DATE		
MARCH 5,1998		
TO TED HOPKINS	DEPT RMRS-E/C/D&F	BLDG T130F
FROM MARY T AYCOCK	DEPT RMRS-E/C/D&F	BLDG T130F
		PHONE X5309

ROCKY FLATS PLANT

MEMORANDA

"SAY IT IN WRITING"

Attached for your review and distribution , as necessary , is the Preliminary RCRA Rinsate Data for the Building 123 Sumps The attached includes the rinsates from Room 156, Room 157, and Room 158 , Tank 853 (located in B 428), baseline water supply, and isotopic analysis for the PVC piping

Additional samples were taken for the RCRA Closure (Room 125 Sump and metal pipe), however, the results have not yet been received I will contact you by March 17,1998 with the additional results Note that the data received is preliminary and a formal report will be issued from the APO once all results are final

Mary T Aycock
SIGNATURE

RF-34700 (7/84)

MAR 1998
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ADMIN RECORD
B123-A-000005

Thermo NUtech-Rocky Flats
RFETS, Building T886D
Golden, Colorado 80402
(303) 966-6860

TANK D853

RIN: 98A0997
Report Date: 02/25/98

Sample and Duplicate Analysis Results

Customer Sample ID	Lab Sample ID	Gross Alpha			Gross Beta			Units	QC Batch
		Activity	Unc (2s)	MDA	Activity	Unc. (2s)	MDA		
98A0997-001 001	98020070-01	1 4	0 8	1 8	2.2	1 0	2.3	pCi/l	98AB026

Preparation Blank Results

QC Batch	Lab Sample ID	Gross Alpha			Gross Beta			Units
		Activity	Unc. (2s)	MDA	Activity	Unc (2s)	MDA	
98AB026	98020069-09	-0 1	0 5	1 2	0 6	0 9	2.2	pCi/l

LCS Results

QC Batch	Lab Sample ID	Gross Alpha			Gross Beta			Units	SRM
		Activity	Unc. (2s)	MDA	Activity	Unc. (2s)	MDA		
98AB026	98020069-10	24 4	3.5	5.1	24 6	3 7	6.9	pCi/l	8AB_CTRL10

Associated Duplicate Analysis Results

Customer Sample ID	Lab Sample ID	Gross Alpha			Gross Beta			Units	QC Batch
		Activity	Unc. (2s)	MDA	Activity	Unc. (2s)	MDA		
98A0996-004 019	98020069-04	0 9	0.4	1 4	1.3	0.7	2.2	pCi/l	98AB026
98A0996-004 019	98020069-06 D	0.7	0.6	1 4	0 5	1 0	2.2	pCi/l	98AB026

Thermo NUtech - Rocky Flats
RFETS, Building T886D
Golden, Colorado 80402
(303) 966-6860

RIN: 98A0997
Report Date: 02/25/98

Method Summary

Gross alpha and gross beta activities are measured by evaporating an aliquot of the prepared sample onto a counting planchet and counting the alpha and beta activities in a low background, thin-windowed, gas flow proportional counter. Organics or combustible solids are ashed, the residue dissolved in acid, and the solution or an aliquot of the solution is evaporated onto a counting planchet. Aqueous samples are concentrated and then evaporated onto a counting planchet. Analysis of aqueous samples and prepared non-aqueous samples is described in detail in Rocky Flats Procedure, L-6240, *"Sample Preparation for Analysis of Gross Alpha-Gross Beta Activity in Aqueous Samples"* Preparation of oils, solvents and other combustible organics is described in L-6194, *"Preparation of Oils and Solvents for Analysis of Gross Alpha and Gross Beta Activity"* The counting procedure is described in procedure L-6295, *"Operation of the Tennelec LB4100 Gas Proportional Counters"*

The detector counting efficiency and self-absorption effects of the salt residue on the planchet are determined from calibration curves which are generated by counting several planchets prepared with a known amount of alpha or beta activity and increasing amounts of salt (0 to 100 mg) Americium-241 is used as the spike for the alpha curves and a solution of Sr-90, Y-90 is used for the beta curves. These standards are prepared from certified reference material which is traceable to the National Institute of Standards Technology (NIST)

The theoretical minimum detectable activity (MDA) for the analysis is based on the detector background, detector efficiency and self-absorption effects, count time and quantity of sample analyzed The MDA for each analysis is calculated and is also reported If the reported result is based on the average of two or more counts, the average MDA is reported

Quality Control Summary

A sample batch consists of eleven or fewer samples, a duplicate of one of the samples, an alpha and a beta laboratory control sample, and a preparation blank. Each set of samples forms a "QC Batch" and is assigned a QC batch number A sample can be traced back to its corresponding quality control samples through the QC Batch number The preparation blank (PB), an aliquot of deionized, distilled water, is prepared and analyzed with the samples to confirm that the samples were not contaminated during the analysis. The activities reported for samples and standards were not corrected for preparation blank activity The alpha and beta laboratory control samples are aqueous standards of ^{241}Am and ^{90}Sr, respectively The SRM standards used to prepared these standards are traceable to NIST The duplicate, designated as the sample ID followed by a "D", is a second aliquot of one of the samples in the QC Batch which is carried through the procedure as a separate sample.

The instrument QC includes determining instrument backgrounds weekly and counting an instrument check source daily on the Tennelec LB4100 multidetector gas proportional counters. The instrument backgrounds are based on the average of at least five, and normally ten or more, 4 hour counts. The instrument check sources are counted daily to verify that the efficiencies of the detectors have not changed. A summary of the instrument backgrounds is included in the instrument raw data section of this report. The daily check source information is available in the supporting documentation package.

Narrative

This sample was submitted for radscreen analysis and analysis of gross alpha/gross beta activity for No-Rad-Added assessment. The radscreen analyses were done according to procedure L-6278, *"Sample Preparation for Radiological Screening by Gas Proportional Counting"* in QC batch 98RS038 The gross alpha/gross beta analyses were done using procedure L-6240, *"Sample Preparation for Analysis of Gross Alpha-Gross Beta Activity in Aqueous Samples"* incorporating the quality control req0uirements of procedure L-6194, *"Preparation of Oils and Solvents for Analysis of Gross Alpha and Gross Beta Activity"* in order to comply with the No-Rad-Added program quality requirements. The gross alpha/gross beta analyses were done in QC batch 98AB026 This batch also included samples from RIN 98A0996 The lab duplicate for the batch was done using sample 98020069-04 from 98A0996 This report contains copies of documents which are common to both reports The originals are included in report 98A0996. There were no problems noted with the analysis of this sample and all QC data for the batch are acceptable

Thermo NUtech - Rocky Flats
RFETS, Building T886D
Golden, Colorado 80402
(303) 966-6860

RIN 98A0996
Report Date: 02/25/98

Sample and Duplicate Analysis Results

Customer Sample ID	Lab Sample ID	Gross Alpha			Gross Beta			Units	QC Batch
		Activity	Unc. (2s)	MDA	Activity	Unc. (2s)	MDA		
98A0996-001 001	98020069-01	0 7	0 6	1 3	0.7	0.9	2.2	pCi/l	98AB026
98A0996-002.007	98020069-02	0 8	0 6	1 3	1 5	0 9	2.1	pCi/l	98AB026
98A0996-003.013	98020069-03	0.6	0 6	1 4	1 6	0 9	2 1	pCi/l	98AB026
98A0996-004 019	98020069-04	0 9	0 4	1 4	1 3	0 7	2 2	pCi/l	98AB026
98A0996-004 019	98020069-06 D	0 7	0 6	1 4	0 5	1 0	2.2	pCi/l	98AB026

Preparation Blank Results

QC Batch	Lab Sample ID	Gross Alpha			Gross Beta			Units
		Activity	Unc. (2s)	MDA	Activity	Unc. (2s)	MDA	
98AB026	98020069-09	-0 1	0.5	1 2	0.6	0 9	2.2	pCi/l

LCS Results

QC Batch	Lab Sample ID	Gross Alpha			Gross Beta			Units	SRM
		Activity	Unc. (2s)	MDA	Activity	Unc. (2s)	MDA		
98AB026	98020069-10	24 4	3.5	5 1	24 6	3.7	6.9	pCi/l	8AB_CTRL10

Gross Alpha Beta

Thermo NUtech - Rocky Flats
RFETS, Building T886D
Golden, Colorado 80402
(303) 966-6860

RIN. 98A0996
Report Date: 02/25/98

Method Summary

Gross alpha and gross beta activities are measured by evaporating an aliquot of the prepared sample onto a counting planchet and counting the alpha and beta activities in a low background, thin-windowed, gas flow proportional counter Organics or combustible solids are ashed, the residue dissolved in acid, and the solution or an aliquot of the solution is evaporated onto a counting planchet. Aqueous samples are concentrated and then evaporated onto a counting planchet. Analysis of aqueous samples and prepared non-aqueous samples is described in detail in Rocky Flats Procedure, L-6240, *"Sample Preparation for Analysis of Gross Alpha-Gross Beta Activity in Aqueous Samples"* Preparation of oils, solvents and other combustible organics is described in L-6194, *"Preparation of Oils and Solvents for Analysis of Gross Alpha and Gross Beta Activity"* The counting procedure is described in procedure L-6295, *"Operation of the Tennelec LB4100 Gas Proportional Counters"*

The detector counting efficiency and self-absorption effects of the salt residue on the planchet are determined from calibration curves which are generated by counting several planchets prepared with a known amount of alpha or beta activity and increasing amounts of salt (0 to 100 mg) Americium-241 is used as the spike for the alpha curves and a solution of Sr-90, Y-90 is used for the beta curves These standards are prepared from certified reference material which is traceable to the National Institute of Standards Technology (NIST)

The theoretical minimum detectable activity (MDA) for the analysis is based on the detector background, detector efficiency and self-absorption effects, count time and quantity of sample analyzed The MDA for each analysis is calculated and is also reported If the reported result is based on the average of two or more counts, the average MDA is reported

Quality Control Summary

A sample batch consists of eleven or fewer samples, a duplicate of one of the samples, an alpha and a beta laboratory control sample, and a preparation blank. Each set of samples forms a "QC Batch" and is assigned a QC batch number A sample can be traced back to its corresponding quality control samples through the QC Batch number The preparation blank (PB), an aliquot of deionized, distilled water, is prepared and analyzed with the samples to confirm that the samples were not contaminated during the analysis The activities reported for samples and standards were not corrected for preparation blank activity The alpha and beta laboratory control samples are aqueous standards of ^{241}Am and ^{90}Sr, respectively The SRM standards used to prepared these standards are traceable to NIST The duplicate, designated as the sample ID followed by a "D", is a second aliquot of one of the samples in the QC Batch which is carried through the procedure as a separate sample.

The instrument QC includes determining instrument backgrounds weekly and counting an instrument check source daily on the Tennelec LB4100 multidetector gas proportional counters The instrument backgrounds are based on the average of at least five, and normally ten or more, 4 hour counts The instrument check sources are counted daily to verify that the efficiencies of the detectors have not changed. A summary of the instrument backgrounds is included in the instrument raw data section of this report. The daily check source information is available in the supporting documentation package

Narrative

These samples were submitted for radscreen analysis and analysis of gross alpha/gross beta activity for No-Rad-Added assessment. The radscreen analyses were done according to procedure L-6278, *"Sample Preparation for Radiological Screening by Gas Proportional Counting"* in QC batch 98RS038 The gross alpha/gross beta analyses were done using procedure L-6240, *"Sample Preparation for Analysis of Gross Alpha-Gross Beta Activity in Aqueous Samples"* incorporating the quality control requirements of procedure L-6194, *"Preparation of Oils and Solvents for Analysis of Gross Alpha and Gross Beta Activity"* in order to comply with the No-Rad-Added program quality requirements The gross alpha/gross beta analyses were done in QC batch 98AB026 This batch also included a sample from RIN 98A0997 The first time the planchets were counted, the alpha counts of the two planchets prepared for sample 98020069-04 were statistically different (2σ) These two planchets were recounted and again the alpha counts of the two planchets were statistically different. However, planchet "A" initially counted higher than "B" and in the recount, the "A" planchet counted lower than the "B" planchet. All four alpha activities measured for this sample are less than the MDAs for the measurements and are equivalent when all sources of measurement uncertainty are propagated The average activities and MDAs and propagated uncertainties of the four measurements (two counts of two planchets) are reported for sample 98020069-04 Sample 98020069-04 was also used for the lab duplicate (98020069-08) The average alpha activity for sample 98020069-04 is in good agreement with the lab duplicate alpha activity There were no other problems noted in these analyses and all QC data for the batch are acceptable

Bldg 123 RCRA Samples
3/5/98

Location	Analysis	Sample #	Received?
Sump 156	Gross A/B	98A0996 001 001	Y
Sump 156	Fingerprint	98A0996 001 002	Y
Sump 156	8260	98A0996 001 003	Y
Sump 156	8270B	98A0996 001 005	Y
Sump 156	Metals	98A0996 001 006	Y
Sump 157	Gross A/B	98A0996 002 007	Y
Sump 157	Fingerprint	98A0996 002 008	Y
Sump 157	8260	98A0996 002 009	Y
Sump 157	8270B	98A0996 002 011	~~N~~ Y
Sump 157	Metals	98A0996 002 012	Y
Sump 158	Gross A/B	98A0996 003 013	Y
Sump 158	Fingerprint	98A0996 003 014	Y
Sump 158	8260	98A0996 003 015	Y
Sump 158	8270B	98A0996 003 017	Y
Sump 158	Metals	98A0996 003 018	Y
Baseline	Gross A/B	98A0996 004 019	Y
Baseline	Fingerprint	98A0996 004 020	Y
Baseline	8260	98A0996 004 021	Y
Baseline	8270B	98A0996 004 023	Y
Baseline	Metals	98A0996 004 024	Y
Tank D853	Gross A/B	98A0997 001 001	Y
Tank D853	Fingerprint	98A0997 001 002	Y
Tank D853	8260	98A0997 001 003	Y
Tank D853	8270B	98A0997 001 005	Y
Tank D853	Metals	98A0997 001 006	Y
Sump 125	Gross A/B	98A1028 001 001	Y
Sump 125	Fingerprint	98A1028 001 002	Y
Sump 125	8260	98A1028 001 003	N
Sump 125	8270B	98A1028 001 004	N
Sump 125	Metals	98A1028 001 005	N

8260 Volatiles
8270B Semi-Volatiles

Sample from rinsate from B123, Sump in Room #125
125 SUMP
Sample # 98A1028

Contaminants of concern and any contaminant present above action levels	UG/L in sample or ppb	Tier 2 RFCA Action Levels (mg/L or ppm)	Conversion of Tier 2 Action Levels to ppb	Is contaminant present above Tier 2 Action Levels?	Is the contaminant a "Contaminant of Concern" as identified in the RCRA Closure Plan for RCRA Unit 40?
1,1 Dichloroethylene	0 5U	7 00E-03	7 ppb	NO	YES
1,1,2-Trichloroethane	0 5U	5 00E-03	5 ppb	NO	YES
1-1-1-Trichloroethane	0 5U	2 00E-01	200 ppb	NO	YES
1-2-Dichloroethane	0 5U	5 00E-03	5 ppb	NO	YES
2-Butanone (Methyl ethyl ketone)	2 U	2 47E+00	2470 ppb	NO	YES
Acetone	27	3 65E+00	3650 ppb	NO	YES
Aluminum, Al	100 U	1 06E+02	106,000 ppb	NO	NO
Antimony, Sb	50 U	6 00E-03	6 ppb	NO	NO
Arsenic, As	50 U	5 00E-02	50 ppb	NO	YES
Barium, Ba	25	2 00E+00	2,000 ppb	NO	YES
Benzene	0 5 U	5 00E-03	5 ppb	NO	YES
Beryllium, Be	2 5 U	4 00E-03	4 ppb	NO	NO
Bromodichloromethane	7	1 00E-01	100 ppb	NO	NO
Cadmium, Cd	5 U	5 00E-03	5 ppb	NO	YES
Carbon disulfide	2 0 U	2 76E-02	27 6 ppb	NO	YES
Carbon tetrachloride	0 5U	5 00E-03	5 ppb	NO	YES
Chlorobenzene	0 5U	1 00E-01	100 ppb	NO	YES
Chloroform	61	1 00E-01	100 ppb	NO	YES
Chromium, Cr	10 U	1 00E-01	100 ppb	NO	YES
Cobalt, Co	10 U	2 19E+00	2,190 ppb	NO	NO
Copper, Cu	12	1 30E+00	1,300 ppb	NO	NO
Ethylbenzene	0 5U	7 00E-01	700 ppb	NO	YES
Iron, Fe	190	NA, not on Tier 2 Table	NA	NO	NO
Lead, Pb	56	Not found in RFCA Tier 2 Table	NA	The MCL for lead is 15 ppb.	YES. Under the Safe Drinking Water Act, 15 ppb is the MCL for lead

Contaminants of concern and any contaminant present above action levels	UG/L in sample or ppb	Tier 2 RFCA Action Levels (mg/L or ppm)	Conversion of Tier 2 Action Levels to ppb	Is contaminant present above Tier 2 Action Levels?	Is the contaminant a "Contaminant of Concern" as identified in the RCRA Closure Plan for RCRA Unit 40?
Lithium, Li	5 U	7 30E+01	73,000 ppb	NO	NO
Magnesium, Mg	3500	Not found in RFCA Tier 2 Table	NA	NO	NO
Manganese, Mn	5 U	1 83E-01	183 ppb	NO	NO
Mercury, Hg	0 2 U	2 00E-03	2 ppb	NO	YES
Methylene chloride	0 5U	5 00E-03	5 ppb	NO	YES
Molybdenum, Mo	50 U	1 83E-01	183 ppb	NO	NO
Nickel, Ni	10 U	1 00E-01	100 ppb	NO	NO
Potassium, K	1,100	Not found in the RFCA Tier 2 Table	NA	NO	NO
Pyridine	70 U	Not on Tier 2 List	NA	NA, not on Tier 2 list	YES
Selenium, Se	50 U	5 00E-02	50 ppb	NO	YES
Silver, Ag	5 U	1 83E-01	183 ppb	NO	YES
Sodium	8,400	Not found in RFCA Tier 2 Table	NA	NO	NO
Strontium, Sr	120	2 19E+01	21,900 ppb	NO	NO
Tetrachloroethylene	0 5 U	5 00E-03	5 ppb	NO	YES
Thallium, Tl	250 U	2 00E-03	2 ppb	NO	NO
Tin, Sn	50 U	2 19E+01	21,900 ppb	NO	NO
Toluene	0 5U	1 00E+00	1000 ppb	NO	YES
Trichloroethylene	0 5U	5 00E-03	5 ppb	NO	YES
Vanadium, V	5 U	2 56E-01	256 ppb	NO	NO
Vinyl chloride	0 5U	2 00E-03	2 ppb	NO	YES
Xylenes	0 5U	1 00E+01	10,000 ppb	NO	YES
Zinc, Zn	28	1 10E+01	11,000 ppb	NO	NO

Sump 125, Building 123, Rinsate Sample
Sampled 3/10/98
Summarized Monday, March 23, 1998
Ted A Hopkins

B123, RM 125 sump

Recra LabNet - Chicago
METHOD 8260 VOLATILES

Report Date: 03/10/98 15:33

RFW Batch Number: 9802G393 Client: ICF Kaiser-98A1028 Work Order: 11830-001-001-9 Page: 1a

Sample Information																							
	Cust ID:	98A1028-001.125 sump		98A1028-001. 003		VBLKFM		VBLKFM BS															
	RFW#	001		001 DL		98GVT054-MB1		98GVT054-MB1															
	Matrix:	WATER		WATER		WATER		WATER															
	D.F.	1		5		1		1															
	Units:	UG/L		UG/L		UG/L		UG/L															
Surrogate Recovery	4-Bromofluorobenzene	97	%	88	%	98	%	109	%														
	Toluene-d8	100	%	96	%	100	%	105	%														
	1,2-Dichloroethane-d4	106	%	103	%	109	%	120	%														
Dichlorodifluoromethane		0.5	U	NA		0.5	U	78	%														
Chloromethane		0.5	U	NA		0.5	U	117	%														
Vinyl chloride		0.5	U	NA		0.5	U	116	%														
Bromomethane		0.5	U	NA		0.5	U	91	%														
Chloroethane		0.5	U	NA		0.5	U	112	%														
Trichlorofluoromethane		0.5	U	NA		0.5	U	89	%														
1,1-Dichloroethene		0.5	U	NA		0.5	U	99	%														
Methylene Chloride		0.5	U	NA		0.5	U	102	%														
trans-1,2-Dichloroethene		0.5	U	NA		0.5	U	103	%														
1,1-Dichloroethane		0.5	U	NA		0.5	U	113	%														
cis-1,2-Dichloroethene		0.5	U	NA		0.5	U	108	%														
2,2-Dichloropropane		0.5	U	NA		0.5	U	87	%														
Bromochloromethane		0.5	U	NA		0.5	U	102	%														
Chloroform			E	61		0.5	U	118	%														
1,1,1-Trichloroethane		0.5	U	NA		0.5	U	118	%														
1,1-Dichloropropene		0.5	U	NA		0.5	U	113	%														
Carbon Tetrachloride		0.5	U	NA		0.5	U	109	%														
Benzene		0.5	U	NA		0.5	U	100	%														
1,2-Dichloroethane		0.5	U	NA		0.5	U	114	%														
Trichloroethene		0.5	U	NA		0.5	U	99	%														
1,2-Dichloropropane		0.5	U	NA		0.5	U	112	%														
Dibromomethane		0.5	U	NA		0.5	U	105	%														
Bromodichloromethane		7		NA		0.5	U	108	%														
Toluene		0.5	U	NA		0.5	U	100	%														
1,1,2-Trichloroethane		0.5	U	NA		0.5	U	111	%														
Tetrachloroethene		0.5	U	NA		0.5	U	95	%														

* Outside of EPA CLP QC limits.

