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ANALYTICAL RESULTS  
FOR  
U.S. GEOLOGICAL SURVEY  
ENSECO-RMAL NO. 011407

OCTOBER 15, 1990

KAFB1062



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FOR  
U.S. GEOLOGICAL SURVEY  
ENSECO-RMAL NO. 011407**



**OCTOBER 15, 1990**

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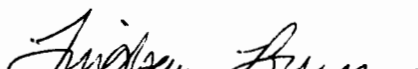
ANALYTICAL RESULTS  
FOR  
U.S. GEOLOGICAL SURVEY  
ENSECO-RMAL NO. 011407



OCTOBER 15, 1990

Reviewed by:

  
Randall Thompson

  
Lindsay Breyer

## **Introduction**

This report presents the analytical results as well as supporting information to aid in the evaluation and interpretation of the data and is arranged in the following order:

- o Sample Description Information
- o Analytical Test Requests
- o Analytical Results
- o Quality Control Report

## **Sample Description Information**

The Sample Description Information lists all of the samples received in this project together with the internal laboratory identification number assigned for each sample. Each project received at Enseco - RMAL is assigned a unique six digit number. Samples within the project are numbered sequentially. The laboratory identification number is a combination of the six digit project code and the sample sequence number.

Also given in the Sample Description Information is the Sample Type (matrix), Date of Sampling (if known) and Date of Receipt at the laboratory.

## **Analytical Test Requests**

The Analytical Test Requests lists the analyses that were performed on each sample. The Custom Test column indicates where tests have been modified to conform to the specific requirements of this project.

SAMPLE DESCRIPTION INFORMATION  
 for  
 U.S. Geological Survey

Lab ID	Client ID	Matrix	Sampled		Received Date
			Date	Time	
011407-0001-SA	SS 304 PIPE LEACH TEST	AQUEOUS	31 AUG 90	13:30	20 SEP 90
011407-0002-SA	KAFB021302-2	AQUEOUS	19 SEP 90	11:48	20 SEP 90
011407-0003-SA	SS WIRE ROPE (OLD) LEACH TEST	AQUEOUS	19 SEP 90	10:00	20 SEP 90
011407-0004-SA	SS 304 WIRE ROPE (NEW) LEACH	AQUEOUS	19 SEP 90	10:15	20 SEP 90
011407-0005-SA	DRILLING MUD LEACH TEST	AQUEOUS	06 SEP 90	12:30	20 SEP 90
011407-0006-SA	VOLCLAY GROUT LEACH TEST	AQUEOUS	06 SEP 90	12:45	20 SEP 90
011407-0007-SA	LATEX GLOVE (DERMATHIN) LEACH	AQUEOUS	19 SEP 90	15:15	20 SEP 90
011407-0008-SA	CHROMIUM DI H2O BLANK	AQUEOUS	19 SEP 90	14:30	20 SEP 90

ANALYTICAL TEST REQUESTS  
for  
U.S. Geological Survey

Lab ID: 011407	Group Code	Analysis Description	Custom Test?
0001 , 0005, 0006	A	Chromium, Furnace AA	N
		Chromium, Furnace AA (Total)	N
		Prep - Total Metals, ICP	N
		ICP Metals (Dissolved)	Y
		ICP Metals (Total)	Y
0002	B	Total Organic Carbon (TOC)	N
		Total Organic Halogen (TOX)	N
		Nitrate Plus Nitrite	N
		Chromium, Furnace AA	N
		Chromium, Furnace AA (Total)	N
		Prep - Total Metals, ICP	N
		Semivolatile Organics Appendix IX List	N
		Prep - Semivolatile Organics by GC/MS	N
		Semivolatiles Library Search (20 Compound ID)	N
0003 - 0004	C	Chromium, Furnace AA	N
		Chromium, Furnace AA (Total)	N
		Prep - Total Metals, ICP	N
0007	D	Volatile Organics Appendix IX List	N
		Screen - Volatile Organics	N
		Semivolatile Organics Appendix IX List	N
		Prep - Semivolatile Organics by GC/MS	N
		Volatiles Library Search (10 Compound TID)	N
		Semivolatiles Library Search (20 Compound ID)	N
		0008	E

## Analytical Results

The analytical results for this project are presented in the following data tables. Each data table includes sample identification information, and when available and appropriate, dates sampled, received, authorized, prepared and analyzed. The authorization data is the date when the project was defined by the client such that laboratory work could begin.

Data sheets contain a listing of the parameters measured in each test, the analytical results and the Enseco reporting limit. Reporting limits are adjusted to reflect dilution of the sample, when appropriate. Solid and waste samples are reported on an "as received" basis, i.e. no correction is made for moisture content.

Enseco-RMAL is no longer routinely blank-correcting analytical data. Uncorrected analytical results are reported, along with associated blank results, for all organic and metals analyses. Analytical results and blank results are reported for conventional inorganic parameters as specified in the method. This policy is described in detail in the Enseco Incorporated Quality Assurance Program Plan for Environmental Chemical Monitoring, Revision 3.3, May, 1989.

The results from the Standard Enseco QA/QC Program, which generates data which are independent of matrix effects, is provided subsequently.

Volatile Organics  
Appendix IX List  
Method 8240

Client Name: U.S. Geological Survey  
 Client ID: LATEX GLOVE (DERMATHIN) LEACH TEST  
 Lab ID: 011407-0007-SA  
 Matrix: AQUEOUS  
 Authorized: 20 SEP 90  
 Sampled: 19 SEP 90  
 Prepared: 24 SEP 90  
 Received: 20 SEP 90  
 Analyzed: 24 SEP 90

Parameter	Result	Units	Reporting Limit
Acetone	ND	ug/L	10
Acetonitrile	ND	ug/L	200
Acrolein	ND	ug/L	100
Acrylonitrile	ND	ug/L	100
Allyl chloride	ND	ug/L	10
Benzene	ND	ug/L	5.0
Bromodichloromethane	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
Bromomethane	ND	ug/L	10
2-Butanone (MEK)	ND	ug/L	10
Carbon disulfide	20	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Chloroethane	ND	ug/L	10
Chloroform	ND	ug/L	5.0
Chloromethane	ND	ug/L	10
Chloroprene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,2-Dibromo-3-chloro- propane (DBCP)	ND	ug/L	10
1,2-Dibromoethane (EDB)	ND	ug/L	10
Dibromomethane	ND	ug/L	5.0
trans-1,4-Dichloro- 2-butene	ND	ug/L	5.0
Dichlorodifluoromethane	ND	ug/L	20
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,2-Dichloroethene (total)	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
1,4-Dioxane	ND	ug/L	500
Ethylbenzene	ND	ug/L	5.0
Ethyl methacrylate	ND	ug/L	20
Iodomethane	ND	ug/L	5.0
Isobutanol	ND	ug/L	200
2-Hexanone	ND	ug/L	10
Methacrylonitrile	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0

(continued on following page)

ND = Not detected  
 NA = Not applicable

Reported By: Deneen Miller

Approved By: Jeff Lowry



Volatile Organics  
Appendix IX List  
Method 8240

Client Name: U.S. Geological Survey  
 Client ID: LATEX GLOVE (DERMATHIN) LEACH TEST  
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 Matrix: AQUEOUS  
 Authorized: 20 SEP 90  
 Sampled: 19 SEP 90  
 Prepared: 24 SEP 90  
 Received: 20 SEP 90  
 Analyzed: 24 SEP 90

Parameter	Result	Units	Reporting Limit
Methyl methacrylate	ND	ug/L	20
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10
Propionitrile	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
1,1,1-Trichloroethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Trichlorofluoromethane	ND	ug/L	5.0
1,2,3-Trichloropropane	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Xylenes (total)	ND	ug/L	5.0
Surrogate	Recovery		
Toluene-d8	100	%	--
4-Bromofluorobenzene	103	%	--
1,2-Dichloroethane-d4	102	%	--

ND = Not detected  
 NA = Not applicable

Reported By: Deneen Miller

Approved By: Jeff Lowry

**TENTATIVELY IDENTIFIED COMPOUNDS****FOR****U. S. GEOLOGICAL SURVEY****SAMPLE NUMBER 011407-0007**

<u>Compound Name</u>	<u>Fraction</u>	<u>Confidence Level</u>	<u>Estimated Concentration ug/L</u>
Hexane	VOA	2	49
Cyclopentane, methyl-	VOA	2	41

**NOTES:****Confidence Levels**

- Level 3 - Confirmed Identification
- Level 2 - Confident Identification
- Level 1 - Tentative Identification

Please refer to the discussion for further details.

Semivolatile Organics  
Appendix IX List  
Method 8270

Client Name: U.S. Geological Survey  
Client ID: KAFB021302-2  
Lab ID: 011407-0002-SA  
Matrix: AQUEOUS  
Authorized: 20 SEP 90

Sampled: 19 SEP 90  
Prepared: 21 SEP 90

Received: 20 SEP 90  
Analyzed: 01 OCT 90

Parameter	Result	Units	Reporting Limit
Acenaphthene	ND	ug/L	10
Acenaphthylene	ND	ug/L	10
Acetophenone	ND	ug/L	10
2-Acetylaminofluorene	ND	ug/L	100
4-Aminobiphenyl	ND	ug/L	10
Aniline	ND	ug/L	10
Anthracene	ND	ug/L	10
Aramite	ND	ug/L	10
Benzo(a)anthracene	ND	ug/L	10
Benzo(b)fluoranthene	ND	ug/L	10
Benzo(k)fluoranthene	ND	ug/L	10
Benzo(g,h,i)perylene	ND	ug/L	10
Benzo(a)pyrene	ND	ug/L	10
Benzyl alcohol	ND	ug/L	10
4-Bromophenyl phenyl ether	ND	ug/L	10
Butyl benzyl phthalate	ND	ug/L	10
2-sec-Butyl-4,6-dinitro- phenol	ND	ug/L	10
4-Chloroaniline	ND	ug/L	10
bis(2-Chloroethoxy)- methane	ND	ug/L	10
bis(2-Chloroethyl) ether	ND	ug/L	10
bis(2-Chloroisopropyl)- ether	ND	ug/L	10
4-Chloro-3-methylphenol	ND	ug/L	10
2-Chloronaphthalene	ND	ug/L	10
2-Chlorophenol	ND	ug/L	10
4-Chlorophenyl phenyl ether	ND	ug/L	10
Chrysene	ND	ug/L	10
Dibenz(a,h)anthracene	ND	ug/L	10
Dibenzofuran	ND	ug/L	10
Di-n-butyl phthalate	ND	ug/L	10
1,2-Dichlorobenzene	ND	ug/L	10
1,3-Dichlorobenzene	ND	ug/L	10
1,4-Dichlorobenzene	ND	ug/L	10
3,3'-Dichlorobenzidine	ND	ug/L	20
2,4-Dichlorophenol	ND	ug/L	10
2,6-Dichlorophenol	ND	ug/L	10
Diethyl phthalate	ND	ug/L	10

(continued on following page)

ND = Not detected  
NA = Not applicable

Reported By: Donna Reinwald

Approved By: Jeff Lowry

Semivolatile Organics  
Appendix IX List  
Method 8270

Client Name: U.S. Geological Survey  
Client ID: KAFB021302-2  
Lab ID: 011407-0002-SA  
Matrix: AQUEOUS  
Authorized: 20 SEP 90

