED:	900601	900605	900607	900608	900607	900608	900609
TESTING LABORATORY:	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL
LABORATORY SAMPLE #:	694-12	698-4	700-5	704-2	700-6 /	704-3	706-2
DATE RECEIVED:	900601	900605	900607	900608	900607	900608	900609
DATE TESTED:	900611	900612	900613	900614	900613	900614	900615
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
COMPOUND							
Methylene Chloride	5. JB	14. B	7. B	20. B	7. B	16. B	29. *
Chloroform	29. *	33. *	30. B	42. *	40. B	36. *	41. *
Number of TICs	1	1	1	1	0	0	2
Cumulated Est. Conc.	6	84	6	4	0	0	19

Table V. Results of Chemical Tests for Samples from Fort Richardson, Alaska.
(Continued). Groundwater Monitoring. September, 1990.
Volatile Organic Compounds. SW846 Method 8240.

PROJECT: FT. RICHARDSON GROUND WATER										
LOCATION:	ADFG C	ADFG E	ADFG K	A-6	21-702	21-702	A-1	TW-1	SUMP A	ADFG 9
DATE OF SAMPLING:	900905	900905	900905	900906	900906	900906	900906	900907	900905	900905
TIME OF SAMPLING:	NR	NR	NR	1700	TRIP	TRIP	1545	1025	NR	NR
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	7.33	BLANK	BLANK	28.75	21.7	NR	NR
FIELD SAMPLE ID#: 90FRGW	51WA	52WA	53WA	54WA	55WA	55WA	56WA	57WA	58WA	59WA
TESTING LABORATORY:	ARDL	ARDL	ARDL	ARDL	CESPD	ARDL	ARDL	ARDL	ARDL	ARDL
LABORATORY SAMPLE #:	791-1	791-2	791-3	794-1	QA90-137	789-4	794-2	794-3	791-4	791-5
DATE RECEIVED:	900908	900908	900908	900911	NR	900906	900911	900911	900908	900908
DATE TESTED:	900914	900914	900914	900916	900907	900915	900916	900916	900914	900914
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
COMPOUND										
Methylene Chloride	6 *	5 U	5 U	5 U	5 ND	7 B	5 U	5 U	5 *	8 *
Chloroform	9 *	11 *	8 *	5 U	5 ND	29 B	5 U	29 B	11 *	13 *
Number of TICs	3	3	3	1	NR	1	0	1	3	1
Cumulated Est. Conc.	74	90	24	4	NR	5	0	4	92	67

Table V. Results of Chemical Tests for Samples from Fort Richardson, Alaska.
(Continued). Groundwater Monitoring. September, 1990.
Volatile Organic Compounds. SW846 Method 8240.

PROJECT: FT. RICHARDSON GROUND WATER										
LOCATION:	WELL-2	DUP.	DUP.	WELL-2	WELL-3	OTTER	W-B	DUP.	DUP.	
DATE OF SAMPLING:	900905	900905	900905	900905	900905	900907	900904	900904	900904	AK-2127
TIME OF SAMPLING:	NR	NR	NR	NR	NR	1130	1445	1445	1445	FR-1
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	0800
SAMPLE DEPTH, FEET:	NR	NR	NR	NR	NR	NR	96.75	96.75	96.75	1210
FIELD SAMPLE ID#: 90FRGW	60WA	61WA	63WA	62WA	64WA	65WA	65WA	66WA	67WA	127.2
TESTING LABORATORY:	CESPD	ARDL	ARDL	ARDL	ARDL	CESPD	ARDL	ARDL	ARDL	0800
LABORATORY SAMPLE #:	QA90-140	791-6	791-8	791-7	794-4	QA90-138	789-1	789-2	789-3	QA90-141
DATE RECEIVED:	NR	900908	900908	900908	900911	NR	900906	900906	900906	NR
DATE TESTED:	900907	900914	900914	900914	900917	900907	900915	900915	900915	900912
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
COMPOUND										
Methylene Chloride	5 ND	7 *	8 *	9 *	12 B	5 ND	4 JB	7 B	7 B	5 ND
Chloroform	5 ND	12 *	12 *	15 *	5 U	5 ND	1 JB	5 U	1 JB	5 ND

Page extracted to show only lines with reportable values.