PRELIMINARY REPORT

B123, RM 125 sump

RFK Batch Number: 9802G393 Client: ICF Kaiser-98A1028 Work Order: 11830-001-001-9 Page: 1b

Cust ID:	98A1028-001. 003	98A1028-001. 003	VBLKFM	VBLKFM BS
RFW#:	001	001 DL	98GVT054-MB1	98GVT054-MB1

1,3-Dichloropropane	0.5	U	NA	0.5	U	106	%	
Dibromochloromethane	0.5	U	NA	0.5	U	99	%	
1,2-Dibromoethane	0.5	U	NA	0.5	U	103	%	
Chlorobenzene	0.5	U	NA	0.5	U	102	%	
1,1,1,2-Tetrachloroethane	0.5	U	NA	0.5	U	101	%	
Ethylbenzene	0.5	U	NA	0.5	U	102	%	
Styrene	0.5	U	NA	0.5	U	106	%	
Bromoform	0.5	U	NA	0.5	U	104	%	
Isopropylbenzene	0.5	U	NA	0.5	U	100	%	
Bromobenzene	0.5	U	NA	0.5	U	97	%	
1,1,2,2-Tetrachloroethane	0.5	U	NA	0.5	U	98	%	
1,2,3-Trichloropropane	0.5	U	NA	0.5	U	92	%	
n-Propylbenzene	0.5	U	NA	0.5	U	103	%	
2-Chlorotoluene	0.5	U	NA	0.5	U	104	%	
4-Chlorotoluene	0.5	U	NA	0.5	U	103	%	
1,3,5-Trimethylbenzene	0.5	U	NA	0.5	U	98	%	
tert-Butylbenzene	0.5	U	NA	0.5	U	99	%	
1,2,4-Trimethylbenzene	0.5	U	NA	0.5	U	102	%	
sec-Butylbenzene	0.5	U	NA	0.5	U	102	%	
1,3-Dichlorobenzene	0.5	U	NA	0.5	U	100	%	
p-Isopropyltoluene	0.5	U	NA	0.5	U	98	%	
1,4-Dichlorobenzene	0.5	U	NA	0.5	U	96	%	
1,2-Dichlorobenzene	0.5	U	NA	0.5	U	98	%	
n-Butylbenzene	0.5	U	NA	0.5	U	104	%	
1,2-Dibromo-3-chloropropane	0.5	U	NA	0.5	U	113	%	
1,2,4-Trichlorobenzene	0.5	U	NA	0.5	U	99	%	
Hexachlorobutadiene	0.5	U	NA	0.5	U	94	%	
Naphthalene	0.5	U	NA	1		80	%	
1,2,3-Trichlorobenzene	0.5	U	NA	0.5	U	99	%	
cis-1,3-Dichloropropene	0.5	U	NA	0.5	U	97	%	
trans-1,3-Dichloropropene	0.5	U	NA	0.5	U	104	%	
Acetone	27		NA	2	U	121	%	
2-Butanone	2	U	NA	2	U	96	%	
Carbon Disulfide	2	U	NA	2	U	84	%	
4-Methyl-2-pentanone	2	U	NA	2	U	103	%	
2-Hexanone	2	U	NA	2	U	104	%	

*= Outside of EPA CLP QC limits.

PRELIMINARY REPORT

B123, RM 125 Sump

RFW Batch Number: 9802G393 Client: ICF Kaiser-98A1028 Work Order: 11830-001-001-9 Page: 1c

Cust ID:	98A1028-001. 003	98A1028-001. 003	VBLKFM	VBLKFM BS
RFW#:	001	001 DL	98GVT054-MB1	98GVT054-MB1
Trichlorotrifluoroethane	0.5 U	NA	0.5 U	0.5 U
Xylene (total)	0.5 U	NA	0.5 U	109 %
DIBROMOFLUOROMETHANE	99 %	98 %	110 %	113 %

*= Outside of EPA CLP QC limits.

PRELIMINARY REPORT

B123, Rm 125 Sump MK 3/10/98

Recra LabNet - Chicago
SEMIVOLATILES BY GC/MS, TCLP LEACHATE

RFW Batch Number: 9802G393 Client: ICF Kaiser-98A1028 Report Date: 03/06/98 13:23
Work Order: 11830-001-001-9 Page: 1a

Sample Information	Cust ID:	98A1028-001.005	98A1028-001.005	SBLKIM	SBLKIM BS	SBLKIM
	RFW#:	003	003 MS	98GB0062-MB1	98GB0062-MB1	98GB0062-TC1
	Matrix:	WATER	WATER	WATER	WATER	WATER
	D.F.:	1	1	1	1	1
	Units:	ug/L	ug/L	ug/L	ug/L	ug/L
Surrogate Recovery	2-Fluorophenol	67 %	62 %	71 %	71 %	68 %
	Phenol-d5	75 %	79 %	76 %	85 %	76 %
	Nitrobenzene-d5	87 %	90 %	90 %	98 %	84 %
	2-Fluorobiphenyl	94 %	99 %	93 %	104 %	87 %
	2,4,6-Tribromophenol	83 %	108 %	85 %	109 %	86 %
	p-Terphenyl-d14	88 %	85 %	82 %	87 %	83 %
Pyridine		70 U	70 %	7 U	77 %	70 U
1,4-Dichlorobenzene		50 U	81 %	5 U	74 %	50 U
o-Cresol		60 U	86 %	6 U	90 %	60 U
meta & para-Cresol		30 U	83 %	3 U	86 %	30 U
Hexachloroethane		70 U	82 %	7 U	75 %	70 U
Nitrobenzene		40 U	83 %	4 U	88 %	40 U
Hexachlorobutadiene		80 U	83 %	8 U	80 %	80 U
2,4,6-Trichlorophenol		30 U	82 %	3 U	87 %	30 U
2,4,5-Trichlorophenol		40 U	91 %	4 U	74 %	40 U
2,4-Dinitrotoluene		20 U	106 %	2 U	101 %	20 U
Hexachlorobenzene		30 U	98 %	3 U	101 %	30 U
Pentachlorophenol		60 U	87 %	6 U	89 %	60 U

*= Outside of EPA CLP QC limits.

THIS REPORT IS PRELIMINARY; IT MAY CONTAIN UNREVIEWED DATA
RECRA LABNET - CHICAGO

INORGANICS DATA SUMMARY REPORT 03/10/98

CLIENT: ICF Kaiser-98A1028 (B14 123, Rm 125)
WORK ORDER: 11830-001-001-9999-00

RECRA LOT #: 9802G393

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-004	98A1028-001.006 TOTAL METALS	Silver, Total	0 0050	u	MG/L	0.0050
		Aluminum, Total	0.10	u	MG/L	0 10
		Arsenic, Total	0.050	u	MG/L	0.050
		Barium, Total	0.025		MG/L	0.025
		Beryllium, Total	0.0025	u	MG/L	0.0025
		Calcium, Total	15 0		MG/L	0.050
		Cadmium, Total	0.0050	u	MG/L	0.0050
		Cobalt, Total	0.010	u	MG/L	0.010
		Chromium, Total	0.010	u	MG/L	0.010
		Copper, Total	0.012		MG/L	0.010
		Iron, Total	0.19		MG/L	0.015
		Mercury, Total	0.00020	u	MG/L	0.00020
		Potassium, Total	1.1		MG/L	1.0
		Lithium, Total	0.0050	u	MG/L	0.0050
		Magnesium, Total	3.5		MG/L	0.10
		Manganese, Total	0.0050	u	MG/L	0.0050
		Molybdenum, Total	0.050	u	MG/L	0.050
		Sodium, Total	8.4		MG/L	0.10
		Nickel, Total	0.010	u	MG/L	0.010
		Lead, Total	0.056		MG/L	0.025
		Antimony, Total	0.050	u	MG/L	0.050
		Selenium, Total	0.050	u	MG/L	0.050
		Tin, Total	0.050	u	MG/L	0.050
		Strontium, Total	0.12		MG/L	0.050
		Thallium, Total	0.25	u	MG/L	0.25
		Vanadium, Total	0.0050	u	MG/L	0.0050
		Zinc, Total	0.028		MG/L	0.0050

PRELIMINARY REPORT

B123, Rm 125 sump

Recra LabNet - Chicago
METHOD 8260 VOLATILES

RFW Batch Number: 9802G393 Client: ICF Kaiser-98A1028 Report Date: 03/10/98 15:33
Work Order: 11830-001-001-9 Page: 1a

Sample Information	Cust ID:	98A1028-001. 003		98A1028-001. 003		VBLKFM		VBLKFM BS	
	RFW#:	001		001 DL		98GVT054-MB1		98GVT054-MB1	
	Matrix:	WATER		WATER		WATER		WATER	
	D.F.	1		5		1		1	
	Units:	UG/L		UG/L		UG/L		UG/L	
Surrogate Recovery	4-Bromofluorobenzene	97	%	88	%	98	%	109	%
	Toluene-d8	100	%	96	%	100	%	105	%
	1,2-Dichloroethane-d4	106	%	103	%	109	%	120	%
Dichlorodifluoromethane		0.5	U	NA		0.5	U	78	%
Chloromethane		0.5	U	NA		0.5	U	117	%
Vinyl chloride		0.5	U	NA		0.5	U	116	%
Bromomethane		0.5	U	NA		0.5	U	91	%
Chloroethane		0.5	U	NA		0.5	U	112	%
Trichlorofluoromethane		0.5	U	NA		0.5	U	89	%
1,1-Dichloroethene		0.5	U	NA		0.5	U	99	%
Methylene Chloride		0.5	U	NA		0.5	U	102	%
trans-1,2-Dichloroethene		0.5	U	NA		0.5	U	103	%
1,1-Dichloroethane		0.5	U	NA		0.5	U	113	%
cis-1,2-Dichloroethene		0.5	U	NA		0.5	U	108	%
2,2-Dichloropropane		0.5	U	NA		0.5	U	87	%
Bromochloromethane		0.5	U	NA		0.5	U	102	%
Chloroform			E	61		0.5	U	118	%
1,1,1-Trichloroethane		0.5	U	NA		0.5	U	118	%
1,1-Dichloropropene		0.5	U	NA		0.5	U	113	%
Carbon Tetrachloride		0.5	U	NA		0.5	U	109	%
Benzene		0.5	U	NA		0.5	U	100	%
1,2-Dichloroethane		0.5	U	NA		0.5	U	114	%
Trichloroethene		0.5	U	NA		0.5	U	99	%
1,2-Dichloropropane		0.5	U	NA		0.5	U	112	%
Dibromomethane		0.5	U	NA		0.5	U	105	%
Bromodichloromethane		7		NA		0.5	L	108	%
Toluene		0.5	U	NA		0.5	U	100	%
1,1,2-Trichloroethane		0.5	U	NA		0.5	U	111	%
Tetrachloroethene		0.5	U	NA		0.5	U	95	%

* = Outside of EPA CLP QC limits.

PRELIMINARY REPORT

B123, RM 125 sump

RFW Batch Number: 98026393 Client: ICF Kaiser-98A1028 Work Order: 11830-001-001-9 Page: 1b

Cust ID:	98A1028-001. 003	98A1028-001. 003	VBLKFM		VBLKFM BS	
RFW#:	001	001 DL	98GVT054-MB1		98GVT054-MB1	
1,3-Dichloropropane	0.5 U	NA	0.5	U	106	%
Dibromochloromethane	0.5 U	NA	0.5	U	99	%
1,2-Dibromoethane	0.5 U	NA	0.5	U	103	%
Chlorobenzene	0.5 U	NA	0.5	U	102	%
1,1,1,2-Tetrachloroethane	0.5 U	NA	0.5	U	101	%
Ethylbenzene	0.5 U	NA	0.5	U	102	%
Styrene	0.5 U	NA	0.5	U	106	%
Bromoform	0.5 U	NA	0.5	U	104	%
Isopropylbenzene	0.5 U	NA	0.5	U	100	%
Bromobenzene	0.5 U	NA	0.5	U	97	%
1,1,2,2-Tetrachloroethane	0.5 U	NA	0.5	U	98	%
1,2,3-Trichloropropane	0.5 U	NA	0.5	U	92	%
n-Propylbenzene	0.5 U	NA	0.5	U	103	%
2-Chlorotoluene	0.5 U	NA	0.5	U	104	%
4-Chlorotoluene	0.5 U	NA	0.5	U	103	%
1,3,5-Trimethylbenzene	0.5 U	NA	0.5	U	98	%
tert-Butylbenzene	0.5 U	NA	0.5	U	99	%
1,2,4-Trimethylbenzene	0.5 U	NA	0.5	U	102	%
sec-Butylbenzene	0.5 U	NA	0.5	U	102	%
1,3-Dichlorobenzene	0.5 U	NA	0.5	U	100	%
p-Isopropyltoluene	0.5 U	NA	0.5	U	98	%
1,4-Dichlorobenzene	0.5 U	NA	0.5	U	96	%
1,2-Dichlorobenzene	0.5 U	NA	0.5	U	98	%
n-Butylbenzene	0.5 U	NA	0.5	U	104	%
1,2-Dibromo-3-chloropropane	0.5 U	NA	0.5	U	113	%
1,2,4-Trichlorobenzene	0.5 U	NA	0.5	U	99	%
Hexachlorobutadiene	0.5 U	NA	0.5	U	94	%
Naphthalene	0.5 U	NA	1		80	%
1,2,3-Trichlorobenzene	0.5 U	NA	0.5	U	99	%
cis-1,3-Dichloropropene	0.5 U	NA	0.5	U	97	%
trans-1,3-Dichloropropene	0.5 U	NA	0.5	U	104	%
Acetone	27	NA	2	U	121	%
2-Butanone	2 U	NA	2	U	96	%
Carbon Disulfide	2 U	NA	2	U	84	%
4-Methyl-2-pentanone	2 U	NA	2	U	103	%
2-Hexanone	2 U	NA	2	U	104	%

* = Outside of EPA CLP QC limits.

PRELIMINARY REPORT

B123, RM 125 Sump

RFW Batch Number. 9802G393 Client. ICF Kaiser-98A1028 Work Order: 11830-001-001-9 Page: 1c

Cust ID:	98A1028-001. 003	98A1028-001. 003	VBLKFM	VBLKFM BS
RFW#.	001	001 DL	98GVT054-MB1	98GVT054-MB1
Trichlorotrifluoroethane	0.5 U	NA	0.5 U	0.5 U
Xylene (total)	0.5 U	NA	0.5 U	109 %
DIBROMOFLUOROMETHANE	99 %	98 %	110 %	~~113 %~~ out of range

*= Outside of EPA CLP QC limits.

PRELIMINARY DATA

8123, Rm 125 Sump MK 3/10/98

Recra LabNet - Chicago
SEMIVOLATILES BY GC/MS, TCLP LEACHATE

RFW Batch Number: 9802G393 Client: ICF Kaiser-98A1028 Work Order: 11830-001-001-9 Report Date: 03/06/98 13:23 Page: 1a

	Cust ID:	98A1028-001.005	98A1028-001.005	SBLKIM	SBLKIM BS	SBLKIM
Sample Information	RFW#:	003	003 MS	98GB0062-MB1	98GB0062-MB1	98GB0062-TC1
	Matrix:	WATER	WATER	WATER	WATER	WATER
	D.F.:	1	1	1	1	1
	Units:	ug/L	ug/L	ug/L	ug/L	ug/L
Surrogate Recovery	2-Fluorophenol	67 %	62 %	71 %	71 %	68 %
	Phenol-d5	75 %	79 %	76 %	85 %	76 %
	Nitrobenzene-d5	87 %	90 %	90 %	98 %	84 %
	2-Fluorobiphenyl	94 %	99 %	93 %	104 %	87 %
	2,4,6-Tribromophenol	83 %	108 %	85 %	109 %	86 %
	p-Terphenyl-d14	88 %	85 %	82 %	87 %	83 %
Pyridine		70 U	70 %	7 U	77 %	70 U
1,4-Dichlorobenzene		50 U	81 %	5 U	74 %	50 U
o-Cresol		60 U	86 %	6 U	90 %	60 U
meta & para-Cresol		30 U	83 %	3 U	86 %	30 U
Hexachloroethane		70 U	82 %	7 U	75 %	70 U
Nitrobenzene		40 U	83 %	4 U	88 %	40 U
Hexachlorobutadiene		80 U	83 %	8 U	80 %	80 U
2,4,6-Trichlorophenol		30 U	82 %	3 U	87 %	30 U
2,4,5-Trichlorophenol		40 U	91 %	4 U	74 %	40 U
2,4-Dinitrotoluene		20 U	106 %	2 U	101 %	20 U
Hexachlorobenzene		30 U	98 %	3 U	101 %	30 U
Pentachlorophenol		60 U	87 %	6 U	89 %	60 U

*= Outside of EPA CLP QC limits.