Sampled: 19 SEP 90  
Prepared: 21 SEP 90

Received: 20 SEP 90  
Analyzed: 01 OCT 90

Parameter	Result	Units	Reporting Limit
Dimethoate	ND	ug/L	--
p-Dimethylaminoazobenzene	ND	ug/L	10
7,12-Dimethylbenz(a)-anthracene	ND	ug/L	10
3,3'-Dimethylbenzidine	ND	ug/L	10
α,α-Dimethylphenethylamine	ND	ug/L	10
2,4-Dimethylphenol	ND	ug/L	10
Dimethyl phthalate	ND	ug/L	10
1,3-Dinitrobenzene	ND	ug/L	10
4,6-Dinitro-2-methylphenol	ND	ug/L	50
2,4-Dinitrophenol	ND	ug/L	50
2,4-Dinitrotoluene	ND	ug/L	10
2,6-Dinitrotoluene	ND	ug/L	10
Di-n-octyl phthalate	ND	ug/L	10
Diphenylamine	ND	ug/L	10
Disulfoton bis(2-Ethylhexyl)phthalate	ND	ug/L	50
Ethyl methanesulfonate	ND	ug/L	10
Famphur	ND	ug/L	--
Fluoranthene	ND	ug/L	10
Fluorene	ND	ug/L	10
Hexachlorobenzene	ND	ug/L	10
Hexachlorobutadiene	ND	ug/L	10
Hexachlorocyclopentadiene	ND	ug/L	10
Hexachloroethane	ND	ug/L	10
Hexachlorophene	ND	ug/L	--
Hexachloropropene	ND	ug/L	10
Indeno(1,2,3-cd)pyrene	ND	ug/L	10
Isophorone	ND	ug/L	10
Isosafrole	ND	ug/L	20
Methapyrilene	ND	ug/L	10
3-Methylcholanthrene	ND	ug/L	10
Methyl methanesulfonate	ND	ug/L	10
2-Methylnaphthalene	ND	ug/L	10
Methyl parathion	ND	ug/L	50
2-Methylphenol	ND	ug/L	10
3/4-Methylphenol	ND	ug/L	10
Naphthalene	ND	ug/L	10

(continued on following page)

ND = Not detected  
NA = Not applicable

Reported By: Donna Reinwald

Approved By: Jeff Lowry

Semivolatile Organics  
Appendix IX List  
Method 8270

Client Name: U.S. Geological Survey  
Client ID: KAFB021302-2  
Lab ID: 011407-0002-SA  
Matrix: AQUEOUS  
Authorized: 20 SEP 90

Sampled: 19 SEP 90  
Prepared: 21 SEP 90

Received: 20 SEP 90  
Analyzed: 01 OCT 90

Parameter	Result	Units	Reporting Limit
1,4-Naphthoquinone	ND	ug/L	10
1-Naphthylamine	ND	ug/L	10
2-Naphthylamine	ND	ug/L	10
2-Nitroaniline	ND	ug/L	50
3-Nitroaniline	ND	ug/L	50
4-Nitroaniline	ND	ug/L	50
Nitrobenzene	ND	ug/L	10
2-Nitrophenol	ND	ug/L	10
4-Nitrophenol	ND	ug/L	50
4-Nitroquinoline-1-oxide	ND	ug/L	--
N-Nitroso-di-n-butylamine	ND	ug/L	10
N-Nitrosodiethylamine	ND	ug/L	10
N-Nitrosodimethylamine	ND	ug/L	10
N-Nitrosodiphenylamine	ND	ug/L	10
N-Nitroso-di-n-propylamine	ND	ug/L	10
N-Nitrosomethylethylamine	ND	ug/L	10
N-Nitrosomorpholine	ND	ug/L	10
N-Nitrosopiperidine	ND	ug/L	10
N-Nitrosopyrrolidine	ND	ug/L	10
5-Nitro-o-toluidine	ND	ug/L	10
Parathion	ND	ug/L	50
Pentachlorobenzene	ND	ug/L	10
Pentachloroethane	ND	ug/L	10
Pentachloronitrobenzene	ND	ug/L	50
Pentachlorophenol	ND	ug/L	50
Phenacetin	ND	ug/L	10
Phenanthrene	ND	ug/L	10
Phenol	ND	ug/L	10
4-Phenylenediamine	ND	ug/L	--
Phorate	ND	ug/L	100
2-Picoline	ND	ug/L	10
Pronamide	ND	ug/L	10
Pyrene	ND	ug/L	10
Pyridine	ND	ug/L	20
Safrole	ND	ug/L	10
Sulfotepp	ND	ug/L	50
1,2,4,5-Tetrachloro-benzene	ND	ug/L	10
2,3,4,6-Tetrachlorophenol	ND	ug/L	50
Thionazin	ND	ug/L	50

(continued on following page)

ND = Not detected  
NA = Not applicable

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Approved By: Jeff Lowry

Semivolatile Organics  
Appendix IX List  
Method 8270

Client Name: U.S. Geological Survey  
 Client ID: KAFB021302-2  
 Lab ID: 011407-0002-SA  
 Matrix: AQUEOUS  
 Authorized: 20 SEP 90

Sampled: 19 SEP 90  
 Prepared: 21 SEP 90

Received: 20 SEP 90  
 Analyzed: 01 OCT 90

Parameter	Result	Units	Reporting Limit
2-Toluidine	ND	ug/L	10
1,2,4-Trichlorobenzene	ND	ug/L	10
2,4,5-Trichlorophenol	ND	ug/L	50
2,4,6-Trichlorophenol	ND	ug/L	10
0,0,0-Triethylphosphorothioate	ND	ug/L	10
1,3,5-Trinitrobenzene	ND	ug/L	10
Surrogate	Recovery		
Nitrobenzene-d5	82	%	--
2-Fluorobiphenyl	82	%	--
Terphenyl-d14	71	%	--
Phenol-d5	74	%	--
2-Fluorophenol	66	%	--
2,4,6-Tribromophenol	76	%	--

ND = Not detected  
 NA = Not applicable

Reported By: Donna Reinwald

Approved By: Jeff Lowry

TENTATIVELY IDENTIFIED COMPOUNDS

FOR

U. S. GEOLOGICAL SURVEY

SAMPLE NUMBER 011407-0002

<u>Compound Name</u>	<u>Fraction</u>	<u>Confidence Level</u>	<u>Estimated Concentration ug/L</u>
None Detected	BNA		

NOTES:

Confidence Levels

- Level 3 - Confirmed Identification
- Level 2 - Confident Identification
- Level 1 - Tentative Identification

Please refer to the discussion for further details.

Semivolatile Organics  
Appendix IX List  
Method 8270

Client Name: U.S. Geological Survey  
 Client ID: LATEX GLOVE (DERMATHIN) LEACH TEST  
 Lab ID: 011407-0007-SA  
 Matrix: AQUEOUS  
 Authorized: 20 SEP 90  
 Sampled: 19 SEP 90  
 Prepared: 21 SEP 90  
 Received: 20 SEP 90  
 Analyzed: 01 OCT 90

Parameter	Result	Units	Reporting Limit
Acenaphthene	ND	ug/L	10
Acenaphthylene	ND	ug/L	10
Acetophenone	ND	ug/L	10
2-Acetylaminofluorene	ND	ug/L	100
4-Aminobiphenyl	ND	ug/L	10
Aniline	ND	ug/L	10
Anthracene	ND	ug/L	10
Aramite	ND	ug/L	10
Benzo(a)anthracene	ND	ug/L	10
Benzo(b)fluoranthene	ND	ug/L	10
Benzo(k)fluoranthene	ND	ug/L	10
Benzo(g,h,i)perylene	ND	ug/L	10
Benzo(a)pyrene	ND	ug/L	10
Benzyl alcohol	ND	ug/L	10
4-Bromophenyl phenyl ether	ND	ug/L	10
Butyl benzyl phthalate	ND	ug/L	10
2-sec-Butyl-4,6-dinitro- phenol	ND	ug/L	10
4-Chloroaniline	ND	ug/L	10
bis(2-Chloroethoxy)- methane	ND	ug/L	10
bis(2-Chloroethyl) ether	ND	ug/L	10
bis(2-Chloroisopropyl)- ether	ND	ug/L	10
4-Chloro-3-methylphenol	ND	ug/L	10
2-Chloronaphthalene	ND	ug/L	10
2-Chlorophenol	ND	ug/L	10
4-Chlorophenyl phenyl ether	ND	ug/L	10
Chrysene	ND	ug/L	10
Dibenz(a,h)anthracene	ND	ug/L	10
Dibenzofuran	ND	ug/L	10
Di-n-butyl phthalate	ND	ug/L	10
1,2-Dichlorobenzene	ND	ug/L	10
1,3-Dichlorobenzene	ND	ug/L	10
1,4-Dichlorobenzene	ND	ug/L	10
3,3'-Dichlorobenzidine	ND	ug/L	20
2,4-Dichlorophenol	ND	ug/L	10
2,6-Dichlorophenol	ND	ug/L	10
Diethyl phthalate	ND	ug/L	10

(continued on following page)

ND = Not detected  
 NA = Not applicable

Reported By: Donna Reinwald

Approved By: Jeff Lowry



Semivolatile Organics  
Appendix IX List  
Method 8270

Client Name: U.S. Geological Survey  
 Client ID: LATEX GLOVE (DERMATHIN) LEACH TEST  
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 Authorized: 20 SEP 90  
 Sampled: 19 SEP 90  
 Prepared: 21 SEP 90  
 Received: 20 SEP 90  
 Analyzed: 01 OCT 90

Parameter	Result	Units	Reporting Limit
Dimethoate	ND	ug/L	--
p-Dimethylaminoazobenzene	ND	ug/L	10
7,12-Dimethylbenz(a)-anthracene	ND	ug/L	10
3,3'-Dimethylbenzidine	ND	ug/L	10
a,a-Dimethylphenethylamine	ND	ug/L	10
2,4-Dimethylphenol	ND	ug/L	10
Dimethyl phthalate	ND	ug/L	10
1,3-Dinitrobenzene	ND	ug/L	10
4,6-Dinitro-2-methylphenol	ND	ug/L	50
2,4-Dinitrophenol	ND	ug/L	50
2,4-Dinitrotoluene	ND	ug/L	10
2,6-Dinitrotoluene	ND	ug/L	10
Di-n-octyl phthalate	ND	ug/L	10
Diphenylamine	ND	ug/L	10
Disulfoton bis(2-Ethylhexyl)phthalate	ND	ug/L	50
Ethyl methanesulfonate	ND	ug/L	10
Famphur	ND	ug/L	--
Fluoranthene	ND	ug/L	10
Fluorene	ND	ug/L	10
Hexachlorobenzene	ND	ug/L	10
Hexachlorobutadiene	ND	ug/L	10
Hexachlorocyclopentadiene	ND	ug/L	10
Hexachloroethane	ND	ug/L	10
Hexachlorophene	ND	ug/L	--
Hexachloropropene	ND	ug/L	10
Indeno(1,2,3-cd)pyrene	ND	ug/L	10
Isophorone	ND	ug/L	10
Isosafrole	ND	ug/L	20
Methapyrilene	ND	ug/L	10
3-Methylcholanthrene	ND	ug/L	10
Methyl methanesulfonate	ND	ug/L	10
2-Methylnaphthalene	ND	ug/L	10
Methyl parathion	ND	ug/L	50
2-Methylphenol	ND	ug/L	10
3/4-Methylphenol	ND	ug/L	10
Naphthalene	ND	ug/L	10

(continued on following page)

ND = Not detected  
 NA = Not applicable

Reported By: Donna Reinwald

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Semivolatile Organics  
Appendix IX List  
Method 8270

Client Name: U.S. Geological Survey  
 Client ID: LATEX GLOVE (DERMATHIN) LEACH TEST  
 Lab ID: 011407-0007-SA  
 Matrix: AQUEOUS  
 Authorized: 20 SEP 90  
 Sampled: 19 SEP 90  
 Prepared: 21 SEP 90  
 Received: 20 SEP 90  
 Analyzed: 01 OCT 90

Parameter	Result	Units	Reporting Limit
1,4-Naphthoquinone	ND	ug/L	10
1-Naphthylamine	ND	ug/L	10
2-Naphthylamine	ND	ug/L	10
2-Nitroaniline	ND	ug/L	50
3-Nitroaniline	ND	ug/L	50
4-Nitroaniline	ND	ug/L	50
Nitrobenzene	ND	ug/L	10
2-Nitrophenol	ND	ug/L	10
4-Nitrophenol	ND	ug/L	50
4-Nitroquinoline-1-oxide	ND	ug/L	--
N-Nitroso-di-n-butylamine	ND	ug/L	10
N-Nitrosodiethylamine	ND	ug/L	10
N-Nitrosodimethylamine	ND	ug/L	10
N-Nitrosodiphenylamine	ND	ug/L	10
N-Nitroso-di-n-propylamine	ND	ug/L	10
N-Nitrosomethylethylamine	ND	ug/L	10
N-Nitrosomorpholine	ND	ug/L	10
N-Nitrosopiperidine	ND	ug/L	10
N-Nitrosopyrrolidine	ND	ug/L	10
5-Nitro-o-toluidine	ND	ug/L	10
Parathion	ND	ug/L	50
Pentachlorobenzene	ND	ug/L	10
Pentachloroethane	ND	ug/L	10
Pentachloronitrobenzene	ND	ug/L	50
Pentachlorophenol	ND	ug/L	50
Phenacetin	ND	ug/L	10
Phenanthrene	ND	ug/L	10
Phenol	ND	ug/L	10
4-Phenylenediamine	ND	ug/L	--
Phorate	ND	ug/L	100
2-Picoline	ND	ug/L	10
Pronamide	ND	ug/L	10
Pyrene	ND	ug/L	10
Pyridine	ND	ug/L	20
Safrole	ND	ug/L	10
Sulfotepp	ND	ug/L	50
1,2,4,5-Tetrachloro-benzene	ND	ug/L	10
2,3,4,6-Tetrachlorophenol	ND	ug/L	50
Thionazin	ND	ug/L	50

