Site Name: Stauffer-Bentonville
TDD No.: F3-8312-05

ORIGINAL
(Red)

LIST OF SOURCES

1. U.S. Environmental Protection Agency. 1980. Ambient Water Quality Criteria for Chromium (Office of Water Regulations and Standards). EPA 440/5-80-035.

2. National Research Council of Canada. 1976. Effects of Chromium in the Canadian Environment. (Associate Committee on Scientific Criteria). Publication no. 15017.

3. Effects of Chromium in the Canadian Environment.

4. U.S. Environmental Protection Agency. 1976. Quality Criteria for Water. (Office of Water and Hazardous Materials). EPA 055-001-01049-4.

5. Jansen, L.H. and L. Berrans. 1968. Sensitization and partial desensitization of guinea pigs to Cr III and Cr VI. Dermatologca 137: 65 to 73.

ORIGINAL
(Red)

APPENDIX A

1. COST CENTER:	REM/FIT ZONE CONTRACT TECHNICAL DIRECTIVE DOCUMENT (TDD)	2. NO.: F3-8312-05
ACCOUNT NO.:		

3. PRIORITY:	4. ESTIMATE OF TECHNICAL HOURS:	5. EPA SITE ID:	6. COMPLETION DATE:	7. REFERENCE INFO.:
☐ HIGH ☒ MEDIUM ☐ LOW	130	VA-273	3 wks after QA	☐ YES ☐ NO ☐ ATTACHED ☐ PICK UP
	4A. ESTIMATE OF SUBCONTRACT COST:	5A. EPA SITE NAME: Stauffer-Bentonville		

8. GENERAL TASK DESCRIPTION: Perform SI of subject site.

9. SPECIFIC ELEMENTS:

1.) Review background information.
2.) Submit sampling plan to EPA for approval.
3.) Coordinate Lab analysis.
4.) Conduct on and off site inspectionand sampling.
5.) Take samples according to standard protocol.
6.) Complete HRS if sample results indicate a threat.

10. INTERIM DEADLINES:

11. DESIRED REPORT FORM: FORMAL REPORT ☒ LETTER REPORT ☐ FORMAL BRIEFING ☐

OTHER (SPECIFY):

12. COMMENTS: If HRS is warranted, additional 30 hours will be provided.

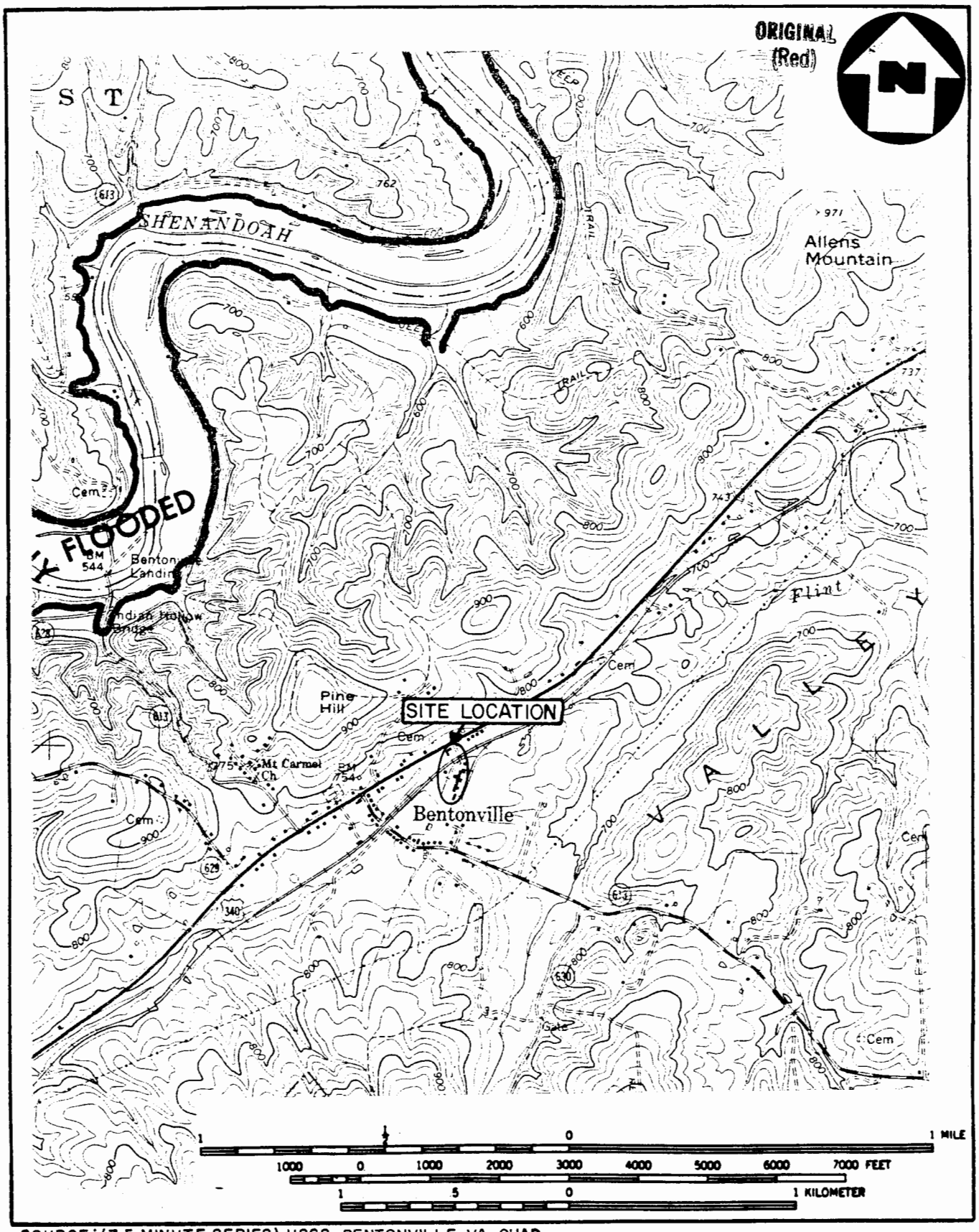
13. AUTHORIZING RPO: Harold G Byu (SIGNATURE) — 14. DATE: 1/17/84

15. RECEIVED BY: ☒ ACCEPTED ☐ ACCEPTED WITH EXCEPTIONS ☐ REJECTED
(CONTRACTOR RPM SIGNATURE) — 16. DATE: 1/23/84

Sheet 1 White – FITL Copy
Sheet 2 Canary – DPO Copy
Sheet 3 Pink – Contracting Officer's Copy (Washington, D. C.)
Sheet 4 Goldenrod – Project Officer's Copy (Washington, D. C.)

ORIGINAL
(Red)

APPENDIX B



SOURCE: (7.5 MINUTE SERIES) USGS, BENTONVILLE, VA. QUAD.

FIGURE I

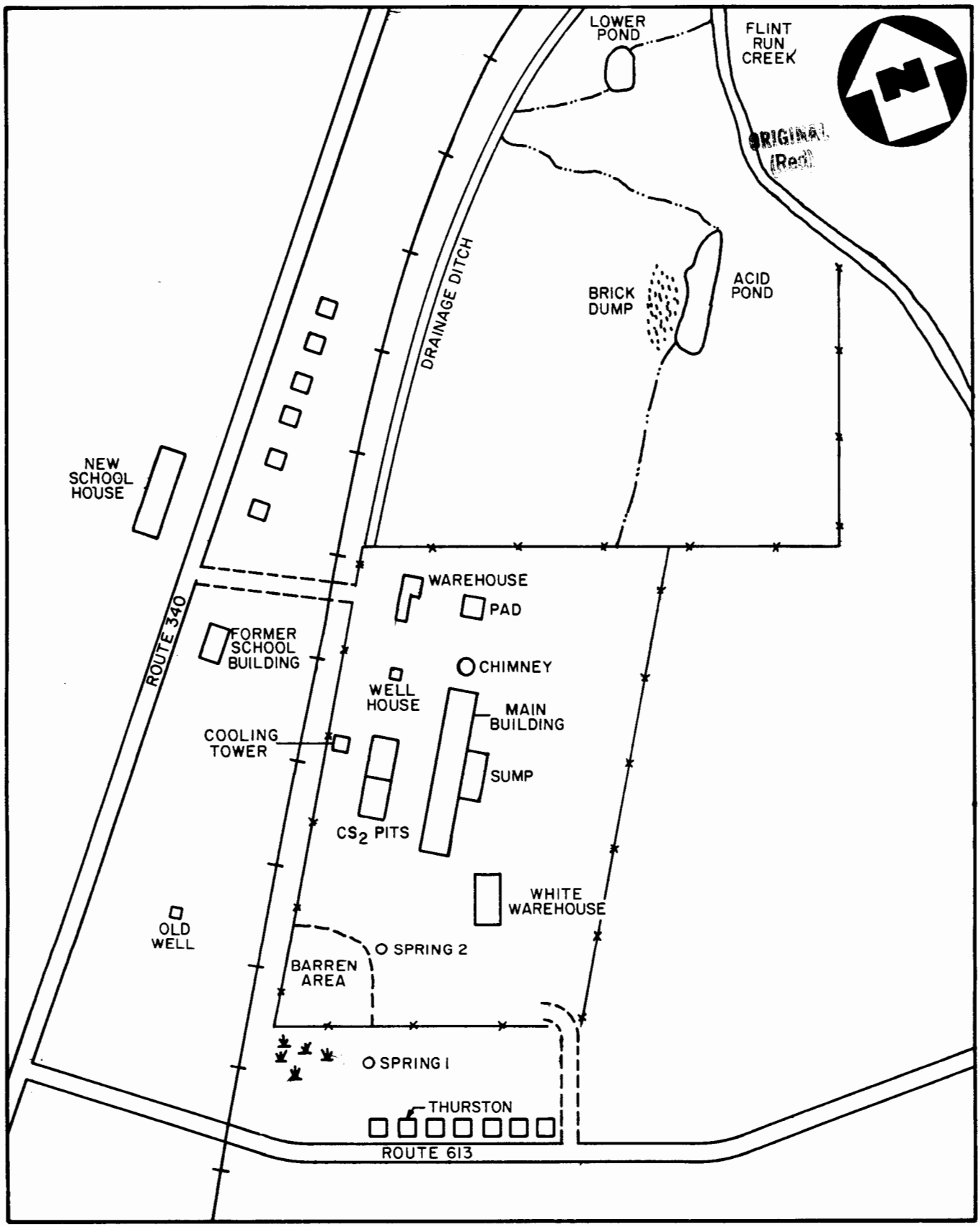
SITE LOCATION MAP

STAUFFER–BENTONVILLE SITE, BENTONVILLE, VA.

SCALE 1:24000

NUS CORPORATION

A Halliburton Company



SITE SKETCH

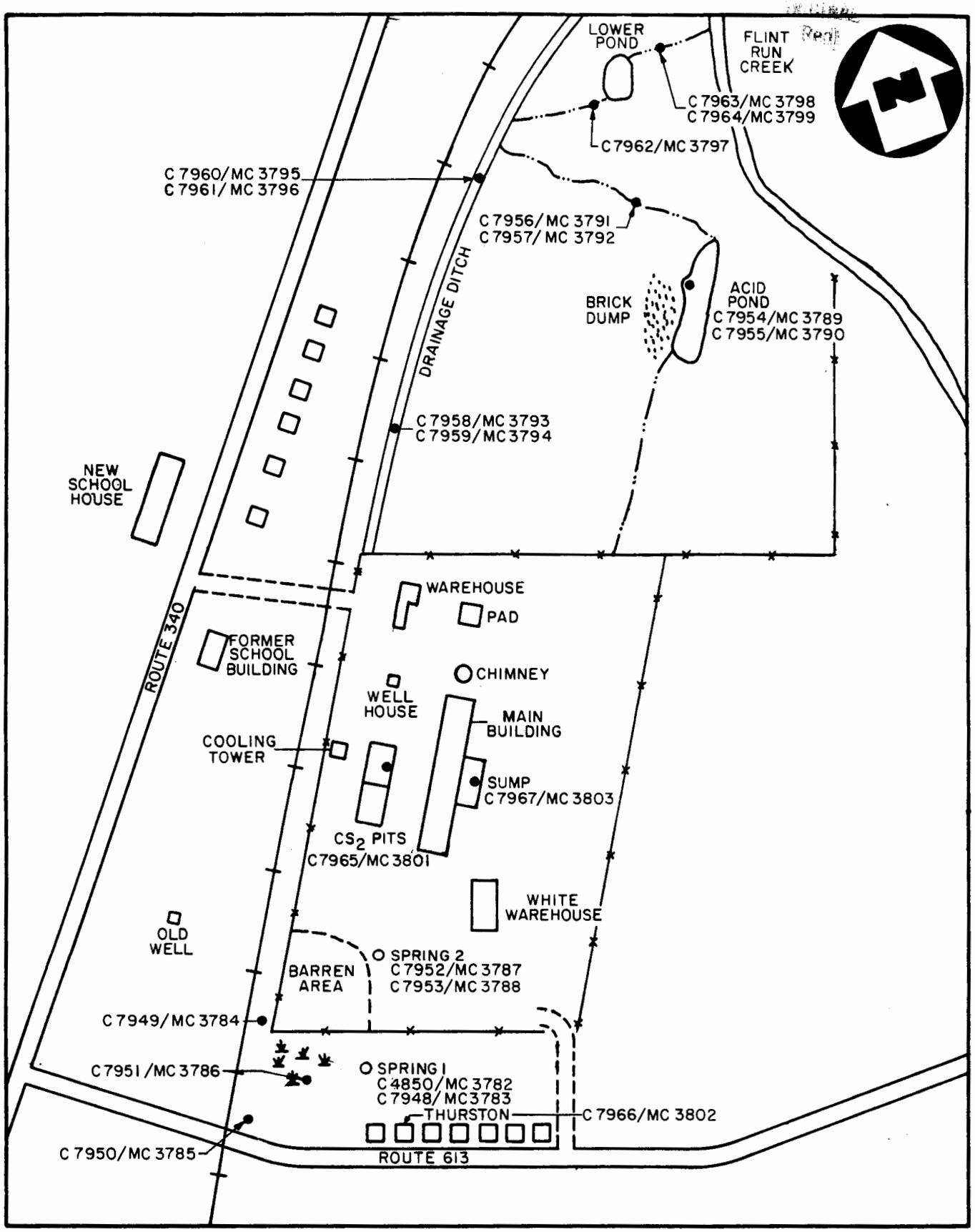
STAUFFER-BENTONVILLE, BENTONVILLE, VA.

(NO SCALE)

FIGURE 2

NUS CORPORATION

A Halliburton Company



SAMPLE LOCATION MAP

STAUFFER-BENTONVILLE, BENTONVILLE, VA.

(NO SCALE)

FIGURE 3

NUS CORPORATION

A Halliburton Company

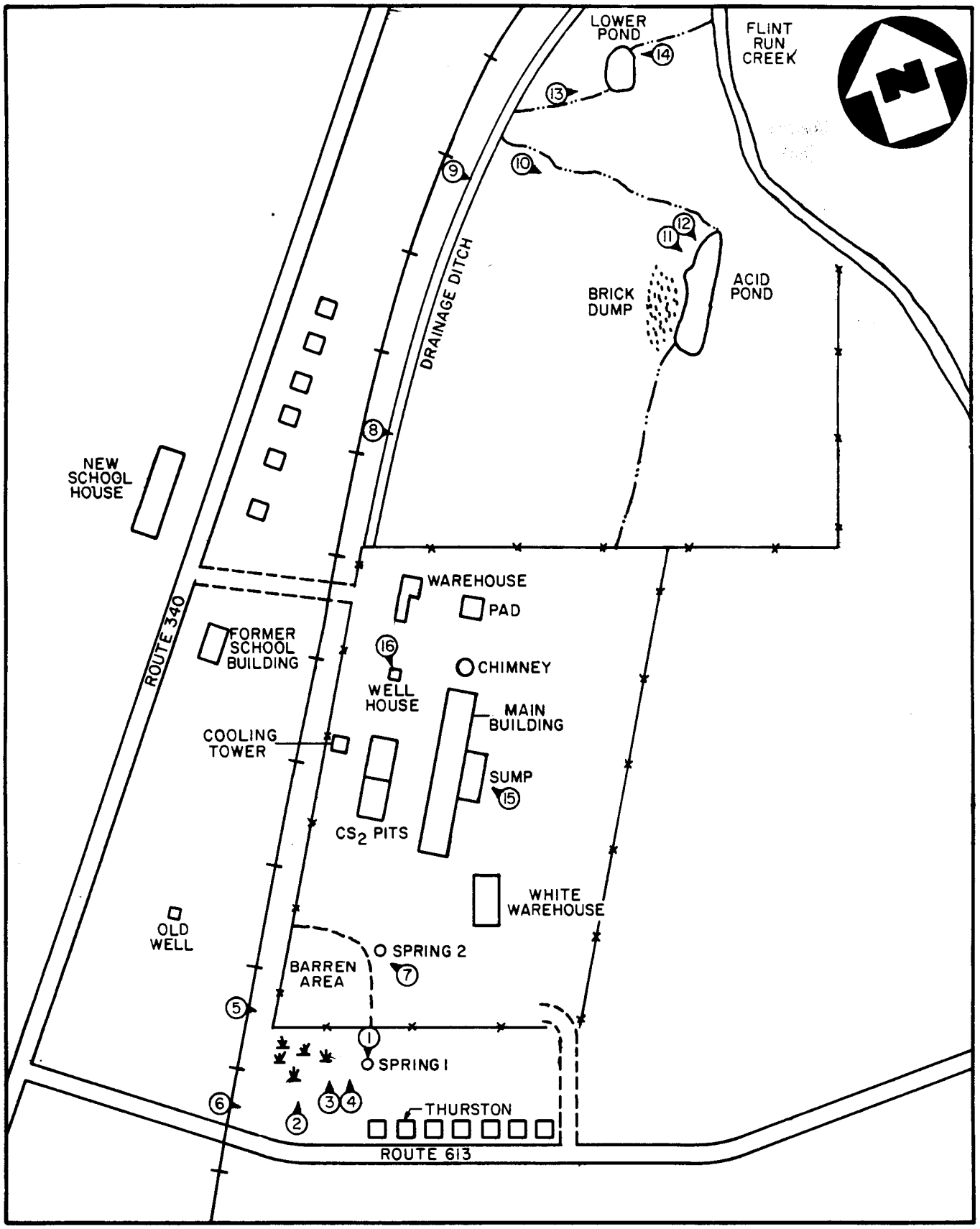


PHOTO LOCATION MAP

STAUFFER-BENTONVILLE, BENTONVILLE, VA.

(NO SCALE)

FIGURE 4

NUS CORPORATION

A Halliburton Company

ORIGINAL
(Red)

APPENDIX C

PROJECT NAME: Stauffer Chem
TDD NO: F3-8312-05

EPA SITE NO.:
REGION: Fir III

QUALITY ASSURANCE REVIEW OF ORGANIC ANALYSIS LAB DATA PACKAGE

ORIGINAL (Red)

Case No.: 2421
Contract No.: 68-01-6866
Contract Laboratory: Mead
Applicable IFB No.: WA83-A094
Reviewer: Rock J. Vitale
Review Date: 12/4/84

Applicable Sample No's.: C7948, C4949, C7950, C7951, C4952, C7955, C7957, C7959, C7961, C7962, C7964, C7965, C7967, C7969

The organic analytical data for this case has been reviewed. The quality assurance evaluation is summarized in the following table:

Reviewer's Evaluation*	Fraction				
	VOLATILES	ACIDS	BASE/ NEUTRALS	PCB/ PEST.	TCDD
Acceptable					✓
Acceptable with exception(s)	✓#1	✓#2, #3,	✓#1, #3	✓#4, #5, #6	
Questionable					
Unacceptable					

* Definitions of the evaluation score categories are listed on next page.

This evaluation was based upon an analysis of the review items indicated below:

- ● DATA COMPLETENESS
- ● BLANK ANALYSIS RESULTS
- ● SURROGATE SPIKE RESULTS
- ● MATRIX SPIKE RESULTS
- ● DUPLICATE ANALYSIS RESULTS
- ● EVALUATION OF CONFIRMATIONS
- ● QUANTITATIVE CALCULATIONS
- ● TARGET COMPOUND MATCHING QUALITY
- ○ TENTATIVELY IDENTIFIED COMPOUNDS
- ◒ CHROMATOGRAPHIC SENSITIVITY CHECKS
- ◒ DFTPP AND BFB SPECTRUM TUNE RESULTS
- ◒ STANDARDS
- ◒ CALIBRATION CHECK STANDARDS
- ‡ ● INTERNAL STANDARDS PERFORMANCE

Data review forms are attached for each of the review items indicated above.