THIS REPORT IS PRELIMINARY; IT MAY CONTAIN UNREVIEWED DATA
RECRA LABNET - CHICAGO

INORGANICS DATA SUMMARY REPORT 03/10/98

CLIENT: ICF Kaiser-98A1028 (Bld 123, Rm 125)
WORK ORDER: 11830-001-001-9999-00

RECRA LOT #: 9802G393

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-004	98A1028-001.006 TOTAL METALS	Silver, Total	0.0050	u	MG/L	0.0050
		Aluminum, Total	0.10	u	MG/L	0.10
		Arsenic, Total	0.050	u	MG/L	0.050
		Barium, Total	0.025		MG/L	0.025
		Beryllium, Total	0.0025	u	MG/L	0.0025
		Calcium, Total	15 0		MG/L	0.050
		Cadmium, Total	0 0050	u	MG/L	0.0050
		Cobalt, Total	0.010	u	MG/L	0.010
		Chromium, Total	0.010	u	MG/L	0.010
		Copper, Total	0.012		MG/L	0.010
		Iron, Total	0.19		MG/L	0.015
		Mercury, Total	0.00020	u	MG/L	0.00020
		Potassium, Total	1.1		MG/L	1.0
		Lithium, Total	0.0050	u	MG/L	0.0050
		Magnesium, Total	3.5		MG/L	0.10
		Manganese, Total	0.0050	u	MG/L	0.0050
		Molybdenum, Total	0.050	u	MG/L	0.050
		Sodium, Total	8.4		MG/L	0.10
		Nickel, Total	0.010	u	MG/L	0.010
		Lead, Total	*0.056		MG/L	0.025
		Antimony, Total	0.050	u	MG/L	0.050
		Selenium, Total	0.050	u	MG/L	0.050
		Tin, Total	0.050	u	MG/L	0.050
		Strontium, Total	0.12		MG/L	0.050
		Thallium, Total	0.25	u	MG/L	0.25
		Vanadium, Total	0.0050	u	MG/L	0.0050
		Zinc, Total	0 028		MG/L	0.0050

PRELIMINARY REPORT

Sample from rinsate from B123, Sump 156
SUMP 156
Sample # 98A0996-001

Contaminants of concern and any contaminant present above action levels	UG/L in sample or ppb	Tier 2 RFCA Action Levels (mg/L or ppm)	Conversion of Tier 2 Action Levels to ppb	Is contaminant present above Tier 2 Action Levels?	Is the contaminant a "Contaminant of Concern" as identified in the RCRA Closure Plan for RCRA Unit 40?
1,1 Dichloroethylene	0 5U	7 00E-03	7 ppb	NO	YES
1,1,2-Trichloroethane	0 5U	5 00E-03	5 ppb	NO	YES
1-1-1-Trichloroethane	0 5U	2 00E-01	200 ppb	NO	YES
1-2-Dichloroethane	0 5U	5 00E-03	5 ppb	NO	YES
2-Butanone (Methyl ethyl ketone)	2 U	2 47E+00	2470 ppb	NO	YES
Acetone	2 U	3 65E+00	3650 ppb	NO	YES
Aluminum, Al	137 Total	1 06E+02	106,000 ppb	NO	NO
Antimony, Sb	3 1 Total	6 00E-03	6 ppb	NO	NO
Arsenic, As	1 6 U Total	5 00E-02	50 ppb	NO	YES
Barium, Ba	21 9 Total	2 00E+00	2,000 ppb	NO	YES
Benzene	0 5 U	5 00E-03	5 ppb	NO	YES
Beryllium, Be	0 2 U Total	4 00E-03	4 ppb	NO	NO
Bromodichloromethane	5 Baseline Contaminant	1 00E-01	100 ppb	NO	NO
Cadmium, Cd	0 4 U Total	5 00E-03	5 ppb	NO	YES
Carbon disulfide	2 0 U	2 76E-02	27 6 ppb	NO	YES
Carbon tetrachloride	0 5U	5 00E-03	5 ppb	NO	YES
Chlorobenzene	0 5U	1 00E-01	100 ppb	NO	YES
Chloroform	38 E Baseline contaminant	1 00E-01	100 ppb	NO	YES
Chromium, Cr	0 51 Total	1 00E-01	100 ppb	NO	YES
Cobalt, Co	0 50 U Total	2 19E+00	2,190 ppb	NO	NO
Copper, Cu	0 70 U Total	1 30E+00	1,300 ppb	NO	NO
Ethylbenzene	0 5U	7 00E-01	700 ppb	NO	YES
Iron, Fe	59 7 Total	NA, not on Tier 2 Table	NA	NO	NO

SUMP 156
Sample Report Date 2/24/98
Summarized Tuesday, March 24, 1998
Ted A Hopkins

Contaminants of concern and any contaminant present above action levels	UG/L in sample or ppb	Tier 2 RFCA Action Levels (mg/L or ppm)	Conversion of Tier 2 Action Levels to ppb	Is contaminant present above Tier 2 Action Levels?	Is the contaminant a "Contaminant of Concern" as identified in the RCRA Closure Plan for RCRA Unit 40?
Lead, Pb	4 0 Total	Not found in RFCA Tier 2 Table	NA	The MCL for lead is 15 ppb	YES? Under the Safe Drinking Water Act, 15 ppb is the MCL for lead
Lithium, Li	4 7 Total	7 30E+01	73,000 ppb	NO	NO
Magnesium, Mg	3200 Total	Not found in RFCA Tier 2 Table	NA	NO	NO
Manganese, Mn	2 0 Total	1 83E-01	183 ppb	NO	NO
Mercury, Hg	0 10 Total	2 00E-03	2 ppb	NO	YES
Methylene chloride	0 5U	5 00E-03	5 ppb	NO	YES
Molybdenum, Mo	21 5 Total	1 83E-01	183 ppb	NO	NO
Nickel, Ni	0 60 U Total	1 00E-01	100 ppb	NO	NO
Potassium, K	1,000 Total	Not found in the RFCA Tier 2 Table	NA	NO	NO
Pyridine	70 U	Not on Tier 2 List	NA	Not on Tier 2 list	YES
Selenium, Se	1 8 U Total	5 00E-02	50 ppb	NO	YES
Silver, Ag	10 U Total	1 83E-01	183 ppb	NO	YES
Sodium	7,510 Total	Not found in RFCA Tier 2 Table	NA	NO	NO
Strontium, Sr	114 Total	2 19E+01	21,900 ppb	NO	NO
Tetrachloroethylene	0 5 U	5 00E-03	5 ppb	NO	YES
Thallium, Tl	2 3 U Total	2 00E-03	2 ppb	NO	NO
Tin, Sn	10 4 Total	2 19E+01	21,900 ppb	NO	NO
Toluene	0 5U	1 00E+00	1000 ppb	NO	YES
Trichloroethylene	0 5U	5 00E-03	5 ppb	NO	YES
Vanadium, V	0 6U Total	2 56E-01	256 ppb	NO	NO
Vinyl chloride	0 5U	2 00E-03	2 ppb	NO	YES
Xylenes	0 5U	1 00E+01	10,000 ppb	NO	YES
Zinc, Zn	9 6 Total	1 10E+01	11,000 ppb	NO	NO

SUMP 156
Sample Report Date 2/24/98
Summarized Tuesday, March 24, 1998
Ted A Hopkins

RECRA LABNET - CHICAGO

INORGANICS DATA SUMMARY REPORT 02/25/98

CLIENT: ICF Kaiser-98A0996
WORK ORDER: 11830-001-001-9999-00

RECRA LOT # 9802G363

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-004	98A0996-001.006	Silver, Total	10.0 u	UG/L	10.0
	Sump 156	Aluminum, Total	132	UG/L	13.1
		Arsenic, Total	1.6 u	UG/L	1.6
		Barium, Total	21.9	UG/L	0 20
		Beryllium, Total	0 20 u	UG/L	0 20
		Calcium, Total	13500	UG/L	7.6
		Cadmium, Total	0.40 u	UG/L	0.40
		Cobalt, Total	0.50 u	UG/L	0.50
		Chromium, Total	0.51	UG/L	0 40
		Copper, Total	0.70 u	UG/L	0.70
		Iron, Total	59.7	UG/L	16 9
		Mercury, Total	0.10 u	UG/L	0.10
		Potassium, Total	1000	UG/L	7.4
		Lithium, Total	4.7	UG/L	1.3
		Magnesium, Total	3200	UG/L	7.6
		Manganese, Total	2.0	UG/L	0.50
		Molybdenum, Total	21.5	UG/L	0.50
		Sodium, Total	7510	UG/L	177
		Nickel, Total	0.60 u	UG/L	0.60
		Lead, Total	4.0	UG/L	1.2
		Antimony, Total	3 1	UG/L	1.4
		Selenium, Total	1.8 u	UG/L	1 8
		Tin, Total	10.4	UG/L	1.7
		Strontium, Total	114	UG/L	0.20
		Thallium, Total	2.3 u	UG/L	2 3
		Vanadium, Total	0.60 u	UG/L	0.60
		Zinc, Total	9.6	UG/L	0.60

Sample from rinsate from B123, Sump 157
SUMP 157
Sample # 98A0996-002 Metals 98A0996-002 012

Contaminants of concern and any contaminant present above action levels	UG/L in sample or ppb	Tier 2 RFCA Action Levels (mg/L or ppm)	Conversion of Tier 2 Action Levels to ppb	Is contaminant present above Tier 2 Action Levels?	Is the contaminant a "Contaminant of Concern" as identified in the RCRA Closure Plan for RCRA Unit 40?
1,1 Dichloroethylene	0 5U	7 00E-03	7 ppb	NO	YES
1,1,2-Trichloroethane	0 5U	5 00E-03	5 ppb	NO	YES
1-1-1-Trichloroethane	0 5U	2 00E-01	200 ppb	NO	YES
1-2-Dichloroethane	0 5U	5 00E-03	5 ppb	NO	YES
2-Butanone (Methyl ethyl ketone)	2 U	2 47E+00	2470 ppb	NO	YES
Acetone	2 U	3 65E+00	3650 ppb	NO	YES
Aluminum, Al	138 Total	1 06E+02	106,000 ppb	NO	NO
Antimony, Sb	1 4 U Total	6 00E-03	6 ppb	NO	NO
Arsenic, As	1 6 U Total	5 00E-02	50 ppb	NO	YES
Barium, Ba	21 9 Total	2 00E+00	2,000 ppb	NO	YES
Benzene	0 5 U	5 00E-03	5 ppb	NO	YES
Beryllium, Be	0 2 U Total	4 00E-03	4 ppb	NO	NO
Bromodichloromethane	5 Baseline Contaminant	1 00E-01	100 ppb	NO	NO
Cadmium, Cd	3 1 Total	5 00E-03	5 ppb	NO	YES
Carbon disulfide	2 0 U	2 76E-02	27 6 ppb	NO	YES
Carbon tetrachloride	0 5U	5 00E-03	5 ppb	NO	YES
Chlorobenzene	0 5U	1 00E-01	100 ppb	NO	YES
Chloroform	26 Baseline contaminant	1 00E-01	100 ppb	NO	YES
Chromium, Cr	13 2 Total	1 00E-01	100 ppb	NO	YES
Cobalt, Co	0 50 U Total	2 19E+00	2,190 ppb	NO	NO
Copper, Cu	4 8 Total	1 30E+00	1,300 ppb	NO	NO
Dibromochloromethane	0 7				
Ethylbenzene	0 5U	7 00E-01	700 ppb	NO	YES
Iron, Fe	152 Total	NA, not on Tier 2 Table	NA	NO	NO

Contaminants of concern and any contaminant present above action levels	UG/L in sample or ppb	Tier 2 RFCA Action Levels (mg/L or ppm)	Conversion of Tier 2 Action Levels to ppb	Is contaminant present above Tier 2 Action Levels?	Is the contaminant a "Contaminant of Concern" as identified in the RCRA Closure Plan for RCRA Unit 40?
Lead, Pb	4 1 Total	Not found in RFCA Tier 2 Table	NA	The MCL for lead is 15 ppb	YES? Under the Safe Drinking Water Act, 15 ppb is the MCL for lead
Lithium, Li	4 2 Total	7 30E+01	73,000 ppb	NO	NO
Magnesium, Mg	3090 Total	Not found in RFCA Tier 2 Table	NA	NO	NO
Manganese, Mn	19 0 Total	1 83E-01	183 ppb	NO	NO
Mercury, Hg	0 10 U Total	2 00E-03	2 ppb	NO	YES
Methylene chloride	0 5U	5 00E-03	5 ppb	NO	YES
Molybdenum, Mo	21 5 Total	1 83E-01	183 ppb	NO	NO
Nickel, Ni	111 Total	1.00E-01	100 ppb	NO	NO
Potassium, K	1,010 Total	Not found in the RFCA Tier 2 Table	NA	NO	NO
Pyridine	70 U	Not on Tier 2 List	NA	Not on Tier 2 list	YES
Selenium, Se	1 8 U Total	5 00E-02	50 ppb	NO	YES
Silver, Ag	10 U Total	1 83E-01	183 ppb	NO	YES
Sodium	7,920 Total	Not found in RFCA Tier 2 Table	NA	NO	NO
Strontium, Sr	109 Total	2 19E+01	21,900 ppb	NO	NO
Tetrachloroethylene	0 5 U	5 00E-03	5 ppb	NO	YES
Thallium, Tl	2 3 U Total	2 00E-03	2 ppb	NO	NO
Tin, Sn	1 7 U Total	2 19E+01	21,900 ppb	NO	NO
Toluene	0 5U	1 00E+00	1000 ppb	NO	YES
Trichloroethylene	0 5U	5 00E-03	5 ppb	NO	YES
Vanadium, V	0 6U Total	2 56E-01	256 ppb	NO	NO
Vinyl chloride	0 5U	2 00E-03	2 ppb	NO	YES
Xylenes	0 5U	1 00E+01	10,000 ppb	NO	YES
Zinc, Zn	14 1 Total	1 10E+01	11,000 ppb	NO	NO

SUMP 157
Sample Report Date 2/25/98
Summarized Tuesday, March 24, 1998
Ted A Hopkins

RECRA LABNET - CHICAGO

INORGANICS DATA SUMMARY REPORT 02/25/98

CLIENT: ICF Kaiser-98A0996 —
WORK ORDER: 11830-001-001-9999-00

RECRA LOT #: 9802G363

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-008	98A0996-002.012	Silver, Total	10.0 u	UG/L	10.0
	Sump 157	Aluminum, Total	138	UG/L	13.1
		Arsenic, Total	1.6 u	UG/L	1.6
		Barium, Total	21.9	UG/L	0.20
		Beryllium, Total	0.20 u	UG/L	0.20
		Calcium, Total	13200	UG/L	7.6
		Cadmium, Total	3 1	UG/L	0.40
		Cobalt, Total	0.50 u	UG/L	0.50
		Chromium, Total	13.2	UG/L	0.40
		Copper, Total	4.8	UG/L	0.70
		Iron, Total	152	UG/L	16 9
		Mercury, Total	0.10 u	UG/L	0.10
		Potassium, Total	1010	UG/L	7.4
		Lithium, Total	4.2	UG/L	1.3
		Magnesium, Total	3090	UG/L	7.6
		Manganese, Total	19.0	UG/L	0.50
		Molybdenum, Total	20.9	UG/L	0.50
		Sodium, Total	7920	UG/L	177
		Nickel, Total	111	UG/L	0.60
		Lead, Total	4.1	UG/L	1 2
		Antimony, Total	1.4 u	UG/L	1.4
		Selenium, Total	1.8 u	UG/L	1.8
		Tin, Total	1 7 u	UG/L	1.7
		Strontium, Total	109	UG/L	0.20
		Thallium, Total	2.3 u	UG/L	2.3
		Vanadium, Total	0.60 u	UG/L	0.60
		Zinc, Total	14.1	UG/L	0 60

Sample from rinsate from B123, Sump 158
SUMP 158
Sample # 98A0996-003 Metals 98A0996-003 018

Contaminants of concern and any contaminant present above action levels	UG/L in sample or ppb	Tier 2 RFCA Action Levels (mg/L or ppm)	Conversion of Tier 2 Action Levels to ppb	Is contaminant present above Tier 2 Action Levels?	Is the contaminant a "Contaminant of Concern" as identified in the RCRA Closure Plan for RCRA Unit 40?
1,1 Dichloroethylene	0 5U	7 00E-03	7 ppb	NO	YES
1,1,2-Trichloroethane	0 5U	5 00E-03	5 ppb	NO	YES
1-1-1-Trichloroethane	0 5U	2 00E-01	200 ppb	NO	YES
1-2-Dichloroethane	0 5U	5 00E-03	5 ppb	NO	YES
2-Butanone (Methyl ethyl ketone)	2 U	2 47E+00	2470 ppb	NO	YES
Acetone	2 U	3 65E+00	3650 ppb	NO	YES
Aluminum, Al	135Total	1 06E+02	106 000 ppb	NO	NO
Antimony, Sb	1 4 U Total	6 00E-03	6 ppb	NO	NO
Arsenic, As	1 6 U Total	5 00E-02	50 ppb	NO	YES
Barium, Ba	20 6 Total	2 00E+00	2,000 ppb	NO	YES
Benzene	0 5 U	5 00E-03	5 ppb	NO	YES
Beryllium Be	0 2 U Total	4 00E-03	4 ppb	NO	NO
Bromodichloromethane	6 Baseline Contaminant	1 00E-01	100 ppb	NO	NO
Cadmium, Cd	0 4 U Total	5 00E-03	5 ppb	NO	YES
Carbon disulfide	2 0 U	2 76E-02	27 6 ppb	NO	YES
Carbon tetrachloride	0 5U	5 00E-03	5 ppb	NO	YES
Chlorobenzene	0 5U	1 00E-01	100 ppb	NO	YES
Chloroform	44 Baseline contaminant	1 00E-01	100 ppb	NO	YES
Chromium, Cr	1 1 Total	1 00E-01	100 ppb	NO	YES
Cobalt, Co	0 50 U Total	2 19E+00	2,190 ppb	NO	NO
Copper, Cu	0 70 U Total	1 30E+00	1,300 ppb	NO	NO
Dibromochloromethane	0 7				
Ethylbenzene	0 5U	7 00E-01	700 ppb	NO	YES
Iron, Fe	79 3 Total	NA, not on Tier 2 Table	NA	NO	NO

Contaminants of concern and any contaminant present above action levels	UG/L in sample or ppb	Tier 2 RFCA Action Levels (mg/L or ppm)	Conversion of Tier 2 Action Levels to ppb	Is contaminant present above Tier 2 Action Levels?	Is the contaminant a "Contaminant of Concern" as identified in the RCRA Closure Plan for RCRA Unit 40?
Lead, Pb	2 4 Total	Not found in RFCA Tier 2 Table	NA	The MCL for lead is 15 ppb	YES? Under the Safe Drinking Water Act, 15 ppb is the MCL for lead
Lithium, Li	5 6 Total	7 30E+01	73,000 ppb	NO	NO
Magnesium, Mg	3030 Total	Not found in RFCA Tier 2 Table	NA	NO	NO
Manganese, Mn	1 6 Total	1 83E-01	183 ppb	NO	NO
Mercury, Hg	0 10 U Total	2 00E-03	2 ppb	NO	YES
Methylene chloride	0 5U	5 00E-03	5 ppb	NO	YES
Molybdenum, Mo	20 5 Total	1 83E-01	183 ppb	NO	NO
Nickel Ni	0 60 U Total	1 00E-01	100 ppb	NO	NO
Potassium, K	1,030 Total	Not found in the RFCA Tier 2 Table	NA	NO	NO
Pyridine	70 U	Not on Tier 2 List	NA	Not on Tier 2 list	YES
Selenium, Se	1 8 U Total	5 00E-02	50 ppb	NO	YES
Silver, Ag	10 U Total	1 83E-01	183 ppb	NO	YES
Sodium	7,490 Total	Not found in RFCA Tier 2 Table	NA	NO	NO
Strontium, Sr	107 Total	2 19E+01	21,900 ppb	NO	NO
Tetrachloroethylene	0 5 U	5 00E-03	5 ppb	NO	YES
Thallium, Tl	2 3 U Total	2 00E-03	2 ppb	NO	NO
Tin, Sn	4 7 Total	2 19E+01	21,900 ppb	NO	NO
Toluene	0 8	1 00E+00	1000 ppb	NO	YES
Trichloroethylene	0 5U	5 00E-03	5 ppb	NO	YES
Vanadium, V	0 6U Total	2 56E-01	256 ppb	NO	NO
Vinyl chloride	0 5U	2 00E-03	2 ppb	NO	YES
Xylenes	0 7	1 00E+01	10,000 ppb	NO	YES
Zinc, Zn	4 3 Total	1 10E+01	11,000 ppb	NO	NO