(continued on following page)

ND = Not detected  
 NA = Not applicable

Reported By: Donna Reinwald

Approved By: Jeff Lowry

Semivolatile Organics  
Appendix IX List  
Method 8270

Client Name: U.S. Geological Survey  
 Client ID: LATEX GLOVE (DERMATHIN) LEACH TEST  
 Lab ID: 011407-0007-SA  
 Matrix: AQUEOUS  
 Authorized: 20 SEP 90  
 Sampled: 19 SEP 90  
 Prepared: 21 SEP 90  
 Received: 20 SEP 90  
 Analyzed: 01 OCT 90

Parameter	Result	Units	Reporting Limit
2-Toluidine	ND	ug/L	10
1,2,4-Trichlorobenzene	ND	ug/L	10
2,4,5-Trichlorophenol	ND	ug/L	50
0,0,0-Triethylphosphorothioate	ND	ug/L	10
2,4,6-Trichlorophenol	ND	ug/L	10
1,3,5-Trinitrobenzene	ND	ug/L	10
Surrogate	Recovery		
Nitrobenzene-d5	69	%	--
2-Fluorobiphenyl	71	%	--
Terphenyl-d14	72	%	--
Phenol-d5	69	%	--
2-Fluorophenol	64	%	--
2,4,6-Tribromophenol	68	%	--

ND = Not detected  
 NA = Not applicable

Reported By: Donna Reinwald

Approved By: Jeff Lowry

TENTATIVELY IDENTIFIED COMPOUNDS

FOR

U. S. GEOLOGICAL SURVEY

SAMPLE NUMBER 011407-0007

<u>Compound Name</u>	<u>Fraction</u>	<u>Confidence Level</u>	<u>Estimated Concentration ug/L</u>
1-Hexanol,2-Ethyl-	BNA	2	13
Phenol,4-Chloro-3,5-Dimethyl-	BNA	2	34

**NOTES:**

Confidence Levels

- Level 3 - Confirmed Identification
- Level 2 - Confident Identification
- Level 1 - Tentative Identification

Please refer to the discussion for further details.

**Metals**

**Total Metals**

Client Name: U.S. Geological Survey  
 Client ID: SS 304 PIPE LEACH TEST  
 Lab ID: 011407-0001-SA  
 Matrix: AQUEOUS  
 Authorized: 20 SEP 90

Sampled: 31 AUG 90  
 Prepared: See Below

Received: 20 SEP 90  
 Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium	0.0072	mg/L	0.0050	7191	01 OCT 90	11 OCT 90
Cobalt	ND	mg/L	0.010	6010	01 OCT 90	05 OCT 90
Copper	ND	mg/L	0.020	6010	01 OCT 90	05 OCT 90
Iron	0.13	mg/L	0.10	6010	01 OCT 90	05 OCT 90
Lead	ND	mg/L	0.050	6010	01 OCT 90	05 OCT 90
Manganese	0.038	mg/L	0.010	6010	01 OCT 90	05 OCT 90
Molybdenum	ND	mg/L	0.020	6010	01 OCT 90	05 OCT 90
Nickel	ND	mg/L	0.040	6010	01 OCT 90	05 OCT 90
Vanadium	ND	mg/L	0.010	6010	01 OCT 90	05 OCT 90
Zinc	0.024	mg/L	0.020	6010	01 OCT 90	05 OCT 90

ND = Not detected  
 NA = Not applicable

Reported By: Sandra Jones

Approved By: Lindsay Breyer

Metals

Total Metals

Client Name: U.S. Geological Survey  
Client ID: KAFB021302-2  
Lab ID: 011407-0002-SA  
Matrix: AQUEOUS  
Authorized: 20 SEP 90

Sampled: 19 SEP 90  
Prepared: See Below

Received: 20 SEP 90  
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium	0.054	mg/L	0.0050	7191	01 OCT 90	11 OCT 90

ND = Not detected  
NA = Not applicable

Reported By: Mark Brundege

Approved By: Lindsay Breyer

**Metals**

**Total Metals**

Client Name: U.S. Geological Survey  
 Client ID: SS WIRE ROPE (OLD) LEACH TEST  
 Lab ID: 011407-0003-SA  
 Matrix: AQUEOUS  
 Authorized: 20 SEP 90  
 Sampled: 19 SEP 90  
 Prepared: See Below  
 Received: 20 SEP 90  
 Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium	0.0075	mg/L	0.0050	7191	01 OCT 90	11 OCT 90

ND = Not detected  
 NA = Not applicable

Reported By: Mark Brundege

Approved By: Lindsay Breyer

Metals

Total Metals

Client Name: U.S. Geological Survey  
Client ID: SS 304 WIRE ROPE (NEW) LEACH TEST  
Lab ID: 011407-0004-SA  
Matrix: AQUEOUS  
Authorized: 20 SEP 90  
Sampled: 19 SEP 90  
Prepared: See Below  
Received: 20 SEP 90  
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium	0.0055	mg/L	0.0050	7191	01 OCT 90	11 OCT 90

ND = Not detected  
NA = Not applicable

Reported By: Mark Brundege

Approved By: Lindsay Breyer



Metals

Total Metals

Client Name: U.S. Geological Survey  
 Client ID: DRILLING MUD LEACH TEST  
 Lab ID: 011407-0005-SA  
 Matrix: AQUEOUS  
 Authorized: 20 SEP 90  
 Sampled: 06 SEP 90  
 Prepared: See Below  
 Received: 20 SEP 90  
 Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium	0.0065	mg/L	0.0050	7191	01 OCT 90	11 OCT 90
Cobalt	ND	mg/L	0.010	6010	01 OCT 90	05 OCT 90
Copper	ND	mg/L	0.020	6010	01 OCT 90	05 OCT 90
Iron	6.0	mg/L	0.10	6010	01 OCT 90	05 OCT 90
Lead	ND	mg/L	0.050	6010	01 OCT 90	05 OCT 90
Manganese	0.16	mg/L	0.010	6010	01 OCT 90	05 OCT 90
Molybdenum	ND	mg/L	0.020	6010	01 OCT 90	05 OCT 90
Nickel	ND	mg/L	0.040	6010	01 OCT 90	05 OCT 90
Vanadium	ND	mg/L	0.010	6010	01 OCT 90	05 OCT 90
Zinc	0.045	mg/L	0.020	6010	01 OCT 90	05 OCT 90

ND = Not detected  
 NA = Not applicable

Reported By: Sandra Jones

Approved By: Lindsay Breyer

**Metals**

**Total Metals**

Client Name: U.S. Geological Survey  
 Client ID: VOLCLAY GROUT LEACH TEST  
 Lab ID: 011407-0006-SA  
 Matrix: AQUEOUS  
 Authorized: 20 SEP 90

Sampled: 06 SEP 90  
 Prepared: See Below

Received: 20 SEP 90  
 Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium	0.0081	mg/L	0.0050	7191	01 OCT 90	11 OCT 90
Cobalt	ND	mg/L	0.010	6010	01 OCT 90	05 OCT 90
Copper	ND	mg/L	0.020	6010	01 OCT 90	05 OCT 90
Iron	6.0	mg/L	0.10	6010	01 OCT 90	05 OCT 90
Lead	ND	mg/L	0.050	6010	01 OCT 90	05 OCT 90
Manganese	0.49	mg/L	0.010	6010	01 OCT 90	05 OCT 90
Molybdenum	ND	mg/L	0.020	6010	01 OCT 90	05 OCT 90
Nickel	ND	mg/L	0.040	6010	01 OCT 90	05 OCT 90
Vanadium	0.013	mg/L	0.010	6010	01 OCT 90	05 OCT 90
Zinc	0.047	mg/L	0.020	6010	01 OCT 90	05 OCT 90

ND = Not detected  
 NA = Not applicable

Reported By: Sandra Jones

Approved By: Lindsay Breyer

**Metals**

**Dissolved Metals**

Client Name: U.S. Geological Survey  
 Client ID: SS 304 PIPE LEACH TEST  
 Lab ID: 011407-0001-SA  
 Matrix: AQUEOUS  
 Authorized: 20 SEP 90  
 Sampled: 31 AUG 90  
 Prepared: See Below  
 Received: 20 SEP 90  
 Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium	ND	mg/L	0.0050	7191	NA	27 SEP 90
Cobalt	ND	mg/L	0.010	6010	NA	04 OCT 90
Copper	ND	mg/L	0.020	6010	NA	04 OCT 90
Iron	ND	mg/L	0.10	6010	NA	04 OCT 90
Lead	ND	mg/L	0.050	6010	NA	04 OCT 90
Manganese	0.038	mg/L	0.010	6010	NA	04 OCT 90
Molybdenum	ND	mg/L	0.020	6010	NA	04 OCT 90
Nickel	ND	mg/L	0.040	6010	NA	04 OCT 90
Vanadium	ND	mg/L	0.010	6010	NA	04 OCT 90
Zinc	ND	mg/L	0.020	6010	NA	04 OCT 90

ND = Not detected  
 NA = Not applicable

Reported By: Sandra Jones

Approved By: Lindsay Breyer

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**Metals****Dissolved Metals**

Client Name: U.S. Geological Survey  
Client ID: KAFB021302-2  
Lab ID: 011407-0002-SA  
Matrix: AQUEOUS  
Authorized: 20 SEP 90

Sampled: 19 SEP 90  
Prepared: See Below

Received: 20 SEP 90  
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium	ND	mg/L	0.0050	7191	NA	27 SEP 90

ND = Not detected  
NA = Not applicable

Reported By: Mark Brundage

Approved By: Lindsay Breyer

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**Metals****Dissolved Metals**

Client Name: U.S. Geological Survey  
Client ID: SS WIRE ROPE (OLD) LEACH TEST  
Lab ID: 011407-0003-SA  
Matrix: AQUEOUS  
Authorized: 20 SEP 90  
Sampled: 19 SEP 90  
Prepared: See Below  
Received: 20 SEP 90  
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium	ND	mg/L	0.0050	7191	NA	27 SEP 90

ND = Not detected  
NA = Not applicable

Reported By: Mark Brundege

Approved By: Lindsay Breyer

Metals

Dissolved Metals

Client Name: U.S. Geological Survey  
 Client ID: SS 304 WIRE ROPE (NEW) LEACH TEST  
 Lab ID: 011407-0004-SA  
 Matrix: AQUEOUS  
 Authorized: 20 SEP 90  
 Sampled: 19 SEP 90  
 Prepared: See Below  
 Received: 20 SEP 90  
 Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium	ND	mg/L	0.0050	7191	NA	27 SEP 90

ND = Not detected  
 NA = Not applicable

Reported By: Mark Brundege

Approved By: Lindsay Breyer

## Metals

### Dissolved Metals

Client Name: U.S. Geological Survey  
 Client ID: DRILLING MUD LEACH TEST  
 Lab ID: 011407-0005-SA  
 Matrix: AQUEOUS  
 Authorized: 20 SEP 90