‡ No errors noted, no form attached.

◒ Spot Check performed.

Comments: #1 Please see blank analysis documentation
#2 Please see matrix spike documentation
#3 Please see surrogate spike documentation
#4 Single peak pesticide identifications may be artifacts of random chromatographic interferences.
#5 D.L's were not corrected for dilutions.
#6 PCB 1260 was detected & quantitated in samples C7962 & C7967 by the reviewer. The laboratory neglected to report these findings.

DATA EVALUATION SCORE CATEGORIES

ACCEPTABLE: Data is within established control limits, or the data which is outside established control limits does not affect the validity of the analytical results.

ACCEPTABLE WITH EXCEPTION(S): Data is not completely within established control limits. The deficiences are identified and specific data is still valid, given certain qualifications which are listed below.

QUESTIONABLE: Data is not within established control limits. The deficiences bring the validity of the entire data set into question. However, the data validity is neither proved nor disproved by the available information.

UNACCEPTABLE: Data is not within established control limits. The deficiences imply the results are not meaningful.

ORIGINAL (Red)

DATA COMPLETENESS	CONC./MATRIX	LO/SOL	LO/SOL	LO/SOL	LO/SOL	LO/SOL	LO/SOL	LO/SOL	LO/SOL	LO/SOL	LO/SOL	LO/SOL	LO/SOL
FRACTION	TRAFFIC REPORT # C	7948	4949	7950	7951	4952	7955	7957	7959	7961	7962	7964	7965
	LAB I.D. # 210	74	81	82	83	84	85	86	87	88	89	90	91
VOA !	RUN DATE/TIME	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	TARGET COMPOUND TAB.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	TARGET COMPOUND D.L.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	TENT. I.D. COMPOUND TAB.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	SURROGATE RECOVERY	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	GC SCREEN TABULATION	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	GC/MS CHROMATOGRAMS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	TARGET CMPD. QUAN. LIST	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	TARGET CMPD. SPECTRA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	TENT. I.D. CMPD. Q.L.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	TENT. CMPD. LIB. SRCH.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	CHRO./SENS. CHECKS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	BFB/~~DFTPP~~ TUNE DATA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	I.S AREAS CHARTS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS
	I.S. REL. RESP. FORM	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	RF & AMTS.: CALIB. CHK.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	RF & AMTS.: 3-PT CALIB.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Chromatograms: Calib. Chk.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Chromatograms: 3-Pt. Calib.	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS
	LINEARITY: 3-PT. CALIB	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	RF COMPARISON	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	SAMPLE/FIELD BLANK												
	METHOD/INSTR. BLANK												
	LAB DUPLICATE	✓											
	FIELD DUP/REP												
	MAT. SPK./M. STD.	✓											

COMMENTS :

DATA COMPLETENESS	CONC./MATRIX	LO/SOIL	LO/SOIL	LO/SOIL								
FRACTION	TRAFFIC REPORT # C	7967	7969	Preps								
	LAB I.D. # 210	92	93	Blks								
VOA :	RUN DATE/TIME	✓	✓	✓								
	TARGET COMPOUND TAB.	✓	✓	✓								
	TARGET COMPOUND D.L.	✓	✓	✓								
	TENT. I.D. COMPOUND TAB.	✓	✓	✓								
	SURROGATE RECOVERY	✓	✓	✓								
	GC SCREEN TABULATION	✓	✓	N/a								
	GC/MS CHROMATOGRAMS	✓	✓	✓								
	TARGET CMPD. QUAN. LIST	✓	✓	✓								
	TARGET CMPD. SPECTRA	✓	✓	✓								
	TENT. I.D. CMPD. Q.L.	✓	✓	✓								
	TENT. CMPD. LIB. SRCH.	✓	✓	✓								
	CHRO./SENS. CHECKS	✓	✓	✓								
	BFB/D~~FTPP~~ TUNE DATA	✓	✓	✓								
	I.S AREAS CHARTS	MS	MS	MS								
	I.S. REL. RESP. FORM	✓	✓	✓								
	RF & AMTS.: CALIB. CHK.	✓	✓	✓								
	RF & AMTS.: 3-PT CALIB.	✓	✓	✓								
	Chromatograms: Calib. Chk.	✓	✓	✓								
	Chromatograms: 3-Pt. Calib.	MS	MS	MS								
	LINEARITY: 3-PT. CALIB	✓	✓	✓								
	RF COMPARISON	✓	✓	✓								
	SAMPLE/FIELD BLANK		✓									
	METHOD/INSTR. BLANK			✓								
	LAB DUPLICATE											
	FIELD DUP/REP											
	MAT. SPK./M. STD.											

COMMENTS :

ORIGINAL (Red)

DATA COMPLETENESS	CONC./MATRIX	LO/SOL	LO/SOL	LO/SOL	LO/SOL	LO/SOL	LO/SOL	LO/SOL	LO/SOL	LO/SOL	LO/SOL	LO/SOL	LO/SOL
FRACTION	TRAFFIC REPORT # C	7948	4949	7950	7951	4952	7955	7957	7959	7961	7962	7964	7965
	LAB I.D. # 210	74	81	82	83	84	85	86	87	88	89	90	91
BNA :	RUN DATE/TIME	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	TARGET COMPOUND TAB.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	TARGET COMPOUND D.L.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	TENT. I.D. COMPOUND TAB.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	SURROGATE RECOVERY	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	GC SCREEN TABULATION	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	GC/MS CHROMATOGRAMS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	TARGET CMPD. QUAN. LIST	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	TARGET CMPD. SPECTRA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	TENT. I.D. CMPD. Q.L.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	TENT. CMPD. LIB. SRCH.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	CHRO./SENS. CHECKS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	~~BFB~~/DFTPP TUNE DATA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	I.S AREAS CHARTS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS
	I.S. REL. RESP. FORM	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	RF & AMTS.: CALIB. CHK.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	RF & AMTS.: 3-PT CALIB.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Chromatograms: Calib. Chk.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Chromatograms: 3-Pt. Calib.	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS
	LINEARITY: 3-PT. CALIB	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	RF COMPARISON	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	SAMPLE/FIELD BLANK												
	METHOD/INSTR. BLANK												
	LAB DUPLICATE										✓		
	FIELD DUP/REP												
	MAT. SPK./M. STD.										✓		
PEST. :	PESTICIDE TABULATION	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	PEST. D.L. TABULATION	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	PESTICIDE CHRO.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	PESTICIDE STD. CHRO.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	PESTICIDE STD. I.D.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2nd COLUMN CONF.	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	✓	N/a	N/a
	GC/MS CONFIRMATION	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a
	PESTICIDE DUPLICATE										✓		
	PESTICIDE SPIKE										✓		
	PESTICIDE BLANK												
TCDD	TCDD TABULATION	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	TCDD DETECTION LIMIT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	TCDD CHRO./E.I.C.P.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	TCDD BLANK												

DATA COMPLETENESS	CONC./MATRIX	LO/SOC	LO/SOC	LO/SOC									
FRACTION	TRAFFIC REPORT # C	7967	7969	Prep									
	LAB I.D. # 210	92	93	BLKs									
BNA :	RUN DATE/TIME	✓	✓	✓									
	TARGET COMPOUND TAB.	✓	✓	✓									
	TARGET COMPOUND D.L.	✓	✓	✓									
	TENT. I.D. COMPOUND TAB.	✓	✓	✓									
	SURROGATE RECOVERY	✓	✓	✓									
	GC SCREEN TABULATION	✓	✓	✓									
	GC/MS CHROMATOGRAMS	✓	✓	✓									
	TARGET CMPD. QUAN. LIST	✓	✓	✓									
	TARGET CMPD. SPECTRA	✓	✓	✓									
	TENT. I.D. CMPD. Q.L.	✓	✓	✓									
	TENT. CMPD. LIB. SRCH.	✓	✓	✓									
	CHRO./SENS. CHECKS	✓	✓	✓									
	~~BFB~~/DFTPP TUNE DATA	✓	✓	✓									
	I.S AREAS CHARTS	MS	MS	MS									
	I.S. REL. RESP. FORM	✓	✓	✓									
	RF & AMTS.: CALIB. CHK.	✓	✓	✓									
	RF & AMTS.: 3-PT CALIB.	✓	✓	✓									
	Chromatograms: Calib. Chk.	✓	✓	✓									
	Chromatograms: 3-Pt. Calib.	MS	MS	MS									
	LINEARITY: 3-PT. CALIB	✓	✓	✓									
	RF COMPARISON	✓	✓	✓									
	SAMPLE/FIELD BLANK		✓										
	METHOD/INSTR. BLANK			✓									
	LAB DUPLICATE												
	FIELD DUP/REP												
	MAT. SPK./M. STD.												
PEST. :	PESTICIDE TABULATION	✓	✓	✓									
	PEST. D.L. TABULATION	✓	✓	✓									
	PESTICIDE CHRO.	✓	✓	✓									
	PESTICIDE STD. CHRO.	✓	✓	✓									
	PESTICIDE STD. I.D.	✓	✓	✓									
	2nd COLUMN CONF.	N/a	N/a	N/a									
	GC/MS CONFIRMATION	N/a	N/a	N/a									
	PESTICIDE DUPLICATE												
	PESTICIDE SPIKE												
	PESTICIDE BLANK		✓	✓									
TCDD	TCDD TABULATION	✓	✓	✓									
	TCDD DETECTION LIMIT	✓	✓	✓									
	TCDD CHRO./E.I.C.P.	✓	✓	✓									
	TCDD BLANK		✓	✓									

ORIGINAL (Red)

KEY TO DATA COMPLETENESS FORM

Abbreviation Used on Form	Description of Checklist Item
Conc./Matrix	Concentration category submitted in analysis request (low, med, hi); and matrix (sol., aq.)
Fraction	Fill in acid, base/neutral, acid/base/neutral, or volatiles analysis
Run Date/Time	Instrument run date (to be used for correlating calibration)
Target Cmpd. Tab.	Tabulated results for target compounds
Target Cmpd. D.L.	Detection limits for target compounds (actual/level indicated by screen
Tent. I.D. Cmpd. Tab.	Tabulated results for tentatively identified compounds
Surr. Rec.	Surrogate recoveries results
GC Screen Tab.	Tabulated GC screen results indicating required level of followup
GC/MS Chromatograms	Chromatograms of GC/MS analysis runs
Target Cmpd. Quan. List	Target compounds quantitation list, showing areas, ret. times
Target Cmpd. Spectra	Enhanced and unenhanced spectra of target compound hits
Tent. I.D. Cmpd. Q.L.	Quantitation list for tentatively identified compounds
Tent. Cmpd. Lib. Srch.	Spectra and library match spectra of tentatively identified compounds
Chro./Sens. Checks	EICP's and R.R.F.'s for chromatographic sensitivity checks
BFB/DFTPP Tune Data	Spectra intensity lists, and criteria comparison forms for BFB, DFTPP
Areas Charts	Internal standards area control charts and description of remedial action
I.S. Rel. Resp. Form	Internal standards relative response listings for each sample run
RF and amts.: Calib. Chk.	Tabulated response factors and amount injected for all cmpds. in calibration check
RF and amts.: 3-Pt. Calib.	Tabulated response factors and amount injected for all cmpds. in 3-point calibration
Chromatograms: Calib. Chk.	Chromatograms for calibration check standard
Chromatograms: 3-Pt. Calib.	Chromatograms for 3-point multilevel calibration standards.
Linearity: 3-Pt. Calib.	Tabulated correlation coefficient or relative standard deviation for calibration
RF Comparison	Tabulated comparison of calibration Response Factor with check standard
Sample/Field Blank	Equipment rinse or reagent water blank shipped with samples from field
Method/Instr. Blank	Method or instrument blank which is prepared at lab
Lab Duplicate	Sample which was split by lab for duplicate analysis
Field Dup/Rep	Sample which was split or collected twice in the field
Mat. Spk./M. Std.	Matrix spike or method standard (blind, or done by lab)
Pest. Tab.	Tabulated results for pesticides
Pest. D.L. Tab.	Tabulated detection limits for pesticides
Pest. Chro.	Chromatograms for pesticide screening
2nd Col. Conf.	Confirmation of pesticide results by using a second GC column and temperature
GC/MS Conf.	Confirmation of pesticide results by GC/MS analysis
Pest. Dup., Spk. Blk.	Pesticide duplicate, spike, and blank
Pest. Std. Chro.	Chromatogram of pesticide standard
Pest. Std. I.D.	Pesticide standard identification form
TCDD	2,3,7,8-tetrachlorodibenzodioxin
TCDD Tab., D.L., EICP, Blk.	TCDD tabulated results, detection limits, extracted ion current profile, blank

KEY TO SYMBOLS USED IN DATA COMPLETENESS TABLE

Symbol	Meaning	Symbol	Meaning
✓	Data item present	I	Incomplete data item
NA	Data item not applicable or not required	NC	Data item not clearly explained (units of conc., etc)
P	Data item within established control limits		
F	Data item outside established control limits	* or [number]	See footnote
MS	Missing item	XX/XX/XX XX:XX	Date/Time of run (calibration, etc.)

BLANK ANALYSIS RESULTS FOR TARGET COMPOUNDS

ORIGINAL (Red)

FRACTION	TYPE	CONC	MATRIX	SAMPLE #	SOURCE OF H_2O	CONTAMINANTS (CONCENTRATION / DETECTION LIMIT)
VOA	field	low	sol	C7969 21093	NUS	$MeCl_2$ (7.8 ug/kg/2.5) #2 Trichlorofluoromethane (6.4 ug/kg/2.5) #2 Chloroform (2.1 ug/kg/2.5) #2 Toluene (0.36 ug/kg/2.5) #2
BNA	field	low	sol	C7969 21093	NUS	N.D
Pest + Dioxin	field	low	sol	C7969 21093	NUS	N.D
VOA	lab	low	sol	GC840229 B18	Mead	$MeCl_2$ (1.6 ug/kg/2.5) #2 Toluene (0.052 ug/kg/2.5) #2
VOA	lab	low	sol	GB840301 C18	Mead	$MeCl_2$ (1.3 ug/kg/2.5) #2 Chloroform (0.63 ug/kg/2.5) #2
VOA	lab	low	sol	GB840201 A10	Mead	$MeCl_2$ (0.53 ug/kg/2.5) #2 Chloroform (0.27 ug/kg/2.5) #2
VOA	lab	low	sol	21163	Mead	$MeCl_2$ (1.4 ug/kg/2.5) #2 Trichlorofluoromethane (0.77 ug/kg/2.5) #1
BNA	lab	low	sol	21074	Mead	N.D
BNA	lab	low	sol	21901	Mead	Di-n-octyl phthalate (483 ug/kg/400) #2
BNA	lab	low	sol	21155	Mead	Fluoranthene (8 ug/kg/400) #2 Pyrene (12 ug/kg/400) #2 Chrysene (16.5 ug/kg/400) #2 Di-n-octyl phthalate (15.8 ug/kg/400) #2
BNA	lab	low	sol	21731	Mead	Fluoranthene (12 ug/kg/400) #2 Pyrene (17.3 ug/kg/400) #2 Chrysene (28 ug/kg/400) #2 Di-n-octyl phthalate (15.4 ug/kg/400) #2 Naphthalene (4.4 ug/kg/400) #2 Dibenzofuran (5.5 ug/kg/400) #2 Phenanthrene (6.8 ug/kg/400) #2

LABORATORY REPORTED FIELD BLANK DATA IS COMPARED WITH THE SAMPLE DATA IN A TABULATION FORM WITHIN THE SAMPLE ANALYTICAL DATA SUMMARY. TENTATIVELY IDENTIFIED COMPOUNDS IN BLANKS ARE LISTED ON A SEPARATE FOR

COMMENTS:

(1) RESULT REPORTED BY LABORATORY AND CONFIRMED BY REVIEWER.

(2) RESULT INFERRED FROM QUANTITATION LIST, DIAGNOSTICS, CHROMATOGRAM AND/OR SPECTRA.

(2)

BLANK ANALYSIS RESULTS FOR TARGET COMPOUNDS

FRACTION	TYPE	CONC	MATRIX	SAMPLE #	SOURCE OF H_2O	CONTAMINANTS (CONCENTRATION / DETECTION LIMIT)
BNA	lab		lw/sol	21317	Mead	N.D.
Pest	lab		lw/sol	21217	mead	N.D.
Pest	lab		lw/sol	21155	Mead	N.D
Pest	lab		lw/sol	21907	Mead	N.D
TCDD	lab		lw/sol	21155	Mead	N.D.

LABORATORY REPORTED FIELD BLANK DATA IS COMPARED WITH THE SAMPLE DATA IN A TABULATION FORM WITHIN THE SAMPLE ANALYTICAL DATA SUMMARY. TENTATIVELY IDENTIFIED COMPOUNDS IN BLANKS ARE LISTED ON A SEPARATE FOR

COMMENTS:

(1) RESULT REPORTED BY LABORATORY AND CONFIRMED BY REVIEWER.

(2) RESULT INFERRED FROM QUANTITATION LIST, DIAGNOSTICS, CHROMATOGRAM AND/OR SPECTRA.

SURROGATE PERCENT RECOVERY SUMMARY 68-01-6762

CASE NO. 2421
LOW LEVEL xx
WATER
QC REPORT NO.

CONTRACTOR Compu Chem
MED. LEVEL
SOIL/SED. XX

CONTRACT NO. 68-01-6866
HIGH LEVEL
OTHER (Specify)

							Volatile			Semi-Volatile							Pesticide	Dioxin
SURR. I.D.	EXT. DATE	EXT. I.D.	DATE ANA.	ANAL. I.D.	GC #	SMO Traffic No.	(8233) D_8 Toluene 81-120	(8267) BFB 67-137*	(8258) D_4-1,2 Dichloro Ethane 58-150*	(8447) D_5 Nitro Benzene 19-115	(8408) 2-Fluoro Biphenyl 17-125	(8471) D_{10} Pyrene (NE)	(8400) D_{14} p-Ter Phenyl 34-126*	(8420) D_5 Phenol 10-104	(8410) 2-Fluoro Phenol 25-116	(8400) 2,4,6-Tribromo Phenol 30-130*	(8725) Dibutyl Chlor-endate 41-121*	(8280) 1,2,3,4 TCDD 11-128
393	2/24		3/1	633	21086	C7957	117	121	82	57	66	91	70	30	44	34	OQ	58
392	2/24		2/28	755													dilution	
368	2/28		3/8	679														
364	2/27		3/1	619														
393	2/24		3/1	633	21087	C7959	112	116	71	34	49	76	52	27	44	34	62	49
392	2/24		2/29	754														
368	2/28		3/6	597														
364	2/27		3/1	619														
393	2/24		3/1	633	21088	C7961	115	119	78	41	52	74	58	38	84	30	180	62
392	2/24		2/29	754														
368	2/28		3/6	597														
364	2/27		3/1	619														
393	2/24		3/1	633	21089	C7962	115	126	86	68	84	88	78	34	26	40	dilution	46
392	3/2		3/5	755	R													
368	2/28		3/6	597														
364	2/27		3/1	619														
393	2/24		3/1	633	21090	C7964	119	130	82	38	36	46	34	38	54	36	79	91
392	2/28		3/2	740														
368	2/29		3/6	597														
364	2/29		3/5	619														

Volatiles: 0 out of 5 outside of QC limits
Semivolatiles: 0 out of 20 outside of QC limits
Dioxins: 0 out of [illegible] outside of QC limits

*Asterisked values are outside of QC limits.
NE - Not established.

ORIGINAL (Red)

Comments: QQ Notice

See OK.

SURROGATE PERCENT RECOVERY SUMMARY 68-6762

CASE NO. 2421
LOW LEVEL xx
WATER
QC REPORT NO.