SUMP 158
Sample Report Date 2/25/98
Summarized Tuesday, March 24, 1998
Ted A Hopkins

Recra LabNet - Chicago
METHOD 8260 VOLATILES

RFW Batch Number. 98026363 Client: ICF Kaiser-98A0996 Work Order: 11830-001-001-9 Report Date: 02/24/98 09:09 Page: 1a

		Sump 156		Sump 157	Sump 158		Base line
	Cust ID:	98A0996-001.	98A0996-001.	98A0996-002.	98A0996-003.	98A0996-003.	98A0996-004.
Sample Information		003	003	009	015	015	021
	RFW#:	001	001 DL	005	009	009 DL	013
	Matrix:	WATER	WATER	WATER	WATER	WATER	WATER
	D.F.:	1	5	1	1	5	1
	Units:	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Surrogate Recovery	4-Bromofluorobenzene	103 %	110 %	102 %	105 %	109 %	103 %
	Toluene-d8	104 %	105 %	106 %	104 %	106 %	103 %
	1,2-Dichloroethane-d4	99 %	110 %	96 %	105 %	109 %	103 %
		fl	fl	fl	fl	fl	fl
Dichlorodifluoromethane		0.5 U	NA	0.5 U	0.5 U	NA	0.5 U
Chloromethane		0.5 U	NA	0.5 U	0.5 U	NA	0.5 U
Vinyl chloride		0.5 U	NA	0.5 U	0.5 U	NA	0.5 U
Bromomethane		0.5 U	NA	0.5 U	0.5 U	NA	0.5 U
Chloroethane		0.5 U	NA	0.5 U	0.5 U	NA	0.5 U
Trichlorofluoromethane		0.5 U	NA	0.5 U	0.5 U	NA	0.5 U
1,1-Dichloroethene		0.5 U	NA	0.5 U	0.5 U	NA	0.5 U
Methylene Chloride		0.5 U	NA	0.5 U	0.5 U	NA	0.5 U
trans-1,2-Dichloroethene		0.5 U	NA	0.5 U	0.5 U	NA	0.5 U
1,1-Dichloroethane		0.5 U	NA	0.5 U	0.5 U	NA	0.5 U
2,2-Dichloropropane		0.5 U	NA	0.5 U	0.5 U	NA	0.5 U
cis-1,2-Dichloroethene		0.5 U	NA	0.5 U	0.5 U	NA	0.5 U
Bromochloromethane		0.5 U	NA	0.5 U	0.5 U	NA	0.5 U
Chloroform		E	38	26	E	44	47 E
1,1,1-Trichloroethane		0.5 U	NA	0.5 U	0.5 U	NA	0.5 U
1,1-Dichloropropene		0.5 U	NA	0.5 U	0.5 U	NA	0.5 U
Carbon Tetrachloride		0.5 U	NA	0.5 U	0.5 U	NA	0.5 U
Benzene		0.5 U	NA	0.5 U	0.5 U	NA	0.5 U
1,2-Dichloroethane		0.5 U	NA	0.5 U	0.5 U	NA	0.5 U
Trichloroethene		0.5 U	NA	0.5 U	0.5 U	NA	0.5 U
1,2-Dichloropropane		0.5 U	NA	0.5 U	0.5 U	NA	0.5 U
Dibromomethane		0.5 U	NA	0.5 U	0.5 U	NA	0.5 U
Bromodichloromethane		5	NA	5	6	NA	6
Toluene		0.5 U	NA	0.5 U	0.8	NA	0.5 U
1,1,2-Trichloroethane		0.5 U	NA	0.5 U	0.5 U	NA	0.5 U
Tetrachloroethene		0.5 U	NA	0.5 U	0.5 U	NA	0.5 U

*= Outside of EPA CLP QC limits.

See page 42

RM 156

RFW Batch Number: 9802G363 Client: ICF Kaiser-98A0996 Work Order: 11830-001-001-9 Page: 1b

Cust ID:	98A0996-001. 003		98A0996-001. 003	98A0996-002. 009		98A0996-003. 015		98A0996-003. 015	98A0996-004. 021	
RFW#:	001		001 DL	005		009		009 DL	013	
1,3-Dichloropropane	0.5	U	NA	0.5	U	0.5	U	NA	0.5	U
Dibromochloromethane	0.5	U	NA	0.7		0.5	U	NA	0.5	U
1,2-Dibromoethane	0.5	U	NA	0.5	U	0.5	U	NA	0.5	U
Chlorobenzene	0.5	U	NA	0.5	U	0.5	U	NA	0.5	U
1,1,1,2-Tetrachloroethane	0.5	U	NA	0.5	U	0.5	U	NA	0.5	U
Ethylbenzene	0.5	U	NA	0.5	U	0.5	U	NA	0.5	U
Styrene	0.5	U	NA	0.5	U	0.5	U	NA	0.5	U
Bromoform	0.5	U	NA	0.5	U	0.5	U	NA	0.5	U
Isopropylbenzene	0.5	U	NA	0.5	U	0.5	U	NA	0.5	U
Bromobenzene	0.5	U	NA	0.5	U	0.5	U	NA	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	NA	0.5	U	0.5	U	NA	0.5	U
1,2,3-Trichloropropane	0.5	U	NA	0.5	U	0.5	U	NA	0.5	U
n-Propylbenzene	0.5	U	NA	0.5	U	0.5	U	NA	0.5	U
2-Chlorotoluene	0.5	U	NA	0.5	U	0.5	U	NA	0.5	U
4-Chlorotoluene	0.5	U	NA	0.5	U	0.5	U	NA	0.5	U
1,3,5-Trimethylbenzene	0.5	U	NA	0.5	U	0.5	U	NA	0.5	U
tert-Butylbenzene	0.5	U	NA	0.5	U	0.5	U	NA	0.5	U
1,2,4-Trimethylbenzene	0.5	U	NA	0.5	U	0.5	U	NA	0.5	U
sec-Butylbenzene	0.5	U	NA	0.5	U	0.5	U	NA	0.5	U
1,3-Dichlorobenzene	0.5	U	NA	0.5	U	0.5	U	NA	0.5	U
p-Isopropyltoluene	0.5	U	NA	0.5	U	0.5	U	NA	0.5	U
1,4-Dichlorobenzene	0.5	U	NA	0.5	U	0.5	U	NA	0.5	U
1,2-Dichlorobenzene	0.5	U	NA	0.5	U	0.5	U	NA	0.5	U
n-Butylbenzene	0.5	U	NA	0.5	U	0.5	U	NA	0.5	U
1,2-Dibromo-3-chloropropane	0.5	U	NA	0.5	U	0.5	U	NA	0.5	U
1,2,4-Trichlorobenzene	0.5	U	NA	0.5	U	0.5	U	NA	0.5	U
Hexachlorobutadiene	0.5	U	NA	0.5	U	0.5	U	NA	0.5	U
Naphthalene	0.5	U	NA	0.5	U	0.5	U	NA	0.5	U
1,2,3-Trichlorobenzene	0.5	U	NA	0.5	U	0.5	U	NA	0.5	U
cis-1,3-Dichloropropene	0.5	U	NA	0.5	U	0.5	U	NA	0.5	U
trans-1,3-Dichloropropene	0.5	U	NA	0.5	U	0.5	U	NA	0.5	U
Acetone	2	U	NA	2	U	2	U	NA	2	U
2-Butanone	2	U	NA	2	U	2	U	NA	2	U
Carbon Disulfide	2	U	NA	2	U	2	U	NA	2	U
4-Methyl-2-pentanone	2	U	NA	2	U	2	U	NA	2	U
2-Hexanone	2	U	NA	2	U	2	U	NA	2	U

*= Outside of EPA CLP QC limits.

SENT BY:KEUKA LABORATORIES ; 7-27-98 ; 12:01 ; 315 536 0400 → 315 536 0400 ; P.10

RM 156

RFW Batch Number: 98026363 Client. ICF Kaiser-98A0996 Work Order: 11830-001-001-9 Page: 1c

Cust ID	98A0996-001. 003	98A0996-001. 003	98A0996-002. 009	98A0996-003. 015	98A0996-003 015	98A0996-004. 021
RFW#.	001	001 DL	005	009	009 DL	013
Trichlorotrifluoroethane	2 U	NA	2 U	2 U	NA	2 U
Xylene (total)	0.5 U	NA	0.5 U	0.7	NA	0.5 U

*= Outside of EPA CLP QC limits.

Recra LabNet - Chicago
SEMIVOLATILES BY GC/MS, TCLP LEACHATE

Report Date: 03/04/98 14:02
Page 1a

RFW Batch Number: 9802G363 Client: ICF Kaiser-98A0996 Work Order: 11830-001-001-9

Sample Information	Sump 156	Matrix Spike	Sump 157	Sump 158	Baseline	Method Blank
Cust ID:	98A0996-001. 005	98A0996-001. 005	98A0996-002. 011	98A0996-003. 017	98A0996-004. 023	SBLKHX
RFW#:	003	003 MS	007	011	015	98GB0056-MB1
Matrix:	WATER	WATER	WATER	WATER	WATER	WATER
D.F.:	1	1	1	1	1	1
Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Surrogate Recovery						
2-Fluorophenol	71 %	76 %	72 %	76 %	57 %	60 %
Phenol-d5	78 %	92 %	77 %	73 %	61 %	64 %
Nitrobenzene-d5	85 %	101 %	90 %	96 %	72 %	72 %
2-Fluorobiphenyl	82 %	99 %	87 %	89 %	75 %	68 %
2,4,6-Tribromophenol	62 %	75 %	63 %	61 %	56 %	51 %
p-Terphenyl-d14	90 %	101 %	85 %	90 %	94 %	84 %
Pyridine	70 U	81 %	70 U	70 U	70 U	7 U
1,4-Dichlorobenzene	50 U	80 %	50 U	50 U	50 U	5 U
o-Cresol	60 U	90 %	60 U	60 U	60 U	6 U
meta & para-Cresol	30 U	89 %	30 U	30 U	30 U	3 U
Hexachloroethane	70 U	89 %	70 U	70 U	70 U	7 U
Nitrobenzene	40 U	96 %	40 U	40 U	40 U	4 U
Hexachlorobutadiene	80 U	70 %	80 U	80 U	80 U	8 U
2,4,6-Trichlorophenol	30 U	94 %	30 U	30 U	30 U	3 U
2,4,5-Trichlorophenol	40 U	85 %	40 U	40 U	40 U	4 U
2,4-Dinitrotoluene	20 U	114 %	20 U	20 U	20 U	2 U
Hexachlorobenzene	30 U	78 %	30 U	30 U	30 U	3 U
Pentachlorophenol	60 U	89 %	60 U	60 U	60 U	6 U

*= Outside of EPA CLP QC limits.

Recra LabNet - Chicago
SEMIVOLATILES BY GC/MS. TCLP LEACHATE Report Date: 03/04/98 14:02

RFW Batch Number: 9802G363 Client: ICF Kaiser-98A0996 Work Order: 11830-001-001-9 Page: 2a

	Cust ID:	SBLKHX BS		SBLKHY		SBLKHZ		SBLKIA	
Sample Information	RFW#:	98GB0056-MB1		98GB0056-TC1		98GB0056-TC2		98GB0056-TC3	
	Matrix:	WATER		WATER		WATER		WATER	
	D.F..	1		1		1		1	
	Units:	ug/L		ug/L		ug/L		ug/L	
Surrogate Recovery	2-Fluorophenol	85	%	70	%	68	%	76	%
	Phenol-d5	99 *	%	75	%	74	%	82	%
	Nitrobenzene-d5	100	%	86	%	77	%	88	%
	2-Fluorobiphenyl	96	%	86	%	76	%	89	%
	2,4,6-Tribromophenol	71	%	56	%	60	%	66	%
	p-Terphenyl-d14	104	%	102	%	97	%	102	%
Pyridine		56	%	70	U	70	U	70	U
1,4-Dichlorobenzene		77	%	50	U	50	U	50	U
o-Cresol		89	%	60	U	60	U	60	U
meta & para-Cresol		90	%	30	U	30	U	30	U
Hexachloroethane		86	%	70	U	70	U	70	U
Nitrobenzene		95	%	40	U	40	U	40	U
Hexachlorobutadiene		67	%	80	U	80	U	80	U
2,4,6-Trichlorophenol		88	%	30	U	30	U	30	U
2,4,5-Trichlorophenol		89	%	40	U	40	U	40	U
2,4-Dinitrotoluene		106	%	20	U	20	U	20	U
Hexachlorobenzene		74	%	30	U	30	U	30	U
Pentachlorophenol		85	%	60	U	60	U	60	U

*= Outside of EPA CLP QC limits.

RECRA LABNET - CHICAGO

INORGANICS DATA SUMMARY REPORT 02/25/98

CLIENT: ICF Kaiser-98A0996
WORK ORDER: 11830-001-001-9999-00

RECRA LOT #: 9802G363

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-012	98A0996-003.018	Silver, Total	10.0 u	UG/L	10.0
	Sump 158	Aluminum, Total	135	UG/L	13.1
		Arsenic, Total	1.6 u	UG/L	1.6
		Barium, Total	20.6	UG/L	0.20
		Beryllium, Total	0.20 u	UG/L	0.20
		Calcium, Total	12600	UG/L	7.6
		Cadmium, Total	0.40 u	UG/L	0.40
		Cobalt, Total	0.50 u	UG/L	0.50
		Chromium, Total	1.1	UG/L	0.40
		Copper, Total	0.70 u	UG/L	0.70
		Iron, Total	79.3	UG/L	16.9
		Mercury, Total	0.10 u	UG/L	0.10
		Potassium, Total	1030	UG/L	7.4
		Lithium, Total	5.6	UG/L	1.3
		Magnesium, Total	3030	UG/L	7.6
		Manganese, Total	1.6	UG/L	0.50
		Molybdenum, Total	20.5	UG/L	0.50
		Sodium, Total	7490	UG/L	177
		Nickel, Total	0.60 u	UG/L	0.60
		Lead, Total	2.4	UG/L	1.2
		Antimony, Total	1.4 u	UG/L	1.4
		Selenium, Total	1.8 u	UG/L	1.8
		Tin, Total	4.7	UG/L	1.7
		Strontium, Total	107	UG/L	0.20
		Thallium, Total	2.3 u	UG/L	2.3
		Vanadium, Total	0.60 u	UG/L	0.60
		Zinc, Total	4.3	UG/L	0.60

Sample from PVC Pipe from B123 RCRA Closure Process Waste Line
Room #158 Purpose of sample To comply with LDR standards
Sample # 98A0998 001

Contaminants of concern and any contaminant present above action levels	UG/L in sample or ppb	LDR Treatment Standards 40 CFR 268.40/268.48 Non-wastewater ppb	RFCA Tier 2 Action Levels Industrial Area Table 4/5* ppb	Is contaminant present above LDR Treatment Standard?	Is the contaminant a "Contaminant of Concern" as identified in the RCRA Closure Plan for RCRA Unit 40?
				NA	NO
1,1 Dichloroethylene	0 5U	6,000	9530	NO	YES
1,1,2-Trichloroethane	0 5U	6,000	100,000	NO	YES
1-1-1-Trichloroethane	0 5U	6,000	378,000 *	NO	YES
1-2-Dichloroethane	0 5U	6,000	62,900	NO	YES
2-Butanone (Methyl ethyl ketone)	2 U	36,000	> 1 E+6	NO	YES
Acetone	5 U	160,000	204,000,000	NO	YES
Aluminum, Al	69,200 Total	NA	> 1 E+6	NO	NO
Antimony, Sb	1,480,000 Total	2,100 TCLP	818,000	YES	NO
Arsenic, As	1,300 Total	5,000 TCLP	3,270	NO	YES
Barium, Ba	3,800 Total	7,600 TCLP	141,000,000	NO	YES
Benzene	0 5 U	10,000	197,000	NO	YES
Beryllium, Be	20 U Total	14 TCLP	1,330	NO	NO
Bromodichloromethane	5 U	15,000	92,300	NO	NO
Cadmium, Cd	9,200 Total	190 TCLP	1,020,000	YES	YES
Carbon disulfide	2 0 U	4,800 TCLP	204,000,000	NO	YES
Carbon tetrachloride	0 5U	6,000	44,000	NO	YES
Chlorobenzene	0 5U	6,000	44,000	NO	YES
Chloroform	5 U	6,000	938,000	NO	YES
Chromium, Cr	71,000 Total	860 TCLP	4,860,000 Chromium VI	YES	YES
Cobalt, Co	430 Total	NA	123,000,000	NO	NO
Copper, Cu	188,000	NA	81,800,000	NO	NO
Ethylbenzene	0 5U	10,000	204,000,000	NO	YES
Iron, Fe	1,550,000 Total	NA	NA	NO	NO

PVC Pipe Sample
Sampled 2/23/98
Summarized Monday, March 23, 1998
Ted A Hopkins

Contaminants of concern and any contaminant present above action levels	UG/L in sample or ppb	LDR Treatment Standards 40 CFR 268.40/268.48 Non-wastewater ppb	RFCA Tier 2 Action Levels Industrial Area Table 4/5* ppb	Is contaminant present above LDR Treatment Standard?	Is the contaminant a "Contaminant of Concern" as identified in the RCRA Closure Plan for RCRA Unit 40?
Lead, Pb	13,000 Total	370 TCLP	1,000,000 Subsurface Soils	YES	YES
Lithium, Li	150 Total	NA	40,900,000	NO	NO
Magnesium, Mg	31,200 Total	NA	NA	NO	NO
Manganese, Mn	10,000 Total	NA	10,100,000	YES	NO
Mercury, Hg	20 U Total	250 TCLP	613,000	NO	YES
Methylene chloride	0 5U	30,000	763,000	NO	YES
Molybdenum, Mo	6,200 Total	NA	10,200,000	NO	NO
Nickel, Ni	28,200 Total	5,000 TCLP	40,900,000	YES?	NO
Potassium, K	43,200 Total	NA	NA	NO	NO
Pyridine	70 U	16,000	NA	NO	YES
Selenium, Se	180 U Total	160 TCLP	10,200,000	NO	YES
Silver, Ag	1,000 U Total	300 TCLP	NA	NO	YES
Sodium	123,000 Total	NA	NA	NO	NO
Strontium, Sr	1,100 Total	NA	> 1 E+6	NO	NO
Tetrachloroethylene	22	6,000	110,000	NO	YES
Thallium, Tl	230 U Total	780 TCLP	NA	NO	NO
Tin, Sn	14,100 Total	NA	> 1 E+6	NO	NO
Toluene	14	10,000	409,000,000	NO	YES
Trichloroethylene	0 5 U	6,000	520,000	NO	YES
Vanadium, V	430 U Total	230 TCLP	14,300,000	NO	NO
Vinyl chloride	0 5 U	6,000	3,010	NO	YES
Xylenes	4	30,000	> 1 E+6	NO	YES
Zinc, Zn	157,000 Total	5,300 *	613,000,000	YES, however zinc is not an UHC	NO

PVC Pipe Sample
Sampled 2/23/98
Summarized Monday, March 23, 1998
Ted A Hopkins

Recra LabNet - Chicago
METHOD 8260 VOLATILES

RM 158

RFW Batch Number: 98026360 Client: ICF Kaiser-98A0998 Work Order: 1183

Is a D002 waste going into RCRA Land 40 Subject to UHC standards?