Table V. Results of Chemical Tests for Samples from Fort Richardson, Alaska.
(Continued). Groundwater Monitoring. September, 1990.
Volatile Organic Compounds. SW846 Method 8240.

PROJECT: FT. RICHARDSON GROUND WATER

		DUP.	DUP.				DUP.	DUP.		
LOCATION:	WELL-2	WELL-2	WELL-2	WELL-3	OTTER	W-B	W-B	W-B	AK-2127	FR-1
DATE OF SAMPLING:	900905	900905	900905	900905	900907	900904	900904	900904	900904	900909
TIME OF SAMPLING:	NR	NR	NR	NR	1130	1445	1445	1445	1210	0800
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	NR	NR	NR	NR	NR	96.75	96.75	96.75	72.85	127.2
FIELD SAMPLE ID#: 90FRGW	60WA	61WA	63WA	62WA	64WA	65WA	66WA	65WA	67WA	68WA
TESTING LABORATORY:	CESPD	ARDL	ARDL	ARDL	ARDL	ARDL	ARDL	CESPD	ARDL	CESPD
LABORATORY SAMPLE #:	QA90-140	791-6	791-8	791-7	794-4	789-1	789-2	QA90-138	789-3	QA90-141
DATE RECEIVED:	NR	900908	900908	900908	900911	900906	900906	NR	900906	NR
DATE TESTED:	900907	900914	900914	900914	900917	900915	900915	900907	900915	900912
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
COMPOUND										
Toluene	5 ND	5 U	23 *	73 *	5 U	5 U	5 U	5 ND	5 U	5 ND
m-Xylene	5 ND	5 U	5 U	13 *	5 U	5 U	5 U	5 ND	5 U	5 ND
o- & p-Xylene	5 ND	5 U	5 U	23 *	5 U	5 U	5 U	5 ND	5 U	5 ND
Number of TICs	NR	3	10	4	1	2	1	NR	1	NR
Cumulated Est. Conc.	NR	88	93	100	19	9	4	NR	3	NR

Table V. Results of Chemical Tests for Samples from Fort Richardson, Alaska.
(Continued). Groundwater Monitoring. September, 1990.
Volatile Organic Compounds. SW846 Method 8240.

PROJECT: FT. RICHARDSON GROUND WATER

	DUP.		DUP.		DUP.		DUP.		DUP.	
LOCATION:	FR-1	FR-2	FR-2	FR-3	FR-3	21-700	21-700	COE	SHOP	SHOP
DATE OF SAMPLING:	900909	900908	900908	900910	900910	900830	900830	900830	900830	900830
TIME OF SAMPLING:	0800	1230	1230	NR	NR	TRIP	TRIP	TRIP	TRIP	TRIP
TYPE OF SAMPLE:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
SAMPLE DEPTH, FEET:	127.2	145.1	145.1	130.35	130.35	BLANK	BLANK	BLANK	BLANK	BLANK
FIELD SAMPLE ID#: 90FRGW	68WA	69WA	69WA	70WA	70WA	71WA	71WA	72WA	73WA	73WA
TESTING LABORATORY:	ARDL	CESPD	ARDL	CESPD	ARDL	CESPD	ARDL	ARDL	CESPD	ARDL
LABORATORY SAMPLE #:	795-1	QA90-143	795-2	QA90-142	795-3	QA90-144	781-9	794-5	QA90-142	795-4
DATE RECEIVED:	900912	NR	900912	NR	900912	NR	900908	900911	NR	900912
DATE TESTED:	900916	900912	900916	900912	900916	900913	900915	900917	900912	900916
CONCENTRATION UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
COMPOUND										
Methylene Chloride	5 U	5 ND	5 U	5 ND	3 J	5 ND	5 B	7 B	5 ND	2 J
Chloroform	1 J	5 ND	1 J	5 ND	2 J	5 ND	32 B	29 *	5 ND	45 *
Number of TICs	3	NR	1	NR	1	NR	NR	1	NR	0
Cumulated Est. Conc.	131	NR	3	NR	3	NR	NR	5	NR	0