Sampled: 06 SEP 90  
 Prepared: See Below

Received: 20 SEP 90  
 Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium	ND	mg/L	0.0050	7191	NA	27 SEP 90
Cobalt	ND	mg/L	0.010	6010	NA	04 OCT 90
Copper	ND	mg/L	0.020	6010	NA	04 OCT 90
Iron	ND	mg/L	0.10	6010	NA	04 OCT 90
Lead	ND	mg/L	0.050	6010	NA	04 OCT 90
Manganese	ND	mg/L	0.010	6010	NA	04 OCT 90
Molybdenum	ND	mg/L	0.020	6010	NA	04 OCT 90
Nickel	ND	mg/L	0.040	6010	NA	04 OCT 90
Vanadium	ND	mg/L	0.010	6010	NA	04 OCT 90
Zinc	ND	mg/L	0.020	6010	NA	04 OCT 90

ND = Not detected  
 NA = Not applicable

Reported By: Sandra Jones

Approved By: Lindsay Breyer

Metals

Dissolved Metals

Client Name: U.S. Geological Survey  
 Client ID: VOLCLAY GROUT LEACH TEST  
 Lab ID: 011407-0006-SA  
 Matrix: AQUEOUS  
 Authorized: 20 SEP 90

Sampled: 06 SEP 90  
 Prepared: See Below

Received: 20 SEP 90  
 Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium	ND	mg/L	0.0050	7191	NA	27 SEP 90
Cobalt	ND	mg/L	0.010	6010	NA	04 OCT 90
Copper	ND	mg/L	0.020	6010	NA	04 OCT 90
Iron	0.16	mg/L	0.10	6010	NA	04 OCT 90
Lead	ND	mg/L	0.050	6010	NA	04 OCT 90
Manganese	ND	mg/L	0.010	6010	NA	04 OCT 90
Molybdenum	ND	mg/L	0.020	6010	NA	04 OCT 90
Nickel	ND	mg/L	0.040	6010	NA	04 OCT 90
Vanadium	0.011	mg/L	0.010	6010	NA	04 OCT 90
Zinc	ND	mg/L	0.020	6010	NA	04 OCT 90

ND = Not detected  
 NA = Not applicable

Reported By: Sandra Jones

Approved By: Lindsay Breyer



Metals

Dissolved Metals

Client Name: U.S. Geological Survey  
 Client ID: CHROMIUM DI H2O BLANK  
 Lab ID: 011407-0008-SA  
 Matrix: AQUEOUS  
 Authorized: 20 SEP 90  
 Sampled: 19 SEP 90  
 Prepared: See Below  
 Received: 20 SEP 90  
 Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Chromium	ND	mg/L	0.0050	7191	NA	27 SEP 90

ND = Not detected  
 NA = Not applicable

Reported By: Mark Brundege

Approved By: Lindsay Breyer

General Inorganics

Client Name: U.S. Geological Survey  
 Client ID: KAFB021302-2  
 Lab ID: 011407-0002-SA  
 Matrix: AQUEOUS  
 Authorized: 20 SEP 90

Sampled: 19 SEP 90  
 Prepared: See Below

Received: 20 SEP 90  
 Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Nitrate plus Nitrite	3.7	mg/L	0.25	353.2	NA	24 SEP 90
Total Organic Carbon	1.0	mg/L	0.50	9060	NA	26 SEP 90
Total Organic Halogen as Cl	ND	ug/L	30.0	9020	NA	04 OCT 90

ND = Not detected  
 NA = Not applicable

Reported By: Dan Appelhans

Approved By: Mary Grehl

## Quality Control Results

The Enseco laboratories operate under a vigorous QA/QC program designed to ensure the generation of scientifically valid, legally defensible data by monitoring every aspect of laboratory operations. Routine QA/QC procedures include the use of approved methodologies, independent verification of analytical standards, use of duplicate Laboratory Control Samples to assess the precision and accuracy of the methodology on a routine basis, and a rigorous system of data review.

In addition, the Enseco laboratories maintain a comprehensive set of certifications from both state and federal governmental agencies which require frequent analyses of blind audit samples. Enseco - Rocky Mountain Analytical Laboratory is certified by the EPA under the EPA/CLP program for both Organic and Inorganic analyses, under the USATHAMA (U.S. Army) program, by the Army Corps of Engineers, and the states of Colorado, New Jersey, New York, Utah, and Florida, among others.

The standard laboratory QC package is designed to:

- 1) establish a strong, cost-effective QC program that ensures the generation of scientifically valid, legally defensible data
- 2) assess the laboratory's performance of the analytical method using control limits generated with a well-defined matrix
- 3) establish clear-cut guidelines for acceptability of analytical data so that QC decisions can be made immediately at the bench, and
- 4) provide a standard set of reportables which assures the client of the quality of his data.

The Enseco QC program is based upon monitoring the precision and accuracy of an analytical method by analyzing a set of Duplicate Control Samples (DCS) at frequent, well-defined intervals. Each DCS is a well-characterized matrix which is spiked with target compounds at 5-100 times the reporting limit, depending upon the methodology being monitored. The purpose of the DCS is not to duplicate the sample matrix, but rather to provide an interference-free, homogeneous matrix from which to gather data to establish control limits. These limits are used to determine whether data generated by the laboratory on any given day is in control.

Control limits for accuracy (percent recovery) are based on the average, historical percent recovery +/- 3 standard deviation units. Control limits for precision (relative percent difference) range from 0 (identical duplicate DCS results) to the average, historical relative percent difference + 3 standard deviation units. These control limits are fairly narrow based on the consistency of the matrix being monitored and are updated on a quarterly basis.

For each batch of samples analyzed, an additional control measure is taken in the form of a Single Control Sample (SCS). The SCS consists of a control matrix that is spiked with either representative target compounds or surrogate compounds appropriate to the method being used. An SCS is prepared for each sample lot for which the DCS pair are not analyzed.

Accuracy for DCS and SCS is measured by Percent Recovery.

$$\% \text{ Recovery} = \frac{\text{Measured Concentration}}{\text{Actual Concentration}} \times 100$$

Precision for DCS is measured by Relative Percent Difference (RPD).

$$\text{RPD} = \frac{|\text{Measured Concentration DCS1} - \text{Measured Concentration DCS2}|}{(\text{Measured Concentration DCS1} + \text{Measured Concentration DCS2})/2} \times 100$$

All samples analyzed concurrently by the same test are assigned the same QC lot number. Projects which contain numerous samples, analyzed over several days, may have multiple QC lot numbers associated with each test. The QC information which follows includes a listing of the QC lot numbers associated with each of the samples reported, DCS and SCS (where applicable) recoveries from the QC lots associated with the samples, and control limits for these lots. The QC data is reported by test code, in the order that the tests are reported in the analytical results section of this report.

QC LOT ASSIGNMENT REPORT  
Volatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
011407-0007-SA	AQUEOUS	624-A	24 SEP 90-D	24 SEP 90-D

DUPLICATE CONTROL SAMPLE REPORT  
Volatile Organics by GC/MS

Analyte	Concentration Spiked	Concentration Measured		AVG	Accuracy Average(%)		Precision (RPD)	
		DCS1	DCS2		DCS	Limits	DCS	Limit
Category: 624-A								
Matrix: AQUEOUS								
QC Lot: 24 SEP 90-D								
Concentration Units: ug/L								
1,1-Dichloroethene	50	48.2	49.2	48.7	97	61-145	2.1	14
Trichloroethene	50	53.8	55.1	54.4	109	71-120	2.4	14
Benzene	50	59.1	62.0	60.6	121	76-127	4.8	11
Toluene	50	59.7	61.5	60.6	121	76-125	3.0	13
Chlorobenzene	50	60.9	61.6	61.2	123	75-130	1.1	13

Calculations are performed before rounding to avoid round-off errors in calculated results.

SINGLE CONTROL SAMPLE REPORT  
 Volatile Organics by GC/MS

Analyte	Concentration		Accuracy(%)	
	Spiked	Measured	SCS	Limits

Category: 624-A  
 Matrix: AQUEOUS  
 QC Lot: 24 SEP 90-D    QC Run: 24 SEP 90-D  
 Concentration Units: ug/L

1,2-Dichloroethane-d4	50.0	50.7	101	76-114
4-Bromofluorobenzene	50.0	51.7	103	86-115
Toluene-d8	50.0	50.1	100	88-110

Calculations are performed before rounding to avoid round-off errors in calculated results.



METHOD BLANK REPORT  
Volatile Organics by GC/MS

Analyte	Result	Units	Reporting Limit
Test: 8240CP-AP9-AP			
Matrix: AQUEOUS			
QC Lot: 24 SEP 90-D      QC Run: 24 SEP 90-D			
Acetone	ND	ug/L	10
Acetonitrile	ND	ug/L	200
Acrolein	ND	ug/L	100
Acrylonitrile	ND	ug/L	100
Allyl chloride	ND	ug/L	10
Benzene	ND	ug/L	5.0
Bromodichloromethane	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
Bromomethane	ND	ug/L	10
2-Butanone (MEK)	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Chloroethane	ND	ug/L	10
Chloroform	ND	ug/L	5.0
Chloromethane	ND	ug/L	10
Chloroprene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,2-Dibromo-3-chloro- propane (DBCP)	ND	ug/L	10
1,2-Dibromoethane (EDB)	ND	ug/L	10
Dibromomethane	ND	ug/L	5.0
trans-1,4-Dichloro- 2-butene	ND	ug/L	5.0
Dichlorodifluoromethane	ND	ug/L	20
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,2-Dichloroethene (total)	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
1,4-Dioxane	ND	ug/L	500
Ethylbenzene	ND	ug/L	5.0
Ethyl methacrylate	ND	ug/L	20
Iodomethane	ND	ug/L	5.0
Isobutanol	ND	ug/L	200
2-Hexanone	ND	ug/L	10
Methacrylonitrile	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0

METHOD BLANK REPORT  
 Volatile Organics by GC/MS (cont.)

Analyte	Result	Units	Reporting Limit
Test: 8240CP-AP9-AP			
Matrix: AQUEOUS			
QC Lot: 24 SEP 90-D    QC Run: 24 SEP 90-D			
Methyl methacrylate	ND	ug/L	20
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10
Propionitrile	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
1,1,1-Trichloroethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Trichlorofluoromethane	ND	ug/L	5.0
1,2,3-Trichloropropane	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Xylenes (total)	ND	ug/L	5.0

QC LOT ASSIGNMENT REPORT  
Semivolatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
011407-0002-SA	AQUEOUS	625-A	21 SEP 90-A	21 SEP 90-A
011407-0007-SA	AQUEOUS	625-A	21 SEP 90-A	21 SEP 90-A

DUPLICATE CONTROL SAMPLE REPORT  
Semivolatile Organics by GC/MS

Analyte	Concentration Spiked	Concentration Measured		AVG	Accuracy Average (%)		Precision (RPD)		
		DCS1	DCS2		DCS	Limits	DCS	Limit	
Category: 625-A									
Matrix: AQUEOUS									
QC Lot: 21 SEP 90-A									
Concentration Units: ug/L									
Phenol	100	79.6	84.0	81.8	82	12- 89	5.4	42	
2-Chlorophenol	100	77.3	80.3	78.8	79	27-123	3.8	40	
1,4-Dichlorobenzene	50	36.5	35.6	36.0	72	36- 97	2.5	28	
N-Nitroso-di-n-propylamine	50	41.5	43.2	42.4	85	41-116	4.0	38	
1,2,4-Trichlorobenzene	50	37.1	35.8	36.4	73	39- 98	3.6	28	
4-Chloro-3-methylphenol	100	78.2	77.9	78.0	78	23- 97	0.4	42	
Acenaphthene	50	37.0	37.4	37.2	74	46-118	1.1	31	
4-Nitrophenol	100	70.9	68.4	69.6	70	10- 80	3.6	50	
2,4-Dinitrotoluene	50	37.9	39.1	38.5	77	24- 96	3.1	38	
Pentachlorophenol	100	38.4	24.2	31.3	31	9-103	45	50	
Pyrene	50	44.6	45.7	45.2	90	26-127	2.4	31	

Calculations are performed before rounding to avoid round-off errors in calculated results.