CONTRACTOR CompuChem
MED. LEVEL
SOIL/SED. XX

CONTRACT NO. 68-C1-6866
HIGH LEVEL
OTHER (Specify)

							[Volatile]			[Semi-Volatile]							[Pesticide]	[Dioxin]
SMP. I.D.	EXT. DATE	EXT. I.D.	DATE ANA.	ANAL. I.D.	GC #	SMP Traffic No.	(0233) D_8 Toluene 81-120	(0247) DFB 57-137*	(0258) D_4-1,2 Dichloro Ethane 50-150*	(0447) D_5 Nitro Benzene 19-115	(0468) 2-Fluoro Biphenyl 17-125	(0471) D_{10} Pyrene (NE)	(0486) D_{14} p-Ter Phenyl 34-126*	(0512) D_5 Phenol 10-104	(0515) 2-Fluoro Phenol 25-116	(0518) 2,4,6-Tribromo Phenol 30-120*	(0738) Dibutyl Chlor-endate 41-121*	(0485) 1,2,3,4 TCDD 11-120
383	2/24		3/1	714	21081	C7949	114	139	75	43	58	66	61	23	22	14	54	50
382	2/24		2/28	754														
368	2/27		3/6	597														
364	2/27		3/1	619														
383	2/24		3/1	714	21082	C7950	114	128	77	67	70	76	75	37	43	8.8	70	40
382	2/24		2/28	755														
368	2/27		3/8	597														
364	2/27		3/1	619														
383	2/24		3/1	714	21083	C7951	106	100	70	37	42	52	47	47	56	46	81	47
382	2/24		2/28	755														
368	2/27		3/8	597														
364	2/27		3/1	619														
383	2/24		3/1	714	21084	C7952	98	59	75	52	58	58	61	41	53	22	0(1)	38
382	3/1		3/5	755	R												Dilution	OK RV
368	2/27		3/8	679														
364	2/27		3/1	619														
383	2/24		3/1	714	21085	C7953	114	114	78	49	54	74	58	30	42	29	66	59
382	2/24		2/28	755														
368	2/28		3/6	597														
364	2/27		3/1	619														

Volatiles: 0 out of 5 outside of QC limits
Semivolatiles: 0 out of 20 outside of QC limits
Dioxin: 0 out of 2 outside of QC limits

*Asterisked values are outside of QC limits.
NE - Not established.

ORIGINAL (Red)

Comments:

All OK. RV

'L SURROGATE PERCENT RECOVERY SUMMARY 68-01-6762

CASE NO. 2421 | CONTRACTOR CompuChem | CONTRACT NO. 68-01-6866

LOW LEVEL ~~XX~~ | MED. LEVEL | HIGH LEVEL

WATER | SOIL/SED. XX | OTHER (Specify)

QC REPORT NO.

							[Volatile]			[Semi-Volatile]							[Pesticide]	[Dioxin]
SURR. I.D.	EXT. DATE	EXT. I.D.	DATE ANA.	ANAL. I.D.	GC #	SMO Traffic No.	(8233) D_8 Toluene 81-120	(8247) BFB 57-137*	(8258) D_4-1,2 Dichloro Ethane 56-150*	(8447) D_5 Nitro Benzene 19-115	(8448) 2-Fluoro Biphenyl 17-125	(8471) D_{10} Pyrene (NE)	(8498) D_{14} p-Ter Phenyl 34-126*	(8528) D_5 Phenol 10-104	(8528) 2-Fluoro Phenol 26-116	(8528) 2,4,6-Tribromo Phenol 30-130*	(8725) Dibutyl Chlor-endate 41-121*	(8280) 1,2,3,4 TCDD 11-120
383	2/24		3/1	633	21091	C7965	116	122	83	26	60	70	53	22	84	67	111	84
382	2/28		3/5	740														
368	2/29		3/7	597														
364	2/29		3/5	619														
383	2/24		3/1	633	21092	C7967	117	131	70	(*10*)	39	43	34	25	35	42	OD	42
382	2/28		3/2	740													dilution	
368	2/20		3/9	597														
364	2/29		3/6	643														
383	2/24		3/1	633	21093	C7969	120	121	78	52	46	66	50	49	80	39	62	55
382	2/28		3/2	740														
368	2/29		3/3	597														
364	2/29		3/6	643														
383	2/24		3/1	714	21074	C7948	115	136	74	62	73	78	66	33	53	40	66	83
382	3/12		3/13	755														
368	2/27		3/8	597														
364	2/27		3/1	619														
383	/		/															
382	/		/															
368	/		/															
364	/		/															

Volatiles: 0 out of 4 ; outside of QC limits
Semivolatiles: 2 out of 16 ; outside of QC limits
Dioxin: 0 out of 1 ; outside of QC limits

*Asterisked values are outside of QC limits.
NE - Not established.

ORIGINAL (Red)

Comments:
① 1st Notice

addressed next page

SOIL SURROGATE PERCENT RECOVERY SUMMARY

CASE NO. 2421
LOW LEVEL XX
WATER
QC REPORT NO.

CONTRACTOR CompuChem
MED. LEVEL
SOIL/SED. XX

CONTRACT NO. 68-01-6 68-01-6 1666
HIGH LEVEL
OTHER (Specify)

R's + RP's

SURR. I.D.	EXT. DATE	EXT. I.D.	DATE ANA.	ANAL. I.D.	CC #	SMO Traffic No.	[Volatile] (8233) D_8 Toluene 81-120	(8267) BFB 57-137*	(8258) D_4-1,2 Dichloro Ethane 50-150*	[Semi-Volatile] (8447) D_5 Nitro Benzene 19-115	(8448) 2-Fluoro Biphenyl 17-125	(8471) D_{10} Pyrene (NE)	(8496) D_{14} p-Ter Phenyl 34-126*	(8612) D_5 Phenol 10-104	(8619) 2-Fluoro Phenol 25-116	(8628) 2,4,6-Tribromo Phenol 32-124*	[Pesticide] (8738) Dibutyl Chlor-endate 41-121*	[Dioxin] (8488) 1,2,3,4 TCDD 11-128
383					21092R	C7967				*10	72	98	84	51	59	6.7		
382	3/5		3/7	754														
368																		
364																		
383																		
382																		
368																		
364																		
383																		
382																		
368																		
364																		
383																		
382																		
368																		
364																		
383																		
382																		
368																		
364																		

Volatiles: ___ out of ___ ; outside of QC limits
Semivolatiles: 1 out of 4 ; outside of QC limits
Dioxin: ___ out of ___ ; outside of QC limits

*Asterisked values are outside of QC limits.
NE - Not established.

ORIGINAL (Red)

Comments: The D.L's for some BN's may be slightly higher than reported.

CASE NO. 2421 | CONTRACTOR MEAD PUCHEM | CONTRACT NO. 68-01-6712
LOW LEVEL XX | MED. LEVEL | HIGH LEVEL
WATER | SOIL/SED. XX | OTHER (Specify)
QC REPORT NO. | | UNITS (Circle) ug/kg ug/l

FRACTION	COMPOUND	SMO # CONC	CONC. SPIKE ADDED	CONC. MS	% REC.	CONC. MSD	% REC.	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY	COMMENTS
VOA 21074 SMO # C7948	1,1-Dichloroethylene	ND	12.5	15	120	12	96	22*	<15%	61-150	21074 21081-21093
	Trichloroethylene	ND	12.5	14	112	13	104	7	<15%	74-130	
	Chlorobenzene	ND	12.5	14	112	12	96	15	<15%	67-130	
MS #C7948 MSD #C7948	Toluene	ND	12.5	12	96	13	104	8	<15%	59-130	
	Benzene	ND	12.5	9	72	12	96	29*	<15%	56-130	
B/N 21099 SMO # C7962	1,2,4-Trichlorobenzene	ND	2000	1200	60	600	30*	67*	<50%	39-110	21074 21081-93
	Acenaphthene	ND	2000	1200	60	800	40	40	<50%	57-120	
	2,4-Dinitrotoluene	ND	2000	900	45	(LT) 600	30*	40	<50%	43-110	
MS #C7962 MSD #C7962	Di-N-Butylphthalate	ND	2000	1500	75	1000	50	40	<50%	13-110	
	Pyrene	ND	2000	1500	75	1100	55	31	<50%	26-140	
	N-Nitrosodi-N-Propylamine	ND	8000	6000	75	3400	43	54*	<50%	34-110	
	1,4-Dichlorobenzene	ND	2000	1300	65	700	35	60*	<50%	33-110	
ACID 21089 SMO # C7962	Pentachlorophenol	ND	2000	BDL	—*	(LT) (480)	24	—	<40%	19-120	21074 21081-93
	Phenol	ND	2000	400	20*	900	45	77*	<40%	23-80	
	2-Chlorophenol	ND	2000	640	32*	1000	50	44*	<40%	33-110	
MS #C7962 MSD #C7962	P-Chloro-M-Cresol	ND	2000	(LT) (400)	20*	(LT) (640)	32	46*	<40%	32-110	
	4-Nitrophenol	ND	12000	4000	33	3400	28	16	<40%	15-90	
PEST 21089 SMO # C7962	Lindane	ND	80	72	90	89	111*	21	<40%	87-110	21074 21081-93
	Heptachlor	ND	80	57	71	95	119	51*	<40%	43-120	
	Aldrin	ND	80	81	101	78	98	3	<40%	45-110	
MS #C7962	Dieldrin	ND	80	70	88	91	114	26	<40%	56-120	
MSD #C7962	Endrin	ND	80	62	78*	91	114*	38	<40%	89-110	
	p,p-DDT	980	80	77	—*	100	—*	—	<40%	82-100	

*Asterisked values are outside QC limits.

D.L for Pentachlorophenol

RPD: VOAs 2 out of 5; outside QC limits
B/N 3 out of 7; outside QC limits
ACID 3 out of 5; outside QC limits
PEST 1 out of 6; outside QC limits

RECOVERY: VOAs 0 out of 10; outside QC limits
B/N 2 out of 14; outside QC limits
ACID 4 out of 10; outside QC limits
PEST 2 out of 12; outside QC limits

*Date Limits Set 12/82
Revision Due 6/83

although DDT was questionable in C7962 if present may be substantially higher

AD10860
(Unit)

EVALUATION OF CONFIRMATIONS Or GC ANALYSES

SAMPLE NO	COMPOUND	GC COLUMN # 1				Comments	TYPE OF CONFIRMATION (2 COL / GC/MS)	REVIEWER CONFIDENT
		COLUMN: DB-5 CONDITIONS: DETECTOR: OTHER: EPA 9 DATA FROM COLUMN # 1. ☑ RET. OR ☐ REL. RET. TIMES IN:		RELATIVE PEAK AREA RATIOS				
		Sample	Standard	~~Sample~~ STD	~~Standard~~ SPL			
C7967	PCB 1260 NOT Reported	18:37	18:41	11	7	CAP Area SPL = AVG = $\bar{x}$ = 60.2 Area STD = AVG = $\bar{x}$ = 111.9 STD conc = 0.20 ug/ml, Dry weight 1.96, dil = 10 split = 4 Spl vol/weight = 0.05 final vol = 5 $\frac{\text{SPL Area}}{\text{STD Area}} \times \frac{\text{STD conc} \times \text{dil} \times \text{split} \times \text{vol}}{\text{Sample vol or Weight} \times \text{dry weight correction}}$ $\frac{\frac{60.2}{111.9} \times 0.20 \times 10 \times 4 \times 5}{1.96 \times .05}$ = 219.6 ug/kg ~220	IC	Y
		18:97	18:96	32	254			
		19:62	19:63	85	15			
		19:88	19:89	49	8			
		20:30	20:31	179	19			
		ms	20:94	15	—			
		21:32	21:33	33	7			
		21:66	21:67	230	39			
		22:40	22:41	82	19			
		22:99	22:95	30	18			
		23:23	23:24	216	36			
		23:69	23:70	42	8			
		24:13	24:14	185	79			
		24:39	24:40	92	36			
		ms	24:46	33	—			
		—	~~25:35~~	—	—			
		25:64	25:63	84	41			
		25:85	28:86	75	150			
		26:67	26:68	336	127			
		27:57	27:57	246	124			
		28:08	28:08	140	49			
		28:42	28:46	87	438			
		28:70	28:72	99	44			

COMMENTS:

ORIGINAL (Red)

EVALUATION OF CONFIRMATIONS OF GC ANALYSES

SAMPLE NO.	COMPOUND	GC COLUMN # 1				GC COLUMN # 2				Comments	TYPE OF CONFIRMATION (2 COL / GC/MS)	REVIEWER CONFIDENT
		COLUMN: DB-5 CONDITIONS: DETECTOR: OTHER: EPA 5 DATA FROM COLUMN # 1: ☑ RET. OR ☐ REL. RET. TIMES IN:		RELATIVE PEAK AREA RATIOS		COLUMN: CONDITIONS: DETECTOR: OTHER: DATA FROM COLUMN # 2: ☑ RET. OR ☐ REL. RET. TIMES IN:		RELATIVE PEAK AREA RATIOS				
		Sample	Standard	Sample	Standard	Sample	Standard	Sample	Standard			
C7962	PCB 1260	*18.87	18:86	*	27	MS	6.77	—	20	CAP area spl Avg = $\bar{x}$ = 28.7 Dry weight correction 1.57 area STD Avg = $\bar{x}$ = 56.8. STD conc 0.20 ug/ml, dil = 10, split = 4 spl vol/weight = 0.05 final vol = 5 final Conc in ug/kg = $\frac{\text{Spl area}}{\text{STD area}} \times \text{STD conc.} \times \text{dil} \times \text{split} \times \text{vol}$ Sample Vol or Weight X Dry weight correction $\frac{28.7}{56.8} \times 0.20 \times 10 \times 4 \times 5$ / 0.05×1.57 = 257 ug/kg ~260	2C	Y
	Not Reported	19.58	19:53	*	56	7:60	7:67	5	45			
		20:91	20:89	10	68	#1	8:67	#1	30			
		22:51	22:49	*	67	#1	9:82	#1	34			
		23:42	23:40	12	54	#1	10:56	#1	35			
		24.61	24:63	*	37	12.97	12:92	19	17			
		26:01	25:99	40	100	15:41	15:42	59	94			
		26:93	26:92	60	67	20:10	20:06	11	93			
		27:80	27:78	20	24							
		28:04	28:03	30	28							
		27:43	27:42	20	40							

ORIGINAL (Red)

COMMENTS: * Manually measured, no areas given
#1 Large peak interfering with peaks of interest.

PROJECT NAME: Stauffer Chem Co.
TDD NO: F3-8312-05

EPA SITE NO.:
REGION: F.I.T III

ORIGINAL (Red)

QUALITY ASSURANCE REVIEW OF ORGANIC ANALYSIS LAB DATA PACKAGE

Case No.: 2421
Contract No.: 68-01-6738
Contract Laboratory: RMA
Applicable IFB No.: WA 82-A154
Reviewer: Rock J. Vitale
Review Date: 12/5/84

Applicable Sample No's.: C4850, C7953, C7954, C7956, C7960, C7963, C7968, C7958, C7966

The organic analytical data for this case has been reviewed. The quality assurance evaluation is summarized in the following table:

Reviewer's Evaluation*	Fraction				
	VOLATILES	ACIDS	BASE/ NEUTRALS	PCB/ PEST.	TCDD
Acceptable					✓
Acceptable with exception(s)	✓ #1	✓ #2	✓ #1,	✓ #1, #3	
Questionable					
Unacceptable					

* Definitions of the evaluation score categories are listed on next page.

This evaluation was based upon an analysis of the review items indicated below:

- ● DATA COMPLETENESS
- ● BLANK ANALYSIS RESULTS
- ● SURROGATE SPIKE RESULTS
- ● MATRIX SPIKE RESULTS
- ● DUPLICATE ANALYSIS RESULTS
- ○ EVALUATION OF CONFIRMATIONS
- ● QUANTITATIVE CALCULATIONS
- ● TARGET COMPOUND MATCHING QUALITY
- ○ TENTATIVELY IDENTIFIED COMPOUNDS
- ‡ ● CHROMATOGRAPHIC SENSITIVITY CHECKS
- ‡ ● DFTPP AND BFB SPECTRUM TUNE RESULTS
- ‡ ● STANDARDS
- ◒ CALIBRATION CHECK STANDARDS
- ◒ INTERNAL STANDARDS PERFORMANCE

Data review forms are attached for each of the review items indicated above.

‡ No errors noted, no form attached.

◒ Spot Check performed.

Comments: #1 Please see blank analysis documentation
#2 Please see surrogate recovery documentation
#3 Single peak pesticide identifications may be artifacts of random chromatographic interferences

DATA EVALUATION SCORE CATEGORIES

ORIGINAL
(Red)

ACCEPTABLE: Data is within established control limits, or the data which is outside established control limits does not affect the validity of the analytical results.

ACCEPTABLE WITH EXCEPTION(S): Data is not completely within established control limits. The deficiences are identified and specific data is still valid, given certain qualifications which are listed below.

QUESTIONABLE: Data is not within established control limits. The deficiences bring the validity of the entire data set into question. However, the data validity is neither proved nor disproved by the available information.

UNACCEPTABLE: Data is not within established control limits. The deficiences imply the results are not meaningful.

DATA COMPLETENESS	CONC./MATRIX	LO/AQ	LO/AQ	LO/AQ	LO/AQ	LO/AQ	LO/AQ	LO/AQ	LO/AQ	LO/AQ	PreB5		
FRACTION	TRAFFIC REPORT # C	4850	7953	7954	7956	7958	7960	7963	7966	7968		ORIGINAL (Red)	
	LAB I.D. # 7036-	01	02	03	04	05	06	07	08	09			
BNA :	RUN DATE/TIME	✓									✓		
	TARGET COMPOUND TAB.	✓									✓		
	TARGET COMPOUND D.L.	✓									✓		
	TENT. I.D. COMPOUND TAB.	✓									✓		
	SURROGATE RECOVERY	✓									✓		
	GC SCREEN TABULATION	✓									✓		
	GC/MS CHROMATOGRAMS	✓									✓		
	TARGET CMPD. QUAN. LIST	✓									✓		
	TARGET CMPD. SPECTRA	✓									✓		
	TENT. I.D. CMPD. Q.L.	✓									✓		
	TENT. CMPD. LIB. SRCH.	✓									✓		
	CHRO./SENS. CHECKS	✓									✓		
	~~BFB~~/DFTPP TUNE DATA	✓									✓		
	I.S AREAS CHARTS	MS									✓		
	I.S. REL. RESP. FORM	✓									✓		
	RF & AMTS.: CALIB. CHK.	✓									✓		
	RF & AMTS.: 3-PT CALIB.	✓									✓		
	Chromatograms: Calib. Chk.	✓									✓		
	Chromatograms: 3-Pt. Calib.	✓									✓		
	LINEARITY: 3-PT. CALIB	✓									✓		
	RF COMPARISON	✓									✓		
	SAMPLE/FIELD BLANK									✓			
	METHOD/INSTR. BLANK										✓		
	LAB DUPLICATE					✓							
	FIELD DUP/REP												
	MAT. SPK./M. STD.					✓							
PEST. :	PESTICIDE TABULATION	✓									✓		
	PEST. D.L. TABULATION	✓									✓		
	PESTICIDE CHRO.	✓									✓		
	PESTICIDE STD. CHRO.	✓									✓		
	PESTICIDE STD. I.D.	✓									✓		
	2nd COLUMN CONF.	✓									✓		
	GC/MS CONFIRMATION	N/a									✓		
	PESTICIDE DUPLICATE								✓				
	PESTICIDE SPIKE								✓				
	PESTICIDE BLANK									✓	✓		
TCDD	TCDD TABULATION	✓									✓		
	TCDD DETECTION LIMIT	✓									✓		
	TCDD CHRO./E.I.C.P.	✓									✓		
	TCDD BLANK									✓	✓		