	Cust ID:	98A0998-001. PVC Pipe	98A0998-001.	VBLKAJ	VBLKAJ BS
		002	002		
Sample Information	RFW#:	001	001	98GVE037-MB1	98GVE037-MB1
	Matrix:	SOLID	SOLID	SOIL	SOIL
	D.F.:	1	1	1	1
	Units:	UG/KG	UG/KG REPREP	UG/KG	UG/KG
Surrogate Recovery	4-Bromofluorobenzene	80 %	86 %	92 %	100 %
	Toluene-d8	70 %	88 %	90 %	96 %
	1.2-Dichloroethane-d4	126 %	100 %	90 %	92 %
Dichlorodifluoromethane		5 U	5 U	5 U	92 %
Chloromethane		5 U	5 U	5 U	113 %
Vinyl chloride		5 U	5 U	5 U	114 %
Bromomethane		5 U	5 U	5 U	82 %
Chloroethane		5 U	5 U	5 U	102 %
Trichlorofluoromethane		5 U	5 U	5 U	71 %
1,1-Dichloroethene		5 U	5 U	5 U	102 %
Methylene Chloride		5 U	5 U	5 U	90 %
trans-1,2-Dichloroethene		5 U	5 U	5 U	92 %
1,1-Dichloroethane		5 U	5 U	5 U	93 %
2,2-Dichloropropane		5 U	5 U	5 U	91 %
cis-1,2-Dichloroethene		5 U	5 U	5 U	89 %
Bromochloromethane		5 U	5 U	5 U	181 * %
Chloroform		5 U	5 U	5 U	87 %
1,1,1-Trichloroethane		5 U	5 U	5 U	89 %
1,1-Dichloropropene		5 U	5 U	5 U	89 %
Carbon Tetrachloride		5 U	5 U	5 U	88 %
Benzene		5 U	5 U	5 U	90 %
1,2-Dichloroethane		5 U	5 U	5 U	88 %
Trichloroethene		5 U	5 U	5 U	89 %
1,2-Dichloropropane		5 U	5 U	5 U	94 %
Dibromomethane		5 U	5 U	5 U	90 %
Bromodichloromethane		5 U	5 U	5 U	88 %
Toluene		35	14	5 U	87 %
1,1,2-Trichloroethane		5 U	5 U	5 U	87 %
Tetrachloroethene		50	22	5 U	93 %

	Cust ID:	98A0998-001.	98A0998-001.
		002	002
Sample Information	RFW#:	001	001
	Matrix:	SOLID	SOLID
	D.F.:	1	1
	Units:	UG/KG	UG/KG REPREP
Surrogate Recovery	4-Bromofluorobenzene	94 %	93 %
	Toluene-d8	90 %	101 %
	1.2-Dichloroethane-d4	85 %	89 %
Dichlorodifluoromethane		5 U	
Chloromethane			
Vinyl chloride			
Bromomethane			
Chloroethane			
Trichlorofluoromethane			
1,1-Dichloroethene			
Methylene Chloride			
trans-1,2-Dichloroethene			
1,1-Dichloroethane			
2,2-Dichloropropane			88 %
cis-1,2-Dichloroethene		5 U	86 %
Bromochloromethane		5 U	89 %
Chloroform		5 U	89 %
1,1,1-Trichloroethane		5 U	89 %
1,1-Dichloropropene		5 U	87 %
Carbon Tetrachloride		5 U	83 %
Benzene		5 U	88 %
1,2-Dichloroethane		5 U	86 %
Trichloroethene		5 U	86 %
1,2-Dichloropropane		5 U	92 %
Dibromomethane		5 U	85 %
Bromodichloromethane		5 U	86 %
Toluene		5 U	84 %
1,1,2-Trichloroethane		5 U	88 %
Tetrachloroethene		5 U	85 %

Get Paul to explain totals

*= Outside of EPA CLP QC limits.

Rm 158

RFW Batch Number: 9802G360 Client: ICF Kaiser-98A0998 Work Order: 11830-001-001-9 Page: 1b

Cust ID:	98A0998-001. 002	98A0998-001. 002	VBLKAJ	VBLKAJ BS	VBLKAP	VBLKAP BS
RFW#:	001	001 REPREP	98GVE037-MB1	98GVE037-MB1	98GVE038-MB1	98GVE038-MB1
1,3-Dichloropropane	5 U	5 U	5 U	93 %	5 U	86 %
Dibromochloromethane	5 U	5 U	5 U	90 %	5 U	82 %
1,2-Dibromoethane	5 U	5 U	5 U	88 %	5 U	85 %
Chlorobenzene	5 U	5 U	5 U	95 %	5 U	87 %
1,1,1,2-Tetrachloroethane	5 U	5 U	5 U	98 %	5 U	86 %
Ethylbenzene	5 U	5 U	5 U	102 %	5 U	89 %
Styrene	5 U	5 U	5 U	94 %	5 U	87 %
Bromoform	5 U	5 U	5 U	92 %	5 U	83 %
Isopropylbenzene	5 U	5 U	5 U	88 %	5 U	88 %
Bromobenzene	5 U	5 U	5 U	88 %	5 U	88 %
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	87 %	5 U	88 %
1,2,3-Trichloropropane	5 U	5 U	5 U	87 %	5 U	89 %
n-Propylbenzene	5 U	5 U	5 U	91 %	5 U	94 %
2-Chlorotoluene	5 U	5 U	5 U	88 %	5 U	92 %
4-Chlorotoluene	5 U	5 U	5 U	94 %	5 U	92 %
1,3,5-Trimethylbenzene	5 U	5 U	5 U	85 %	5 U	90 %
tert-Butylbenzene	5 U	5 U	5 U	88 %	5 U	94 %
1,2,4-Trimethylbenzene	7	5 U	5 U	90 %	5 U	88 %
sec-Butylbenzene	5 U	5 U	5 U	94 %	5 U	100 %
1,3-Dichlorobenzene	5 U	5 U	5 U	92 %	5 U	92 %
p-Isopropyltoluene	5 U	5 U	5 U	91 %	5 U	93 %
1,4-Dichlorobenzene	5 U	5 U	5 U	91 %	5 U	91 %
1,2-Dichlorobenzene	5 U	5 U	5 U	86 %	5 U	87 %
n-Butylbenzene	5 U	5 U	5 U	93 %	5 U	96 %
1,2-Dibromo-3-chloropropane	5 U	5 U	5 U	90 %	5 U	91 %
1,2,4-Trichlorobenzene	5 U	5 U	5 U	88 %	5 U	87 %
Hexachlorobutadiene	5 U	5 U	5 U	85 %	5 U	87 %
Naphthalene	5 U	5 U	5 U	91 %	5 U	88 %
1,2,3-Trichlorobenzene	5 U	5 U	5 U	88 %	5 U	89 %
cis-1,3-Dichloropropene	5 U	5 U	5 U	78 %	5 U	80 %
trans-1,3-Dichloropropene	5 U	5 U	5 U	89 %	5 U	87 %
Acetone	8	5 U	5 U	89 %	5 U	85 %
2-Butanone	5 U	5 U	5 U	84 %	5 U	88 %
Carbon Disulfide	5 U	5 U	5 U	93 %	5 U	98 %
4-Methyl-2-pentanone	5 U	5 U	5 U	89 %	5 U	103 %
2-Hexanone	5 U	5 U	5 U	99 %	5 U	98 %

* Outside of EPA CLP QC limits.

RM 158

RFW Batch Number: 9802G360 Client: ICF Kaiser-98A0998 Work Order: 11830-001-001-9 Page: Ic

Cust ID:	98A0998-001. 002	98A0998-001. 002	VBLKAJ	VBLKAJ BS	VBLKAP	VBLKAP BS
RFW#	001	001 REPREP	98GVE037-MB1	98GVE037-MB1	98GVE038-MB1	98GVE038-MB1
Trichlorotrifluoroethane	5 U	5 U	5 U	5 U	5 U	5 U
Xylene (total)	20	4 J	5 U	95 %	5 U	88 %

*= Outside of EPA CLP QC limits.

RCRA Rm 158 (PVC)

Recra LabNet - Chicago
SEMIVOLATILES BY GC/MS, TCLP LEACHATE

RFW Batch Number: 9802G360 Client: ICF Kaiser-98A0998 Work Order: 11830-001-001-9 Report Date: 02/25/98 10:31 Page: 1a

	Cust ID.	98A0998-001. PVC Pipe		SBLKHX		SBLKHX BS		SBLKHY		SBLKHZ		SBLKIA	
Sample Information	RFW#.	003 G03		98GB0056-MB1		98GB0056-MB1		98GB0056-TC1		98GB0056-TC2		98GB0056-TC3	
	Matrix:	WATER		WATER		WATER		WATER		WATER		WATER	
	D.F :	1		1		1		1		1		1	
	Units:	ug/L		ug/L		ug/L		ug/L		ug/L		ug/L	
Surrogate Recovery	2-Fluorophenol	73	%	60	%	85	%	70	%	68	%	76	%
	Phenol-d5	80	%	64	%	99 *	%	75	%	74	%	82	%
	Nitrobenzene-d5	83	%	72	%	100	%	86	%	77	%	88	%
	2-Fluorobiphenyl	82	%	68	%	96	%	86	%	76	%	89	%
	2,4,6-Tribromophenol	66	%	51	%	71	%	56	%	60	%	66	%
	p-Terphenyl-d14	90	%	84	%	104	%	102	%	97	%	102	%
			fl		fl		fl		fl		fl		fl
Pyridine		70	U	7	U	56	%	70	U	70	U	70	U
1,4-Dichlorobenzene		50	U	5	U	77	%	50	U	50	U	50	U
o-Cresol		60	U	6	U	89	%	60	U	60	U	60	U
meta & para-Cresol		30	U	3	U	90	%	30	U	30	U	30	U
Hexachloroethane		70	U	7	U	86	%	70	U	70	U	70	U
Nitrobenzene		40	U	4	U	95	%	40	U	40	U	40	U
Hexachlorobutadiene		80	U	8	U	67	%	80	U	80	U	80	U
2,4,6-Trichlorophenol		30	U	3	U	88	%	30	U	30	U	30	U
2,4,5-Trichlorophenol		40	U	4	U	89	%	40	U	40	U	40	U
2,4-Dinitrotoluene		20	U	2	U	106	%	20	U	20	U	20	U
Hexachlorobenzene		30	U	3	U	74	%	30	U	30	U	30	U
Pentachlorophenol		60	U	6	U	85	%	60	U	60	U	60	U

*= Outside of EPA CLP QC limits.

RECRA LABNET - CHICAGO

INORGANICS DATA SUMMARY REPORT 02/25/98

CLIENT: ICF Kaiser-98A0998 Rm 158
WORK ORDER: 11830-001-001-9999-00

RECRA LOT # 9802G360

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-004	98A0998-001.004 PVC Pipe	Silver, Total	1.0 u	MG/KG	1.0
		Aluminum, Total	69.2	MG/KG	1.3
		Arsenic, Total	1.3	MG/KG	0.16
		Barium, Total	3.8	MG/KG	0.02
		Beryllium, Total	0.02 u	MG/KG	0.02
		Calcium, Total	1060	MG/KG	0.76
		Cadmium, Total	9.2	MG/KG	0.04
		Cobalt, Total	0.43	MG/KG	0.05
		Chromium, Total	71.0	MG/KG	0.04
		Copper, Total	188	MG/KG	0.07
		Iron, Total	1550	MG/KG	1.7
		Mercury, Total	0.02 u	MG/KG	0.02
		Potassium, Total	43.2	MG/KG	0.74
		Lithium, Total	0.15	MG/KG	0.13
		Magnesium, Total	31.2	MG/KG	0.76
		Manganese, Total	10	MG/KG	0.05
		Molybdenum, Total	6.2	MG/KG	0.05
		Sodium, Total	123	MG/KG	17.7
		Nickel, Total	28.2	MG/KG	0.06
		Lead, Total	13.0	MG/KG	0.12
		Antimony, Total	1480	MG/KG	0.14
		Selenium, Total	0.18 u	MG/KG	0.18
		Tin, Total	14.1	MG/KG	0.17
		Strontium, Total	1.1	MG/KG	0.02
		Thallium, Total	0.23 u	MG/KG	0.23
		Vanadium, Total	0.43	MG/KG	0.06
		Zinc, Total	157	MG/KG	0.06

Sample from perchloric acid rinsate in Building 428, Tank 853, December 1997
Sample # 98A0647-001 005

Contaminants of concern and any contaminant present above action levels	UG/L in sample or ppb	Tier 2 RFCA Action Levels (mg/L or ppm)	Conversion of Tier 2 Action Levels to ppb	Is contaminant present above Tier 2 Action Levels?	Is the contaminant a "Contaminant of Concern" as identified in the RCRA Closure Plan for RCRA Unit 40?
1,1 Dichloroethylene	0 5U	7 00E-03	7 ppb	NO	YES
1,1,2-Trichloroethane	0 5U	5 00E-03	5 ppb	NO	YES
1-1-1-Trichloroethane	0 5U	2 00E-01	200 ppb	NO	YES
1-2-Dichloroethane	0 5U	5 00E-03	5 ppb	NO	YES
2-Butanone (Methyl ethyl ketone)	15	2 47E+00	2470 ppb	NO	YES
Acetone	18	3 65E+00	3650 ppb	NO	YES
Aluminum, Al	963	1 06E+02	106,000 ppb	NO	NO
Antimony, Sb	3 7	6 00E-03	6 ppb	NO	NO
Arsenic, As	2 1U	5 00E-02	50 ppb	NO	YES
Barium, Ba	36 6	2 00E+00	2,000 ppb	NO	YES
Benzene	0 5U	5 00E-03	5 ppb	NO	YES
Beryllium, Be	0 30U	4 00E-03	4 ppb	NO	NO
Bromodichloromethane	2	1 00E-01	100 ppb	NO	NO
Cadmium, Cd	1 1	5 00E-03	5 ppb	NO	YES
Carbon disulfide	2U	2 76E-02	27 6 ppb	NO	YES
Carbon tetrachloride	0 5U	5 00E-03	5 ppb	NO	YES
Cesium, Cs	Not Tested			Not Tested	YES
Chlorobenzene	0 5U	1 00E-01	100 ppb	NO	YES
Chloroform	21	1 00E-01	100 ppb	NO	YES
Chromium, Cr	Not Tested	1 00E-01	100 ppb	Not Tested	YES
Cobalt, Co	144	2 19E+00	2,190 ppb	NO	NO
Copper, Cu	299	1 30E+00	1,300 ppb	NO	NO
Ethylbenzene	0 5U	7 00E-01	700 ppb	NO	YES
Iron, Fe	26,100	NA, not on Tier 2 Table	NA	NO	NO
Lead, Pb	14 1	Not found in RFCA Tier 2 Table	NA	The MCL for lead is 15 ppb	YES Under the Safe Drinking Water Act, 15 ppb is the MCL for lead

Pipe rinsate sample results
December 1997
Summarized January 7, 1998
Ted A Hopkins

Contaminants of concern and any contaminant present above action levels	UG/L in sample or ppb	Tier 2 RFCA Action Levels (mg/L or ppm)	Conversion of Tier 2 Action Levels to ppb	Is contaminant present above Tier 2 Action Levels?	Is the contaminant a "Contaminant of Concern" as identified in the RCRA Closure Plan for RCRA Unit 40?
Lithium, Li	Not Tested	7 30E+01	73,000 ppb	NO	NO
Magnesium, Mg	3040	Not found in RFCA Tier 2 Table	NA	NO	NO
Manganese, Mn	2250	1 83E-01	183 ppb	YES	NO
Methyl ethyl ketone (2-butanone)	15	2 47E+00	2,470 ppb	NO	
Mercury, Hg	Not Tested	2 00E-03	2 ppb	Not Tested	YES
Methylene chloride	0 5U	5 00E-03	5 ppb	NO	YES
Molybdenum, Mo	25 2	1 83E-01	183 ppb	NO	NO
Nickel, Ni	Not Tested	1 00E-01	100 ppb	Not Tested	NO
Potassium, K	5250	Not found in the RFCA Tier 2 Table	NA	NO	NO
Pyridine	Not Tested	Not on Tier 2 List	NA	NA, not on Tier 2 list	YES
Selenium Se	2 0 U	5 00E-02	50 ppb	NO	YES
Silicon, Si	Not Tested	Not found in RFCA Tier 2 Table	NA	Not Tested	NO
Silver, Ag	2 3	1 83E-01	183 ppb	NO	YES
Sodium	22,400	Not found in RFCA Tier 2 Table	NA	NO	NO
Strontium, Sr	91 9	2 19E+01	21,900 ppb	NO	NO
Tetrachloroethylene	0 5U	5 00E-03	5 ppb	NO	YES
Thallium, Tl	1 9U	2 00E-03	2 ppb	NO	NO
Tin, Sn	5 4	2 19E+01	21,900 ppb	NO	NO
Toluene	0 5U	1 00E+00	1000 ppb	NO	YES
Trichloroethylene	0 5U	5 00E-03	5 ppb	NO	YES
Vanadium, V	5 1	2 56E-01	256 ppb	NO	NO
Vinyl chloride	0 5U	2 00E-03	2 ppb	NO	YES
Xylenes	0 5U	1 00E+01	10,000 ppb	NO	YES
Zinc, Zn	330	1 10E+01	11,000 ppb	NO	NO

Recra LabNet - Chicago
METHOD 8260 VOLATILES

RFW Batch Number: 9712G669 Client: ICF Kaiser-98A0647 Work Order 11830-001-001-9 Report Date: 01/02/98 10:41 Page: 1a

Sample Information	Cust ID:	98A0647-001. 005	VBLKEI	VBLKEI BS
	RFW#:	002	97GVT491-MB1	97GVT491-MB1
	Matrix:	WATER	WATER	WATER
	D.F.:	1	1	1
	Units:	UG/L	UG/L	UG/L
Surrogate Recovery	4-Bromofluorobenzene	93 %	85 %	87 %
	Toluene-d8	103 %	94 %	96 %
	1,2-Dichloroethane-d4	104 %	89 %	93 %
Dichlorodifluoromethane		0.5 U	0.5 U	95 %
Chloromethane		0.5 U	0.5 U	93 %
Vinyl chloride		0.5 U	0.5 U	98 %
Bromomethane		0.5 U	0.5 U	74 %
Chloroethane		0.5 U	0.5 U	93 %
Trichlorofluoromethane		0.5 U	0.5 U	82 %
1,1-Dichloroethene		0.5 U	0.5 U	92 %
Methylene Chloride		0.5 U	0.5 U	82 %
trans-1,2-Dichloroethene		0.5 U	0.5 U	86 %
1,1-Dichloroethane		0.5 U	0.5 U	89 %
2,2-Dichloropropane		0.5 U	0.5 U	312 * %
cis-1,2-Dichloroethene		0.5 U	0.5 U	84 %
Bromochloromethane		0.5 U	0.5 U	64 * %
Chloroform		21	0.5 U	85 %
1,1,1-Trichloroethane		0.5 U	0.5 U	93 %
1,1-Dichloropropene		0.5 U	0.5 U	93 %
Carbon Tetrachloride		0.5 U	0.5 U	97 %
Benzene		0.5 U	0.5 U	90 %
1,2-Dichloroethane		0.5 U	0.5 U	88 %
Trichloroethene		0.5 U	0.5 U	90 %
1,2-Dichloropropane		0.5 U	0.5 U	93 %
Dibromomethane		0.5 U	0.5 U	83 %
Bromodichloromethane		2	0.5 U	87 %
Toluene		0.5 U	0.5 U	87 %
1,1,2-Trichloroethane		0.5 U	0.5 U	76 %
Tetrachloroethene		0.5 U	0.5 U	96 %

*= Outside of EPA CLP QC limits.