SINGLE CONTROL SAMPLE REPORT  
Semivolatile Organics by GC/MS

Analyte	Concentration		Accuracy(%)	
	Spiked	Measured	SCS	Limits
Category: 625-A				
Matrix: AQUEOUS				
QC Lot: 21 SEP 90-A    QC Run: 21 SEP 90-A				
Concentration Units: ug/L				
Nitrobenzene-d5	100	78.0	78	35-114
2-Fluorobiphenyl	100	68.6	69	43-116
Terphenyl-d14	100	67.6	68	33-141
2-Fluorophenol	200	124	62	21-100
Phenol-d5	200	103	52	10- 94
2,4,6-Tribromophenol	200	108	54	10-123

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT  
Semivolatile Organics by GC/MS

Analyte	Result	Units	Reporting Limit
Test: 8270CP-AP9-A			
Matrix: AQUEOUS			
QC Lot: 21 SEP 90-A    QC Run: 21 SEP 90-A			
Acenaphthene	ND	ug/L	10
Acenaphthylene	ND	ug/L	10
Acetophenone	ND	ug/L	10
2-Acetylaminofluorene	ND	ug/L	100
4-Aminobiphenyl	ND	ug/L	10
Aniline	ND	ug/L	10
Anthracene	ND	ug/L	10
Aramite	ND	ug/L	10
Benzo(a)anthracene	ND	ug/L	10
Benzo(b)fluoranthene	ND	ug/L	10
Benzo(k)fluoranthene	ND	ug/L	10
Benzo(g,h,i)perylene	ND	ug/L	10
Benzo(a)pyrene	ND	ug/L	10
Benzyl alcohol	ND	ug/L	10
4-Bromophenyl phenyl ether	ND	ug/L	10
Butyl benzyl phthalate	ND	ug/L	10
2-sec-Butyl-4,6-dinitro- phenol	ND	ug/L	10
4-Chloroaniline	ND	ug/L	10
bis(2-Chloroethoxy)- methane	ND	ug/L	10
bis(2-Chloroethyl) ether	ND	ug/L	10
bis(2-Chloroisopropyl)- ether	ND	ug/L	10
4-Chloro-3-methylphenol	ND	ug/L	10
2-Chloronaphthalene	ND	ug/L	10
2-Chlorophenol	ND	ug/L	10
4-Chlorophenyl phenyl ether	ND	ug/L	10
Chrysene	ND	ug/L	10
Dibenz(a,h)anthracene	ND	ug/L	10
Dibenzofuran	ND	ug/L	10
Di-n-butyl phthalate	ND	ug/L	10
1,2-Dichlorobenzene	ND	ug/L	10
1,3-Dichlorobenzene	ND	ug/L	10
1,4-Dichlorobenzene	ND	ug/L	10
3,3'-Dichlorobenzidine	ND	ug/L	20
2,4-Dichlorophenol	ND	ug/L	10
2,6-Dichlorophenol	ND	ug/L	10
Diethyl phthalate	ND	ug/L	10

METHOD BLANK REPORT  
Semivolatile Organics by GC/MS (cont.)

Analyte	Result	Units	Reporting Limit
Test: 8270CP-AP9-A			
Matrix: AQUEOUS			
QC Lot: 21 SEP 90-A    QC Run: 21 SEP 90-A			
Dimethoate	ND	ug/L	--
p-Dimethylaminoazobenzene	ND	ug/L	10
7,12-Dimethylbenz(a)-anthracene	ND	ug/L	10
3,3'-Dimethylbenzidine	ND	ug/L	10
a,a-Dimethylphenethylamine	ND	ug/L	10
2,4-Dimethylphenol	ND	ug/L	10
Dimethyl phthalate	ND	ug/L	10
1,3-Dinitrobenzene	ND	ug/L	10
4,6-Dinitro-2-methylphenol	ND	ug/L	50
2,4-Dinitrophenol	ND	ug/L	50
2,4-Dinitrotoluene	ND	ug/L	10
2,6-Dinitrotoluene	ND	ug/L	10
Di-n-octyl phthalate	ND	ug/L	10
Diphenylamine	ND	ug/L	10
Disulfoton	ND	ug/L	50
bis(2-Ethylhexyl) phthalate	ND	ug/L	10
Ethyl methanesulfonate	ND	ug/L	10
Famphur	ND	ug/L	--
Fluoranthene	ND	ug/L	10
Fluorene	ND	ug/L	10
Hexachlorobenzene	ND	ug/L	10
Hexachlorobutadiene	ND	ug/L	10
Hexachlorocyclopentadiene	ND	ug/L	10
Hexachloroethane	ND	ug/L	10
Hexachlorophene	ND	ug/L	--
Hexachloropropene	ND	ug/L	10
Indeno(1,2,3-cd)pyrene	ND	ug/L	10
Isophorone	ND	ug/L	10
Isosafrole	ND	ug/L	20
Methapyrilene	ND	ug/L	10
3-Methylcholanthrene	ND	ug/L	10
Methyl methanesulfonate	ND	ug/L	10
2-Methylnaphthalene	ND	ug/L	10
Methyl parathion	ND	ug/L	50
2-Methylphenol	ND	ug/L	10
3/4-Methylphenol	ND	ug/L	10
Naphthalene	ND	ug/L	10

METHOD BLANK REPORT  
Semivolatile Organics by GC/MS (cont.)

Analyte	Result	Units	Reporting Limit
Test: 8270CP-AP9-A			
Matrix: AQUEOUS			
QC Lot: 21 SEP 90-A    QC Run: 21 SEP 90-A			
1,4-Naphthoquinone	ND	ug/L	10
1-Naphthylamine	ND	ug/L	10
2-Naphthylamine	ND	ug/L	10
2-Nitroaniline	ND	ug/L	50
3-Nitroaniline	ND	ug/L	50
4-Nitroaniline	ND	ug/L	50
Nitrobenzene	ND	ug/L	10
2-Nitrophenol	ND	ug/L	10
4-Nitrophenol	ND	ug/L	50
4-Nitroquinoline-1-oxide	ND	ug/L	--
N-Nitroso-di-n-butylamine	ND	ug/L	10
N-Nitrosodiethylamine	ND	ug/L	10
N-Nitrosodimethylamine	ND	ug/L	10
N-Nitrosodiphenylamine	ND	ug/L	10
N-Nitroso-di-n-propylamine	ND	ug/L	10
N-Nitrosomethylethylamine	ND	ug/L	10
N-Nitrosomorpholine	ND	ug/L	10
N-Nitrosopiperidine	ND	ug/L	10
N-Nitrosopyrrolidine	ND	ug/L	10
5-Nitro-o-toluidine	ND	ug/L	10
Parathion	ND	ug/L	50
Pentachlorobenzene	ND	ug/L	10
Pentachloroethane	ND	ug/L	10
Pentachloronitrobenzene	ND	ug/L	50
Pentachlorophenol	ND	ug/L	50
Phenacetin	ND	ug/L	10
Phenanthrene	ND	ug/L	10
Phenol	ND	ug/L	10
4-Phenylenediamine	ND	ug/L	--
Phorate	ND	ug/L	100
2-Picoline	ND	ug/L	10
Pronamide	ND	ug/L	10
Pyrene	ND	ug/L	10
Pyridine	ND	ug/L	20
Safrole	ND	ug/L	10
Sulfotepp	ND	ug/L	50
1,2,4,5-Tetrachlorobenzene	ND	ug/L	10
2,3,4,6-Tetrachlorophenol	ND	ug/L	50
Thionazin	ND	ug/L	50



METHOD BLANK REPORT  
Semivolatile Organics by GC/MS (cont.)

Analyte	Result	Units	Reporting Limit
Test: 8270CP-AP9-A			
Matrix: AQUEOUS			
QC Lot: 21 SEP 90-A    QC Run: 21 SEP 90-A			
2-Toluidine	ND	ug/L	10
1,2,4-Trichlorobenzene	ND	ug/L	10
2,4,5-Trichlorophenol	ND	ug/L	50
2,4,6-Trichlorophenol	ND	ug/L	10
0,0,0-Triethylphosphorothioate	ND	ug/L	10
1,3,5-Trinitrobenzene	ND	ug/L	10

Test: 8270CP-AP9-A  
Matrix: AQUEOUS  
QC Lot: 21 SEP 90-A    QC Run: 21 SEP 90-A

Acenaphthene	ND	ug/L	10
Acenaphthylene	ND	ug/L	10
Acetophenone	ND	ug/L	10
2-Acetylaminofluorene	ND	ug/L	100
4-Aminobiphenyl	ND	ug/L	10
Aniline	ND	ug/L	10
Anthracene	ND	ug/L	10
Aramite	ND	ug/L	10
Benzo(a)anthracene	ND	ug/L	10
Benzo(b)fluoranthene	ND	ug/L	10
Benzo(k)fluoranthene	ND	ug/L	10
Benzo(g,h,i)perylene	ND	ug/L	10
Benzo(a)pyrene	ND	ug/L	10
Benzyl alcohol	ND	ug/L	10
4-Bromophenyl phenyl ether	ND	ug/L	10
Butyl benzyl phthalate	ND	ug/L	10
2-sec-Butyl-4,6-dinitrophenol	ND	ug/L	10
4-Chloroaniline	ND	ug/L	10
bis(2-Chloroethoxy)-methane	ND	ug/L	10
bis(2-Chloroethyl) ether	ND	ug/L	10
bis(2-Chloroisopropyl)-ether	ND	ug/L	10
4-Chloro-3-methylphenol	ND	ug/L	10
2-Chloronaphthalene	ND	ug/L	10
2-Chlorophenol	ND	ug/L	10

METHOD BLANK REPORT  
Semivolatile Organics by GC/MS (cont.)

Analyte	Result	Units	Reporting Limit
Test: 8270CP-AP9-A			
Matrix: AQUEOUS			
QC Lot: 21 SEP 90-A QC Run: 21 SEP 90-A			
4-Chlorophenyl phenyl ether	ND	ug/L	10
Chrysene	ND	ug/L	10
Dibenz(a,h)anthracene	ND	ug/L	10
Dibenzofuran	ND	ug/L	10
Di-n-butyl phthalate	ND	ug/L	10
1,2-Dichlorobenzene	ND	ug/L	10
1,3-Dichlorobenzene	ND	ug/L	10
1,4-Dichlorobenzene	ND	ug/L	10
3,3'-Dichlorobenzidine	ND	ug/L	20
2,4-Dichlorophenol	ND	ug/L	10
2,6-Dichlorophenol	ND	ug/L	10
Diethyl phthalate	ND	ug/L	10
Dimethoate	ND	ug/L	--
p-Dimethylaminoazobenzene	ND	ug/L	10
7,12-Dimethylbenz(a)- anthracene	ND	ug/L	10
3,3'-Dimethylbenzidine	ND	ug/L	10
a,a-Dimethylphenethyl- amine	ND	ug/L	10
2,4-Dimethylphenol	ND	ug/L	10
Dimethyl phthalate	ND	ug/L	10
1,3-Dinitrobenzene	ND	ug/L	10
4,6-Dinitro- 2-methylphenol	ND	ug/L	50
2,4-Dinitrophenol	ND	ug/L	50
2,4-Dinitrotoluene	ND	ug/L	10
2,6-Dinitrotoluene	ND	ug/L	10
Di-n-octyl phthalate	ND	ug/L	10
Diphenylamine	ND	ug/L	10
Disulfoton	ND	ug/L	50
bis(2-Ethylhexyl) phthalate	ND	ug/L	10
Ethyl methanesulfonate	ND	ug/L	10
Famphur	ND	ug/L	--
Fluoranthene	ND	ug/L	10
Fluorene	ND	ug/L	10
Hexachlorobenzene	ND	ug/L	10
Hexachlorobutadiene	ND	ug/L	10
Hexachlorocyclopentadiene	ND	ug/L	10
Hexachloroethane	ND	ug/L	10

METHOD BLANK REPORT  
Semivolatile Organics by GC/MS (cont.)