DATA COMPLETENESS	CONC./MATRIX	LO/AQ	LO/AQ	LO/AQ	LO/AQ	LO/AQ	LO/AQ	LO/AQ	LO/AQ	LO/AQ	Preps		
FRACTION	TRAFFIC REPORT # C	4850	7953	7954	7956	7958	7960	7963	7966	7968	ORIGINAL (Red)		
	LAB I.D. # 7036-	01	02	03	04	05	06	07	08	09			
VOA :	RUN DATE/TIME	✓									✓		
	TARGET COMPOUND TAB.	✓									✓		
	TARGET COMPOUND D.L.	✓									✓		
	TENT. I.D. COMPOUND TAB.	✓									✓		
	SURROGATE RECOVERY	✓									✓		
	GC SCREEN TABULATION	✓									✓		
	GC/MS CHROMATOGRAMS	✓									✓		
	TARGET CMPD. QUAN. LIST	✓									✓		
	TARGET CMPD. SPECTRA	✓									✓		
	TENT. I.D. CMPD. Q.L.	✓									✓		
	TENT. CMPD. LIB. SRCH.	✓									✓		
	CHRO./SENS. CHECKS	✓									✓		
	BFB/~~DFTPP~~ TUNE DATA	✓									✓		
	I.S AREAS CHARTS	MS									✓		
	I.S. REL. RESP. FORM	✓									✓		
	RF & AMTS.: CALIB. CHK.	✓									✓		
	RF & AMTS.: 3-PT CALIB.	✓									✓		
	Chromatograms: Calib. Chk.	✓									✓		
	Chromatograms: 3-Pt. Calib.	✓									✓		
	LINEARITY: 3-PT. CALIB	✓									✓		
	RF COMPARISON	✓									✓		
	SAMPLE/FIELD BLANK									✓			
	METHOD/INSTR. BLANK										✓		
	LAB DUPLICATE	✓											
	FIELD DUP/REP												
	MAT. SPK./M. STD.	✓											

COMMENTS :

ORIGINAL
(Red)

KEY TO DATA COMPLETENESS FORM

Abbreviation Used on Form	Description of Checklist Item
Conc./Matrix	Concentration category submitted in analysis request (low, med, hi); and matrix (sol., aq.)
Fraction	Fill in acid, base/neutral, acid/base/neutral, or volatiles analysis
Run Date/Time	Instrument run date (to be used for correlating calibration)
Target Cmpd. Tab.	Tabulated results for target compounds
Target Cmpd. D.L.	Detection limits for target compounds (actual/level indicated by screen
Tent. I.D. Cmpd. Tab.	Tabulated results for tentatively identified compounds
Surr. Rec.	Surrogate recoveries results
GC Screen Tab.	Tabulated GC screen results indicating required level of followup
GC/MS Chromatograms	Chromatograms of GC/MS analysis runs
Target Cmpd. Quan. List	Target compounds quantitation list, showing areas, ret. times
Target Cmpd. Spectra	Enhanced and unenhanced spectra of target compound hits
Tent. I.D. Cmpd. Q.L.	Quantitation list for tentatively identified compounds
Tent. Cmpd. Lib. Srch.	Spectra and library match spectra of tentatively identified compounds
Chro./Sens. Checks	EICP's and R.R.F.'s for chromatographic sensitivity checks
BFB/DFTPP Tune Data	Spectra intensity lists, and criteria comparison forms for BFB, DFTPP
. Areas Charts	Internal standards area control charts and description of remedial action
I.S. Rel. Resp. Form	Internal standards relative response listings for each sample run
RF and amts.: Calib. Chk.	Tabulated response factors and amount injected for all cmpds. in calibration check
RF and amts.: 3-Pt. Calib.	Tabulated response factors and amount injected for all cmpds. in 3-point calibration
Chromatograms: Calib. Chk.	Chromatograms for calibration check standard
Chromatograms: 3-Pt. Calib.	Chromatograms for 3-point multilevel calibration standards.
Linearity: 3-Pt. Calib.	Tabulated correlation coefficient or relative standard deviation for calibration
RF Comparison	Tabulated comparison of calibration Response Factor with check standard
Sample/Field Blank	Equipment rinse or reagent water blank shipped with samples from field
Method/Instr. Blank	Method or instrument blank which is prepared at lab
Lab Duplicate	Sample which was split by lab for duplicate analysis
Field Dup/Rep	Sample which was split or collected twice in the field
Mat. Spk./M. Std.	Matrix spike or method standard (blind, or done by lab)
Pest. Tab.	Tabulated results for pesticides
Pest. D.L. Tab.	Tabulated detection limits for pesticides
Pest. Chro.	Chromatograms for pesticide screening
2nd Col. Conf.	Confirmation of pesticide results by using a second GC column and temperature
GC/MS Conf.	Confirmation of pesticide results by GC/MS analysis
Pest. Dup., Spk. Blk.	Pesticide duplicate, spike, and blank
Pest. Std. Chro.	Chromatogram of pesticide standard
Pest. Std. I.D.	Pesticide standard identification form
TCDD	2,3,7,8-tetrachlorodibenzodioxin
TCDD Tab., D.L., EICP, Blk.	TCDD tabulated results, detection limits, extracted ion current profile, blank

KEY TO SYMBOLS USED IN DATA COMPLETENESS TABLE

Symbol	Meaning	Symbol	Meaning
✓	Data item present	I	Incomplete data item
NA	Data item not applicable or not required	NC	Data item not clearly explained (units of conc., etc)
P	Data item within established control limits		
F	Data item outside established control limits	* or [number]	See footnote
MS	Missing item	XX/XX/XX XX:XX	Date/Time of run (calibration, etc.)

BLANK ANALYSIS RESULTS FOR TARGET COMPOUNDS

FRACTION	TYPE	CONC	MATRIX	SAMPLE #	SOURCE OF H_2O	CONTAMINANTS (CONCENTRATION / DETECTION LIMIT)
VOA	field	low	AQ	C7968 7036-09	NUS	$MeCl_2$ (48 ug/L / 5) #1 Chloroform (5) #1 ORIGINAL (Red)
						Acetone (10 ug/L / 5) #2
						2 Hexanone (5.3 ug/L / 5) #2
BNA	field	low	AQ	C7968 7036-09	NUS.	Bis(2-ethylhexyl)phthalate (0.07 ug/L / 10) #2
						Butylbenzylphthalate (0.015 ug/L / 10) #2
						Benzo(a)anthracene (0.08 ug/L / 10) #2
						Benzo(a)pyrene (0.16 ug/L / 10) #2
						Chrysene (0.06 ug/L / 10) #2
						Pyrene (0.04 ug/L / 10) #2
VOA	lab	low	AQ	BLA161	RMA.	$MeCl_2$ (3.2 ug/L / 5) #1
						Chloroform (0.47 ug/L / 5) #2
						Acetone (15.8 ug/L / 5) #2
						2-Hexanone (9.6 ug/L / 5) #2
VOA	lab	low	AQ	BLA170	RMA.	$MeCl_2$ (0.57 ug/L / 5) #2
						Chloroform (0.07 ug/L / 5) #2
						Acetone (5.0 ug/L / 5) #2
						2-Hexanone (9.2 ug/L / 5) #2
BNA	lab	low	AQ	57036J 765	RMA.	Fluoranthene (0.276 ug/L / 10) #2
						Bis(2ethylhexyl)phthalate (0.111 ug/L / 10) #2
						Butylbenzyl phthalate (0.043 ug/L / 10) #2
						Benzo(a)Anthracene (0.12 ug/L / 10) #2
						Benzo(a) pyrene (0.08 ug/L / 10) #2
						Benzo(b+k) fluoranthene (0.29 ug/L / 10) #2
						Chrysene (0.023 ug/L / 10) #2
						Benzo(ghi) Perylene (0.24 ug/L / 10) #2
						Phenanthrene (0.11 ug/L / 10) #2
						Indeno(1,2,3-cd) pyrene (0.029 ug/L / 10) #2
						Pyrene (0.30 ug/L / 10) #2
Pest → TCOD	lab	low	AQ	7036-MB	RMA	N.D
						bis(2-ethylhexyl)phthalate (0.89 ug/L / 10) #2
						Butylbenzyl phthalate (0.10 ug/L / 10) #2
						Benzo(a)anthracene (0.09 ug/L / 10) #2
						Benzo(a) Pyrene (0.10 ug/L / 10) #2
Pest	field	low	AQ	C7968 7036-09	NUS	Endrin Aldehyde (0.04 ug/L / 0.005) #1

LABORATORY REPORTED FIELD BLANK DATA IS COMPARED WITH THE SAMPLE DATA IN A TABULATION FORM WITHIN THE SAMPLE ANALYTICAL DATA SUMMARY. TENTATIVELY IDENTIFIED COMPOUNDS IN BLANKS ARE LISTED ON A SEPARATE FOR

COMMENTS:

(1) RESULT REPORTED BY LABORATORY AND CONFIRMED BY REVIEWER.

(2) RESULT INFERRED FROM QUANTITATION LIST, DIAGNOSTICS, CHROMATOGRAM AND/OR SPECTRA.

WATER SURROGATE PERCENT RECOVERY SUMMARY

CASE NO. 2421
LOW LEVEL ✓
WATER ✓
QC REPORT NO. 7036

CONTRACTOR Rocky Mountain Analytical
MED. LEVEL

CONTRACT NO. 68-01-6738
HIGH LEVEL
OTHER (Specify)

[-------Volatile -------][----------Semi-Volatile----------][Pesticide]--[Dioxin]

SMO Traffic Report No.	D_8 Toluene (86-119)	BFB (85-121)	D_4-1,2-Dichloroethane (77-120)	D_5-Nitrobenzene (41-120)	2-Fluorobiphenyl (44-119)	D_{14}-p-Terphenyl (33-128)	D_5-Phenol (15-96)	2-Fluorophenol (23-107)	2,4,6-Tribromophenol (20-105)	Dibutylchlorendate (67-114)**	1,2,3,4-TCDD (23-148)
Reag Blank	105	116	97	83.6	81.6	73.8	28.8	25.6	66.0	80.0	59
C4850	104	117	90	102.4	89.5	81.6	0 *	0 *	7.1 *	~~80.0~~ 70.4	95
C7953	99	116	89	88.8	90.0	79.0	0 *	0 *	14.4 *	~~70.4~~ 84.3	55
C7954	103	104	97	93.7	91.7	89.9	0 *	0 *	2.1 *	~~84.3~~ 75.9	46
C7956	98	97	94	60.8	79.2	77.4	0 *	0 *	3.9 *	~~75.9~~ 84.0	36
C7958	93	101	95	94.3	89.0	76.0	34.8	37.6	96.4	~~84.0~~ 92.6	72
C7960	104	106	100	83.9	71.9	58.3	11.9 *	11.9 *	11.2 *	~~92.6~~ 96.3 *	42
C7963	103	107	97	102.5	85.6	82.5	0 *	0 *	0 *	64.9 *	25
C7966	103	107	98	87.0	83.2	78.4	32.6	26.0	56.8	82.3	61
C7968	104	117	93	91.6	89.0	81.9	28.7	21.3 *	53.2	84.6 ~~89.0~~ ~~90.2~~ ~~84.6~~	67
C4850 MS	104	121	90	–	–	–	–	–	–		
C4850 MSD	103	120	93	–	–	–	–	–	–		
C7966 MS	–	–	–	–	–	–	–	–	–	89.0	64
C7966 MSD	–	–	–	–	–	–	–	–	–	90.2	61
C7958 MS	–	–	–	87.4	88.2	79.2	37.4	39.8	79.2		
C7958 MSD	–	–	–	82.6	86.1	77.2	32.4	37.4	73.6		

* Asterisked values are outside of QC limits.
** Advisory Limit

Comments:
7036-06 & 07 (C7960, C7963) pesticide sample contained large amt of particulate matter
Acid surrogates not recovered in 7 samples. Reanalysis confirmed matrix problem.

Volatiles: 0 out of 36; outside of QC limits
Semi-Volitales: 19 out of 72; outside of QC limits
Pesticides: 2 out of 12; outside of QC limits
Dioxin: 0 out of 12

ORIGINAL (Red)

WATER SURROGATE PERCENT RECOVERY SUMMARY - RERUNS

CASE NO. 2421
LOW LEVEL ✓
WATER ✓
QC REPORT NO. 7036

CONTRACTOR ROCKY MOUNTAIN ANALYTICAL
MED. LEVEL

CONTRACT NO. 68-01-6738
HIGH LEVEL
OTHER (Specify)

BNA RERUNS

[-------Volatile -------][----------Semi-Volatile----------][Pesticide]--[Dioxin]

SMO Traffic Report No.	D_8 Toluene (86-119)	BFB (85-121)	D_4-1,2-Dichloroethane (77-120)	D_5-Nitrobenzene (41-120)	2-Fluorobiphenyl (44-119)	D_{14}-p-Terphenyl (33-128)	D_5-Phenol (15-96)	2-Fluorophenol (23-107)	2,4,6-Tribromophenol (20-105)	Dibutyl-Chlorendate (67-114)**	1,2,3,4-TCDD (23-148)
Reag Blank				100.4	100.7	~~61.~~ 75.4	32.5	24.6	52.6		
C7850				109.8	104.6	70.3	0	0	0		
C7953				101.8	100.7	92.9	0	0	0		
C7954				92.9	100.4	80.8	0	0	0		
C7956				62.8	102.7	84.6	0	0	0		
C7960				103.0	109.9	87.3	0	0	0		
C7963				107.9	108.8	89.0	0	0	0		
C7968				99.9	97.7	96.8	34.4	0	63.8		

* Asterisked values are outside of QC limits.
** Advisory Limit

Comments:
Poor acid surrogate recoveries confirm results from first analysis.

Volatiles: ___ out of ___ ; outside of QC limits
Semi-Volitales: 19 out of 48 ; outside of QC limits
Pesticides: ___ out of ___ ; outside of QC limits

ORIGINAL (Red)

000723

FORM V

MATRIX SPIKE DUPLICATE/RECOVERY

CASE NO. 2421
LOW LEVEL ✓
WATER ✓
QC REPORT NO. 7036

CONTRACTOR RMAL
MED. LEVEL
SOIL/SED.

CONTRACT NO. 68-01-6738
HIGH LEVEL
OTHER (Specify)
UNITS (Circle) ug/kg (ug/L)

FRACTION	COMPOUND	CONC. SPIKE ADDED	CONC. MS	& REC.	CONC. MSD	& REC	RPD	QC %RECOVERY LIMITS* RPD	WATER	SOIL	COMMENTS
VOA SMO # C-4850	1,1-Dichloroethylene	25	19.1	76	18.8	75	1.3	<15%	61-145	59-177	
	Trichloroethylene	25	20.9	84	20.5	82	2.4	<15%	71-120	62-137	
	Chlorobenzene	25	23.5	94	23.7	95	1.1	<15%	75-130	60-133	
	Toluene	25	23.3	93	22.9	92	1.1	<15%	76-125	59-139	
	Benzene	25	22.0	88	21.6	86	2.3	<15%	76-127	66-142	
B/N SMO # C 7958	1,2,4-Trichlorobenzene	50	38.9	78	38.8	78	0	<50%	39- 98	38-107	
	Acenaphthene	50	47.3	95	45.4	91	4.5	<50%	46-118	31-137	
	2,4-Dinitrotoluene	50	37.6	75	~~36~~ 35.6	71	5.5	<50%	24- 96	28- 89	
	Di-N-Butylphthalate	50	41.3	82	38.9	78	5.0	<50%	11-117	29-135	
	Pyrene	50	13.4	27	13.7	27	0	<50%	26-127	35-142	
	N-Nitrosodi-N-Propylamine	50	48.9	98	45.1	90	8.5	<50%	41-116	41-126	
	1,4-Dichlorobenzene	50	35.6	71	33.5	67	5.8	<50%	36- 97	28-104	
ACID SMO # C 7958	Pentachlorophenol	100	46.6	47	50.2	50	7.3	<40%	9-103	17-109	
	Phenol	50	18.4	37	17.5	35	5.6	<40%	12- 89	26- 90	
	2-Chlorophenol	50	36.8	74	36.7	73	1.4	<40%	27-123	25-102	
	P-Chlor-M-Cresol	50	47.3	95	44.3	89	6.5	<40%	23- 97	26-103	
	4-Nitrophenol	100	13.8	14	11.0	11.0	22.6	<40%	10- 80	11-114	
PEST SMO # C-7966	Lindane	0.667	0.665	100	0.700	105	5.1	<40%	56-123	46-127	
	Heptachlor	0.667	0.656	98	0.707	106	7.5	<40%	40-131	35-130	
	Aldrin	0.667	0.584	88	0.631	94.6	7.7	<40%	40-120	34-132	
	Dieldrin	0.667	0.656	98	0.700	105	6.5	<40%	52-126	31-134	
	Endrin	0.667	0.674	101	0.780	117	14.6	<40%	56-121	42-139	
	p,p-DDT	0.667	0.734	110	0.880	132*	4.1	<40%	38-127	23-134	

*Asterisked values are outside QC limits.

ael OK.

ORIGINAL (Red)

RPD:
VOAs 0 out of 5 ; outside QC limits
B/N 0 out of 7 ; outside QC limits
ACID 0 out of 5 ; outside QC limits
PEST 0 out of 16 ; outside QC limits

RECOVERY:
VOAs 0 out of 10 ; outside of QC limits
B/N 0 out of 14 ; outside of QC limits
ACID 0 out of 10 ; outside of QC limits
PEST 1 out of 12 ; outside of QC limits

*Advisory Limits
Revised 12/83

PROJECT NAME: Stauffer Chemical
TDD NO: F3-8312-06

EPA SITE NO.:
REGION: Fit III

QUALITY ASSURANCE REVIEW OF INORGANIC ANALYTICAL DATA PACKAGE

ORIGINAL (Red)

Case No.: 2421
Contract No.: 68-01-6875
Contract Laboratory: Chemtech
Applicable IFB No.: WA83-A195
Reviewer: Rock J. Vitale
Review Date: 12/6/84

Applicable Sample No's.: MC3782 up to and including MC3804, MC7969

The inorganic analytical data for this case has been reviewed. The quality assurance evaluation is summarized in the following table:

Reviewer's Evaluation*	Fraction			
	TASK I ICP or AA METALS	TASK II FURNACE AA METALS	TASK II COLD VAPOR AA MERCURY	TASK III CYANIDE
Acceptable			✓	✓
Acceptable with exception(s)	✓#1, #2, #3	✓#1, #2		
Questionable				
Unacceptable				

* Definitions of the evaluation score categories are listed on next page.

This evaluation was based upon an analysis of the review items indicated below:

- ● DATA COMPLETENESS
- ● BLANK ANALYSIS RESULTS
- MATRIX SPIKE RESULTS
- ● DUPLICATE ANALYSIS RESULTS
- ○ STANDARD ADDITIONS RESULTS
- ● QUANTITATIVE CALCULATIONS
- ● INITIAL CALIBRATION VERIFICATION
- ● CONTINUING CALIBRATION VERIFICATION
- ● INTERFERENCE QC RESULTS
- ● DETECTION LIMITS RESULTS
- ● INSTRUMENT SENSITIVITY REPORTS

Data review forms are attached for each of the review items indicated above.

‡ No errors noted, no form attached.

◒ Spot Check performed.

Comments: #1 Please see blank analysis documentation
#2 Please see duplicate analysis documentation
#3 Quantitation error noted

DATA EVALUATION SCORE CATEGORIES

ORIGINAL (Red)

ACCEPTABLE: Data is within established control limits, or the data which is outside established control limits does not affect the validity of the analytical results.

ACCEPTABLE WITH EXCEPTION(S): Data is not completely within established control limits. The deficiences are identified and specific data is still valid, given certain qualifications which are listed below.

QUESTIONABLE: Data is not within established control limits. The deficiences bring the validity of the entire data set into question. However, the data validity is neither proved nor disproved by the available information.

UNACCEPTABLE: Data is not within established control limits. The deficiences imply the results are not meaningful.

DATA COMPLETENESS	CONC./ MATRIX	LO/AQ	LO/SOL	LO/SOL	LO/SOL	LO/SOL	LO/SOL	LO/SOL	LO/AQ	LO/SOL	LO/AQ	LO/SOL	LO/AQ	LO/SOL	LO/AQ	LO/SOL
	TRAFFIC REPORT # MC	3782	3783	3784	3785	3786	3787	3788	3789	3790	3791	3792	3793	3794	3795	3796
	LAB I.D. #G2-186	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
FIELD QC	BLANK													ORIGINAL (Red)		
	DUPLICATE	✓	✓								✓					
	SPIKE	✓	✓								✓					
TASK I: ICAP OR AA: METALS	RAW DATA	✓														
	TAB. RESULTS	✓														
	TAB. D.L.'s	✓														
	QA FORM	✓														
	ICAP INTER. QC	✓														
	INSTR. SENS.	✓														
TASK II: FURNACE AA: METALS	RAW DATA	✓														
	TAB. RESULTS	✓														
	TAB. D.L.'s	✓														
	QA FORM	✓														
	INSTR. SENS.	✓														
TASK II: COLD VAPOR AA: MERCURY	RAW DATA	✓														
	TAB. RESULTS	✓														
	TAB. D.L.'s	✓														
	QA FORM	✓														
	INSTR. SENS.	✓														
TASK III: CYANIDE	RAW DATA	✓														
	TAB. RESULTS	✓														
	TAB. D.L.'s	✓														
	QA FORM.	✓														
	INSTR. SENS.	✓														
OTHER (SPECIFY):	RAW DATA															
	TAB. RESULTS															
	TAB. D.L.'s															
	QA FORM															
	INSTR. SENS.															
OTHER (SPECIFY):	RAW DATA															
	TAB. RUSULTS															
	TAB. D.L.'s															
	QA FORM															
	INSTR. SENS.															