Cust ID:	98A0647-001.	VBLKEI	VBLKEI BS
RFW#.	005 002	97GVT491-MB1	97GVT491-MB1
1,3-Dichloropropane	0.5 U	0.5 U	91 %
Dibromochloromethane	0.5 U	0.5 U	84 %
1,2-Dibromoethane	0.5 U	0.5 U	81 %
Chlorobenzene	0.5 U	0.5 U	89 %
1,1,1,2-Tetrachloroethane	0.5 U	0.5 U	88 %
Ethylbenzene	0.5 U	0.5 U	90 %
Styrene	0.5 U	0.5 U	88 %
Bromoform	0.5 U	0.5 U	89 %
Isopropylbenzene	0.5 U	0.5 U	88 %
Bromobenzene	0.5 U	0.5 U	84 %
1,1,2,2-Tetrachloroethane	0.5 U	0.5 U	84 %
1,2,3-Trichloropropane	0.5 U	0.5 U	76 %
n-Propylbenzene	0.5 U	0.5 U	91 %
2-Chlorotoluene	0.5 U	0.5 U	87 %
4-Chlorotoluene	0.5 U	0.5 U	86 %
1,3,5-Trimethylbenzene	0.5 U	0.5 U	82 %
tert-Butylbenzene	0.5 U	0.5 U	88 %
1,2,4-Trimethylbenzene	0.5 U	0.5 U	79 %
sec-Butylbenzene	0.5 U	0.5 U	89 %
1,3-Dichlorobenzene	0.5 U	0.5 U	87 %
p-Isopropyltoluene	0.5 U	0.5 U	86 %
1,4-Dichlorobenzene	0.5 U	0.5 U	87 %
1,2-Dichlorobenzene	0.5 U	0.5 U	84 %
n-Butylbenzene	0.5 U	0.5 U	92 %
1,2-Dibromo-3-chloropropane	0.5 U	0.5 U	81 %
1,2,4-Trichlorobenzene	0.5 U	0.5 U	74 %
Hexachlorobutadiene	0.5 U	0.5 U	79 %
Naphthalene	0.5 U	0.5 U	60 * %
1,2,3-Trichlorobenzene	0.5 U	0.5 U	74 %
cis-1,3-Dichloropropene	0.5 U	0.5 U	88 %
trans-1,3-Dichloropropene	0.5 U	0.5 U	115 %
Acetone	18	2 U	46 %
2-Butanone	15	2 U	60 %
Carbon Disulfide	2 U	2 U	68 %
4-Methyl-2-pentanone	2 U	2 U	70 * %
2-Hexanone	2 U	2 U	81 %

*= Outside of EPA CLP QC limits.

JUN-0-00 TUE 10:00 SENT BY:ROCKY LABNET-CHICAGO ; 1- 0-98 ; 11:11 ; ROCKY LABNET-CHICAGO→ 1 630 355 2000 #0000 000 010 C.J.

RFW Batch Number: 9712G669 Client: ICF Kaiser-98A0647 Work Order: 11830-001-001-9 Page. 1c

Cust ID:	98A0647-001. 005	VBLKEI	VBLKEI BS				
RFW#:	002	97GVT491-MB1	97GVT491-MB1				
Trichlorotrifluoroethane	2	U	2	U	2	U	
Xylene (total)	0.5	U	0.5	U	94	%	

*= Outside of EPA CLP QC limits.

THIS REPORT IS PRELIMINARY; IT MAY CONTAIN UNREVIEWED DATA
RECRA LABNET - CHICAGO

INORGANICS DATA SUMMARY REPORT 01/02/98

CLIENT: ICF Kaiser-98A0647
WORK ORDER: 11830-001-001-9999-00

RECRA LOT #. 9712G669

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-001	98A0647-001.004	Silver, Total	2.3		UG/L	0 70
		Aluminum, Total	963		UG/L	24 4
		Arsenic, Total	2.1	u	UG/L	2 1
		Barium, Total	36.6		UG/L	0.40
		Beryllium, Total	0.30	u	UG/L	0.30
		Calcium, Total	16800		UG/L	7.6
		Cadmium, Total	1.1		UG/L	0.30
		Cobalt, Total	144		UG/L	0 80
		Copper, Total	299		UG/L	1.3
		Iron, Total	26100		UG/L	11 3
		Potassium, Total	5250		UG/L	23 8
		Magnesium, Total	3040		UG/L	9 0
		Manganese, Total	2250		UG/L	0.40
		Molybdenum, Total	25 2		UG/L	0 60
		Sodium, Total	22400		UG/L	189
		Lead, Total	14.1		UG/L	1.3
		Antimony, Total	3.7		UG/L	1 3
		Selenium, Total	2 0	u	UG/L	2.0
		Tin, Total	5.4		UG/L	2.4
		Strontium, Total	91.9		UG/L	0.40
		Thallium, Total	1 9	u	UG/L	1 9
		Vanadium, Total	5 1		UG/L	0.80
		Zinc, Total	330		UG/L	0.90

WASTE CHARACTERISTICS REPORTING FORM 1

Analysis Data Sheet for the Fingerprint Procedure

Lab Name: 559 Radioanalytical Laboratories — RF Sample ID: 98A0647-001.003

Lab Code: 559 RIL — Lab Sample ID: 98A0647-001.003

Date of Analysis: Dec 17 1997 — RIN: 98A0647-001.003

Parameter ID	Parameter Name	Result	Qualifiers C	Qualifiers Q	Units
	Physical Appearance	Single phase, non-viscous, clear, colorless liquid with <1% brown particulates at bottom.			NA
	Water Test	Positive			NA
10-29-7	pH	5.5			S.U.
	Specific Gravity	1.0028			*1
	Miscible with	Water			NA
	Reactivity with Water	No			NA
RFS-FP-97	Flash Point	NA, Aqueous Sample			degrees C
	Chlorinated Solvents	NA, Aqueous Sample			ppm

Notes:
NA - Not Applicable
*1 - relative to water @ 20 C

Approval: Roger R. Henderson

Peer Review: Jon R. Weiss

Sample from Steel Pipe from B123 RCRA Closure Process Waste Line
Purpose of sample To comply with LDR standards
Sample # 98A1056-001

Contaminants of concern and any contaminant present above action levels	UG/L in sample or ppb	LDR Treatment Standards 40 CFR 268.40/268.48 Non-wastewater ppb	RFCA Tier 2 Action Levels Industrial Area Table 4/5* ppb	Is contaminant present above LDR Treatment Standard?	Is the contaminant a "Contaminant of Concern" as identified in the RCRA Closure Plan for RCRA Unit 40?
1,1 Dichloroethylene	0 5U	6,000	9530	NO	YES
1,1,2-Trichloroethane	0 5U	6,000	100,000	NO	YES
1-1-1-Trichloroethane	0 5U	6,000	378,000 *	NO	YES
1-2-Dichloroethane	0 5U	6,000	62,900	NO	YES
2-Butanone (Methyl ethyl ketone)	2 U	36,000	> 1 E+6	NO	YES
Acetone	3000 TB matrix spike 3560	160,000	204,000,000	NO	YES
Aluminum, Al	Not tested	NA	> 1 E+6	Not tested	NO
Antimony, Sb	Not tested			Not tested	
Arsenic, As	23 9 TCLP	5,000 TCLP	3,270	NO	YES
Barium, Ba	223 TCLP	7,600 TCLP	141,000,000	NO	YES
Benzene	0 5 U	10,000	197,000	NO	YES
Beryllium, Be	Not tested	14 TCLP	1,330	Not tested	NO
Bromodichloromethane	5 U	15,000	92,300	NO	NO
Cadmium, Cd	1 8U TCLP	190 TCLP	1,020,000	NO	YES
Carbon disulfide	2 0 U	4,800 TCLP	204,000,000	NO	YES
Carbon tetrachloride	0 5U	6,000	44,000	NO	YES
Chlorobenzene	2 J	6,000	44,000	NO	YES
Chloroform	1 J	6,000	938,000	NO	YES
Chromium, Cr	178 TCLP	860 TCLP	4,860,000 Chromium VI	NO	YES
Cobalt, Co	Not tested	NA	123,000,000	Not tested	NO
Copper, Cu	Not tested	NA	81,800,000	Not tested	NO
Ethylbenzene	100 TB 201% recovery	10,000	204,000,000	NO	YES

Steel PipeSample
Sampled 2/23/98
Summarized Tuesday, March 24, 1998
Ted A Hopkins

Contaminants of concern and any contaminant present above action levels	UG/L in sample or ppb	LDR Treatment Standards 40 CFR 268.40/268.48 Non-wastewater ppb	RFCA Tier 2 Action Levels Industrial Area Table 4/5* ppb	Is contaminant present above LDR Treatment Standard?	Is the contaminant a "Contaminant of Concern" as identified in the RCRA Closure Plan for RCRA Unit 40?
Iron, Fe	Not tested	NA	NA	Not tested	NO
Lead, Pb	23 5 TCLP	370 TCLP	1,000,000 Subsurface Soils	NO	YES
Lithium, Li	Not tested	NA	40,900,000	Not tested	NO
Magnesium, Mg	Not tested	NA	NA	Not tested	NO
Manganese, Mn	Not tested	NA	10,100,000	Not tested	NO
Mercury, Hg	5 0 U TCLP	250 TCLP	613,000	NO	YES
Methylene chloride	0 5U	30,000	763,000	NO	YES
Molybdenum, Mo	Not tested	NA	10,200,000	Not tested	NO
Nickel, Ni	Not tested	5,000 TCLP	40,900,000	Not tested	NO
Potassium, K	Not tested	NA	NA	Not tested	NO
Pyridine	70 U	16,000	NA	NO	YES
Selenium, Se	22 2 TCLP	160 TCLP	10,200,000	NO	YES
Silver, Ag	2 0 U TCLP	300 TCLP	NA	NO	YES
Sodium	Not tested	NA	NA	Not tested	NO
Strontium, Sr	Not tested	NA	> 1 E+6	Not tested	NO
Tetrachloroethylene	22	6,000	110,000	NO	YES
1,3,5-Trimethylbenzene	8	NA			
1,2,4-Trimethylbenzene	23	NA			
Thallium, Tl	Not tested	780 TCLP	Not tested	NO	NO
Tin Sn	Not tested	NA	Not tested	NO	NO
Toluene	14	10,000	409,000,000	NO	YES
Trichloroethylene	0 5 U	6,000	520,000	NO	YES
Vanadium, V	Not tested	230 TCLP	Not tested	NO	NO
Vinyl chloride	0 5 U	6,000	3,010	NO	YES
Xylenes	530 TB 239% recovery	30,000	> 1 E+6	NO	YES
Zinc, Zn	Not tested	5,300 *	613,000,000	Not tested	NO

Steel PipeSample
Sampled 2/23/98
Summarized Tuesday, March 24, 1998
Ted A Hopkins

Recra LabNet - Chicago
METHOD 8260 VOLATILES TCLP

Report Date: 03/17/98 15.44

RFW Batch Number: 9803G579 Client: ICF Kaiser-98A1056 Work Order. 11830-001-001-9 Page. 1a

Sample Information																			
	Cust ID:	98A1056-001. 002		98A1056-001. 002		98A1056-001. 002		VBLKRC			VBLKRD			VBLKRD BS					
	RFW#:	002		002 DL		002 MS		98GVC035-331			98GVC035-MB1			98GVC035-MB1					
	Matrix:	WATER		WATER		WATER		WATER			WATER			WATER					
	D.F.:	1		20		20		1			1			1					
	Units:	ug/L		ug/L		ug/L		ug/L			/L			ug/L					
Surrogate Recovery	1,2-Dichloroethane-d4	97	%	107	%	103							%	99	%				
	Toluene-d8	100	%	103	%								%	101	%				
	4-Bromofluorobenzene	99	%	101									%	101	%				
Dichlorodifluoromethane		5	U	NA									U	72	%				
Chloromethane		5	U	NA									U	124	* %				
Vinyl chloride		5	U	NA									U	108	%				
Bromomethane		5	U	NA										84	%				
Chloroethane		5	U	NA										102	%				
Trichlorofluoromethane		2	J	NA										77	%				
1,1-Dichloroethene		5	U	NA										88	%				
Acetone			E	3000	TB									76	%				
Carbon Disulfide		5	U	NA										94	%				
Methylene Chloride		5	U	NA										88	%				
Trichlorotrifluoroethane		5	U	NA										5	U				
trans-1,2-Dichloroethene		5	U	NA										89	%				
1,1-Dichloroethane		5	U	NA										89	%				
cis-1,2-Dichloroethene		5	U	NA										96	%				
2,2-Dichloropropane		5	U	NA									U	95	%				
2-Butanone		5	U	NA									5 U	82	%				
Bromochloromethane		5	U	NA				5	U				5 J	8	U N4				
Chloroform		1	J	NA				5	U				5 U	92	%				
1,1,1-Trichloroethane		5	U	NA		93	%	5	U				5 U	92	%				
1,1-Dichloropropene		5	U	NA		98	%	5	U				5 U	95	%				
Carbon Tetrachloride		5	U	NA		94	%	5	U				5 U	95	%				
Benzene		5	U	NA		100	%	5	U				5 U	96	%				
1,2-Dichloroethane		5	U	NA		95	%	5	U				5 U	92	%				
Trichloroethene		4	J	NA		102	%	5	U				5 U	96	%				
1,2-Dichloropropane		5	U	NA		101	%	5	U				5 U	97	%				
Dibromomethane		5	U	NA		98	%	5	U				5 U	94	%				

*= Outside of EPA CLP QC limits.

Steel Pipe

Semi-volatile ?

Pyridine

See 3/17/98

RFW Batch Number: 9803G579 Client: ICF Kaiser-98A1056 Work Order: 11830-001-001-9 Page: 1b

Cust ID:	98A1056-001. 002		98A1056-001. 002		98A1056-001. 002		VBLKRC		VBLKRD		VBLKRD BS	
RFW#:	002		002 DL		002 MS		98GVC035-331		98GVC035-MB1		98GVC035-MB1	
Bromodichloromethane	5	U	NA		90	%	5	U	5	U	91	%
cis-1,3-Dichloropropene	5	U	NA		89	%	5	U	5	U	90	%
4-Methyl-2-pentanone		E	980	TB	1680 *	%	40		5	U	105	%
Toluene	14		NA		112	%	5	U	5	U	96	%
trans-1,3-Dichloropropene	5	U	NA		92	%	5	U	5	U	92	%
1,1,2-Trichloroethane	5	U	NA		96	%	5	U	5	U	91	%
1,3-Dichloropropane	5	U	NA		103	%	5	U	5	U	96	%
Tetrachloroethene	5	U	NA		100	%	5	U	5	U	97	%
2-Hexanone	5	U	NA		121	%	5	U	5	U	106	%
Dibromochloromethane	5	U	NA		90	%	5	U	5	U	90	%
1,2-Dibromoethane	5	U	NA		100	%	5	U	5	U	94	%
Chlorobenzene	2	J	NA		103	%	5	U	5	U	98	%
1,1,1,2-Tetrachloroethane	5	U	NA		94	%	5	U	5	U	95	%
Ethylbenzene	100	TB	NA		201 *	%	4	J	5	U	96	%
Xylene (total)		E	530	TB	239 *	%	17		5	U	96 0*	%
Styrene	5	U	NA		102	%	5	U	5	U	98	%
Bromoform	5	U	NA		96	%	5	U	5	U	93	%
Isopropylbenzene	2	J	NA		102	%	5	U	5	U	98	%
1,1,2,2-Tetrachloroethane	5	U	NA		102	%	5	U	5	J	94	%
Bromobenzene	5	U	NA		101	%	5	U	5	U	97	%
1,2,3-Trichloropropane	5	U	NA		104	%	2	J	5	U	94	%
n-Propylbenzene	3	J	NA		105	%	5	U	5	U	100	%
2-Chlorotoluene	5	U	NA		102	%	5	U	5	U	99	%
1,3,5-Trimethylbenzene	8		NA		109	%	5	U	5	U	98	%
4-Chlorotoluene	5	U	NA		100	%	5	U	5	U	98	%
tert-Butylbenzene	5	U	NA		103	%	5	U	5	U	98	%
1,2,4-Trimethylbenzene	23	TB	NA		127 *	%	1	J	5	U	101	%
sec-Butylbenzene	5	U	NA		103	%	5	U	5	U	100	%
1,3-Dichlorobenzene	5	U	NA		101	%	5	U	5	U	99	%
p-Isopropyltoluene	5	U	NA		101	%	5	U	5	U	98	%
1,4-Dichlorobenzene	5	U	NA		102	%	5	U	5	U	99	%
n-Butylbenzene	5	U	NA		102	%	5	U	5	U	100	%
1,2-Dichlorobenzene	5	U	NA		100	%	5	U	5	U	97	%
1,2-Dibromo-3-chloropropane	5	U	NA		107	%	5	U	5	U	98	%
1,2,4-Trichlorobenzene	5	U	NA		103	%	5	U	5	U	101	%
Hexachlorobutadiene	5	U	NA		108	%	5	U	5	U	97	%

*= Outside of EPA CLP QC limits.

JW 3/11/98

Cust ID:	98A1056-001. 002	98A1056-001. 002	98A1056-001. 002	VBLKRC	VBLKRD	VBLKRD BS
RFW#:	002	002 DL	002 MS	98GVC035-331	98GVC035-MB1	98GVC035-MB1
Naphthalene	5 U	NA	112 * %	6	5 U	98 %
1,2,3-Trichlorobenzene	5 U	NA	105 %	1 J	5 U	101 %

*= Outside of EPA CLP QC limits.

Recra LabNet - Chicago
METHOD 8260 VOLATILES TCLP

RFW Batch Number: 9803G579 Client: ICF Kaiser-98A1056 Work Order: 11830-001-001-9 Report Date: 03/17/98 15:44 Page: 2a

	Cust ID:	VBLKPF		VBLKPF BS	
Sample Information	RFW#:	98GVC031-MB1		98GVC031-MB1	
	Matrix:	WATER		WATER	
	D.F.:	1		1	
	Units:	ug/L		ug/L	
Surrogate Recovery	1,2-Dichloroethane-d4	105	%	108	%
	Toluene-d8	104	%	104	%
	4-Bromofluorobenzene	104	%	105	%
Dichlorodifluoromethane		5	U	72	%
Chloromethane		5	U	105	%
Vinyl chloride		5	U	103	%
Bromomethane		5	U	84	%
Chloroethane		5	U	101	%
Trichlorofluoromethane		5	U	78	%
1,1-Dichloroethene		5	U	98	%
Acetone		5	U	76	%
Carbon Disulfide		5	U	104	%
Methylene Chloride		5	U	97	%
Trichlorotrifluoroethane		5	U	5	U
trans-1,2-Dichloroethene		5	U	98	%
1,1-Dichloroethane		5	U	97	%
cis-1,2-Dichloroethene		5	U	103	%
2,2-Dichloropropane		5	U	105	%
2-Butanone		5	U	116	%
Bromochloromethane		5	U	95	%
Chloroform		5	U	103	%
1,1,1-Trichloroethane		5	U	102	%
1,1-Dichloropropene		5	U	106	%
Carbon Tetrachloride		5	U	106	%
Benzene		5	U	101	%
1,2-Dichloroethane		5	U	102	%
Trichloroethene		5	U	104	%
1,2-Dichloropropane		5	U	106	%
Dibromomethane		5	U	108	%

*= Outside of EPA CLP QC limits.

