1240690 - R8 SDMS

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
1595 Wynkoop Street
DENVER, CO 80202-1129
Phone 800-227-8917
http://www.epa.gov/region08

Ref: 8EPR-ER

February 24, 2012

[redacted]
Missoula, MT 59806

Subject: Water sample SSGW27 collected in October 2011.

Dear [redacted]:

The groundwater well you own was sampled by the Superfund Technical Assessment and Response Team (START) contractor to the U.S. Environmental Protection Agency (EPA) during the week of October 23, 2011. Thank you for allowing us to collect samples from your well. Your assistance for this effort is greatly appreciated.

Validated analytical laboratory results are included with this letter for your records. The results list the compound name and the concentration of the compound found in water from your well. Also attached for comparison is a reference table listing the available U.S. EPA Maximum Contaminant Level (MCL) and the Montana Department of Environmental Quality (MDEQ) numeric water quality standards for the compounds analyzed. The concentrations are shown in micrograms per liter (ug/L) which is the same as a part per billion.

No concentrations of any compounds from your well water exceeded either federal or state health-based standards for water quality, indicating that the water is safe to drink. You may note that the MDEQ aesthetics-based standard for iron has been exceeded, indicating that your water is hard. This is common in your area. If you have not already done so, you may wish to install a water softener to address this.

More information regarding MCLs can be found on the EPA website on the internet at http://water.epa.gov/drink/contaminants/index.cfm and at the MDEQ website at http://deq.mt.gov.

If, after receiving this letter and reviewing your results, you have any additional questions, please feel free to contact me via phone (303-312-6822) or email (ackerman.joyce@epa.gov).

Sincerely,

Joyce Ackerman
On-Scene Coordinator, USEPA Region 8

Attachment: Laboratory Analytical Results, MDEQ and USEPA Water Quality Standards Table

Printed on Recycled Paper

MCLs and Numeric Water Quality Standards for analytes with standards

Analytes	U.S. EPA MCL (µg/L)	MDEQ Numeric Water Quality Standards (µg/L)	Analytes	U.S. EPA MCL (µg/L)	MDEQ Numeric Water Quality Standards (µg/L)	Analytes	U.S. EPA MCL (µg/L)	MDEQ Numeric Water Quality Standards (µg/L)
Metals (Dissolved)			**Volatile Organic Compounds (VOCs), cont.**			**Semi-Volatile Organic Compounds (SVOCs), cont.**		
Antimony	6	6	Toluene	1,000	1,000	2,6-Dinitrotoluene	-	0.5
Arsenic	10	10	trans-1,3-Dichloropropene	-	2	Acenaphthene	-	670
Barium	2,000	1,000	1,1,2-Trichloroethane	5	3.0	2,4-Dinitrophenol	-	69
Beryllium	4	4	Tetrachloroethene	5	5	4-Nitrophenol	-	60
Cadmium	5	5	Dibromochloromethane	-	4	2,4-Dinitrotoluene	-	1.1
Chromium	100	100	1,2-Dibromoethane	0.05	0.004	Diethylphthalate	-	17,000
Copper	1,300	1,300	Chlorobenzene	100	100	Fluorene	-	1,100
Iron	-	300*	Ethylbenzene	700	700	4,6-Dinitro-2-methylphenol	-	13.0
Lead	15	15	Xylene	10,000	10,000	1,2,4,5-Tetrachlorobenzene	-	0.97
Manganese	-	50*	Styrene	100	100	Hexachlorobenzene	1	0.2
Mercury	2	2	Bromoform	80	80	Atrazine	3	3
Nickel	-	100	1,1,2,2-Tetrachloroethane	-	2	Pentachlorophenol	1	1
Selenium	50	50	1,3-Dichlorobenzene	-	600	Anthracene	-	2,100
Silver	-	100	1,4-Dichlorobenzene	75	75	Di-n-butylphthalate	-	2,000
Thallium	2	2	1,2-Dichlorobenzene	600	600	Fluoranthene	-	130
Zinc	-	2,000	1,2-Dibromo-3-chloropropane	0.2	0.2	Pyrene	-	830
Volatile Organic Compounds (VOCs)			1,2,4-Trichlorobenzene	70	70	Butylbenzylphthalate	-	1,500
Dichlorodifluoromethane	-	1,000	**Semi-Volatile Organic Compounds (SVOCs)**			3,3'-Dichlorobenzidine	-	0.21
Vinyl chloride	2	0.2	Phenol	-	300	Benzo(a)anthracene	-	0.5
Bromomethane	-	10	Bis(2-chloroethyl)ether	-	0.30	Chrysene	-	50
Trichlorofluoromethane	-	10,000	2-Chlorophenol	-	81	Bis(2-ethylhexyl)phthalate	6	6
1,1-Dichloroethene	7	0.6	2,2'-Oxybis(1-chloropropane)	-	1,400	Benzo(b)fluoranthene	-	0.5
Methylene chloride	5	5	N-Nitroso-di-n-propylamine	-	0.05	Benzo(k)fluoranthene	-	5.0
trans-1,2-Dichloroethene	100	100	Hexachloroethane	-	30	Benzo(a)pyrene	0.2	0.05
Methyl tert-butyl ether	-	30	Nitrobenzene	-	17	Indeno(1,2,3-cd)pyrene	-	0.5
1,1-Dichloroethane	-	0.0031	Isophorone	-	400	Dibenzo(a,h)anthracene	-	0.05
cis-1,2-Dichloroethene	70	70	2,4-Dimethylphenol	-	380	**Polychlorinated biphenyls (PCBs)**	0.5	0.5
Chloroform	-	70	2,4-Dichlorophenol	-	77	**Dioxin**	0.00003	0.000002
1,1,1-Trichloroethane	200	200	Naphthalene	-	100			
Carbon tetrachloride	5	3	Hexachlorobutadiene	-	5			
Benzene	5	5	Hexachlorocyclopentadiene	50	5			
1,2-Dichloroethane	5	4	2,4,6-Trichlorophenol	-	30.0			
Trichloroethene	5	5	2,4,5-Trichlorophenol	-	1,800			
Bromodichloromethane	-	10	2-Chloronaphthalene	-	1,000			
cis-1,3-Dichloropropene	-	4	Dimethylphthalate	-	270,000			