COMMENTS:

DATA COMPLETENESS	CONC./ MATRIX	LO/DOC	LO/AQ	LO/SOL	LO/SOL	LO/AQ	LO/DOC	LO/AQ	LO/SOL							
	TRAFFIC REPORT # MC	3797	3798	3799	3801	3802	3803	3804	7969	Prep	Prep				ORIGINAL (Red)	
	LAB I.D. #G2-186	16	17	18	19	20	21	22	23							
FIELD QC	BLANK							✓	✓	✓	✓					
	DUPLICATE															
	SPIKE															
TASK I: ICAP OR AA: METALS	RAW DATA	✓	—	—	—	—	—	—	—	—	✓					
	TAB. RESULTS	✓	—	—	—	—	—	—	—	—	✓					
	TAB. D.L.'s	✓	—	—	—	—	—	—	—	—	✓					
	QA FORM	✓	—	—	—	—	—	—	—	—	✓					
	ICAP INTER. QC	✓	—	—	—	—	—	—	—	—	✓					
	INSTR. SENS.	✓	—	—	—	—	—	—	—	—	✓					
TASK II: FURNACE AA: METALS	RAW DATA	✓	—	—	—	—	—	—	—	—	✓					
	TAB. RESULTS	✓	—	—	—	—	—	—	—	—	✓					
	TAB. D.L.'s	✓	—	—	—	—	—	—	—	—	✓					
	QA FORM	✓	—	—	—	—	—	—	—	—	✓					
	INSTR. SENS.	✓	—	—	—	—	—	—	—	—	✓					
TASK II: COLD VAPOR AA: MERCURY	RAW DATA	✓	—	—	—	—	—	—	—	—	✓					
	TAB. RESULTS	✓	—	—	—	—	—	—	—	—	✓					
	TAB. D.L.'s	✓	—	—	—	—	—	—	—	—	✓					
	QA FORM	✓	—	—	—	—	—	—	—	—	✓					
	INSTR. SENS.	✓	—	—	—	—	—	—	—	—	✓					
TASK III: CYANIDE	RAW DATA	✓	—	—	—	—	—	—	—	—	✓					
	TAB. RESULTS	✓	—	—	—	—	—	—	—	—	✓					
	TAB. D.L.'s	✓	—	—	—	—	—	—	—	—	✓					
	QA FORM.	✓	—	—	—	—	—	—	—	—	✓					
	INSTR. SENS.	✓	—	—	—	—	—	—	—	—	✓					
OTHER (SPECIFY):	RAW DATA															
	TAB. RESULTS															
	TAB. D.L.'s															
	QA FORM															
	INSTR. SENS.															
OTHER (SPECIFY):	RAW DATA															
	TAB. RUSULTS															
	TAB. D.L.'s															
	QA FORM															
	INSTR. SENS.															

COMMENTS: _____

BLANK ANALYSIS RESULTS

TASK	TYPE	CONC	MATRIX	SAMPLE #	SOURCE OF H_2O	CONTAMINANTS (CONCENTRATION / DETECTION LIMIT		
All	Lab	low	AQ	R BLK	Chemtech	Be (3.6ug/L/5) #2		
						Fe (24.4ug/L/50) #2		
						Sn (5ug/L/20) #2		
All	lab	low	AQ	D, BLK 1	Chemtech	Be (4.6ug/L/5) #2	23	1.1
						Fe (117ug/L/50) #2	585	29
All	lab	low	AQ	D BLK 2	Chemtech	Zn (11.2ug/L/10) #2	56	2.8
All	field	low	AQ	MC3804 G2-186-22	NUS	Be (4.3 ug/L/5) #2		
						Cd (0.58ug/L/5) #2	2.9	0.14
						Cu (18.8 ug/L/50) #2		
						Fe (49.7 ug/L/50) #2		
						Zn (5.7 ug/L/10) #2		
						Sn (18 ug/L/20) #2	90	4.5
All	field	low	sol	MC3805 G2-186-21	NUS	Cu (24.6ug/L/50) #2	123	6.15
						Fe (55.7ug/L/50) #2		
						Pb (7ug/L/5) #2	35	1.75
						Sn (13ug/L/20) #2		

ORIGINAL (Red)

LABORATORY REPORTED FIELD BLANK DATA IS COMPARED WITH THE SAMPLE DATA IN A TABULATION FORM WITHIN SAMPLE ANALYTICAL DATA SUMMARY.

COMMENTS:

(1) RESULT REPORTED BY LABORATORY AND CONFIRMED BY REVIEWER.

(2) RESULT INFERRED FROM RAW DATA

MATRIX SPIKE RECOVERIES

ORIGINAL (Red)

Sample No.	MC3783	MC3782	MC3791			
Field Spike						
Lab Spike	✓	✓	✓			
Matrix	Solid	AQUEOUS	AQUEOUS			
Conc. Level	LOW	LOW	LOW			
Method Std.	✓	✓	✓			
Fraction	All	All Except CN^-	CN^-			

All matrix spike recoveries were within the established control ranges specified in; IFB WA82-A072, Exhibit E, Table 2. ✓ Yes ___ No

Exception(s):

Parameter	Accepted Range (%)	Actual % Rec.	Sample Number	Org. Result	Spike Added	Spike Result	Units

Comments: All matrix spike recoveries were within acceptable criteria

ORIGINAL (Red)

Duplicate Analysis Results

The applicable duplicate pairs are:

sample no.	MC3783	MC3782	MC3791			
Field duplicate						
Lab duplicate	✓	✓	✓			
sample level	Low	Low	Low			
sample matrix	Solid	AQ	AQ			
Fraction	All	All except CN	CN^-			

The relative percent difference (RPD) for each parameter group was evaluated. The duplicate analysis RPD acceptance criteria should be:

Fraction	maximum acceptable Percent Difference
	20% AQ 40% Solid.

The RPD's exceeding the maximum acceptable percent difference were:

Fraction	Compound		Actual RPD	Sample	Comparison conc.	Comparison conc.
Task II	Cadmium	[1]	20.4	MC3782	2.7	2.4
TASK I	Manganese	[2]	62.9	MC3783	2332	1215
TASK II	Arsenic	[2]	63.5	MC3783	56	29
TASK II	Mercury	[2]	6 H%	MC3883	0.15	0.28

Comments: [1] Not significantly out of acceptable criteria
[2] The reported concentration may not reflect the average present.

QUANTITATIVE CALCULATIONS

ORIGINAL (Red)

CALCULATION ERRORS AND CORRECTED RESULTS ARE LISTED BELOW:

ACT NAME : GOVT TIME : 06-MAR-84 10:27 Sample MC 3784
G2-186-03

	I.S.	AG	AL	B	BA	BE	CD	CR	CU	FE
EXP# 1	1000	<.0050	48.51	<.0500	4.886	<.0020	<.0200	.1909	.2441	180.7
EXP# 2	1000	<.0050	48.73	<.0500	4.913	.0121	<.0200	.2013	.2444	182.7
EXP# 3	1000	<.0050	48.89	<.0500	4.916	<.0020	<.0200	.2020	.2352	183.8
AVERAGE	1000	<.0050	48.71	<.0500	4.905	.0046	<.0200	.1981	.2412	182.7

	MN	NI	V	ZN	AS	CD	PB	SB	SE	SN
EXP# 1	.3346	.0710	.3562	.1964	.0579	<.0020	.4386	<.0500	<.0500	.2970
EXP# 2	.3412	.0676	.3600	.2021	<.0500	<.0020	.4194	<.0500	<.0500	.3643
EXP# 3	.3452	.0674	.3642	.2054	.0664	<.0020	.4434	<.0500	<.0500	.3834
AVERAGE	.3403	.0686	.3601	.2013	<.0500	<.0020	.4335	<.0500	<.0500	.3469

	TL	CA	MG	NA	FE2	ZN2
EXP# 1	<.0500	23.93	4.414	3.024	179.9	.2504
EXP# 2	<.0500	24.38	4.494	2.992	181.8	.2498
EXP# 3	<.0500	24.51	4.466	2.512	182.7	.2509
AVERAGE	<.0500	24.27	4.458	2.843	181.5	.2504

Copper Reported 4.1 mg/kg

$$\text{Conc} = \frac{\text{ppm} \times 100}{2} = \frac{0.2412 \times 100}{2} = 12 \text{ mg/kg}$$

ORIGINAL (Red)

Initial Calibration Verification and Continuing Calibration Verification

Documentation indicates calibrations were performed and checked every ten samples: Yes ✓ No ___

Exceptions: _____

Calibrations and verifications were all within the control limits specified in 68-01-6875 : Yes ✓ No ___

Outliers are listed below:

Parameter	Acceptable Range (%)	Calibration Identifier	% of True Value	Comments
				All calibrations within acceptable criteria

Interference QC Results

Documentation indicates interference QC samples were run before and after every ~~ten samples~~: Yes ✓ No ___

Exceptions: _____

Interference QC results were all within the control limits specified in 68-01-6875 : Yes ✓ No ___

Exceptions:

Parameter	Acceptable Range (%)	Calibration Identifier	% of True Value	Comments
				See next page for tabulation

NUS CORPORATION
SUPERFUND DIVISION

QA PROJECT NOTES

INTERFERENCE STANDARDS (ICP)

ORIGINAL (Red)

CASE NUMBER 2421

	I.D. Before			ID After			ID			
METALS	FOUND	TRUE	%Rec	FOUND	TRUE	%Rec	FOUND	TRUE	%Rec	
Aluminum	417,700	400,000	104%	420,400	400,000	105%				
Boron	478.1	500	95%	435.3	500	87%				
Barium	448.6	500	90%	437.3	500	87%				
Beryllium	519.4	500	104%	461.6	500	93%				
Calcium	419,700	400,000	105%	389,400	400,000	97%				
Chromium	460.3	500	92%	430	500	86%				
Cobalt	395	500	79%	355.7	500	71%				
Copper	578.1	500	115%	610	500	122%				
Iron	394,000	400,000	99%	363,600	400,000	91%				
Magnesium	429,400	400,000	107%	413,000	400,000	103%				
Manganese	422.9	500	85%	382	500	77%				
Nickel	443.8	500	89%	385	500	77%				
Silver	406.7	500	81%	403.8	500	81%				
Sodium	350,000	400,000	88%	365,100	400,000	91%				
Vanadium	441.7	500	88%	405	500	81%				
Zinc	454.3	500	91%	460	500	92%				

85-115% Acceptable criteria

COMMENTS:

None of the recoveries (outliers) are significantly out of acceptable criteria.

NUS 443A 58 1182

ORIGINAL (Red)

Detection Limits Results

Detection limits were reported for all samples analyzed: Yes ✓ No ___

Exceptions: All detection limits reported

Detection limits were less than or equal to the required detection limits specified in 68-01-6875. Yes ✓ No ___

Exceptions: ___

Instrument Sensitivity Reports

Instrument sensitivity reports were documented for all parameters:

Yes ✓ No ___

Comments: All detection limits were met by available instrumentation.

Other Remarks Concerning this Case:

ORIGINAL
(Red)

APPENDIX D

U.S. ENVIRONMENTAL PROTECTION AGENCY - CLP Sample Management Office
P.O. Box 818, Alexandria, Virginia 22313 - 703/557-2490

ORIGINAL (Red)

Sample Number
C4850

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: RMAL
Case No: ~~C4850~~ 2421 000011
Lab Sample ID No: 7036-01
QC Report No: 7036
Sample Matrix: 2L Water
Contract No.: 68-01-6738
Data Release Authorized By: [signature]
Date Sample Received: 2/24/84

SEMIVOLATILE COMPOUNDS

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/28/84
DATE ANALYZED: 3/8/84
PERCENT MOISTURE:
CONC./DILUTION FACTOR: x 1

PP #	CAS #		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6- trichlorophenol	10 U
(22A)	59-50-7	p-chloro-m-cresol	10 U
(24A)	95-57-8	2- chlorophenol	10 U
(31A)	120-83-2	2,4-dichlorophenol	10 U
(34A)	105-67-9	2,4-dimethylphenol	10 U
(57A)	88-75-5	2- nitrophenol	20 U
(58A)	100-02-7	4-nitrophenol	50 U
(59A)	51-28-5	2,4-dinitrophenol	50 U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20 U
(64A)	87-86-5	pentachlorophenol	10 U
(65A)	108-95-2	phenol	10 U
	65-85-0	benzoic acid	100 U
	95-48-7	2-methylphenol	5 U
	108-39-4	4-methylphenol	5 U
	95-95-4	2,4,5-trichlorophenol	100 U
(1B)	83-32-9	acenaphthene	10 U
(5B)	92-87-5	benzidine	40 U
(8B)	120-82-1	1,2,4-trichlorobenzene	10 U
(9B)	118-74-1	hexachlorobenzene	10 U
(12B)	67-72-1	hexachloroethane	10 U
(18B)	111-44-4	bis(2-chloroethyl)ether	10 U
(20B)	91-58-7	2-chloronaphthalene	10 U
(25B)	95-50-1	1,2-dichlorobenzene	10 U
(26B)	541-73-1	1,3-dichlorobenzene	10 U
(27B)	106-46-7	1,4-dichlorobenzene	10 U
(28B)	91-94-1	3,3'-dichlorobenzidine	20 U
(35B)	121-14-2	2,4-dinitrotoluene	20 U
(36B)	606-20-2	2,6-dinitrotoluene	20 U
(37B)	122-66-7	1,2-diphenylhydrazine	20 U
(39B)	206-44-0	fluoranthene	10 U
(40B)	7005-72-3	4-chlorophenyl phenyl ether	10 U
(41B)	101-55-3	4-bromophenyl phenyl ether	10 U
(42B)	39638-32-9	bis (2-chloroisopropyl) ether	20 U
(43B)	111-91-1	bis (2-chloroethoxy) methane	20 U

PP #	CAS #		ug/l or ug/kg (circle on
(52B)	87-68-3	hexachlorobutadiene	10
(53B)	77-47-4	hexachlorocyclopentadiene	10
(54B)	78-59-1	isophorone	10
(55B)	91-20-3	naphthalene	10
(56B)	98-95-3	nitrobenzene	10
(61B)	62-75-9	N-nitrosodimethylamine	25
(62B)	86-30-6	N-nitrosodiphenylamine	10
(63B)	621-64-7	N-nitrosodipropylamine	10
(66B)	117-81-7	bis (2-ethylhexyl) phthalate	10
(67B)	85-68-7	benzyl butyl phthalate	1
(68B)	84-74-2	di-n-butyl phthalate	10
(69B)	117-84-0	di-n-octyl phthalate	10
(70B)	84-66-2	diethyl phthalate	10
(71B)	131-11-3	dimethyl phthalate	10
(72B)	56-55-3	benzo(a)anthracene	10
(73B)	50-32-8	benzo(a)pyrene	20
(74B)	205-99-2	benzo(b)fluoranthene	20
(75B)	207-08-9	benzo(k)fluoranthene	20
(76B)	218-01-9	chrysene	20
(77B)	208-96-8	acenaphthylene	10
(78B)	120-12-7	anthracene	10
(79B)	191-24-2	benzo(ghi)perylene	20
(80B)	86-73-7	fluorene	10
(81B)	85-01-8	phenanthrene	10
(82B)	53-70-3	dibenzo(a,h)anthracene	20
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	1
(84B)	129-00-0	pyrene	10
	62-53-3	aniline	5
	100-51-6	benzyl alcohol	20
	106-47-8	4-chloroaniline	50
	132-64-9	dibenzofuran	10
	91-57-6	2-methylnaphthalene	20
	88-74-4	2-nitroaniline	100
	99-09-2	3-nitroaniline	100
	100-01-6	4-nitroaniline	100

U.S. ENVIRONMENTAL PROTECTION AGENCY - CLP Sample Management Office
P.O. Box 818, Alexandria, Virginia 22313 - 703/557-2490

Sample Number
6485-0
ORIGINAL (Red)
000011

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: ROCKY MOUNTAIN ANALYTICAL
Case No: 2421
Lab Sample ID No: 7036-01
QC Report No: 7036
Sample Matrix: LOW WATERS
Contract No.: 68-01-6738
Data Release Authorized By: O. Gropin
Date Sample Received: 2-24-84

VOLATILES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED:
DATE ANALYZED: 2-27-84
PERCENT MOISTURE:
CONC./DILUTION FACTOR: 1

PP #	CAS #		ug/l or ug/kg (circle one)
(2V)	107-02-8	acrolein	100U
(3V)	107-13-1	acrylonitrile	100U
	71-43-2	benzene	5U
	56-23-5	carbon tetrachloride	5U
(7V)	108-90-7	chlorobenzene	5U
(10V)	107-06-2	1,2-dichloroethane	1U
(11V)	71-55-6	1,1,1-trichloroethane	5U
(13V)	75-34-3	1,1-dichloroethane	5U
(14V)	79-00-5	1,1,2-trichloroethane	5U
(15V)	79-34-5	1,1,2,2-tetrachloroethane	10U
(16V)	75-00-3	chloroethane	10U
(19V)	110-75-8	2-chloroethylvinyl ether	10U
(23V)	67-66-3	chloroform	5U
(29V)	75-35-4	1,1-dichloroethene	5U
(30V)	156-60-5	trans-1,2-dichloroethene	5U
(32V)	78-87-5	1,2-dichloropropane	10U
(33V)	10061-02-6	trans-1,3-dichloropropene	5U
	10061-01-05	cis-1,3-dichloropropene	5U
(38V)	100-41-4	ethylbenzene	5U
(44V)	75-09-2	methylene chloride	1K
(45V)	74-87-3	chloromethane	10U
(46V)	74-83-9	bromomethane	10U
(47V)	75-25-2	bromoform	10U
(48V)	75-27-4	bromodichloromethane	5U
(49V)	75-69-4	fluorotrichloromethane	10U *
(50V)	75-71-8	dichlorodifluoromethane	10U *
(51V)	124-48-1	chlorodibromomethane	5U
(85V)	127-18-4	tetrachloroethene	5U
(86V)	108-88-3	toluene	5U
(87V)	79-01-6	trichloroethene	5U
(88V)	75-01-4	vinyl chloride	10U
	67-64-1	acetone	~~15~~ 5B
	78-93-3	2-butanone	5U
	75-15-0	carbondisulfide	1U
	519-78-6	2-hexanone	5U
	108-10-1	4-methyl-2-pentanone	5U
	100-42-5	styrene	5U
	108-05-4	vinyl acetate	5U

PESTICIDES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/24/84
DATE ANALYZED: 2/28/84
PERCENT MOISTURE:
CONC./DILUTION FACTOR: 1

PP #	CAS #		ug/l or ug/kg (circle one)
(89P)	309-00-2	aldrin	0.005U
(90P)	60-57-1	dieldrin	0.005U
(91P)	57-74-9	chlordane	0.05U
(92P)	50-29-3	4,4'-DDT	0.01U
(93P)	72-55-9	4,4'-DDE	0.005U
(94P)	72-54-8	4,4'-DDD	0.01U
(95P)	115-29-7	α-endosulfan	0.005U
(96P)	115-29-7	β-endosulfan	0.005U
(97P)	1031-07-8	endosulfan sulfate	0.01U
(98P)	72-20-8	endrin	0.005U
(99P)	7421-93-4	endrin aldehyde	0.01U
(100P)	76-44-8	heptachlor	0.005U
(101P)	1024-57-3	heptachlor epoxide	0.005U
(102P)	319-84-6	α-BHC	0.005U
(103P)	319-85-7	β-BHC	0.005U
(104P)	319-86-8	δ-BHC	0.005U
(105P)	58-89-9	γ-BHC (lindane)	0.005U
(106P)	53469-21-9	PCB-1242	0.050U
(107P)	11097-69-1	PCB-1254	0.050U
(108P)	11104-28-2	PCB-1221	0.100U
(109P)	11141-16-5	PCB-1232	0.100U
(110P)	12672-29-6	PCB-1248	0.050U
(111P)	11096-82-5	PCB-1260	0.100U
(112P)	12674-11-2	PCB-1016	0.100U
(113P)	8001-35-2	toxaphene	0.200U