Analyte	Result	Units	Reporting Limit
Test: 8270CP-AP9-A			
Matrix: AQUEOUS			
QC Lot: 21 SEP 90-A    QC Run: 21 SEP 90-A			
Hexachlorophene	ND	ug/L	--
Hexachloropropene	ND	ug/L	10
Indeno(1,2,3-cd)pyrene	ND	ug/L	10
Isophorone	ND	ug/L	10
Isosafrole	ND	ug/L	20
Methapyrilene	ND	ug/L	10
3-Methylcholanthrene	ND	ug/L	10
Methyl methanesulfonate	ND	ug/L	10
2-Methylnaphthalene	ND	ug/L	10
Methyl parathion	ND	ug/L	50
2-Methylphenol	ND	ug/L	10
3/4-Methylphenol	ND	ug/L	10
Naphthalene	ND	ug/L	10
1,4-Naphthoquinone	ND	ug/L	10
1-Naphthylamine	ND	ug/L	10
2-Naphthylamine	ND	ug/L	10
2-Nitroaniline	ND	ug/L	50
3-Nitroaniline	ND	ug/L	50
4-Nitroaniline	ND	ug/L	50
Nitrobenzene	ND	ug/L	10
2-Nitrophenol	ND	ug/L	10
4-Nitrophenol	ND	ug/L	50
4-Nitroquinoline-1-oxide	ND	ug/L	--
N-Nitroso-di-n-butylamine	ND	ug/L	10
N-Nitrosodiethylamine	ND	ug/L	10
N-Nitrosodimethylamine	ND	ug/L	10
N-Nitrosodiphenylamine	ND	ug/L	10
N-Nitroso-di-n-propylamine	ND	ug/L	10
N-Nitrosomethylethylamine	ND	ug/L	10
N-Nitrosomorpholine	ND	ug/L	10
N-Nitrosopiperidine	ND	ug/L	10
N-Nitrosopyrrolidine	ND	ug/L	10
5-Nitro-o-toluidine	ND	ug/L	10
Parathion	ND	ug/L	50
Pentachlorobenzene	ND	ug/L	10
Pentachloroethane	ND	ug/L	10
Pentachloronitrobenzene	ND	ug/L	50
Pentachlorophenol	ND	ug/L	50
Phenacetin	ND	ug/L	10
Phenanthrene	ND	ug/L	10

**METHOD BLANK REPORT**  
 Semivolatile Organics by GC/MS (cont.)

Analyte	Result	Units	Reporting Limit
Test: 8270CP-AP9-A			
Matrix: AQUEOUS			
QC Lot: 21 SEP 90-A    QC Run: 21 SEP 90-A			
Phenol	ND	ug/L	10
4-Phenylenediamine	ND	ug/L	--
Phorate	ND	ug/L	100
2-Picoline	ND	ug/L	10
Pronamide	ND	ug/L	10
Pyrene	ND	ug/L	10
Pyridine	ND	ug/L	20
Safrole	ND	ug/L	10
Sulfotepp	ND	ug/L	50
1,2,4,5-Tetrachloro- benzene	ND	ug/L	10
2,3,4,6-Tetrachlorophenol	ND	ug/L	50
Thionazin	ND	ug/L	50
2-Toluidine	ND	ug/L	10
1,2,4-Trichlorobenzene	ND	ug/L	10
2,4,5-Trichlorophenol	ND	ug/L	50
2,4,6-Trichlorophenol	ND	ug/L	10
0,0,0-Triethylphosphoro- thioate	ND	ug/L	10
1,3,5-Trinitrobenzene	ND	ug/L	10

QC LOT ASSIGNMENT REPORT  
Metals Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
011407-0001-SA	AQUEOUS	CR-FAA-AD	27 SEP 90-B	-
011407-0001-SA	AQUEOUS	CR-FAA-AT	01 OCT 90-X	01 OCT 90-X
011407-0001-SA	AQUEOUS	ICP-AD	04 OCT 90-A	-
011407-0001-SA	AQUEOUS	ICP-AT	01 OCT 90-X	01 OCT 90-X
011407-0002-SA	AQUEOUS	CR-FAA-AD	27 SEP 90-B	-
011407-0002-SA	AQUEOUS	CR-FAA-AT	01 OCT 90-X	01 OCT 90-X
011407-0003-SA	AQUEOUS	CR-FAA-AD	27 SEP 90-B	-
011407-0003-SA	AQUEOUS	CR-FAA-AT	01 OCT 90-X	01 OCT 90-X
011407-0004-SA	AQUEOUS	CR-FAA-AD	27 SEP 90-B	-
011407-0004-SA	AQUEOUS	CR-FAA-AT	01 OCT 90-X	01 OCT 90-X
011407-0005-SA	AQUEOUS	CR-FAA-AD	27 SEP 90-B	-
011407-0005-SA	AQUEOUS	CR-FAA-AT	01 OCT 90-X	01 OCT 90-X
011407-0005-SA	AQUEOUS	ICP-AD	04 OCT 90-A	-
011407-0005-SA	AQUEOUS	ICP-AT	01 OCT 90-X	01 OCT 90-X
011407-0006-SA	AQUEOUS	CR-FAA-AD	27 SEP 90-B	-
011407-0006-SA	AQUEOUS	CR-FAA-AT	01 OCT 90-X	01 OCT 90-X
011407-0006-SA	AQUEOUS	ICP-AD	04 OCT 90-A	-
011407-0006-SA	AQUEOUS	ICP-AT	01 OCT 90-X	01 OCT 90-X
011407-0008-SA	AQUEOUS	CR-FAA-AD	27 SEP 90-B	-

DUPLICATE CONTROL SAMPLE REPORT  
Metals Analysis and Preparation

Analyte	Concentration Spiked	Concentration Measured		AVG	Accuracy Average (%)		Precision (RPD)		
		DCS1	DCS2		DCS	Limits	DCS	Limit	
Category: CR-FAA-AD Matrix: AQUEOUS QC Lot: 27 SEP 90-B Concentration Units: mg/L									
Chromium	0.02	0.0204	0.0204	0.0204	102	75-125	0.0	20	
Category: CR-FAA-AT Matrix: AQUEOUS QC Lot: 01 OCT 90-X Concentration Units: mg/L									
Chromium	0.20	0.188	0.193	0.190	95	75-125	2.6	20	
Category: ICP-AD Matrix: AQUEOUS QC Lot: 04 OCT 90-A Concentration Units: mg/L									
Aluminum	2.0	1.80	1.85	1.83	91	75-125	2.7	20	
Antimony	0.5	0.441	0.458	0.449	90	75-125	3.7	20	
Arsenic	2.0	1.66	1.71	1.68	84	75-125	2.7	20	
Barium	2.0	1.76	1.80	1.78	89	75-125	1.8	20	
Beryllium	0.05	0.0456	0.0458	0.0457	91	75-125	0.4	20	
Cadmium	0.05	0.0438	0.0451	0.0445	89	75-125	2.9	20	
Calcium	100	86.6	88.5	87.6	88	75-125	2.1	20	
Chromium	0.2	0.173	0.179	0.176	88	75-125	3.4	20	
Cobalt	0.5	0.443	0.453	0.448	90	75-125	2.2	20	
Copper	0.25	0.243	0.243	0.243	97	75-125	0.1	20	
Iron	1.0	0.935	0.948	0.941	94	75-125	1.3	20	
Lead	0.5	0.449	0.462	0.456	91	75-125	2.8	20	
Magnesium	50	42.7	43.8	43.2	86	75-125	2.5	20	
Manganese	0.5	0.447	0.453	0.450	90	75-125	1.3	20	
Nickel	0.5	0.451	0.458	0.454	91	75-125	1.6	20	
Potassium	50	40.9	41.8	41.3	83	75-125	2.2	20	
Silver	0.05	0.0433	0.0455	0.0444	89	75-125	4.9	20	
Sodium	100	87.8	89.1	88.5	88	75-125	1.4	20	
Vanadium	0.5	0.460	0.467	0.463	93	75-125	1.6	20	
Zinc	0.5	0.454	0.470	0.462	92	75-125	3.3	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

DUPLICATE CONTROL SAMPLE REPORT  
Metals Analysis and Preparation (cont.)

Analyte	Concentration			AVG	Accuracy Average(%)		Precision (RPD)	
	Spiked	DCS1	Measured DCS2		DCS	Limits	DCS	Limit
Category:	ICP-AT							
Matrix:	AQUEOUS							
QC Lot:	01 OCT 90-X							
Concentration Units:	mg/L							
Aluminum	2.0	1.89	1.88	1.89	94	75-125	0.3	20
Antimony	0.5	0.474	0.467	0.471	94	75-125	1.5	20
Arsenic	0.5	0.487	0.475	0.481	96	75-125	2.4	20
Barium	2.0	1.86	1.85	1.85	93	75-125	0.2	20
Beryllium	0.05	0.0473	0.0476	0.0474	95	75-125	0.7	20
Cadmium	0.05	0.0432	0.0422	0.0427	85	75-125	2.4	20
Calcium	100	92.9	92.5	92.7	93	75-125	0.4	20
Chromium	0.2	0.192	0.192	0.192	96	75-125	0.2	20
Cobalt	0.5	0.460	0.446	0.453	91	75-125	3.0	20
Copper	0.25	0.247	0.239	0.243	97	75-125	3.2	20
Iron	1.0	1.07	1.05	1.06	106	75-125	1.1	20
Lead	0.5	0.446	0.441	0.444	89	75-125	1.1	20
Magnesium	50	46.1	45.9	46.0	92	75-125	0.4	20
Manganese	0.5	0.461	0.454	0.458	92	75-125	1.4	20
Nickel	0.5	0.468	0.460	0.464	93	75-125	1.7	20
Potassium	50	42.8	42.7	42.8	86	75-125	0.4	20
Silver	0.05	0.0489	0.0481	0.0485	97	75-125	1.5	20
Sodium	100	90.2	89.7	89.9	90	75-125	0.6	20
Vanadium	0.5	0.484	0.483	0.484	97	75-125	0.2	20
Zinc	0.5	0.462	0.452	0.457	91	75-125	2.1	20

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT  
Metals Analysis and Preparation

Analyte	Result	Units	Reporting Limit
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Test: CR-FAA-AT  
Matrix: AQUEOUS  
QC Lot: 01 OCT 90-X    QC Run: 01 OCT 90-X

Chromium	ND	mg/L	0.0050
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Test: ICP-AT  
Matrix: AQUEOUS  
QC Lot: 01 OCT 90-X    QC Run: 01 OCT 90-X

Cobalt	ND	mg/L	0.010
Copper	ND	mg/L	0.020
Iron	0.13	mg/L	0.10
Lead	ND	mg/L	0.050
Manganese	ND	mg/L	0.010
Molybdenum	ND	mg/L	0.020
Nickel	ND	mg/L	0.040
Vanadium	ND	mg/L	0.010
Zinc	ND	mg/L	0.020

Test: CR-FAA-AT  
Matrix: AQUEOUS  
QC Lot: 01 OCT 90-X    QC Run: 01 OCT 90-X

Chromium	ND	mg/L	0.0050
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Test: CR-FAA-AT  
Matrix: AQUEOUS  
QC Lot: 01 OCT 90-X    QC Run: 01 OCT 90-X

Chromium	ND	mg/L	0.0050
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**QC LOT ASSIGNMENT REPORT**  
**Wet Chemistry Analysis and Preparation**

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
011407-0002-SA	AQUEOUS	NO3-A	24 SEP 90-A	-
011407-0002-SA	AQUEOUS	TOX-A	04 OCT 90-A	-
011407-0002-SA	AQUEOUS	TOC-A	26 SEP 90-A	-

DUPLICATE CONTROL SAMPLE REPORT  
Wet Chemistry Analysis and Preparation

Analyte	Concentration Spiked	Concentration Measured		AVG	Accuracy Average (%)		Precision (RPD)		
		DCS1	DCS2		DCS	Limits	DCS	Limit	
Category: NO3-A Matrix: AQUEOUS QC Lot: 24 SEP 90-A Concentration Units: mg/L									
Nitrate as N	2.6	2.77	2.69	2.73	105	91-109	2.9	10	
Category: TOX-A Matrix: AQUEOUS QC Lot: 04 OCT 90-A Concentration Units: ug Cl/L									
Total Organic Halogen as Cl	100	110	100	105	105	80-120	9.5	20	
Category: TOC-A Matrix: AQUEOUS QC Lot: 26 SEP 90-A Concentration Units: mg/L									
Total Organic Carbon	25	25.0	25.1	25.0	100	91-109	0.4	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.