* the MDEQ standards for iron and manganese are based on aesthetic properties (such as taste, odor and staining) only
µg/L micrograms per liter
MCL Maximum Contaminant Level
MDEQ Montana Department of Environmental Quality
U.S. EPA U.S. Environmental Protection Agency

Total Metals

Metals

IA-IN

INORGANIC ANALYSIS DATA SHEET

SSGW27

EPA SAMPLE NO.

MM30Z6

Lab Name: Ghemtech Consulting Group Contract: EPW09038

Lab Code: CMEM Case No.: 41926 Mod. Ref. No.: SDG No.: MH30T9

Matrix: WATER Lab Sample ID: C4368-20

% Solids: Date Received: 10/29/2011

Concentration Units (ug/L, ug, or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9.1	J		MS
7440-36-0	Antimony	0.25	J		MS
7440-38-2	Arsenic	2.2			MS
7440-39-3	Barium	156			MS
7440-41-7	Beryllium	1.0	U		MS
7440-43-9	Cadmium	1.0	U		MS
7440-70-2	Calcium	132000		D	MS
7440-47-3	Chromium	0.29	J		MS
7440-48-4	Cobalt	0.36	J		MS
7440-50-8	Copper	1.7	J		MS
7439-89-6	Iron	356			MS
7439-92-1	Lead	0.24	J		MS
7439-95-4	Magnesium	53800			MS
7439-96-5	Manganese	1.0			MS
7440-02-0	Nickel	1.9			MS
7440-09-7	Potassium	3860			MS
7782-49-2	Selenium	0.70	J		MS
7440-22-4	Silver	1.0	U		MS
7440-23-5	Sodium	160000		D	MS
7440-28-0	Thallium	1.0	U		MS
7440-62-2	Vanadium	1.8	J		MS
7440-66-6	Zinc	18.6			MS

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

Metals

IA-IN

INORGANIC ANALYSIS DATA SHEET

SS GW27

EPA SAMPLE NO.