DIOXINS

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/28/84
DATE ANALYZED: 2/29/84
PERCENT MOISTURE:
CONC./DILUTION FACTOR: 1

PP #	CAS #		ug/l or ug/kg (circle one)
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	0.005U

* SEE EXHIBIT C

U.S. ENVIRONMENTAL PROTECTION AGENCY - CLP Sample Management Office
P.O. Box 818, Alexandria, Virginia 22313 - 703/557-2490

Sample Number
C 7953

ORIGINAL (Red) 000012

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: RMAL
Case No: 2421
Lab Sample ID No: 7036-02
QC Report No: 7036
Sample Matrix: LL Water
Contract No.: 68-01-6738
Data Release Authorized By: [illegible]
Date Sample Received: 2/24/84

SEMIVOLATILE COMPOUNDS

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/28/84
DATE ANALYZED: 3/7/84
PERCENT MOISTURE: _____
CONC./DILUTION FACTOR: x 1

PP #	CAS #		(ug/l) or ug/kg (circle one)
(1A)	88-06-2	2,4,6- trichlorophenol	10 U
(22A)	59-50-7	p-chloro-m-cresol	10 U
(24A)	95-57-8	2- chlorophenol	10 U
(31A)	120-83-2	2,4-dichlorophenol	10 U
(34A)	105-67-9	2,4-dimethylphenol	10 U
(57A)	88-75-5	2- nitrophenol	20 U
(58A)	100-02-7	4-nitrophenol	50 U
(59A)	51-28-5	2,4-dinitrophenol	50 U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20 U
(64A)	87-86-5	pentachlorophenol	10 U
(65A)	108-95-2	phenol	10 U
	65-85-0	benzoic acid	100 U
	95-48-7	2-methylphenol	5 U
	108-39-4	4-methylphenol	5 U
	95-95-4	2,4,5-trichlorophenol	100 U
(1B)	83-32-9	acenaphthene	10 U
(5B)	92-87-5	benzidine	40 U
(8B)	120-82-1	1,2,4-trichlorobenzene	10 U
(9B)	118-74-1	hexachlorobenzene	10 U
(12B)	67-72-1	hexachloroethane	10 U
(18B)	111-44-4	bis(2-chloroethyl)ether	10 U
(20B)	91-58-7	2-chloronaphthalene	10 U
(25B)	95-50-1	1,2-dichlorobenzene	10 U
(26B)	541-73-1	1,3-dichlorobenzene	10 U
(27B)	106-46-7	1,4-dichlorobenzene	10 U
(28B)	91-94-1	3,3'-dichlorobenzidine	20 U
(35B)	121-14-2	2,4-dinitrotoluene	20 U
(36B)	606-20-2	2,6-dinitrotoluene	20 U
(37B)	122-66-7	1,2-diphenylhydrazine	20 U
(39B)	206-44-0	fluoranthene	10 U
(40B)	7005-72-3	4-chlorophenyl phenyl ether	10 U
(41B)	101-55-3	4-bromophenyl phenyl ether	10 U
(42B)	39638-32-9	bis (2-chloroisopropyl) ether	20 U
(43B)	111-91-1	bis (2-chloroethoxy) methane	20 U

PP #	CAS #		(ug/l) or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	10
(53B)	77-47-4	hexachlorocyclopentadiene	10
(54B)	78-59-1	isophorone	10
(55B)	91-20-3	naphthalene	10
(56B)	98-95-3	nitrobenzene	10
(61B)	62-75-9	N-nitrosodimethylamine	25
(62B)	86-30-6	N-nitrosodiphenylamine	10
(63B)	621-64-7	N-nitrosodipropylamine	10
(66B)	117-81-7	bis (2-ethylhexyl) phthalate	10 U
(67B)	85-68-7	benzyl butyl phthalate	10 U
(68B)	84-74-2	di-n-butyl phthalate	10
(69B)	117-84-0	di-n-octyl phthalate	10
(70B)	84-66-2	diethyl phthalate	10 U
(71B)	131-11-3	dimethyl phthalate	10
(72B)	56-55-3	benzo(a)anthracene	10 U
(73B)	50-32-8	benzo(a)pyrene	20 U
(74B)	205-99-2	benzo(b)fluoranthene	20 U
(75B)	207-08-9	benzo(k)fluoranthene	20 U
(76B)	218-01-9	chrysene	20 U
(77B)	208-96-8	acenaphthylene	10 U
(78B)	120-12-7	anthracene	10 U
(79B)	191-24-2	benzo(ghi)perylene	20 U
(80B)	86-73-7	fluorene	10 U
(81B)	85-01-8	phenanthrene	10 U
(82B)	53-70-3	dibenzo(a,h)anthracene	20 U
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	20 U
(84B)	129-00-0	pyrene	10 U
	62-53-3	aniline	5 U
	100-51-6	benzyl alcohol	20 U
	106-47-8	4-chloroaniline	50 U
	132-64-9	dibenzofuran	10 U
	91-57-6	2-methylnaphthalene	20 U
	88-74-4	2-nitroaniline	100 U
	99-09-2	3-nitroaniline	100 U
	100-01-6	4-nitroaniline	100 U

U.S. ENVIRONMENTAL PROTECTION AGENCY - CLP Sample Management Office
P.O. Box 818, Alexandria, Virginia 22313 - 703/557-2490

Sample Number
C-7953

ORGANICS ANALYSIS DATA SHEET

ORIGINAL 00001
(Red)

Laboratory Name: ROCKY MOUNTAIN ANALYTICAL
Case No: 2421
Lab Sample ID No: 7036-02
QC Report No: 7036
Sample Matrix: LOW WATERS
Contract No.: 68-01-6738
Data Release Authorized By: [illegible]
Date Sample Received: 2-24-84

VOLATILES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED:
DATE ANALYZED: 2-27-84
PERCENT MOISTURE:
CONC./DILUTION FACTOR: 1

PP #	CAS #		(ug/l) or ug/kg (circle one)
(2V)	107-02-8	acrolein	100 U
(3V)	107-13-1	acrylonitrile	100 U
	71-43-2	benzene	5 U
	56-23-5	carbon tetrachloride	5 U
(7V)	108-90-7	chlorobenzene	5 U
(10V)	107-06-2	1,2-dichloroethane	1 U
(11V)	71-55-6	1,1,1-trichloroethane	5 U
(13V)	75-34-3	1,1-dichloroethane	5 U
(14V)	79-00-5	1,1,2-trichloroethane	5 U
(15V)	79-34-5	1,1,2,2-tetrachloroethane	10 U
(16V)	75-00-3	chloroethane	10 U
(19V)	110-75-8	2-chloroethylvinyl ether	10 U
(23V)	67-66-3	chloroform	5 U
(29V)	75-35-4	1,1-dichloroethene	5 U
(30V)	156-60-5	trans-1,2-dichloroethene	5 U
(32V)	78-87-5	1,2-dichloropropane	10 U
(33V)	10061-02-6	trans-1,3-dichloropropene	5 U
	10061-01-05	cis-1,3-dichloropropene	5 U
(38V)	100-41-4	ethylbenzene	5 U
(44V)	75-09-2	methylene chloride	5 U
(45V)	74-87-3	chloromethane	10 U
(46V)	74-83-9	bromomethane	10 U
(47V)	75-25-2	bromoform	10 U
(48V)	75-27-4	bromodichloromethane	5 U
(49V)	75-69-4	fluorotrichloromethane	10 U *
(50V)	75-71-8	dichlorodifluoromethane	10 U *
(51V)	124-48-1	chlorodibromomethane	5 U
(85V)	127-18-4	tetrachloroethene	5 U
(86V)	108-88-3	toluene	5 U
(87V)	79-01-6	trichloroethene	5 U
(88V)	75-01-4	vinyl chloride	10 U
	67-64-1	acetone	5 U-B
	78-93-3	2-butanone	5 U
	75-15-0	carbondisulfide	1 U
	519-78-6	2-hexanone	5 U
	108-10-1	4-methyl-2-pentanone	5 U
	100-42-5	styrene	5 U
	108-05-4	vinyl acetate	5 U

PESTICIDES

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/24/84
DATE ANALYZED: 2/28/84
PERCENT MOISTURE:
CONC./DILUTION FACTOR: 1

PP #	CAS #		(ug/l) or ug/kg (circle one)
(89P)	309-00-2	aldrin	0.005 u
(90P)	60-57-1	dieldrin	0.005 u
(91P)	57-74-9	chlordane	0.05 u
(92P)	50-29-3	4,4'-DDT	0.01 u
(93P)	72-55-9	4,4'-DDE	0.005 u
(94P)	72-54-8	4,4'-DDD	0.01 u
(95P)	115-29-7	α-endosulfan	0.005 u
(96P)	115-29-7	β-endosulfan	0.005 u
(97P)	1031-07-8	endosulfan sulfate	0.01 u
(98P)	72-20-8	endrin	0.005 u
(99P)	7421-93-4	endrin aldehyde	0.01 u
(100P)	76-44-8	heptachlor	0.005 u
(101P)	1024-57-3	heptachlor epoxide	0.005 u
(102P)	319-84-6	α-BHC	0.005 u
(103P)	319-85-7	β-BHC	0.005 u
(104P)	319-86-8	δ-BHC	0.005 u
(105P)	58-89-9	γ-BHC (lindane)	0.005 u
(106P)	53469-21-9	PCB-1242	0.050 u
(107P)	11097-69-1	PCB-1254	0.050 u
(108P)	11104-28-2	PCB-1221	0.100 u
(109P)	11141-16-5	PCB-1232	0.100 u
(110P)	12672-29-6	PCB-1248	0.050 u
(111P)	11096-82-5	PCB-1260	0.100 u
(112P)	12674-11-2	PCB-1016	0.100 u
(113P)	8001-35-2	toxaphene	0.200 u

DIOXINS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/28/84
DATE ANALYZED: 2/29/84
PERCENT MOISTURE:
CONC./DILUTION FACTOR: x 1

PP #	CAS #		(ug/l) or ug/kg (circle one)
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	0.005

* SEE EXHIBIT C

U.S. ENVIRONMENTAL PROTECTION AGENCY - CLP Sample Management Office
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Sample Number
C 7954

00001

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: RMAL
Case No: 2421
Lab Sample ID No: 7036 - 03
QC Report No: 7036
Sample Matrix: LL Water
Contract No.: 68-01-6738
Data Release Authorized By: [illegible]
Date Sample Received: 2 - 24 - 84

SEMIVOLATILE COMPOUNDS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/28/84
DATE ANALYZED: 3/8/84
PERCENT MOISTURE: _____
CONC./DILUTION FACTOR: x 1

PP #	CAS #		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6- trichlorophenol	10 U
(22A)	59-50-7	p-chloro-m-cresol	10 U
(24A)	95-57-8	2- chlorophenol	10 U
(31A)	120-83-2	2,4-dichlorophenol	10 U
(34A)	105-67-9	2,4-dimethylphenol	10 U
(57A)	88-75-5	2- nitrophenol	20 U
(58A)	100-02-7	4-nitrophenol	50 U
(59A)	51-28-5	2,4-dinitrophenol	50 U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20 U
(64A)	87-86-5	pentachlorophenol	10 U
(65A)	108-95-2	phenol	10 U
	65-85-0	benzoic acid	100 U
	95-48-7	2-methylphenol	5 U
	108-39-4	4-methylphenol	5 U
	95-95-4	2,4,5-trichlorophenol	100 U
(1B)	83-32-9	acenaphthene	10 U
(5B)	92-87-5	benzidine	40 U
(8B)	120-82-1	1,2,4-trichlorobenzene	10 U
(9B)	118-74-1	hexachlorobenzene	10 U
(12B)	67-72-1	hexachloroethane	10 U
(18B)	111-44-4	bis(2-chloroethyl)ether	10 U
(20B)	91-58-7	2-chloronaphthalene	10 U
(25B)	95-50-1	1,2-dichlorobenzene	10 U
(26B)	541-73-1	1,3-dichlorobenzene	10 U
(27B)	106-46-7	1,4-dichlorobenzene	10 U
(28B)	91-94-1	3,3'-dichlorobenzidine	20 U
(35B)	121-14-2	2,4-dinitrotoluene	20 U
(36B)	606-20-2	2,6-dinitrotoluene	20 U
(37B)	122-66-7	1,2-diphenylhydrazine	20 U
(39B)	206-44-0	fluoranthene	10 U
(40B)	7005-72-3	4-chlorophenyl phenyl ether	10 U
(41B)	101-55-3	4-bromophenyl phenyl ether	10 U
(42B)	39638-32-9	bis (2-chloroisopropyl) ether	20 U
(43B)	111-91-1	bis (2-chloroethoxy) methane	20 U

PP #	CAS #		ug/l or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	10
(53B)	77-47-4	hexachlorocyclopentadiene	10
(54B)	78-59-1	isophorone	10
(55B)	91-20-3	naphthalene	10
(56B)	98-95-3	nitrobenzene	10
(61B)	62-75-9	N-nitrosodimethylamine	25
(62B)	86-30-6	N-nitrosodiphenylamine	10
(63B)	621-64-7	N-nitrosodipropylamine	10
(66B)	117-81-7	bis (2-ethylhexyl) phthalate	10
(67B)	85-68-7	benzyl butyl phthalate	10
(68B)	84-74-2	di-n-butyl phthalate	10
(69B)	117-84-0	di-n-octyl phthalate	10
(70B)	84-66-2	diethyl phthalate	10
(71B)	131-11-3	dimethyl phthalate	10
(72B)	56-55-3	benzo(a)anthracene	10
(73B)	50-32-8	benzo(a)pyrene	2
(74B)	205-99-2	benzo(b)fluoranthene	2
(75B)	207-08-9	benzo(k)fluoranthene	2
(76B)	218-01-9	chrysene	2
(77B)	208-96-8	acenaphthylene	1
(78B)	120-12-7	anthracene	1
(79B)	191-24-2	benzo(ghi)perylene	
(80B)	86-73-7	fluorene	
(81B)	85-01-8	phenanthrene	
(82B)	53-70-3	dibenzo(a,h)anthracene	
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	
(84B)	129-00-0	pyrene	
	62-53-3	aniline	
	100-51-6	benzyl alcohol	2
	106-47-8	4-chloroaniline	
	132-64-9	dibenzofuran	
	91-57-6	2-methylnaphthalene	
	88-74-4	2-nitroaniline	1
	99-09-2	3-nitroaniline	1
	100-01-6	4-nitroaniline	1

U.S. ENVIRONMENTAL PROTECTION AGENCY - CLP Sample Management Office
P.O. Box 818, Alexandria, Virginia 22313 - 703/557-2490

Sample Number
C 7954 ORIGINAL (Red)

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: ROCKY MOUNTAIN ANALYTICAL
Case No: 2421
Lab Sample ID No: 7036-03
QC Report No: 7036
Sample Matrix: LOW WATERS
Contract No.: 68-01-6738
Data Release Authorized By: [signature]
Date Sample Received: 2-24-84

000010

VOLATILES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED:
DATE ANALYZED: 2-28-84
PERCENT MOISTURE:
CONC./DILUTION FACTOR: 1

PP #	CAS #		(ug/l) or ug/kg (circle one)
(2V)	107-02-8	acrolein	100U
(3V)	107-13-1	acrylonitrile	100 U
(	71-43-2	benzene	5 U
(6V)	56-23-5	carbon tetrachloride	5 ~~10~~ U
(7V)	108-90-7	chlorobenzene	5 U
(10V)	107-06-2	1,2-dichloroethane	1 U
(11V)	71-55-6	1,1,1-trichloroethane	5 U
(13V)	75-34-3	1,1-dichloroethane	5 U
(14V)	79-00-5	1,1,2-trichloroethane	5 U
(15V)	79-34-5	1,1,2,2-tetrachloroethane	10 U
(16V)	75-00-3	chloroethane	10 U
(19V)	110-75-8	2-chloroethylvinyl ether	10 U
(23V)	67-66-3	chloroform	5 U
(29V)	75-35-4	1,1-dichloroethene	5 U
(30V)	156-60-5	trans-1,2-dichloroethene	5 U
(32V)	78-87-5	1,2-dichloropropane	10 U
(33V)	10061-02-6	trans-1,3-dichloropropene	5 U
	10061-01-05	cis-1,3-dichloropropene	5 U
(38V)	100-41-4	ethylbenzene	5 U
(44V)	75-09-2	methylene chloride	5 U
(45V)	74-87-3	chloromethane	10 U
(46V)	74-83-9	bromomethane	10 U
(47V)	75-25-2	bromoform	10 U
(48V)	75-27-4	bromodichloromethane	5 U
(49V)	75-69-4	fluorotrichloromethane	10 U *
(50V)	75-71-8	dichlorodifluoromethane	10 U *
(51V)	124-48-1	chlorodibromomethane	5 U
(85V)	127-18-4	tetrachloroethene	5 U
(86V)	108-88-3	toluene	5 U
(87V)	79-01-6	trichloroethene	5 U
(88V)	75-01-4	vinyl chloride	10 U
	67-64-1	acetone	~~15~~ ~~20~~ 15 C
	78-93-3	2-butanone	5 U
	75-15-0	carbondisulfide	1 U
	519-78-6	2-hexanone	5 U-B
	108-10-1	4-methyl-2-pentanone	5 U
	100-42-5	styrene	5 U
	108-05-4	vinyl acetate	5 U

PESTICIDES

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/24/84
DATE ANALYZED: 2/29/84
PERCENT MOISTURE:
CONC./DILUTION FACTOR: 1

PP #	CAS #		(ug/l) or ug/kg (circle one)
(89P)	309-00-2	aldrin	0.005 u
(90P)	60-57-1	dieldrin	0.005 u
(91P)	57-74-9	chlordane	0.050 u
(92P)	50-29-3	4,4'-DDT	0.010 u
(93P)	72-55-9	4,4'-DDE	0.005 u
(94P)	72-54-8	4,4'-DDD	0.010 u
(95P)	115-29-7	α-endosulfan	0.005 u ~~0.004~~ K
(96P)	115-29-7	β-endosulfan	0.005 u
(97P)	1031-07-8	endosulfan sulfate	0.010 u
(98P)	72-20-8	endrin	0.005 u
(99P)	7421-93-4	endrin aldehyde	0.010 u
(100P)	76-44-8	heptachlor	0.005 u
(101P)	1024-57-3	heptachlor epoxide	0.005 u
(102P)	319-84-6	α-BHC	0.004 K
(103P)	319-85-7	β-BHC	0.005 u
(104P)	319-86-8	δ-BHC	0.005 u
(105P)	58-89-9	γ-BHC (lindane)	0.005 u
(106P)	53469-21-9	PCB-1242	0.050 u
(107P)	11097-69-1	PCB-1254	0.050 u
(108P)	11104-28-2	PCB-1221	0.100 u
(109P)	11141-16-5	PCB-1232	0.100 u
(110P)	12672-29-6	PCB-1248	0.050 u
(111P)	11096-82-5	PCB-1260	0.100 u
(112P)	12674-11-2	PCB-1016	0.100 u
(113P)	8001-35-2	toxaphene	0.200 u

DIOXINS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/28/84
DATE ANALYZED: 2/29/84
PERCENT MOISTURE:
CONC./DILUTION FACTOR: 1

PP #	CAS #		(ug/l) or ug/kg (circle one)
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	0.005 u

U.S. ENVIRONMENTAL PROTECTION AGENCY - CLP Sample Management Office
P.O. Box 818, Alexandria, Virginia 22313 - 703/557-2490

ORIGINAL (Red)

Sample Number C7956

ORGANICS ANALYSIS DATA SHEET

000010

Laboratory Name: RMAL
Case No: 2421
Lab Sample ID No: 7036-04
QC Report No: 7036
Sample Matrix: LL Water
Contract No.: 68-01-6738
Data Release Authorized By: [signature]
Date Sample Received: 2-24-84

SEMIVOLATILE COMPOUNDS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2-28-84
DATE ANALYZED: 3-8-84
PERCENT MOISTURE:
CONC./DILUTION FACTOR: x 1