# Appendix

RMA# 11407-01

Special Handling (Circle as appropriate and explain in record 5)

(Circle as appropriate and explain in record 5)

Site Type (circle one)

SW - Surface Water  
GW - Ground Water  
ME - Meteorological

LK - Lake  
ES - Estuary  
SP - Spring  
SS - Special Source

Hazardous material

KIRTLAND PROJECT  
Field ID

USGS/WRD/NEW MEXICO SWMU  
Field Office Project

USGS  
Collector

(505) 262-6678  
Phone (FTS)  
BILL DAM

SS 304 PIPE LEACH TEST  
Station Name

File Deposition\* (Circle one)

Sample identification

Q - WATSTORE  
X - Lab File

[Blank Box]

SS 304 PIPE LEACH TEST  
Station ID or Unique Number\*

463536001  
Project Account #

For Laboratory Use Only

CONTACT TIME

1 9 90 08 31 1330 09 19 1330 NM 035 001  
Year\* Month\* Day\* Time\* Month Day Time State Code\* District/ User Code\* County Code

6 = GW  
9 = SW

Analysis level codes and schedules  
H or 9  
GS FIELD RANGE-LAB  
9 = STABLE

I = SPIKE  
S = DUPLICATE  
9 = REGULAR  
J = STORM  
9 = ROUTINE

6 Geologic Unit  
H or 9 Analysis Status\*\*  
G Analysis Source\*\*  
Hydrologic Condition\*\*  
Sample Type\*\*  
Hydrologic Event\*\*

PARAMETER: TOC TOX NO2+NO3 DISSOLVED CHROMIUM TOTAL CHROMIUM  
METHOD: SW 9060 SW 9020 E 353.2 SW 3005/SW 7191 SW 3020/SW 7191

PARAMETER: TOX APP IX DIOXIN FURANS APP IX HERBICIDES  
METHOD: SW 5030/SW 8010 SW 5030/SW 8240 SW 3520/SW 8280 SW 3520/SW 8150

PARAMETER: APPENDIX IX ICP DISSOLVED CO, CU, FE, PB, MN, MO, NI, V, ZN APPENDIX IX ICP TOTAL CO, CU, FE, PB, MN, MO, NI, V, ZN  
METHOD: SW 3005/SW 6010 SW 3010/SW 6010

PARAMETER: APP IX SEMI-VOL  
METHOD: SW 3520/SW 8270

Chain-of-Custody Record

PROJECT NAME KIRTLAND AFB SWMU PROJECT NO. 463536001 P.O. NO.

Relinquished by: (Signature) Received by: (Signature) Date Time  
AIRBORNE EXPRESS 900919 1700

Relinquished by: (Signature) Received by: (Signature) Date Time

Relinquished by: (Signature) Received at lab by: (Signature) Date Time  
9-20-90 0800

Relinquished from lab by: (Signature) Received by: (Signature) Date Time

Comments (Only 50 characters stored in NWIS)

Record 5 8.5 X 4.0 inch ID SS 304 PIPE SECTION FILLED WITH DI H2O AND ALLOWED TO STAND WITH PERIODIC STIRRING FOR

Record 6 INDICATED CONTACT TIME. THIS TYPE SS 304 USED AS WELL CASING AND SCREEN.

Total number of sample bottles for this request: 4

SHIP TO:

Enseco-Rocky Mountain Analytical  
4955 Yarrow Street  
Arvada, CO 80002  
(303) 421-6611

ATTENTION: THOMPSON, BREYER, OR MCDEVITT

11407-02

Special Handling (Circle as appropriate and explain in record 5)

Hazardous material

Site Type (circle one)

SW - Surface Water
GW - Ground Water
ME - Meteorological

LK - Lake
ES - Estuary
SP - Spring
SS - Special Source
(505) 262-6678
BILL DAM

Station Name: KAFB021302-2
Field Office: USGS/WRD/NEW MEXICO SWMU
Project: USGS
Collector: (505) 262-6678

File Deposition\* (Circle one)

Sample identification

Q - WATSTORE
X - Lab File

For Laboratory Use Only

KAFB021302-2

463536001

Begin Date: 1990 09 19 1148 09 19 1204
Composite End Date: 1204
State Code: NM
District/User Code: 035
County Code: 001

6 = GW
9 = SW

Analysis level codes and schedules
9 = STABLE

1 = SPIKE
5 = DUPLICATE
9 = REGULAR
J = STORM
9 = ROUTINE

Sample Medium: 6
Geologic Unit:
Analysis Status: H or 9
Analysis Source: G
Hydrologic Condition:
Sample Type:
Hydrologic Event:

PARAMETER: TOC, TOX, NO2+NO3, DISSOLVED CHROMIUM, TOTAL CHROMIUM
METHOD: SW9060, SW9020, E353.2, SW3005/SW719, SW3020/SW719
PARAMETER: VOX, VOC, DIOXIN FURANS, HERBICIDES
METHOD: SW5030/SW8010, SW5030/SW8240, SW3520/SW8280, SW3520/SW8150
PARAMETER: APPENDIX IX ICP, DISSOLVED CO, CU, FE, PB, MN, MO, NI, V, ZN
METHOD: SW3005/SW6010, SW3010/SW6010
PARAMETER: APP. IX SEMI-VOC
METHOD: SW3520/SW8270

Chain-of-Custody Record

PROJECT NAME KIRTLAND AFB SWMU PROJECT NO. 463536001 P.O. NO.

Relinquished by: (Signature) Received by: (Signature) Date Time
AIRBORNE EXPRESS 900919 1700
Relinquished by: (Signature) Received by: (Signature) Date Time
Received at lab by: (Signature) Date Time
9-20-90 0800
Relinquished from lab by: (Signature) Received by: (Signature) Date Time

Comments (Only 50 characters stored in NWIS)

Record 5 WELL AT LANDFILL NO. 2
Record 6

Total number of sample bottles for this request: 6

SHIP TO:
Enseco-Rocky Mountain Analytical
4955 Yarrow Street
Arvada, CO 80002
(303) 421-6611
ATTENTION: THOMPSON, BREYER, OR MCDEVITT

Special Handling (Circle as appropriate and explain in record 5)

Site Type (circle one)

Hazardous material

KIRTLAND PROJECT

SW - Surface Water
GW - Ground Water
ME - Meteorological

LK - Lake
ES - Estuary
SP - Spring
(SS) - Special Source
(505) 262-6678
Phone (FTS)
BILL DAM

SS WIRE ROPE (OLD) LEACH TEST

USGS/WRD/NEW MEXICO SWMU

USGS

File Deposition\* (Circle one)
Q - WATSTORE
X - Lab File

Sample identification

For Laboratory Use Only

SS WIRE ROPE (OLD) LEACH TEST

463536001
Station ID or Unique Number\*
Project Account \*

1990 09 19 1000 09 19 1400 NM 035 001
Year\* Month\* Day\* Time\* Month Day Time State Code\* District/ User Code\* County Code

Analysis level codes and schedules

6=GW 9=SW H or 9 G
Sample Medium\*\* Geologic Unit Analysis Status\*\* Analysis Source\*\* Hydrologic Condition\*\* Sample Type\*\* Hydrologic Event\*\*

PARAMETER: TOC TOX NO2/NO3 DISSOLVED CHROMIUM TOTAL CHROMIUM
METHOD: SW 9060 SW 9020 E 353.2 SW 3005/SW 719 SW 3020/SW 791
PARAMETER: TOX APP. IX VOC APP. IX DIOXIN-FURANS APP. IX HERBICIDES
METHOD: SW 5050/SW 8010 SW 5030/SW 8240 SW 3520/SW 8280 SW 3920/SW 8150
PARAMETER: APP. IX ICP DISSOLVED APP. IX ICP TOTAL
METHOD: SW 3005/SW 6010 SW 3010/SW 6010
PARAMETER: APP. IX SEMI-VOC
METHOD: SW 3520/SW 8270

Chain-of-Custody Record

PROJECT NAME KIRTLAND AFB SWMU PROJECT NO. 463536001 P.O. NO.

Relinquished by: (Signature) Received by: (Signature) Date Time
AIRBORNE EXPRESS 900919 1700
Relinquished by: (Signature) Received by: (Signature) Date Time
Relinquished by: (Signature) Received at lab by: (Signature) Date Time
9-26-90 0800
Relinquished from lab by: (Signature) Received by: (Signature) Date Time

Comments (Only 50 characters stored in NWIS)

Record 5 2 FT. OF 1/8 INCH CLEAN CABLE IMMERSSED IN 1 GAL. DI H2O FOR DESIGNATED TIME WITH PERIODIC SHAKING; USED FOR SAMPLING - SS TYPE UNKNOWN

Record 6

Total number of sample bottles for this request: 2

SHIP TO:
Enseco-Rocky Mountain Analytical
4955 Yarrow Street
Arvada, CO 80002
(303) 421-6611
ATTENTION: THOMPSON, BREYER, OR MCDEVITT

Special Handling

(Circle as appropriate and explain in record 5)

Site Type (circle one)

Hazardous material

SW - Surface Water  
GW - Ground Water  
ME - Meteorological

LK - Lake  
ES - Estuary  
SP - Spring  
SS - Special Source

**KIRTLAND PROJECT**

Field ID

SS 304 WIRE ROPE (NEW) LEACH TEST USGS/WRD/NEW MEXICO SWMU

USGS

(505) 262-6678  
Phone (FTS)  
BILL DAM

Station Name

Field Office

Project

Collector

File Deposition\*  
(Circle one)  
Q - WATSTORE  
X - Lab File

**Sample identification**

[Empty box for Laboratory Use Only]

SS 304 WIRE ROPE (NEW) LEACH TEST 463536001

For Laboratory Use Only

Station ID or Unique Number\*

Project Account #

**CONTACT TIME**

1990 09 19 1015 09 19 1410 NM 035 001  
Year\* Month\* Day\* Time\* Month\* Day\* Time\* State Code\* District/User Code\* County Code\*  
Begin Date Composite End Date

6 = GW  
9 = SW

**Analysis level codes and schedules**

1 = SPIKE  
5 = DUPLICATE  
9 = REGULAR  
J = STORM  
7 = ROUTINE

6  
Sample Medium\*\*

Geologic Unit

H or 9  
Analysis Status\*\*

GS FIELD  
MUNGE-LAB  
G  
Analysis Source\*\*

Hydrologic Condition\*\*

Sample Type\*\*

Hydrologic Event\*\*

PARAMETER:

~~TOX~~ ~~TOX~~ ~~NO3/NO3~~ DISSOLVED CHROMIUM TOTAL CHROMIUM  
METHOD: SW 9060 SW 9020 E 358.2 SW 3005/SW 719 SW 3020/SW 719

PARAMETER:

~~VOC~~ APP. IX DIOXIN FURANS HERBICIDES  
METHOD: SW 3030/SW 8010 SW 5020/SW 8240 SW 3520/SW 8280 SW 3520/SW 8150

PARAMETER:

~~APPENDIX IX ICP DISSOLVED~~ APPENDIX IX ICP TOTAL  
METHOD: SW 2005/SW 6010 SW 3010/SW 6010

PARAMETER:

~~APP. IX SEM-VOC~~  
METHOD: SW 3520/SW 8270

**Chain-of-Custody Record**

PROJECT NAME KIRTLAND AFB SWMU PROJECT NO. 463536001 P.O. NO. \_\_\_\_\_

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
<u>Jim [Signature]</u>	<u>AIRBORNE EXPRESS</u>	<u>9/20/90</u>	<u>1700</u>
Relinquished by: (Signature)	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Received at lab by: (Signature)	Date	Time
	<u>Joseph [Signature]</u>	<u>9-20-90</u>	<u>0800</u>
Relinquished from lab by: (Signature)	Received by: (Signature)	Date	Time

**Comments (Only 50 characters stored in NWIS)**

Record 5 2 FT. OF 1/8 INCH CLEAN CABLE IMMERSSED IN 1 GAL DI FOR DESIGNATED CONTACT TIME.