MH30Z9

Lab Name: Chemtech Consulting Group Contract: EPW09038

Lab Code: CHEM Case No.: 41926 Mod. Ref. No.: SDG No.: MH30Z9

Matrix: WATER Lab Sample ID: C4369-01

% Solids: Date Received: 10/28/2011

Concentration Units (ug/L, ug, or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	17.5	J		MS
7440-36-0	Antimony	2.0	U		MS
7440-38-2	Arsenic	1.7			MS
7440-39-3	Barium	164			MS
7440-41-7	Beryllium	1.0	U		MS
7440-43-9	Cadmium	1.0	U		MS
7440-70-2	Calcium	27400			MS
7440-47-3	Chromium	0.27	J		MS
7440-48-4	Cobalt	0.47	J		MS
7440-50-8	Copper	1.3	J		MS
7439-89-6	Iron	115	J		MS
7439-92-1	Lead	0.40	J		MS
7439-95-4	Magnesium	12200			MS
7439-96-5	Manganese	4.4			MS
7440-02-0	Nickel	0.71	J		MS
7440-09-7	Potassium	2450			MS
7782-49-2	Selenium	5.0	U		MS
7440-22-4	Silver	1.0	U		MS
7440-23-5	Sodium	14600			MS
7440-28-0	Thallium	1.0	U		MS
7440-62-2	Vanadium	0.37	J		MS
7440-66-6	Zinc	3.8			MS

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

SS6W27

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30Z6

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30S7

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: K2200-19A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5N2622.D

Level: (TRACE/LOW/MED) TRACE Date Received: 10/28/2011

% Moisture: not dec. Date Analyzed: 11/02/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U

"U" means the compound was not detected above the detection limit.

Report 1,4-Dioxane for Low-Medium VOA analysis only

SOM01.2 (6/2007)

SSGW27

IB - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30Z6

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30S7

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: K2200-19A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5N2622.D

Level: (TRACE/LOW/MED) TRACE Date Received: 10/28/2011

% Moisture: not dec. Date Analyzed: 11/02/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
95-47-6	o-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

SOM01.2 (6/2007)

SS6W27

IJ - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

H30Z6

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30S7

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: K2200-19A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5N2622.D

Level: (TRACE or LOW/MED) TRACE Date Received: 10/28/2011

% Moisture: not dec. Date Analyzed: 11/02/2011

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

SOM01.2 (6/2007)

SSGW27

ID - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

H30Z6

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30S7

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: K2200-19B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S2H5221.D

Level: (LOW/MED) LOW Extraction: (Type) CONT

% Moisture: Decanted: (Y/N) Date Received: 10/28/2011

Concentrated Extract Volume: 1000 (uL) Date Extracted: 11/02/2011

Injection Volume: 2.0 (uL) GPC Factor: 1.00 Date Analyzed: 11/03/2011

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
100-52-7	Benzaldehyde	5.0	U
108-95-2	Phenol	5.0	U
111-44-4	Bis(2-chloroethyl)ether	5.0	U
95-57-8	2-Chlorophenol	5.0	U
95-48-7	2-Methylphenol	5.0	U
108-60-1	2,2´-Oxybis(1-chloropropane)	5.0	U
98-86-2	Acetophenone	5.0	U
106-44-5	4-Methylphenol	5.0	U
621-64-7	N-Nitroso-di-n-propylamine	5.0	U
67-72-1	Hexachloroethane	5.0	U
98-95-3	Nitrobenzene	5.0	U
78-59-1	Isophorone	5.0	U
88-75-5	2-Nitrophenol	5.0	U
105-67-9	2,4-Dimethylphenol	5.0	U
111-91-1	Bis(2-chloroethoxy)methane	5.0	U
120-83-2	2,4-Dichlorophenol	5.0	U
91-20-3	Naphthalene	5.0	U
106-47-8	4-Chloroaniline	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
105-60-2	Caprolactam	5.0	U
59-50-7	4-Chloro-3-methylphenol	5.0	U
91-57-6	2-Methylnaphthalene	5.0	U
77-47-4	Hexachlorocyclopentadiene	5.0	U
88-06-2	2,4,6-Trichlorophenol	5.0	U
95-95-4	2,4,5-Trichlorophenol	5.0	U
92-52-4	1,1´-Biphenyl	5.0	U
91-58-7	2-Chloronaphthalene	5.0	U
88-74-4	2-Nitroaniline	10	U
131-11-3	Dimethylphthalate	5.0	U
606-20-2	2,6-Dinitrotoluene	5.0	U
208-96-8	Acenaphthylene	5.0	U
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	5.0	U

"U" means the compound was not detected above the detection limit.