	Cust ID: VBLKPF		VBLKPF BS	
	RFW#: 98GVC031-MB1		98GVC031-MB1	
Bromodichloromethane	5	U	102	%
cis-1,3-Dichloropropene	5	U	98	%
4-Methyl-2-pentanone	5	U	119	%
Toluene	5	U	101	%
trans-1,3-Dichloropropene	5	U	100	%
1,1,2-Trichloroethane	5	U	103	%
1,3-Dichloropropane	5	U	105	%
Tetrachloroethene	5	U	106	%
2-Hexanone	5	U	116	%
Dibromochloromethane	5	U	101	%
1,2-Dibromoethane	5	U	106	%
Chlorobenzene	5	U	104	%
1,1,1,2-Tetrachloroethane	5	U	104	%
Ethylbenzene	5	U	102	%
Xylene (total)	5	U	102	%
Styrene	5	U	104	%
Bromoform	5	U	107	%
Isopropylbenzene	5	U	133	%
1,1,2,2-Tetrachloroethane	5	U	102	%
Bromobenzene	5	U	104	%
1,2,3-Trichloropropane	5	U	106	%
n-Propylbenzene	5	U	105	%
2-Chlorotoluene	5	U	104	%
1,3,5-Trimethylbenzene	5	U	100	%
4-Chlorotoluene	5	U	103	%
tert-Butylbenzene	5	U	97	%
1,2,4-Trimethylbenzene	5	U	102	%
sec-Butylbenzene	5	U	104	%
1,3-Dichlorobenzene	5	U	104	%
p-Isopropyltoluene	5	U	102	%
1,4-Dichlorobenzene	5	U	104	%
n-Butylbenzene	5	U	106	%
1,2-Dichlorobenzene	5	U	104	%
1,2-Dibromo-3-chloropropane	5	U	107	%
1,2,4-Trichlorobenzene	5	U	105	%
Hexachlorobutadiene	5	U	103	%

*= Outside of EPA CLP QC limits.

	Cust ID: VBLKPF	VBLKPF BS
	RFW#: 98GVC031-MB1	98GVC031-MB1
Naphthalene	5 U	103 %
1,2,3-Trichlorobenzene	5 U	105 %

*= Outside of EPA CLP QC limits.

RECRA LABNET - CHICAGO

INORGANICS DATA SUMMARY REPORT 03/17/98

Steel Pipe

CLIENT: ICF Kaiser-98A1056
WORK ORDER. 11830-001-001-9999-00

RECRA LOT #: 9803G579

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-004	98A1056-001 003	Silver, TCLP	2.0	u	UG/L	2.0
		Arsenic, TCLP	23.9		UG/L	17.2
		Barium, TCLP	223		UG/L	1.3
		Cadmium, TCLP	1.8	u	UG/L	1.8
		Chromium, TCLP	178		UG/L	1.5
		Mercury, TCLP	5.0	u	UG/L	5.0
		Lead, TCLP	23.5		UG/L	12.9
		Selenium, TCLP	22.2	u	UG/L	22.2

Rinsate sample from Tank 853, Building 428
Rinsate sample for underground portion of RCRA Unit 40 from B123 to B428
Sample # 98A097-001

Contaminants of concern and any contaminant present above action levels	UG/L in sample or ppb	Tier 2 RFCA Action Levels (mg/L or ppm)	Conversion of Tier 2 Action Levels to ppb	Is contaminant present above Tier 2 Action Levels?	"Contaminant of Concern" as identified in the RCRA Closure Plan for RCRA Unit 40?
1,1 Dichloroethylene	0 5U	7 00E-03	7 ppb	NO	YES
1,1,2-Trichloroethane	0 5U	5 00E-03	5 ppb	NO	YES
1-1-1-Trichloroethane	0 5U	2 00E-01	200 ppb	NO	YES
1-2-Dichloroethane	0 5U	5 00E-03	5 ppb	NO	YES
2-Butanone (Methyl ethyl ketone)	2 U	2 47E+00	2470 ppb	NO	YES
Acetone	2U	3 65E+00	3650 ppb	NO	YES
Aluminum, Al	271 Total	1 06E+02	106,000 ppb	NO	NO
Antimony, Sb	2 2 Total	6 00E-03	6 ppb	NO	NO
Arsenic, As	1 6 U Total	5 00E-02	50 ppb	NO	YES
Barium, Ba	37 1 Total	2 00E+00	2,000 ppb	NO	YES
Benzene	0 5 U	5 00E-03	5 ppb	NO	YES
Beryllium, Be	0 2U Total	4 00E-03	4 ppb	NO	NO
Bromodichloromethane	5	1 00E-01	100 ppb	NO	NO
Cadmium, Cd	0 40U Total	5 00E-03	5 ppb	NO	YES
Carbon disulfide	2 0 U	2 76E-02	27 6 ppb	NO	YES
Carbon tetrachloride	0 5U	5 00E-03	5 ppb	NO	YES
Chlorobenzene	0 5U	1 00E-01	100 ppb	NO	YES
Chloroform	41 E Background Contaminant	1 00E-01	100 ppb	NO	YES
Chromium, Cr	588 Total	1 00E-01	100 ppb	YES	YES
Cobalt, Co	0 5 U Total	2 19E+00	2,190 ppb	NO	NO
Copper, Cu	19 8 Total	1 30E+00	1,300 ppb	NO	NO
Ethylbenzene	0 5U	7 00E-01	700 ppb	NO	YES

Rinsate sample for underground RCRA Unit 40 Waste Process Lines
Underground Line running from B123 to B428
Sample from T853, outlet
Summarized Tuesday, March 24, 1998
Ted A Hopkins

Contaminants of concern and any contaminant present above action levels	UG/L in sample or ppb	Tier 2 RFCA Action Levels (mg/L or ppm)	Conversion of Tier 2 Action Levels to ppb	Is contaminant present above Tier 2 Action Levels?	"Contaminant of Concern" as identified in the RCRA Closure Plan for RCRA Unit 40?
Iron, Fe	3310	NA, not on Tier 2 Table	NA	NO	NO
Lead, Pb	21.7	Not found in RFCA Tier 2 Table DRAFT Standard 15 ppb	15 ppb	YES 15 ppb	YES
Lithium, Li	3 1 Total	7 30E+01	73,000 ppb	NO	NO
Magnesium, Mg	3200 Total	Not found in RFCA Tier 2 Table	NA	NO	NO
Manganese, Mn	26	1 83E-01	183 ppb	NO	NO
Mercury, Hg	1 3 Total	2 00E-03	2 ppb	NO	YES
Methylene chloride	0 5U	5 00E-03	5 ppb	NO	YES
Molybdenum, Mo	51 1 Total	1 83E-01	183 ppb	NO	NO
Nickel, Ni	64 Total	1 00E-01	100 ppb	NO	NO
Potassium, K	1,140 Total	Not found in the RFCA Tier 2 Table	NA	NO	NO
Pyridine	70 U	Not on Tier 2 List	NA	NA, not on Tier 2 list	YES
Selenium, Se	1 8 U Total	5 00E-02	50 ppb	NO	YES
Silver, Ag	10 0 U Total	1 83E-01	183 ppb	NO	YES
Sodium	50,300 Total	Not found in RFCA Tier 2 Table	NA	NO	NO
Strontium, Sr	111	2 19E+01	21,900 ppb	NO	NO
Tetrachloroethylene	0 5 U	5 00E-03	5 ppb	NO	YES
Thallium, Tl	2 3 U Total	2 00E-03	2 ppb	NO	NO
Tin, Sn	14 6 Total	2 19E+01	21,900 ppb	NO	NO
Toluene	0 5U	1 00E+00	1000 ppb	NO	YES
Trichloroethylene	0 5U	5 00E-03	5 ppb	NO	YES
Vanadium, V	2 5	2 56E-01	256 ppb	NO	NO
Vinyl chloride	0 5U	2 00E-03	2 ppb	NO	YES
Xylenes	0 5U	1 00E+01	10,000 ppb	NO	YES
Zinc, Zn	25 2 Total	1 10E+01	11,000 ppb	NO	NO

Rinsate sample for underground RCRA Unit 40 Waste Process Lines
Underground Line running from B123 to B428
Sample from T853, outlet
Summarized Tuesday, March 24, 1998
Ted A Hopkins

Recra LabNet - Chicago
METHOD 8260 VOLATILES
Tank 853

RFW Batch Number: 9802G376 Client: ICF Kaiser-98A0997 Work Order: 11830-001-001-9 Report Date: 02/24/98 14:11 Page: 1a

Tank D853

Sample Information	Cust ID:	98A0997-001.003	98A0997-001.003	VBLKDA	VBLKDA BS	VBLKAX	VBLKAX BS
	RFW#:	001	001 DL	98GVF055-MB1	98GVF055-MB1	98GVF056-MB1	98GVF056-MB1
	Matrix:	WATER	WATER	WATER	WATER	WATER	WATER
	D.F.:	1	5	1	1	1	1
	Units:	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Surrogate Recovery	4-Bromofluorobenzene	107 %	104 %	104 %	103 %	107 %	99 %
	Toluene-d8	108 %	104 %	107 %	101 %	112 %	106 %
	1,2-Dichloroethane-d4	107 %	106 %	98 %	98 %	101 %	103 %
Dichlorodifluoromethane		0.5 U	NA	0.5 U	58 %	0.5 U	72 %
Chloromethane		0.5 U	NA	0.5 U	101 %	0.5 U	102 %
Vinyl chloride		0.5 U	NA	0.5 U	96 %	0.5 U	91 %
Bromomethane		0.5 U	NA	0.5 U	74 %	0.5 U	69 %
Chloroethane		0.5 U	NA	0.5 U	99 %	0.5 U	102 %
Trichlorofluoromethane		0.5 U	NA	0.5 U	61 %	0.5 U	60 * %
1,1-Dichloroethene		0.5 U	NA	0.5 U	72 %	0.5 U	87 %
Methylene Chloride		0.5 U	NA	0.5 U	75 %	0.5 U	82 %
trans-1,2-Dichloroethene		0.5 U	NA	0.5 U	80 %	0.5 U	85 %
1,1-Dichloroethane		0.5 U	NA	0.5 U	82 %	0.5 U	83 %
2,2-Dichloropropane		0.5 U	NA	0.5 U	91 %	0.5 U	95 %
cis-1,2-Dichloroethene		0.5 U	NA	0.5 U	92 %	0.5 U	97 %
Bromochloromethane		0.5 U	NA	0.5 U	94 %	0.5 U	94 %
Chloroform		E	41	0.5 U	85 %	0.5 U	85 %
1,1,1-Trichloroethane		0.5 U	NA	0.5 U	78 %	0.5 U	82 %
1,1-Dichloropropene		0.5 U	NA	0.5 U	86 %	0.5 U	91 %
Carbon Tetrachloride		0.5 U	NA	0.5 U	74 * %	0.5 U	79 %
Benzene		0.5 U	NA	0.5 U	85 %	0.5 U	90 %
1,2-Dichloroethane		0.5 U	NA	0.5 U	81 %	0.5 U	84 %
Trichloroethene		0.5 U	NA	0.5 U	85 %	0.5 U	88 %
1,2-Dichloropropane		0.5 U	NA	0.5 U	92 %	0.5 U	95 %
Dibromomethane		0.5 U	NA	0.5 U	90 %	0.5 U	95 %
Bromodichloromethane		5	NA	0.5 U	84 %	0.5 U	86 %
Toluene		0.5 U	NA	0.5 U	87 %	0.5 U	90 %
1,1,2-Trichloroethane		0.5 U	NA	0.5 U	91 %	0.5 U	91 %
Tetrachloroethene		0.5 U	NA	0.5 U	85 %	0.5 U	82 %

* = Outside of EPA CLP QC limits.

FEB-27-98 THU 11:17 SENT BY:RECRA LABORATORIES ; 2-27-98 ; 10:44 ;RECRA LABORATORIES FAX NO. 303 986 3400 P.02

RFW Batch Number: 98026375 Client: ICF Kaiser-98A0997-TB53 Work Order: 11B30-001-001-9 Page 1b

Cust ID:	98A0997-001. 003	98A0997-001. 003	VBLKDA	VBLKDA BS	VBLKAX	VBLKAX BS
RFW#:	001	001 DL	98GVF055-MB1	98GVF055-MB1	98GYF056-MB1	98GYF056-MB1
1,3-Dichloropropane	0.5 U	NA	0.5 U	96 %	0.5 U	93 %
Dibromochloromethane	0.5 U	NA	0.5 U	88 %	0.5 U	85 %
1,2-Dibromoethane	0.5 U	NA	0.5 U	93 %	0.5 U	96 %
Chlorobenzene	0.5 U	NA	0.5 U	89 %	0.5 U	88 %
1,1,1,2-Tetrachloroethane	0.5 U	NA	0.5 U	86 %	0.5 U	85 %
Ethylbenzene	0.5 U	NA	0.5 U	87 %	0.5 U	84 %
Styrene	0.5 U	NA	0.5 U	92 %	0.5 U	88 %
Bromoform	0.5 U	NA	0.5 U	92 %	0.5 U	90 %
Isopropylbenzene	0.5 U	NA	0.5 U	84 %	0.5 U	84 %
Bromobenzene	0.5 U	NA	0.5 U	89 %	0.5 U	88 %
1,1,2,2-Tetrachloroethane	0.5 U	NA	0.5 U	94 %	0.5 U	94 %
1,2,3-Trichloropropane	0.5 U	NA	0.5 U	92 %	0.5 U	91 %
n-Propylbenzene	0.5 U	NA	0.5 U	90 %	0.5 U	86 %
2-Chlorotoluene	0.5 U	NA	0.5 U	92 %	0.5 U	92 %
4-Chlorotoluene	0.5 U	NA	0.5 U	88 %	0.5 U	88 %
1,3,5-Trimethylbenzene	0.5 U	NA	0.5 U	85 %	0.5 U	81 %
tert-Butylbenzene	0.5 U	NA	0.5 U	87 %	0.5 U	85 %
1,2,4-Trimethylbenzene	0.5 U	NA	0.5 U	87 %	0.5 U	84 %
sec-Butylbenzene	0.5 U	NA	0.5 U	86 %	0.5 U	83 %
1,3-Dichlorobenzene	0.5 U	NA	0.5 U	93 %	0.5 U	91 %
p-Isopropyltoluene	0.5 U	NA	0.5 U	84 %	0.5 U	81 %
1,4-Dichlorobenzene	0.5 U	NA	0.5 U	96 %	0.5 U	95 %
1,2-Dichlorobenzene	0.5 U	NA	0.5 U	89 %	0.5 U	89 %
n-Butylbenzene	0.5 U	NA	0.5 U	89 %	0.5 U	86 %
1,2-Dibromo-3-chloropropane	0.5 U	NA	0.5 U	100 %	0.5 U	100 %
1,2,4-Trichlorobenzene	0.5 U	NA	0.5 U	96 %	0.5 U	97 %
Hexachlorobutadiene	0.5 U	NA	0.5 U	85 %	0.5 U	82 %
Naphthalene	0.5 U	NA	0.5 U	101 %	0.5 U	103 %
1,2,3-Trichlorobenzene	0.5 U	NA	0.5 U	92 %	0.5 U	96 %
cis-1,3-Dichloropropene	0.5 U	NA	0.5 U	83 %	0.5 U	84 %
trans-1,3-Dichloropropene	0.5 U	NA	0.5 U	89 %	0.5 U	93 %
Acetone	2 U	NA	2 U	108 %	2 U	2 U
2-Butanone	2 U	NA	2 U	128 %	2 U	2 U
Carbon Disulfide	2 U	NA	2 U	65 %	2 U	2 U
4-Methyl-2-pentanone	2 U	NA	2 U	113 %	2 U	2 U
2-Hexanone	2 U	NA	2 U	124 %	2 U	2 U

*= Outside of EPA CLP QC Limits

RFW Batch Number: 9802G376 Client: ICF Kaiser-98A0997 T853 Work Order: 11830-001-001-9 Page 1c

Cust ID:	98A0997-001. 003	98A0997-001. 003	VBLKDA	VBLKDA BS	VBLKAX	VBLKAX BS
RFW#:	001	001 DL	98GVF055-MB1	98GVF055-MB1	98GVF056-MB1	98GVF056-MB1
Trichlorotrifluoroethane	2 U	NA	2 U	2 U	2 U	2 U
Xylene (total)	0.5 U	NA	0.5 U	92 %	0.5 U	88 %

*= Outside of EPA CLP QC limits.

RECRA LABNET - CHICAGO

INORGANICS DATA SUMMARY REPORT 02/25/98

CLIENT: ICF Kaiser-98A0997 — T853
WORK ORDER: 11830-001-001-9999-00

RECRA LOT #: 9802G376

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT
-003	98A0997-001.006	Silver, Total	10.0	u	UG/L	10.0
	Tank D853	Aluminum, Total	271		UG/L	13.1
		Arsenic, Total	1.6	u	UG/L	1.6
		Barium, Total	37.1		UG/L	0.20
		Beryllium, Total	0.20	u	UG/L	0.20
		Calcium, Total	13100		UG/L	7.6
		Cadmium, Total	0.40	u	UG/L	0.40
		Cobalt, Total	0.50	u	UG/L	0.50
		Chromium, Total	588		UG/L	0.40
		Copper, Total	19.8		UG/L	0.70
		Iron, Total	3310		UG/L	16.9
		Mercury, Total	1.3		UG/L	0.10
		Potassium, Total	1140		UG/L	7.4
		Lithium, Total	3.1		UG/L	1 3
		Magnesium, Total	3200		UG/L	7 6
		Manganese, Total	26.0		UG/L	0.50
		Molybdenum, Total	51.1		UG/L	0.50
		Sodium, Total	50300		UG/L	177
		Nickel, Total	64.0		UG/L	0.60
		Lead, Total	21.7		UG/L	1.2
		Antimony, Total	2.2		UG/L	1.4
		Selenium, Total	1.8	u	UG/L	1.8
		Tin, Total	14.6		UG/L	1.7
		Strontium, Total	111		UG/L	0.20
		Thallium, Total	2.3	u	UG/L	2.3
		Vanadium, Total	2.5		UG/L	0.60
		Zinc, Total	25.2		UG/L	0.60

Underground piping

Recra LabNet - Chicago
SEMIVOLATILES BY GC/MS, TCLP LEACHATE

Report Date: 02/25/98 13.50

RFW Batch Number: 98026376 Client: ICF Kaiser-98A0997 T853 Work Order: 11830-001-001-9 Page: 1a

Tank D853

Sample Information	Cust ID.	98A0997-001. 005	SBLKHX	SBLKHX BS	SBLKHY	SBLKHZ	SBLKIA
	RFW#.	004	98GB0056-MB1	98GB0056-MB1	98GB0056-TC1	98GB0056-TC2	98GB0056-TC3
	Matrix.	WATER	WATER	WATER	WATER	WATER	WATER
	D.F.:	1	1	1	1	1	1
	Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Surrogate Recovery	2-Fluorophenol	61 %	60 %	85 %	70 %	68 %	76 %
	Phenol-d5	66 %	64 %	99 * %	75 %	74 %	82 %
	Nitrobenzene-d5	80 %	72 %	100 %	86 %	77 %	88 %
	2-Fluorobiphenyl	79 %	68 %	96 %	86 %	76 %	89 %
	2,4,6-Tribromophenol	55 %	51 %	71 %	56 %	60 %	66 %
	p-Terphenyl-d14	104 %	84 %	104 %	102 %	97 %	102 %
		fl	fl	fl	fl	fl	fl
Pyridine		70 U	7 U	56 %	70 U	70 U	70 U
1,4-Dichlorobenzene		50 U	5 U	77 %	50 U	50 U	50 U
o-Cresol		60 U	6 U	89 %	60 U	60 U	60 U
meta & para-Cresol		30 U	3 U	90 %	30 U	30 U	30 U
Hexachloroethane		70 U	7 U	86 %	70 U	70 U	70 U
Nitrobenzene		40 U	4 U	95 %	40 U	40 U	40 U
Hexachlorobutadiene		80 U	8 U	67 %	80 U	80 U	80 U
2,4,6-Trichlorophenol		30 U	3 U	88 %	30 U	30 U	30 U
2,4,5-Trichlorophenol		40 U	4 U	89 %	40 U	40 U	40 U
2,4-Dinitrotoluene		20 U	2 U	106 %	20 U	20 U	20 U
Hexachlorobenzene		30 U	3 U	74 %	30 U	30 U	30 U
Pentachlorophenol		60 U	6 U	85 %	60 U	60 U	60 U

*= Outside of EPA CLP QC limits.