Record 6 \_\_\_\_\_

Total number of sample bottles for this request: 2

**SHIP TO:**

**Enseco-Rocky Mountain Analytical**  
4955 Yarrow Street  
Arvada, CO 80002  
(303) 421-6611

ATTENTION: THOMPSON, BREYER, OR MCDEVITT

Special Handling

(Circle as appropriate and explain in record 5)

Site Type (circle one)

SW - Surface Water  
GW - Ground Water  
ME - Meteorological

LK - Lake  
ES - Estuary  
SP - Spring  
SS - Special Source

Hazardous material

KIRTLAND PROJECT

Field ID

USGS/WRD/NEW MEXICO SWMU

Field Office

Project

USGS

Collector

(505) 262-6678

Phone (FTS)

BILL DAM

DRILLING MUD LEACH TEST

Station Name

File Deposition\*

Sample identification

(Circle one)

Q - WATSTORE

X - Lab File

[Empty box for Laboratory Use Only]

For Laboratory Use Only

DRILLING MUD LEACH TEST

Station ID or Unique Number\*

463536001

Project Account #

1990  
Year\*

09  
Month\*

06  
Day\*

1230  
Time\*

09  
Month

19  
Day

1450  
Time

NM  
State Code\*

035  
District/  
User Code\*

001  
County Code

Begin Date

Composite End Date

CONTACT TIME

6 = GW  
9 = SW

Analysis level codes and schedules

1 = SPIKE  
5 = DUPLICATE  
9 = REGULAR

J = STORM  
9 = ROUTINE

6  
Sample Medium\*\*

Geologic Unit

H or 9  
Analysis Status\*\*

GS FIELD  
MANAGE-LAB  
G  
Analysis Source\*\*

Hydrologic Condition\*\*

Sample Type\*\*

Hydrologic Event\*\*

PARAMETER:

~~TDC~~ ~~TDX~~ ~~NO2/N03~~

DISSOLVED CHROMIUM

TOTAL CHROMIUM

METHOD:

~~SW9060~~ ~~SW9020~~ ~~E353.2~~

SW3005/SW791

SW3020/SW791

PARAMETER:

~~VOC~~ ~~VOC~~

APP. IX DIOXIN/FURANS

APP. IX HERBICIDES

METHOD:

~~SW5050/SW8010~~ ~~SW6030/SW8240~~

SW3520/SW8280

SW3520/SW8150

PARAMETER:

APPENDIX IX ICP, DISSOLVED Co, Cu, Fe, Pb, Mn, Mo, Ni, V, Zn

APPENDIX IX ICP TOTAL Co, Cu, Fe, Pb, Mn, Mo, Ni, V, Zn

METHOD:

SW3005/SW6010

SW3010/SW6010

PARAMETER:

~~APP. IX SEMI-VOC~~

METHOD:

~~SW3520/SW8270~~

Chain-of-Custody Record

PROJECT NAME KIRTLAND AFB SWMU PROJECT NO. 463536001 P.O. NO. \_\_\_\_\_

Relinquished by: (Signature)

Kim [Signature]

Received by: (Signature)

AIRBORNE EXPRESS

Date

900919

Time

1700

Relinquished by: (Signature)

Received by: (Signature)

Date

Time

Relinquished by: (Signature)

Received at lab by: (Signature)

Date

9-20-90 0800

Time

Relinquished from lab by: (Signature)

Received by: (Signature)

Date

Time

Comments (Only 50 characters stored in NWIS)

Record 5 3 GRAMS OF DRILLING MUD MIXED WITH 3 LITERS OF DI H2O; SHAKEN PERIODICALLY.

Record 6 \_\_\_\_\_

Total number of sample bottles for this request: 4

SHIP TO:

Enseco-Rocky Mountain Analytical  
4955 Yarrow Street  
Arvada, CO 80002  
(303) 421-6611

ATTENTION: THOMPSON, BREYER, OR MCDEVITT



Special Handling (Circle as appropriate and explain in record 5)

Site Type (circle one)

Hazardous material

SW - Surface Water
GW - Ground Water
ME - Meteorological

LK - Lake
ES - Estuary
SP - Spring
SS - Special Source
(505) 262-6678
Phone (FTS)
BILL DAM

KIRTLAND PROTECT
Field ID

VOL CLAY GROUT LEACH TEST
Station Name

USGS/WRO/NEW MEXICO SWMU
Field Office Project

USGS
Collector

File Deposition\* (Circle one)
Q - WATSTORE
X - Lab File

Sample identification

For Laboratory Use Only

VOL CLAY GROUT LEACH TEST
Station ID or Unique Number\*

463536001
Project Account #

CONTACT TIME
1.9.90 09 06 1245 09 19 1415 NM 035 001
Year\* Month\* Day\* Time\* Month\* Day\* Time\* State Code\* District/ User Code\* County Code

6 = GW
9 = SW

Analysis level codes and schedules
H or 9
GS FIELD
MAGE-LAB
9 = STABLE

I = SPIKE
S = DUPLICATE
9 = REGULAR

J = STORM
9 = ROUTINE

Table with columns: Sample Medium, Geologic Unit, Analysis Status, Analysis Source, Hydrologic Condition, Sample Type, Hydrologic Event. Includes handwritten entries for TOC, TOX, NO2/NO3, DISSOLVED CHROMIUM, TOTAL CHROMIUM, VOC, APP. IX, DIOXIN/FURANS, HERBICIDES, APP. IX SEMI-VOC.

Chain-of-Custody Record

PROJECT NAME KIRTLAND AFB SWMU PROJECT NO. 463536001 P.O. NO.

Table for Chain-of-Custody Record with columns: Relinquished by (Signature), Received by (Signature), Date, Time. Includes signatures and dates like 900919 1700 and 9-20-90 0800.

Comments (Only 50 characters stored in NWIS)

Record 5 3 GRAMS OF VOL CLAY GROUT AND 0.12 GRAMS OF INITIATE MIXED INTO 3 LITER DI H2O;
Record 6 SHAKEN PERIODICALLY.

Total number of sample bottles for this request: 4

SHIP TO:
Enseco-Rocky Mountain Analytical
4955 Yarrow Street
Arvada, CO 80002
(303) 421-6611

ATTENTION: THOMPSON, BREYER, OR MCDEVITT

11407-07

Special Handling (Circle as appropriate and explain in record 5)

Hazardous material

Site Type (circle one)

- SW - Surface Water
  - GW - Ground Water
  - ME - Meteorological
  - LK - Lake
  - ES - Estuary
  - SP - Spring
  - SS - Special Source**
- (505) 262-6678  
Phone (FTS)  
BILL DAM

**KIRTLAND PROJECT**

Field ID

**LATEX GLOVE (DERMATHIN) LEACH TEST**

Station Name

**USGS/WRD/NEW MEXICO SWMU**

Field Office

Project

**USGS**

Collector

File Deposition\* (Circle one)  
Q - WATSTORE  
X - Lab File

Sample identification

[Blank Box]

For Laboratory Use Only

**LATEX GLOVE (DERMATHIN) LEACH TEST 463536001**

Station ID or Unique Number\*

Project Account #

**CONTACT TIME**

1. 90 09 19 1515 09 19 1517 NM 035 001  
 Year\* Month\* Day\* Time\* Month Day Time State Code\* District/ User Code\* County Code

Begin Date Composite End Date

6 = GW  
9 = SW

Analysis level codes and schedules

1 = SPIKE  
5 = DUPLICATE  
9 = REGULAR

J = STORM  
9 = ROUTINE

6 G H or 9 G  
 Sample Medium\*\* Geologic Unit Analysis Status\*\* Analysis Source\*\* Hydrologic Condition\*\* Sample Type\*\* Hydrologic Event\*\*

PARAMETER: ~~TCC~~ ~~VOC~~ ~~NO2+NO3~~ ~~DISSOLVED CHROMIUM~~ ~~TOTAL CHROMIUM~~  
 METHOD: SW 2060 SW 2020 E 353.2 SW 3008/SW 791 SW 3020/SW 791

PARAMETER: ~~VOC~~ APP. IX VOC ~~DIOXIN FURANS~~ ~~APP. IX HERBICIDES~~  
 METHOD: SW 5030/SW 8010 SW 5030/SW 8240 SW 3520/SW 8280 SW 3520/SW 8150

PARAMETER: ~~APPENDIX IX ICP, DISSOLVED CO, CU, FE, PB, MN, MO, NI, V, ZN~~ ~~APPENDIX IX ICP TOTAL CO, CU, FE, PB, MN, MO, NI, V, ZN~~  
 METHOD: SW 3005/SW 6010 SW 3010/SW 6010

PARAMETER: APP. IX SEMI-VOC  
 METHOD: SW 3520/SW 8270

Chain-of-Custody Record

PROJECT NAME KIRTLAND AFB SWMU PROJECT NO. 463536001 P.O. NO. \_\_\_\_\_

Relinquished by: (Signature) <i>Kim [Signature]</i>	Received by: (Signature) <u>AIRBORNE EXPRESS</u>	Date <u>900919</u>	Time <u>1700</u>
Relinquished by: (Signature)	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Received at lab by: (Signature) <i>Joseph [Signature]</i>	Date <u>9-20-90 0800</u>	Time
Relinquished from lab by: (Signature)	Received by: (Signature)	Date	Time

Comments (Only 50 characters stored in NWIS)

Record 5 A PAIR OF LATEX GLOVE AGITATED IN 1/2 LITER DI H2O FOR 2 MIN. AFTER SIMULATING, DECON CONTACT WITH ALCON X,

Record 6 H2O RINSE, DI H2O, METH, & HEXANE. LEACHATE ANALYZED FOR VOC & SEMI-VOC.

Total number of sample bottles for this request: 4

SHIP TO:

Enseco-Rocky Mountain Analytical  
 4955 Yarrow Street  
 Arvada, CO 80002  
 (303) 421-6611

ATTENTION: THOMPSON, BREYER, OR MCDEVITT

Special Handling (Circle as appropriate and explain in record 5)

Site Type (circle one)

Hazardous material

SW - Surface Water
GW - Ground Water
ME - Meteorological

LK - Lake
ES - Estuary
SP - Spring
SS - Special Source

KIRTLAND PROJECT
Field ID

CHROMIUM DI H2O BLANK
Station Name

USGS/WRD/NEW MEXICO SWMU
Field Office Project

USGS (505) 262-6678
Collector Phone (FTS) BILL DAM

File Deposition\* (Circle one)
Q - WATSTORE
X - Lab File

Sample identification

For Laboratory Use Only

CHROMIUM DI H2O BLANK 463536001
Station ID or Unique Number\* Project Account #

1990 09 19 1430
Year\* Month\* Day\* Time\*
Begin Date Composite End Date
NM 035 001
State Code\* District/ User Code\* County Code

Analysis level codes and schedules
6=GW 9=SW
1=SPIKE 5=DUPPLICATE 9=REGULAR
J=STORM 9=ROUTINE
Sample Medium\*\* Geologic Unit Analysis Status\*\* Analysis Source\*\* Hydrologic Condition\*\* Sample Type\*\* Hydrologic Event\*\*

PARAMETER: TOC TOX NO2+NO3 DISSOLVED CHROMIUM TOTAL CHROMIUM
METHOD: SW9060 SW9020 #355.2 SW3005/SW7191 SW3020/SW7191
PARAMETER: TOX APP. IX DIOXIN/FURANS APP. IX HERBICIDES
METHOD: SW5030/SW8010 SW5030/SW8240 SW3520/SW8280 SW3520/SW8150
PARAMETER: APPENDIX IX ICP DISSOLVED APPENDIX IX ICP TOTAL
METHOD: SW3005/SW6010 SW3010/SW6010
PARAMETER: APP. IX SEMI-VOC
METHOD: SW3520/SW8270

Chain-of-Custody Record

PROJECT NAME KIRTLAND AFB SWMU PROJECT NO. 463536001 P.O. NO.
Relinquished by: (Signature) Received by: (Signature) Date Time
AIRBORNE EXPRESS 900919 1700
Relinquished by: (Signature) Received by: (Signature) Date Time
Relinquished by: (Signature) Received at lab by: (Signature) Date Time
Relinquished from lab by: (Signature) Received by: (Signature) Date Time

Comments (Only 50 characters stored in NWIS)

Record 5 SEIONIZED H2O FROM ASDO DI H2O SYSTEM WITH CARBON FILTER

Record 6

Total number of sample bottles for this request: 1

SHIP TO:
Enseco-Rocky Mountain Analytical
4955 Yarrow Street
Arvada, CO 80002
(303) 421-6611
ATTENTION: THOMPSON, BREYER, OR MCDEVITT