PP #	CAS #		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6- trichlorophenol	10 U
(22A)	59-50-7	p-chloro-m-cresol	10 U
(24A)	95-57-8	2- chlorophenol	10 U
(31A)	120-83-2	2,4-dichlorophenol	10 U
(34A)	105-67-9	2,4-dimethylphenol	10 U
(57A)	88-75-5	2- nitrophenol	20 U
(58A)	100-02-7	4-nitrophenol	50 U
(59A)	51-28-5	2,4-dinitrophenol	50 U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20 U
(64A)	87-86-5	pentachlorophenol	10 U
(65A)	108-95-2	phenol	10 U
	65-85-0	benzoic acid	100 U
	95-48-7	2-methylphenol	5 U
	108-39-4	4-methylphenol	5 U
	95-95-4	2,4,5-trichlorophenol	100 U
(1B)	83-32-9	acenaphthene	10 U
(5B)	92-87-5	benzidine	40 U
(8B)	120-82-1	1,2,4-trichlorobenzene	10 U
(9B)	118-74-1	hexachlorobenzene	10 U
(12B)	67-72-1	hexachloroethane	10 U
(18B)	111-44-4	bis(2-chloroethyl)ether	10 U
(20B)	91-58-7	2-chloronaphthalene	10 U
(25B)	95-50-1	1,2-dichlorobenzene	10 U
(26B)	541-73-1	1,3-dichlorobenzene	10 U
(27B)	106-46-7	1,4-dichlorobenzene	10 U
(28B)	91-94-1	3,3'-dichlorobenzidine	20 U
(35B)	121-14-2	2,4-dinitrotoluene	20 U
(36B)	606-20-2	2,6-dinitrotoluene	20 U
(37B)	122-66-7	1,2-diphenylhydrazine	20 U
(39B)	206-44-0	fluoranthene	10 U
(40B)	7005-72-3	4-chlorophenyl phenyl ether	10 U
(41B)	101-55-3	4-bromophenyl phenyl ether	10 U
(42B)	39638-32-9	bis (2-chloroisopropyl) ether	20 U
(43B)	111-91-1	bis (2-chloroethoxy) methane	20 U

PP #	CAS #		ug/l or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	10
(53B)	77-47-4	hexachlorocyclopentadiene	10
(54B)	78-59-1	isophorone	10
(55B)	91-20-3	naphthalene	10
(56B)	98-95-3	nitrobenzene	10
(61B)	62-75-9	N-nitrosodimethylamine	25
(62B)	86-30-6	N-nitrosodiphenylamine	10
(63B)	621-64-7	N-nitrosodipropylamine	10
(66B)	117-81-7	bis (2-ethylhexyl) phthalate	7 K
(67B)	85-68-7	benzyl butyl phthalate	10 U
(68B)	84-74-2	di-n-butyl phthalate	10
(69B)	117-84-0	di-n-octyl phthalate	10
(70B)	84-66-2	diethyl phthalate	10 U
(71B)	131-11-3	dimethyl phthalate	10
(72B)	56-55-3	benzo(a)anthracene	10 U
(73B)	50-32-8	benzo(a)pyrene	20 U
(74B)	205-99-2	benzo(b)fluoranthene	20 U
(75B)	207-08-9	benzo(k)fluoranthene	20 U
(76B)	218-01-9	chrysene	20 U
(77B)	208-96-8	acenaphthylene	10 U
(78B)	120-12-7	anthracene	10 U
(79B)	191-24-2	benzo(ghi)perylene	20 U
(80B)	86-73-7	fluorene	10
(81B)	85-01-8	phenanthrene	10 U
(82B)	53-70-3	dibenzo(a,h)anthracene	20 U
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	20 U
(84B)	129-00-0	pyrene	10 U
	62-53-3	aniline	5 U
	100-51-6	benzyl alcohol	20 U
	106-47-8	4-chloroaniline	50 U
	132-64-9	dibenzofuran	10 U
	91-57-6	2-methylnaphthalene	20 U
	88-74-4	2-nitroaniline	100 U
	99-09-2	3-nitroaniline	100 U
	100-01-6	4-nitroaniline	100 U

U.S. ENVIRONMENTAL PROTECTION AGENCY - CLP Sample Management Office
P.O. Box 818, Alexandria, Virginia 22313 - 703/557-2490

ORIGINAL (Red)

Sample Number
C3956

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: ROCKY MOUNTAIN ANALYTICAL
Case No: 2421 00001
Lab Sample ID No: 7036-04
QC Report No: 7036
Sample Matrix: LOW WATERS
Contract No.: 68-01-6738
Data Release Authorized By: [signature]
Date Sample Received: 2-24-84

VOLATILES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED:
DATE ANALYZED: 2-28-84
PERCENT MOISTURE:
CONC./DILUTION FACTOR: 1

PP #	CAS #		(ug/l) or ug/kg (circle one)
(2V)	107-02-8	acrolein	100U
(3V)	107-13-1	acrylonitrile	100 U
')	71-43-2	benzene	5 U
(6V)	56-23-5	carbon tetrachloride	5 U
(7V)	108-90-7	chlorobenzene	5 U
(10V)	107-06-2	1,2-dichloroethane	1 U
(11V)	71-55-6	1,1,1-trichloroethane	5 U
(13V)	75-34-3	1,1-dichloroethane	5 U
(14V)	79-00-5	1,1,2-trichloroethane	5 U
(15V)	79-34-5	1,1,2,2-tetrachloroethane	10 U
(16V)	75-00-3	chloroethane	10 U
(19V)	110-75-8	2-chloroethylvinyl ether	10 U
(23V)	67-66-3	chloroform	5 U
(29V)	75-35-4	1,1-dichloroethene	5 U
(30V)	156-60-5	trans-1,2-dichloroethene	5 U
(32V)	78-87-5	1,2-dichloropropane	10 U
(33V)	10061-02-6	trans-1,3-dichloropropene	5 U
	10061-01-05	cis-1,3-dichloropropene	5 U
(38V)	100-41-4	ethylbenzene	5 U
(44V)	75-09-2	methylene chloride	5 U
(45V)	74-87-3	chloromethane	10 U
(46V)	74-83-9	bromomethane	10 U
(47V)	75-25-2	bromoform	10 U
(48V)	75-27-4	bromodichloromethane	5 U
(49V)	75-69-4	fluorotrichloromethane	10 U *
(50V)	75-71-8	dichlorodifluoromethane	10 U *
(51V)	124-48-1	chlorodibromomethane	5 U
(85V)	127-18-4	tetrachloroethene	5 U
(86V)	108-88-3	toluene	5 U
(87V)	79-01-6	trichloroethene	5 U
(88V)	75-01-4	vinyl chloride	10 U
	67-64-1	acetone	31 ~~B 3K 8K~~
	78-93-3	2-butanone	5 U
	75-15-0	carbondisulfide	1 U
	519-78-6	2-hexanone	5 U
	108-10-1	4-methyl-2-pentanone	5 U
	100-42-5	styrene	5 U
	108-05-4	vinyl acetate	5 U

PESTICIDES

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/24/84
DATE ANALYZED: 2/29/84
PERCENT MOISTURE:
CONC./DILUTION FACTOR: X 1

PP #	CAS #		(ug/l) or ug/kg (circle one)
(89P)	309-00-2	aldrin	0.005u
(90P)	60-57-1	dieldrin	0.005u
(91P)	57-74-9	chlordane	0.050u
(92P)	50-29-3	4,4'-DDT	0.010u
(93P)	72-55-9	4,4'-DDE	0.005u
(94P)	72-54-8	4,4'-DDD	0.010u
(95P)	115-29-7	α-endosulfan	0.005u
(96P)	115-29-7	β-endosulfan	0.005u
(97P)	1031-07-8	endosulfan sulfate	0.010u
(98P)	72-20-8	endrin	0.005u
(99P)	7421-93-4	endrin aldehyde	0.010u
(100P)	76-44-8	heptachlor	0.005u
(101P)	1024-57-3	heptachlor epoxide	0.005u
(102P)	319-84-6	α-BHC	0.005u
(103P)	319-85-7	β-BHC	0.005u
(104P)	319-86-8	δ-BHC	0.005u
(105P)	58-89-9	γ-BHC (lindane)	0.005u
(106P)	53469-21-9	PCB-1242	0.050u ~~0.005u~~
(107P)	11097-69-1	PCB-1254	0.050u
(108P)	11104-28-2	PCB-1221	0.100u ~~0.050u~~
(109P)	11141-16-5	PCB-1232	0.100u
(110P)	12672-29-6	PCB-1248	0.050u ~~0.100u~~
(111P)	11096-82-5	PCB-1260	0.100u ~~0.050~~
(112P)	12674-11-2	PCB-1016	0.100u
(113P)	8001-35-2	toxaphene	0.200u

DIOXINS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/28/84
DATE ANALYZED: 2/29/84
PERCENT MOISTURE:
CONC./DILUTION FACTOR: X 1

PP #	CAS #		(ug/l) or ug/kg (circle one)
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	0.005

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ORIGINAL (Red)

Sample Number
C 7958

ORGANICS ANALYSIS DATA SHEET

000016

Laboratory Name: RMAL
Case No: 2421
Lab Sample ID No: 7036-05
QC Report No: 7036
Sample Matrix: LL Water
Contract No.: 68-01-6738
Data Release Authorized By: [signature]
Date Sample Received: 2-24-84

SEMIVOLATILE COMPOUNDS

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2-28-84
DATE ANALYZED: 3-7-84
PERCENT MOISTURE: _____
CONC./DILUTION FACTOR: x 1

PP #	CAS #		ug/l or ug/kg (circle one)
4)	88-06-2	2,4,6- trichlorophenol	13 U
(22A)	59-50-7	p-chloro-m-cresol	13 U
(24A)	95-57-8	2- chlorophenol	13 U
(31A)	120-83-2	2,4-dichlorophenol	13 U
(34A)	105-67-9	2,4-dimethylphenol	13 U
(57A)	88-75-5	2- nitrophenol	25 U
(58A)	100-02-7	4-nitrophenol	63 U
(59A)	51-28-5	2,4-dinitrophenol	63 U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	25 U
(64A)	87-86-5	pentachlorophenol	13 U
(65A)	108-95-2	phenol	13 U
	65-85-0	benzoic acid	130 U
	95-48-7	2-methylphenol	6 U
	108-39-4	4-methylphenol	6 U
	95-95-4	2,4,5-trichlorophenol	130 U
(1B)	83-32-9	acenaphthene	13 U
(5B)	92-87-5	benzidine	50 U
(8B)	120-82-1	1,2,4-trichlorobenzene	13 U
(9B)	118-74-1	hexachlorobenzene	13 U
(12B)	67-72-1	hexachloroethane	13 U
(18B)	111-44-4	bis(2-chloroethyl)ether	13 U
(20B)	91-58-7	2-chloronaphthalene	13 U
(25B)	95-50-1	1,2-dichlorobenzene	13 U
(26B)	541-73-1	1,3-dichlorobenzene	13 U
(27B)	106-46-7	1,4-dichlorobenzene	13 U
(28B)	91-94-1	3,3'-dichlorobenzidine	25 U
(35B)	121-14-2	2,4-dinitrotoluene	25 U
(36B)	606-20-2	2,6-dinitrotoluene	25 U
(37B)	122-66-7	1,2-diphenylhydrazine	25 U
(39B)	206-44-0	fluoranthene	13 U
(40B)	7005-72-3	4-chlorophenyl phenyl ether	13 U
(41B)	101-55-3	4-bromophenyl phenyl ether	13 U
(42B)	39638-32-9	bis (2-chloroisopropyl) ether	25 U
(43B)	111-91-1	bis (2-chloroethoxy) methane	25 U

PP #	CAS #		ug/l or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	13 U
(53B)	77-47-4	hexachlorocyclopentadiene	13 U
(54B)	78-59-1	isophorone	13 U
(55B)	91-20-3	naphthalene	13 U
(56B)	98-95-3	nitrobenzene	13 U
(61B)	62-75-9	N-nitrosodimethylamine	80 U
(62B)	86-30-6	N-nitrosodiphenylamine	13 U
(63B)	621-64-7	N-nitrosodipropylamine	13 U
(66B)	117-81-7	bis (2-ethylhexyl) phthalate	13 U
(67B)	85-68-7	benzyl butyl phthalate	13 U
(68B)	84-74-2	di-n-butyl phthalate	13 U
(69B)	117-84-0	di-n-octyl phthalate	13 U
(70B)	84-66-2	diethyl phthalate	13 U
(71B)	131-11-3	dimethyl phthalate	13 U
(72B)	56-55-3	benzo(a)anthracene	13 U
(73B)	50-32-8	benzo(a)pyrene	25 U
(74B)	205-99-2	benzo(b)fluoranthene	25 U
(75B)	207-08-9	benzo(k)fluoranthene	25 U
(76B)	218-01-9	chrysene	25 U
(77B)	208-96-8	acenaphthylene	13 U
(78B)	120-12-7	anthracene	13 U
(79B)	191-24-2	benzo(ghi)perylene	25 U
(80B)	86-73-7	fluorene	13 U
(81B)	85-01-8	phenanthrene	13 U
(82B)	53-70-3	dibenzo(a,h)anthracene	25 U
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	25 U
(84B)	129-00-0	pyrene	13 U
	62-53-3	aniline	6 U
	100-51-6	benzyl alcohol	25 U
	106-47-8	4-chloroaniline	60 U
	132-64-9	dibenzofuran	13 U
	91-57-6	2-methylnaphthalene	25 U
	88-74-4	2-nitroaniline	130 U
	99-09-2	3-nitroaniline	130 U
	100-01-6	4-nitroaniline	130 U

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Sample Number
C7958

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: ROCKY MOUNTAIN ANALYTICAL
Case No: 2421 0000010
Lab Sample ID No: 7036-05
QC Report No: 7036
Sample Matrix: LOW WATERS
Contract No.: 68-01-6738
Data Release Authorized By: [signature]
Date Sample Received: 2-24-84

VOLATILES

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED:
DATE ANALYZED: 2-28-84
PERCENT MOISTURE:
CONC./DILUTION FACTOR: 1

PP #	CAS #		ug/l or ug/kg (circle one)
(2V)	107-02-8	acrolein	100U
(3V)	107-13-1	acrylonitrile	100U
(	71-43-2	benzene	5U
(	56-23-5	carbon tetrachloride	5 U
(7V)	108-90-7	chlorobenzene	5U
(10V)	107-06-2	1,2-dichloroethane	1U
(11V)	71-55-6	1,1,1-trichloroethane	5U
(13V)	75-34-3	1,1-dichloroethane	5U
(14V)	79-00-5	1,1,2-trichloroethane	5U
(15V)	79-34-5	1,1,2,2-tetrachloroethane	10U
(16V)	75-00-3	chloroethane	10U
(19V)	110-75-8	2-chloroethylvinyl ether	10U
(23V)	67-66-3	chloroform	5U
(29V)	75-35-4	1,1-dichloroethene	5U
(30V)	156-60-5	trans-1,2-dichloroethene	5U
(32V)	78-87-5	1,2-dichloropropane	10U
(33V)	10061-02-6	trans-1,3-dichloropropene	5U
	10061-01-05	cis-1,3-dichloropropene	5U
(38V)	100-41-4	ethylbenzene	5U
(44V)	75-09-2	methylene chloride	2K
(45V)	74-87-3	chloromethane	10U
(46V)	74-83-9	bromomethane	10U
(47V)	75-25-2	bromoform	10U
(48V)	75-27-4	bromodichloromethane	5U
(49V)	75-69-4	fluorotrichloromethane	10U *
(50V)	75-71-8	dichlorodifluoromethane	10U *
(51V)	124-48-1	chlorodibromomethane	5U
(85V)	127-18-4	tetrachloroethene	5U
(86V)	108-88-3	toluene	5U
(87V)	79-01-6	trichloroethene	5U
(88V)	75-01-4	vinyl chloride	10U
	67-64-1	acetone	5U
	78-93-3	2-butanone	5U
	75-15-0	carbondisulfide	1U
	519-78-6	2-hexanone	5U
	108-10-1	4-methyl-2-pentanone	5U
	100-42-5	styrene	5U
	108-05-4	vinyl acetate	5U

PESTICIDES

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/24/84
DATE ANALYZED: 2/29/84
PERCENT MOISTURE:
CONC./DILUTION FACTOR: X 1

PP #	CAS #		ug/l or ug/kg (circle one)
(89P)	309-00-2	aldrin	0.005u
(90P)	60-57-1	dieldrin	0.005u
(91P)	57-74-9	chlordane	0.050u
(92P)	50-29-3	4,4'-DDT	0.010u
(93P)	72-55-9	4,4'-DDE	0.005u
(94P)	72-54-8	4,4'-DDD	0.010u
(95P)	115-29-7	α-endosulfan	0.005u
(96P)	115-29-7	β-endosulfan	0.005u
(97P)	1031-07-8	endosulfan sulfate	0.010u
(98P)	72-20-8	endrin	0.005u
(99P)	7421-93-4	endrin aldehyde	0.010u
(100P)	76-44-8	heptachlor	0.005u
(101P)	1024-57-3	heptachlor epoxide	0.005u
(102P)	319-84-6	α-BHC	0.005u
(103P)	319-85-7	β-BHC	0.005u
(104P)	319-86-8	δ-BHC	0.005u
(105P)	58-89-9	γ-BHC (lindane)	0.005u
(106P)	53469-21-9	PCB-1242	0.050u
(107P)	11097-69-1	PCB-1254	0.050u
(108P)	11104-28-2	PCB-1221	0.100u
(109P)	11141-16-5	PCB-1232	0.100u
(110P)	12672-29-6	PCB-1248	0.050u
(111P)	11096-82-5	PCB-1260	0.100u
(112P)	12674-11-2	PCB-1016	0.100u
(113P)	8001-35-2	toxaphene	0.200u

DIOXINS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/28/84
DATE ANALYZED: 2/29/84
PERCENT MOISTURE:
CONC./DILUTION FACTOR: 1

PP #	CAS #		ug/l or ug/kg (circle one)
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	0.005

* SEE EXHIBIT C

U.S. ENVIRONMENTAL PROTECTION AGENCY - CLP Sample Management Office
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Sample Number
C7960

ORGANICS ANALYSIS DATA SHEET

000020

Laboratory Name: RMAL
Case No: 2421
Lab Sample ID No: 7036 · 06
QC Report No: 7036
Sample Matrix: LL Water
Contract No.: 68 · 01 · 6738
Data Release Authorized By: [illegible]
Date Sample Received: 2 · 24 · 84

SEMIVOLATILE COMPOUNDS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2 · 28 · 84
DATE ANALYZED: 3 · 8 · 84
PERCENT MOISTURE: _____
CONC./DILUTION FACTOR: x 1

PP #	CAS #		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6- trichlorophenol	10 U
(22A)	59-50-7	p-chloro-m-cresol	10 U
(24A)	95-57-8	2- chlorophenol	10 U
(31A)	120-83-2	2,4-dichlorophenol	10 U
(34A)	105-67-9	2,4-dimethylphenol	10 U
(57A)	88-75-5	2- nitrophenol	20 U
(58A)	100-02-7	4-nitrophenol	50 U
(59A)	51-28-5	2,4-dinitrophenol	50 U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20 U
(64A)	87-86-5	pentachlorophenol	10 U
(65A)	108-95-2	phenol	10 U
	65-85-0	benzoic acid	100 U
	95-48-7	2-methylphenol	5 U
	108-39-4	4-methylphenol	5 U
	95-95-4	2,4,5-trichlorophenol	100 U
(1B)	83-32-9	acenaphthene	10 U
(5B)	92-87-5	benzidine	40 U
(8B)	120-82-1	1,2,4-trichlorobenzene	10 U
(9B)	118-74-1	hexachlorobenzene	10 U
(12B)	67-72-1	hexachloroethane	10 U
(18B)	111-44-4	bis(2-chloroethyl)ether	10 U
(20B)	91-58-7	2-chloronaphthalene	10 U
(25B)	95-50-1	1,2-dichlorobenzene	10 U
(26B)	541-73-1	1,3-dichlorobenzene	10 U
(27B)	106-46-7	1,4-dichlorobenzene	10 U
(28B)	91-94-1	3,3'-dichlorobenzidine	20 U
(35B)	121-14-2	2,4-dinitrotoluene	20 U
(36B)	606-20-2	2,6-dinitrotoluene	20 U
(37B)	122-66-7	1,2-diphenylhydrazine	20 U
(39B)	206-44-0	fluoranthene	3 K
(40B)	7005-72-3	4-chlorophenyl phenyl ether	10 U
(41B)	101-55-3	4-bromophenyl phenyl ether	10 U
(42B)	39638-32-9	bis (2-chloroisopropyl) ether	20 U
(43B)	111-91-1	bis (2-chloroethoxy) methane	20 U