SOM01.2 (6/2007)

SS6W27

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

H30Z6

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30S7

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: K2200-19B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S2H5221.D

Level: (LOW/MED) LOW Extraction: (Type) CONT

% Moisture: Decanted: (Y/N) Date Received: 10/28/2011

Concentrated Extract Volume: 1000 (uL) Date Extracted: 11/02/2011

Injection Volume: 2.0 (uL) GPC Factor: 1.00 Date Analyzed: 11/03/2011

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) pG/L	Q
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	10	U
132-64-9	Dibenzofuran	5.0	U
121-14-2	2,4-Dinitrotoluene	5.0	U
84-66-2	Diethylphthalate	5.0	U
86-73-7	Fluorene	5.0	U
7005-72-3	4-Chlorophenyl-phenylether	5.0	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-methylphenol	10	U
86-30-6	N-Nitrosodiphenylamine 1	5.0	U
95-94-3	1,2,4,5-Tetrachlorobenzene	5.0	U
101-55-3	4-Bromophenyl-phenylether	5.0	U
118-74-1	Hexachlorobenzene	5.0	U
1912-24-9	Atrazine	5.0	U
87-86-5	Pentachlorophenol	10	U
85-01-8	Phenanthrene	5.0	U
120-12-7	Anthracene	5.0	U
86-74-8	Carbazole	5.0	U
84-74-2	Di-n-butylphthalate	5.0	U
206-44-0	Fluoranthene	5.0	U
129-00-0	Pyrene	5.0	U
85-68-7	Butylbenzylphthalate	5.0	U
91-94-1	3,3'-Dichlorobenzidine	5.0	U
56-55-3	Benzo(a)anthracene	5.0	U
218-01-9	Chrysene	5.0	U
117-81-7	Bis(2-ethylhexyl)phthalate	5.0	U
117-84-0	Di-n-octylphthalate	5.0	U
205-99-2	Benzo(b)fluoranthene	5.0	U
207-08-9	Benzo(k)fluoranthene	5.0	U
50-32-8	Benzo(a)pyrene	5.0	U
193-39-5	Indeno(1,2,3-cd)pyrene	5.0	U
53-70-3	Dibenzo(a,h)anthracene	5.0	U
191-24-2	Benzo(g,h,i)perylene	5.0	U
58-90-2	2,3,4,6-Tetrachlorophenol	5.0	U

(1) Cannot be separated from Diphenylamine

SOM01.2 (6/2007)

SSGW27

IH - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H30Z6

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 41926 Mod. Ref No.: SDG No.: H30S7

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: K2200-19B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E2K7967F.D/E2K7967R.D

% Moisture: Decanted: (Y/N) Date Received: 10/28/2011

Extraction: (Type) SEPF Date Extracted: 11/02/2011

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 11/16/2011

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
37324-23-5	Aroclor-1262	1.0	U
11100-14-4	Aroclor-1268	1.0	U

"U" means the compound was not detected above the detection limit.

SOM01.2 (6/2007)

ALS Environmental

Sample Analysis Report

Sample Name	SSGW27	Sampling Date	25-Oct-11	
ALS Sample ID	L1080162-30	Extraction Date	16-Nov-11	Approved:
Analysis Method	EPA 8290A	Sample Size	0.98 Litres	C. de Haan
Analysis Type	Sample	Percent Moisture	n/a	--e-signature--
Sample Matrix	WATER	Split Ratio	1	23-Nov-2011

Run Information	Run 1
Filename	1-111118B S:16
Run Date	19-Nov-11 08:12
Final Volume	20 uL
Dilution Factor	1
Analysis Units	pg/L
Instrument - Column	HRMS-1 DB5MS#USB479916H