QC 13

FAX NO. 303 986 3400 P.06
FEB-02-98 MON 01:18 PM

TANK 853 Summary of Sample Results
Metals present above detection levels in the Tier 2 MCLs for Groundwater Action Levels

Analyte	Sample Result ug/L	GW Tier 2 MCL standard ug/L	Background if appropriate ug/L
Aluminum	271	106,000	137
Antimony	2 2	6	2 2
Barium	37 1	2,000	22 2
Calcium	13,100	NA	13,200
Chromium	588	100	0 41
Copper	19 8	1,300	u
Iron	3,310	NA	38 5
Lead	21 7	NA 15?	2 1
Lithium	3 1	730	4 9
Magnesium	3200	NA	3,180
Manganese	26	183	1 3
Mercury	1 3	2	u
Molybdenum	51	183	21 6
Nickel	64	100	u
Potassium	1140	NA	972
Sodium	50,300	NA	7,290
Strontium	111	21,900	112
Tin	14 6	21,900	u
Vanadium	2 5	256	u
Zinc	25 2	11,000	6 4

Analyte	Sample Results in ug/L	Tier 2 ug/L MCLs	Background sample ug/L
Chloroform	41	100	47
Bromodichloromethane	5	100	6

RECRA LABNET - CHICAGO

INORGANICS DATA SUMMARY REPORT 02/25/98

CLIENT: ICF Kaiser-98A0996
WORK ORDER: 11830-001-001-9999-00

RECRA LOT #. 9802G363

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-016	98A0996-004.024 Baseline	Silver, Total	10.0 u	UG/L	10.0
		Aluminum, Total	137	UG/L	13.1
		Arsenic, Total	1.6 u	UG/L	1.6
		Barium, Total	22.2	UG/L	0.20
		Beryllium, Total	0.20 u	UG/L	0.20
		Calcium, Total	1320[illegible]	UG/L	7.6
		Cadmium, Total	[illegible]40 u	UG/L	0.40
		Cobalt, Total	0.50 u	UG/L	0.50
		Chromium, Total	0.41	UG/L	0.40
		Copper, Total	0.70 u	UG/L	0.70
		Iron, Total	38.5	UG/L	16.9
		Mercury, Total	0.10 u	UG/L	0.10
		Potassium, Total	972	UG/L	7.4
		Lithium, Total	4.9	UG/L	1.3
		Magnesium, Total	3180	UG/L	7.6
		Manganese, Total	1.3	UG/L	0.50
		Molybdenum, Total	21.6	UG/L	0.50
		Sodium, Total	7290	UG/L	177
		Nickel, Total	0.60 u	UG/L	0.60
		Lead, Total	2.1	UG/L	1.2
		Antimony, Total	2.2	UG/L	1.4
		Selenium, Total	2.2	UG/L	1.8
		Tin, Total	1.7 u	UG/L	1.7
		Strontium, Total	112	UG/L	0.20
		Thallium, Total	2.3 u	UG/L	2.3
		Vanadium, Total	0.60 u	UG/L	0.60
		Zinc, Total	6.4	UG/L	0.60

Recra LabNet - Chicago
METHOD 8260 VOLATILES

RFW Batch Number: 9802G363 Client: ICF Kaiser-98A0996 Work Order: 11830-001-001-9 Report Date: 02/24/98 09:09 Page 2a

	Cust ID:	98A0996-004. 021 (Baseline)	VBLKDA	VBLKDA BS	VBLKCQ	VBLKCQ BS
Sample Information	RFW#.	013 DL	98GVF055-MB1	98GVF055-MB1	98GVF057-MB1	98GVF057-MB1
	Matrix:	WATER	WATER	WATER	WATER	WATER
	D.F.:	5	1	1	1	1
	Units:	UG/L	UG/L	UG/L	UG/L	UG/L
Surrogate Recovery	4-Bromofluorobenzene	104 %	104 %	103 %	104 %	110 %
	Toluene-d8	107 %	107 %	101 %	103 %	109 %
	1,2-Dichloroethane-d4	97 %	98 %	98 %	98 %	103 %
Dichlorodifluoromethane		NA	0.5 U	58 %	0.5 U	68 %
Chloromethane		NA	0.5 U	101 %	0.5 U	108 %
Vinyl chloride		NA	0.5 U	96 %	0.5 U	103 %
Bromomethane		NA	0.5 U	74 %	0.5 U	80 %
Chloroethane		NA	0.5 U	99 %	0.5 U	109 %
Trichlorofluoromethane		NA	0.5 U	61 %	0.5 U	64 %
1,1-Dichloroethene		NA	0.5 U	72 %	0.5 U	69 %
Methylene Chloride		NA	0.5 U	75 %	0.5 U	88 %
trans-1,2-Dichloroethene		NA	0.5 U	80 %	0.5 U	86 %
1,1-Dichloroethane		NA	0.5 U	82 %	0.5 U	87 %
2,2-Dichloropropane		NA	0.5 U	91 %	0.5 U	89 %
cis-1,2-Dichloroethene		NA	0.5 U	92 %	0.5 U	98 %
Bromochloromethane		NA	0.5 U	94 %	0.5 U	102 %
Chloroform		47	0.5 U	85 %	0.5 U	89 %
1,1,1-Trichloroethane		NA	0.5 U	78 %	0.5 U	78 %
1,1-Dichloropropene		NA	0.5 U	86 %	0.5 U	84 %
Carbon Tetrachloride		NA	0.5 U	74 * %	0.5 U	73 * %
Benzene		NA	0.5 U	85 %	0.5 U	90 %
1,2-Dichloroethane		NA	0.5 U	81 %	0.5 U	85 %
Trichloroethene		NA	0.5 U	85 %	0.5 U	90 %
1,2-Dichloropropane		NA	0.5 U	92 %	0.5 U	98 %
Dibromomethane		NA	0.5 U	90 %	0.5 U	99 %
Bromodichloromethane		NA	0.5 U	84 %	0.5 U	90 %
Toluene		NA	0.5 U	87 %	0.5 U	92 %
1,1,2-Trichloroethane		NA	0.5 U	91 %	0.5 U	98 %
Tetrachloroethene		NA	0.5 U	85 %	0.5 U	84 %

*= Outside of EPA CLP QC limits.

RFW Batch Number: 9802G363 Client: ICF Kaiser-98A0996 Work Order: 11830-001-001-9 Page: 2b

Cust ID:	98A0996-004	VBLKDA	VBLKDA BS	VBLKCQ	VBLKCQ BS
RFW#	021 013 DL	98GVF055-MB1	98GVF055-MB1	98GVF057-MB1	98GVF057-MB1
1,3-Dichloropropane	NA	0.5 U	96 %	0.5 U	103 %
Dibromochloromethane	NA	0.5 U	88 %	0.5 U	92 %
1,2-Dibromoethane	NA	0.5 U	93 %	0.5 U	100 %
Chlorobenzene	NA	0.5 U	89 %	0.5 U	94 %
1,1,1,2-Tetrachloroethane	NA	0.5 U	86 %	0.5 U	90 %
Ethylbenzene	NA	0.5 U	87 %	0.5 U	90 %
Styrene	NA	0.5 U	92 %	0.5 U	97 %
Bromoform	NA	0.5 U	92 %	0.5 U	98 %
Isopropylbenzene	NA	0.5 U	84 %	0.5 U	86 %
Bromobenzene	NA	0.5 U	89 %	0.5 U	94 %
1,1,2,2-Tetrachloroethane	NA	0.5 U	94 %	0.5 U	102 %
1,2,3-Trichloropropane	NA	0.5 U	92 %	0.5 U	95 %
n-Propylbenzene	NA	0.5 U	90 %	0.5 U	87 %
2-Chlorotoluene	NA	0.5 U	92 %	0.5 U	91 %
4-Chlorotoluene	NA	0.5 U	88 %	0.5 U	88 %
1,3,5-Trimethylbenzene	NA	0.5 U	85 %	0.5 U	84 %
tert-Butylbenzene	NA	0.5 U	87 %	0.5 U	86 %
1,2,4-Trimethylbenzene	NA	0.5 U	87 %	0.5 U	88 %
sec-Butylbenzene	NA	0.5 U	86 %	0.5 U	83 %
1,3-Dichlorobenzene	NA	0.5 U	93 %	0.5 U	96 %
p-Isopropyltoluene	NA	0.5 U	84 %	0.5 U	83 %
1,4-Dichlorobenzene	NA	0.5 U	96 %	0.5 U	97 %
1,2-Dichlorobenzene	NA	0.5 U	89 %	0.5 U	96 %
n-Butylbenzene	NA	0.5 U	89 %	0.5 U	86 %
1,2-Dibromo-3-chloropropane	NA	0.5 U	100 %	0.5 U	108 %
1,2,4-Trichlorobenzene	NA	0.5 U	96 %	0.5 U	101 %
Hexachlorobutadiene	NA	0.5 U	85 %	0.5 U	80 %
Naphthalene	NA	0.5 U	101 %	0.5 U	108 %
1,2,3-Trichlorobenzene	NA	0.5 U	92 %	0.5 U	101 %
cis-1,3-Dichloropropene	NA	0.5 U	83 %	0.5 U	93 %
trans-1,3-Dichloropropene	NA	0.5 U	89 %	0.5 U	92 %
Acetone	NA	2 U	108 %	2 U	105 %
2-Butanone	NA	2 U	128 %	2 U	106 %
Carbon Disulfide	NA	2 U	65 %	2 U	64 %
4-Methyl-2-pentanone	NA	2 U	113 %	2 U	110 %
2-Hexanone	NA	2 U	124 %	2 U	116 %

*= Outside of EPA CLP QC limits.

RECRA LABNET - CHICAGO

INORGANICS DATA SUMMARY REPORT 02/25/98

CLIENT: ICF Kaiser-98A0996
WORK ORDER: 11830-001-001-9999-00

RECRA LOT #. 9802G363

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT
-016	98A0996-004.024 Baseline	Silver, Total	10.0 u	UG/L	10.0
		Aluminum, Total	137	UG/L	13.1
		Arsenic, Total	1.6 u	UG/L	1.6
		Barium, Total	22.2	UG/L	0.20
		Beryllium, Total	0.20 u	UG/L	0.20
		Calcium, Total	13200	UG/L	7.6
		Cadmium, Total	0.40 u	UG/L	0.40
		Cobalt, Total	0.50 u	UG/L	0.50
		Chromium, Total	0.41	UG/L	0.40
		Copper, Total	0.70 u	UG/L	0.70
		Iron, Total	38.5	UG/L	16.9
		Mercury, Total	0.10 u	UG/L	0.10
		Potassium, Total	972	UG/L	7.4
		Lithium, Total	4.9	UG/L	1.3
		Magnesium, Total	3180	UG/L	7.6
		Manganese, Total	1.3	UG/L	0.50
		Molybdenum, Total	21.6	UG/L	0.50
		Sodium, Total	7290	UG/L	177
		Nickel, Total	0.60 u	UG/L	0.60
		Lead, Total	2.1	UG/L	1.2
		Antimony, Total	2.2	UG/L	1.4
		Selenium, Total	2.2	UG/L	1.8
		Tin, Total	1.7 u	UG/L	1.7
		Strontium, Total	112	UG/L	0.20
		Thallium, Total	2.3 u	UG/L	2.3
		Vanadium, Total	0.60 u	UG/L	0.60
		Zinc, Total	6.4	UG/L	0.60

Recra LabNet - Chicago
METHOD 8260 VOLATILES

RFW Batch Number: 9802G363 Client: ICF Kaiser-98A0996 Work Order: 11830-001-001-9 Report Date: 02/24/98 09.09 Page 2a

Sample Information	Cust ID:	98A0996-004. Baseline	VBLKDA	VBLKDA BS	VBLKCQ	VBLKCQ BS
	RFW#:	021 013 DL	98GVF055-MB1	98GVF055-MB1	98GVF057-MB1	98GVF057-MB1
	Matrix:	WATER	WATER	WATER	WATER	WATER
	D.F.:	5	1	1	1	1
	Units:	UG/L	UG/L	UG/L	UG/L	UG/L
Surrogate Recovery	4-Bromofluorobenzene	104 %	104 %	103 %	104 %	110 %
	Toluene-d8	107 %	107 %	101 %	103 %	109 %
	1,2-Dichloroethane-d4	97 %	98 %	98 %	98 %	103 %
Dichlorodifluoromethane		NA	0.5 U	58 %	0.5 U	68 %
Chloromethane		NA	0.5 U	101 %	0.5 U	108 %
Vinyl chloride		NA	0.5 U	96 %	0.5 U	103 %
Bromomethane		NA	0.5 U	74 %	0.5 U	80 %
Chloroethane		NA	0.5 U	99 %	0.5 U	109 %
Trichlorofluoromethane		NA	0.5 U	61 %	0.5 U	64 %
1,1-Dichloroethene		NA	0.5 U	72 %	0.5 U	69 %
Methylene Chloride		NA	0.5 U	75 %	0.5 U	88 %
trans-1,2-Dichloroethene		NA	0.5 U	80 %	0.5 U	86 %
1,1-Dichloroethane		NA	0.5 U	82 %	0.5 U	87 %
2,2-Dichloropropane		NA	0.5 U	91 %	0.5 U	89 %
cis-1,2-Dichloroethene		NA	0.5 U	92 %	0.5 U	98 %
Bromochloromethane		NA	0.5 U	94 %	0.5 U	102 %
Chloroform		47	0.5 U	85 %	0.5 U	89 %
1,1,1-Trichloroethane		NA	0.5 U	78 %	0.5 U	78 %
1,1-Dichloropropene		NA	0.5 U	86 %	0.5 U	84 %
Carbon Tetrachloride		NA	0.5 U	74 * %	0.5 U	73 * %
Benzene		NA	0.5 U	85 %	0.5 U	90 %
1,2-Dichloroethane		NA	0.5 U	81 %	0.5 U	85 %
Trichloroethene		NA	0.5 U	85 %	0.5 U	90 %
1,2-Dichloropropane		NA	0.5 U	92 %	0.5 U	98 %
Dibromomethane		NA	0.5 U	90 %	0.5 U	99 %
Bromodichloromethane		NA	0.5 U	84 %	0.5 U	90 %
Toluene		NA	0.5 U	87 %	0.5 U	92 %
1,1,2-Trichloroethane		NA	0.5 U	91 %	0.5 U	98 %
Tetrachloroethene		NA	0.5 U	85 %	0.5 U	84 %

*= Outside of EPA CLP QC Limits.

RFW Batch Number: 9802G363 Client: ICF Kaiser-98A0996 Work Order: 11830-001-001-9 Page: 2b

Cust ID:	98A0996-004	VBLKDA	VBLKDA BS	VBLKCQ	VBLKCQ BS
RFW#	021 013 DL	98GVF055-MB1	98GVF055-MB1	98GVF057-MB1	98GVF057-MB1
1,3-Dichloropropane	NA	0.5 U	96 %	0.5 U	103 %
Dibromochloromethane	NA	0.5 U	88 %	0.5 U	92 %
1,2-Dibromoethane	NA	0.5 U	93 %	0.5 U	100 %
Chlorobenzene	NA	0.5 U	89 %	0.5 U	94 %
1,1,1,2-Tetrachloroethane	NA	0.5 U	86 %	0.5 U	90 %
Ethylbenzene	NA	0.5 U	87 %	0.5 U	90 %
Styrene	NA	0.5 U	92 %	0.5 U	97 %
Bromoform	NA	0.5 U	92 %	0.5 U	98 %
Isopropylbenzene	NA	0.5 U	84 %	0.5 U	86 %
Bromobenzene	NA	0.5 U	89 %	0.5 U	94 %
1,1,2,2-Tetrachloroethane	NA	0.5 U	94 %	0.5 U	102 %
1,2,3-Trichloropropane	NA	0.5 U	92 %	0.5 U	95 %
n-Propylbenzene	NA	0.5 U	90 %	0.5 U	87 %
2-Chlorotoluene	NA	0.5 U	92 %	0.5 U	91 %
4-Chlorotoluene	NA	0.5 U	88 %	0.5 U	88 %
1,3,5-Trimethylbenzene	NA	0.5 U	85 %	0.5 U	84 %
tert-Butylbenzene	NA	0.5 U	87 %	0.5 U	86 %
1,2,4-Trimethylbenzene	NA	0.5 U	87 %	0.5 U	88 %
sec-Butylbenzene	NA	0.5 U	86 %	0.5 U	83 %
1,3-Dichlorobenzene	NA	0.5 U	93 %	0.5 U	96 %
p-Isopropyltoluene	NA	0.5 U	84 %	0.5 U	83 %
1,4-Dichlorobenzene	NA	0.5 U	96 %	0.5 U	97 %
1,2-Dichlorobenzene	NA	0.5 U	89 %	0.5 U	96 %
n-Butylbenzene	NA	0.5 U	89 %	0.5 U	86 %
1,2-Dibromo-3-chloropropane	NA	0.5 U	100 %	0.5 U	108 %
1,2,4-Trichlorobenzene	NA	0.5 U	96 %	0.5 U	101 %
Hexachlorobutadiene	NA	0.5 U	85 %	0.5 U	80 %
Naphthalene	NA	0.5 U	101 %	0.5 U	108 %
1,2,3-Trichlorobenzene	NA	0.5 U	92 %	0.5 U	101 %
cis-1,3-Dichloropropene	NA	0.5 U	83 %	0.5 U	93 %
trans-1,3-Dichloropropene	NA	0.5 U	89 %	0.5 U	92 %
Acetone	NA	2 U	108 %	2 U	105 %
2-Butanone	NA	2 U	128 %	2 U	106 %
Carbon Disulfide	NA	2 U	65 %	2 U	64 %
4-Methyl-2-pentanone	NA	2 U	113 %	2 U	110 %
2-Hexanone	NA	2 U	124 %	2 U	116 %

*= Outside of EPA CLP QC limits.