PP #	CAS #		ug/l or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	10 U
(53B)	77-47-4	hexachlorocyclopentadiene	10
(54B)	78-59-1	isophorone	10
(55B)	91-20-3	naphthalene	10
(56B)	98-95-3	nitrobenzene	10
(61B)	62-75-9	N-nitrosodimethylamine	25
(62B)	86-30-6	N-nitrosodiphenylamine	10
(63B)	621-64-7	N-nitrosodipropylamine	10
(66B)	117-81-7	bis (2-ethylhexyl) phthalate	10 U
(67B)	85-68-7	benzyl butyl phthalate	10 U
(68B)	84-74-2	di-n-butyl phthalate	10
(69B)	117-84-0	di-n-octyl phthalate	10
(70B)	84-66-2	diethyl phthalate	10 U
(71B)	131-11-3	dimethyl phthalate	10
(72B)	56-55-3	benzo(a)anthracene	3 K
(73B)	50-32-8	benzo(a)pyrene	2 K
(74B)	205-99-2	benzo(b)fluoranthene	8 K
(75B)	207-08-9	benzo(k)fluoranthene	20 U
(76B)	218-01-9	chrysene	4 K
(77B)	208-96-8	acenaphthylene	10 U
(78B)	120-12-7	anthracene	10 U
(79B)	191-24-2	benzo(ghi)perylene	1 K
(80B)	86-73-7	fluorene	10 U
(81B)	85-01-8	phenanthrene	1 K
(82B)	53-70-3	dibenzo(a,h)anthracene	20 U
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	2 K
(84B)	129-00-0	pyrene	3 K
	62-53-3	aniline	5 U
	100-51-6	benzyl alcohol	20 U
	106-47-8	4-chloroaniline	50 U
	132-64-9	dibenzofuran	10 U
	91-57-6	2-methylnaphthalene	20 U
	88-74-4	2-nitroaniline	100 U
	99-09-2	3-nitroaniline	100 U
	100-01-6	4-nitroaniline	100 U

U.S. ENVIRONMENTAL PROTECTION AGENCY - CLP Sample Management Office
P.O. Box 818, Alexandria, Virginia 22313 - 703/557-2490

Sample Number
C7960
000021

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: ROCKY MOUNTAIN ANALYTICAL
Case No: 2421
Lab Sample ID No: 7036-06
QC Report No: 7036
Sample Matrix: LOW WATERS
Contract No.: 68-01-6738
Data Release Authorized By: [illegible]
Date Sample Received: 2-24-84

VOLATILES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED:
DATE ANALYZED: 2-28-84
PERCENT MOISTURE:
CONC./DILUTION FACTOR: 1

PP #	CAS #		ug/l or ug/kg (circle one)
(2V)	107-02-8	acrolein	100U
(3V)	107-13-1	acrylonitrile	100U
	71-43-2	benzene	5U
(6V)	56-23-5	carbon tetrachloride	5 ~~10~~ U
(7V)	108-90-7	chlorobenzene	5U
(10V)	107-06-2	1,2-dichloroethane	1U
(11V)	71-55-6	1,1,1-trichloroethane	5U
(13V)	75-34-3	1,1-dichloroethane	5U
(14V)	79-00-5	1,1,2-trichloroethane	5U
(15V)	79-34-5	1,1,2,2-tetrachloroethane	10U
(16V)	75-00-3	chloroethane	10U
(19V)	110-75-8	2-chloroethylvinyl ether	10U
(23V)	67-66-3	chloroform	5U
(29V)	75-35-4	1,1-dichloroethene	5U
(30V)	156-60-5	trans-1,2-dichloroethene	5U
(32V)	78-87-5	1,2-dichloropropane	10U
(33V)	10061-02-6	trans-1,3-dichloropropene	5U
	10061-01-05	cis-1,3-dichloropropene	5U
(38V)	100-41-4	ethylbenzene	5U
(44V)	75-09-2	methylene chloride	5U
(45V)	74-87-3	chloromethane	10U
(46V)	74-83-9	bromomethane	10U
(47V)	75-25-2	bromoform	10U
(48V)	75-27-4	bromodichloromethane	5U
(49V)	75-69-4	fluorotrichloromethane	10U *
(50V)	75-71-8	dichlorodifluoromethane	10U *
(51V)	124-48-1	chlorodibromomethane	5U
(85V)	127-18-4	tetrachloroethene	5U
(86V)	108-88-3	toluene	5U
(87V)	79-01-6	trichloroethene	5U
(88V)	75-01-4	vinyl chloride	10U
	67-64-1	acetone	~~25~~ 23 C
	78-93-3	2-butanone	5U
	75-15-0	carbondisulfide	1U
	519-78-6	2-hexanone	5U
	108-10-1	4-methyl-2-pentanone	5U
	100-42-5	styrene	5U
	108-05-4	vinyl acetate	5U

PESTICIDES

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/24/84
DATE ANALYZED: 2/29/84
PERCENT MOISTURE:
CONC./DILUTION FACTOR: 1

PP #	CAS #		ug/l or ug/kg (circle one)
(89P)	309-00-2	aldrin	0.005u
(90P)	60-57-1	dieldrin	0.005u
(91P)	57-74-9	chlordane	0.050u
(92P)	50-29-3	4,4'-DDT	0.010u
(93P)	72-55-9	4,4'-DDE	0.005u
(94P)	72-54-8	4,4'-DDD	0.010u
(95P)	115-29-7	α-endosulfan	0.005u
(96P)	115-29-7	β-endosulfan	0.005u
(97P)	1031-07-8	endosulfan sulfate	0.010u
(98P)	72-20-8	endrin	0.005u
(99P)	7421-93-4	endrin aldehyde	0.010u
(100P)	76-44-8	heptachlor	0.005u
(101P)	1024-57-3	heptachlor epoxide	0.005u
(102P)	319-84-6	α-BHC	0.005u
(103P)	319-85-7	β-BHC	0.005u
(104P)	319-86-8	δ-BHC	0.005u
(105P)	58-89-9	γ-BHC (lindane)	0.005u
(106P)	53469-21-9	PCB-1242	0.050u
(107P)	11097-69-1	PCB-1254	0.050u
(108P)	11104-28-2	PCB-1221	0.100u
(109P)	11141-16-5	PCB-1232	0.100u
(110P)	12672-29-6	PCB-1248	0.050u
(111P)	11096-82-5	PCB-1260	0.100u
(112P)	12674-11-2	PCB-1016	0.100u
(113P)	8001-35-2	toxaphene	0.200u

DIOXINS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/28/84
DATE ANALYZED: 2/29/84
PERCENT MOISTURE:
CONC./DILUTION FACTOR: 1

PP #	CAS #		ug/l or ug/kg (circle one)
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	0.005u

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Sample Number
C 7963

ORGANICS ANALYSIS DATA SHEET

000028

Laboratory Name: RMAL
Case No: 2421
Lab Sample ID No: 7036-07
QC Report No: 7036
Sample Matrix: LL Water
Contract No.: 68-01-6738
Data Release Authorized By: [illegible]
Date Sample Received: 2-24-84

SEMIVOLATILE COMPOUNDS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2-28-84
DATE ANALYZED: 3-8-84
PERCENT MOISTURE:
CONC./DILUTION FACTOR: x 1

PP #	CAS #		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6- trichlorophenol	10 U
(22A)	59-50-7	p-chloro-m-cresol	10 U
(24A)	95-57-8	2- chlorophenol	10 U
(31A)	120-83-2	2,4-dichlorophenol	10 U
(34A)	105-67-9	2,4-dimethylphenol	10 U
(57A)	88-75-5	2- nitrophenol	20 U
(58A)	100-02-7	4-nitrophenol	50 U
(59A)	51-28-5	2,4-dinitrophenol	50 U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20 U
(64A)	87-86-5	pentachlorophenol	10 U
(65A)	108-95-2	phenol	10 U
	65-85-0	benzoic acid	100 U
	95-48-7	2-methylphenol	5 U
	108-39-4	4-methylphenol	5 U
	95-95-4	2,4,5-trichlorophenol	100 U
(1B)	83-32-9	acenaphthene	10 U
(5B)	92-87-5	benzidine	40 U
(8B)	120-82-1	1,2,4-trichlorobenzene	10 U
(9B)	118-74-1	hexachlorobenzene	10 U
(12B)	67-72-1	hexachloroethane	10 U
(18B)	111-44-4	bis(2-chloroethyl)ether	10 U
(20B)	91-58-7	2-chloronaphthalene	10 U
(25B)	95-50-1	1,2-dichlorobenzene	10 U
(26B)	541-73-1	1,3-dichlorobenzene	10 U
(27B)	106-46-7	1,4-dichlorobenzene	10 U
(28B)	91-94-1	3,3'-dichlorobenzidine	20 U
(35B)	121-14-2	2,4-dinitrotoluene	20 U
(36B)	606-20-2	2,6-dinitrotoluene	20 U
(37B)	122-66-7	1,2-diphenylhydrazine	20 U
(39B)	206-44-0	fluoranthene	10 U
(40B)	7005-72-3	4-chlorophenyl phenyl ether	10 U
(41B)	101-55-3	4-bromophenyl phenyl ether	10 U
(42B)	39638-32-9	bis (2-chloroisopropyl) ether	20 U
(43B)	111-91-1	bis (2-chloroethoxy) methane	20 U

PP #	CAS #		ug/l or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	10
(53B)	77-47-4	hexachlorocyclopentadiene	10
(54B)	78-59-1	isophorone	10
(55B)	91-20-3	naphthalene	10
(56B)	98-95-3	nitrobenzene	10
(61B)	62-75-9	N-nitrosodimethylamine	25
(62B)	86-30-6	N-nitrosodiphenylamine	10
(63B)	621-64-7	N-nitrosodipropylamine	10
(66B)	117-81-7	bis (2-ethylhexyl) phthalate	10 U
(67B)	85-68-7	benzyl butyl phthalate	10 U
(68B)	84-74-2	di-n-butyl phthalate	10
(69B)	117-84-0	di-n-octyl phthalate	10
(70B)	84-66-2	diethyl phthalate	10 U
(71B)	131-11-3	dimethyl phthalate	10
(72B)	56-55-3	benzo(a)anthracene	10 U
(73B)	50-32-8	benzo(a)pyrene	20 U
(74B)	205-99-2	benzo(b)fluoranthene	20 U
(75B)	207-08-9	benzo(k)fluoranthene	20 U
(76B)	218-01-9	chrysene	20 U
(77B)	208-96-8	acenaphthylene	10 U
(78B)	120-12-7	anthracene	10 U
(79B)	191-24-2	benzo(ghi)perylene	20 U
(80B)	86-73-7	fluorene	10 U
(81B)	85-01-8	phenanthrene	10 U
(82B)	53-70-3	dibenzo(a,h)anthracene	20 U
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	20 U
(84B)	129-00-0	pyrene	10 U
	62-53-3	aniline	5 U
	100-51-6	benzyl alcohol	20 U
	106-47-8	4-chloroaniline	50 U
	132-64-9	dibenzofuran	10 U
	91-57-6	2-methylnaphthalene	20 U
	88-74-4	2-nitroaniline	100 U
	99-09-2	3-nitroaniline	100 U
	100-01-6	4-nitroaniline	100 U

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Sample Number
C7963

000026

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: ROCKY MOUNTAIN ANALYTICAL
Case No: 2421
Lab Sample ID No: 5036-07
QC Report No: 5036
Sample Matrix: LOW WATERS
Contract No.: 68-01-6738
Data Release Authorized By: O Hogan
Date Sample Received: 2-24-84

VOLATILES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED:
DATE ANALYZED: 2-28-84
PERCENT MOISTURE:
CONC./DILUTION FACTOR: 1

PP #	CAS #		(ug/l) or ug/kg (circle one)
(2V)	107-02-8	acrolein	100U
(3V)	107-13-1	acrylonitrile	100 U
[illegible]	71-43-2	benzene	5 U
[illegible]	56-23-5	carbon tetrachloride	5 U
(7V)	108-90-7	chlorobenzene	5 U
(10V)	107-06-2	1,2-dichloroethane	1 U
(11V)	71-55-6	1,1,1-trichloroethane	5 U
(13V)	75-34-3	1,1-dichloroethane	5 U
(14V)	79-00-5	1,1,2-trichloroethane	5 U
(15V)	79-34-5	1,1,2,2-tetrachloroethane	10 U
(16V)	75-00-3	chloroethane	10 U
(19V)	110-75-8	2-chloroethylvinyl ether	10 U
(23V)	67-66-3	chloroform	5 U
(29V)	75-35-4	1,1-dichloroethene	5 U
(30V)	156-60-5	trans-1,2-dichloroethene	5 U
(32V)	78-87-5	1,2-dichloropropane	10 U
(33V)	10061-02-6	trans-1,3-dichloropropene	5 U
	10061-01-05	cis-1,3-dichloropropene	5 U
(38V)	100-41-4	ethylbenzene	5 U
(44V)	75-09-2	methylene chloride	8
(45V)	74-87-3	chloromethane	10 U
(46V)	74-83-9	bromomethane	10 U
(47V)	75-25-2	bromoform	10 U
(48V)	75-27-4	bromodichloromethane	5 U
(49V)	75-69-4	fluorotrichloromethane	10 U *
(50V)	75-71-8	dichlorodifluoromethane	10 U *
(51V)	124-48-1	chlorodibromomethane	5 U
(85V)	127-18-4	tetrachloroethene	5 U
(86V)	108-88-3	toluene	5 U
(87V)	79-01-6	trichloroethene	5 U
(88V)	75-01-4	vinyl chloride	10 U
	67-64-1	acetone	~~5U~~ 9 5u
	78-93-3	2-butanone	5 U
	75-15-0	carbondisulfide	1 U
	519-78-6	2-hexanone	5 U
	108-10-1	4-methyl-2-pentanone	5 U
	100-42-5	styrene	5 U
	108-05-4	vinyl acetate	5 U

PESTICIDES

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/24/84
DATE ANALYZED: 2/29/84
PERCENT MOISTURE:
CONC./DILUTION FACTOR: 1

PP #	CAS #		(ug/l) or ug/kg (circle one)
(89P)	309-00-2	aldrin	0.005u
(90P)	60-57-1	dieldrin	0.005u
(91P)	57-74-9	chlordane	0.050u
(92P)	50-29-3	4,4'-DDT	0.010u
(93P)	72-55-9	4,4'-DDE	0.005u
(94P)	72-54-8	4,4'-DDD	0.010u
(95P)	115-29-7	α-endosulfan	0.005u
(96P)	115-29-7	β-endosulfan	0.005u
(97P)	1031-07-8	endosulfan sulfate	0.010u
(98P)	72-20-8	endrin	0.005u
(99P)	7421-93-4	endrin aldehyde	0.010u
(100P)	76-44-8	heptachlor	0.005u
(101P)	1024-57-3	heptachlor epoxide	0.005u
(102P)	319-84-6	α-BHC	0.005u
(103P)	319-85-7	β-BHC	0.005u
(104P)	319-86-8	δ-BHC	0.005u
(105P)	58-89-9	γ-BHC (lindane)	0.005u
(106P)	53469-21-9	PCB-1242	0.050u
(107P)	11097-69-1	PCB-1254	0.050u
(108P)	11104-28-2	PCB-1221	0.100u
(109P)	11141-16-5	PCB-1232	0.100u
(110P)	12672-29-6	PCB-1248	0.050u
(111P)	11096-82-5	PCB-1260	0.100u
(112P)	12674-11-2	PCB-1016	0.100u
(113P)	8001-35-2	toxaphene	0.200u

DIOXINS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/28/84
DATE ANALYZED: 2/29/84
PERCENT MOISTURE:
CONC./DILUTION FACTOR: 1

PP #	CAS #		(ug/l) or ug/kg (circle one)
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	0.005u

* SEE EXHIBIT C

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ORIGINAL (Red)

Sample Number
7966

00002

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: RMAL
Case No: 2421
Lab Sample ID No: 7036-08
QC Report No: 7036
Sample Matrix: LL Water
Contract No.: 68-01-6738
Data Release Authorized By: [illegible]
Date Sample Received: 2-24-84

SEMIVOLATILE COMPOUNDS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2-28-84
DATE ANALYZED: 3-8-84
PERCENT MOISTURE:
CONC./DILUTION FACTOR: x1

PP #	CAS #		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6- trichlorophenol	10 U
(22A)	59-50-7	p-chloro-m-cresol	10 U
(24A)	95-57-8	2- chlorophenol	10 U
(31A)	120-83-2	2,4-dichlorophenol	10 U
(34A)	105-67-9	2,4-dimethylphenol	10 U
(57A)	88-75-5	2- nitrophenol	20 U
(58A)	100-02-7	4-nitrophenol	50 U
(59A)	51-28-5	2,4-dinitrophenol	50 U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20 U
(64A)	87-86-5	pentachlorophenol	10 U
(65A)	108-95-2	phenol	10 U
	65-85-0	benzoic acid	100 U
	95-48-7	2-methylphenol	5 U
	108-39-4	4-methylphenol	5 U
	95-95-4	2,4,5-trichlorophenol	100 U
(1B)	83-32-9	acenaphthene	10 U
(5B)	92-87-5	benzidine	40 U
(8B)	120-82-1	1,2,4-trichlorobenzene	10 U
(9B)	118-74-1	hexachlorobenzene	10 U
(12B)	67-72-1	hexachloroethane	10 U
(18B)	111-44-4	bis(2-chloroethyl)ether	10 U
(20B)	91-58-7	2-chloronaphthalene	10 U
(25B)	95-50-1	1,2-dichlorobenzene	10 U
(26B)	541-73-1	1,3-dichlorobenzene	10 U
(27B)	106-46-7	1,4-dichlorobenzene	10 U
(28B)	91-94-1	3,3'-dichlorobenzidine	20 U
(35B)	121-14-2	2,4-dinitrotoluene	20 U
(36B)	606-20-2	2,6-dinitrotoluene	20 U
(37B)	122-66-7	1,2-diphenylhydrazine	20 U
(39B)	206-44-0	fluoranthene	10 U
(40B)	7005-72-3	4-chlorophenyl phenyl ether	10 U
(41B)	101-55-3	4-bromophenyl phenyl ether	10 U
(42B)	39638-32-9	bis (2-chloroisopropyl) ether	20 U
(43B)	111-91-1	bis (2-chloroethoxy) methane	20 U

PP #	CAS #		ug/l or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	10
(53B)	77-47-4	hexachlorocyclopentadiene	10
(54B)	78-59-1	isophorone	10
(55B)	91-20-3	naphthalene	10
(56B)	98-95-3	nitrobenzene	10
(61B)	62-75-9	N-nitrosodimethylamine	25
(62B)	86-30-6	N-nitrosodiphenylamine	10
(63B)	621-64-7	N-nitrosodipropylamine	10
(66B)	117-81-7	bis (2-ethylhexyl) phthalate	10 U
(67B)	85-68-7	benzyl butyl phthalate	10 U
(68B)	84-74-2	di-n-butyl phthalate	10
(69B)	117-84-0	di-n-octyl phthalate	10
(70B)	84-66-2	diethyl phthalate	10 U
(71B)	131-11-3	dimethyl phthalate	10
(72B)	56-55-3	benzo(a)anthracene	10 U
(73B)	50-32-8	benzo(a)pyrene	20 U
(74B)	205-99-2	benzo(b)fluoranthene	20 U
(75B)	207-08-9	benzo(k)fluoranthene	20 U
(76B)	218-01-9	chrysene	20 U
(77B)	208-96-8	acenaphthylene	10 U
(78B)	120-12-7	anthracene	10 U
(79B)	191-24-2	benzo(ghi)perylene	20 U
(80B)	86-73-7	fluorene	10 U
(81B)	85-01-8	phenanthrene	10 U
(82B)	53-70-3	dibenzo(a,h)anthracene	20 U
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	20 U
(84B)	129-00-0	pyrene	10 U
	62-53-3	aniline	5 U
	100-51-6	benzyl alcohol	20 U
	106-47-8	4-chloroaniline	50 U
	132-64-9	dibenzofuran	10 U
	91-57-6	2-methylnaphthalene	20 U
	88-74-4	2-nitroaniline	100 U
	99-09-2	3-nitroaniline	100 U
	100-01-6	4-nitroaniline	100 U