Target Analytes	TEF (NATO)	Ret. Time	Conc. pg/L	EDL pg/L	Flags
2,3,7,8-TCDD	1	NotFnd	<0.29	0.29	M,U
1,2,3,7,8-PeCDD	0.5	NotFnd	<0.43	0.43	U
1,2,3,4,7,8-HxCDD	0.1	NotFnd	<0.38	0.38	M,U
1,2,3,6,7,8-HxCDD	0.1	NotFnd	<0.39	0.39	M,U
1,2,3,7,8,9-HxCDD	0.1	NotFnd	<0.39	0.39	M,U
1,2,3,4,6,7,8-HpCDD	0.01	36:30	<0.70	0.42	M,J,R
OCDD	0.001	38:21	<2.1	0.55	M,J,R
2,3,7,8-TCDF	0.1	NotFnd	<0.43	0.43	M,U
1,2,3,7,8-PeCDF	0.05	NotFnd	<0.23	0.23	U
2,3,4,7,8-PeCDF	0.5	NotFnd	<0.20	0.20	M,U
1,2,3,4,7,8-HxCDF	0.1	NotFnd	<0.17	0.17	M,U
1,2,3,6,7,8-HxCDF	0.1	NotFnd	<0.17	0.17	M,U
2,3,4,6,7,8-HxCDF	0.1	NotFnd	<0.18	0.18	M,U
1,2,3,7,8,9-HxCDF	0.1	NotFnd	<0.22	0.22	M,U
1,2,3,4,6,7,8-HpCDF	0.01	NotFnd	<0.22	0.22	M,U
1,2,3,4,7,8,9-HpCDF	0.01	NotFnd	<0.32	0.32	M,U
OCDF	0.001	NotFnd	<0.40	0.40	U

Extraction Standards	pg		% Rec	Limits
13C12-2,3,7,8-TCDD	2000	27:46	74	40-130
13C12-1,2,3,7,8-PeCDD	2000	32:26	88	40-130
13C12-1,2,3,4,7,8-HxCDD	2000	34:34	91	40-130
13C12-1,2,3,6,7,8-HxCDD	2000	34:37	82	40-130
13C12-1,2,3,4,6,7,8-HpCDD	2000	36:30	84	25-130
13C12-OCDD	4000	38:21	88	25-130
13C12-2,3,7,8-TCDF	2000	26:26	72	40-130
13C12-1,2,3,7,8-PeCDF	2000	31:37	84	40-130
13C12-2,3,4,7,8-PeCDF	2000	32:16	89	40-130
13C12-1,2,3,4,7,8-HxCDF	2000	34:04	82	40-130
13C12-1,2,3,6,7,8-HxCDF	2000	34:08	80	40-130
13C12-2,3,4,6,7,8-HxCDF	2000	34:29	78	40-130
13C12-1,2,3,7,8,9-HxCDF	2000	35:01	81	40-130
13C12-1,2,3,4,6,7,8-HpCDF	2000	35:52	82	25-130
13C12-1,2,3,4,7,8,9-HpCDF	2000	36:51	81	25-130

Cleanup Standard	pg			
37Cl4-2,3,7,8-TCDD (Cleanup)	40	27:48	70	40-130

Homologue Group Totals	# peaks	Conc. pg/L	EDL pg/L
Total-TCDD	0	<0.29	0.29
Total-PeCDD	0	<0.43	0.43
Total-HxCDD	1	0.703	0.39
Total-HpCDD	0	<0.42	0.42
Total-TCDF	0	<0.43	0.43
Total-PeCDF	0	<0.23	0.23
Total-HxCDF	0	<0.22	0.22
Total-HpCDF	0	<0.32	0.32

Toxic Equivalency - (NATO)	pg/L
Lower Bound PCDD/F TEQ (NATO)	0.00
Mid Point PCDD/F TEQ (NATO)	0.751
Upper Bound PCDD/F TEQ (NATO)	0.864

EDL	Indicates the Estimated Detection Limit, based on the measured background noise for this target in this sample
TEF	Indicates the Toxic Equivalency Factor
TEQ	Indicates the Toxic Equivalenc
M	Indicates that a peak has been manually integrated
U	Indicates that this compound was not detected above the MDL
J	indicates that a target analyte was detected below the calibrated range
R	Indicates that the ion abundance ratio for this compound did not meet the acceptance criterion