Appendix D

Chemex Analytical Laboratories Data

CHEMEX Labs Alberta Inc.

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Edmonton : 9331 - 48th Street, T6B 2R4, Telephone (403) 465-9877, FAX (403) 466-3332

CCSG ASSOCIATES
SUE MOODIE

DATE : September 30, 1996
CHEMEX PROJECT NO. : CCSG010-0501-96-03349
CLIENT REFERENCE :
CLIENT JOB NO. :

Analytical Data Reviewed By : _____

QA/QC Reviewed By : _____

The above signatures indicate that the individuals identified have reviewed the enclosed documents.

NOTE : Soil samples and water samples (for stable parameters) will be retained for a period of 60 days after completion of analysis.
Retention beyond this period can be arranged for a fee.

CHEMEX Labs Alberta Inc. is accredited by both the Canadian Association for Environmental Analytical Laboratories and the Standards Council of Canada for specific parameters registered with the Association and the Council.

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 30-17
Sample Date & Time : 05-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-1
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 20, 1996

PARAMETER DESCRIPTION	NAQUADAT CODE	UNITS	RESULTS	DETECTION LIMIT
Total Mercury- (CVAA)		ug/kg	52.	20.
Barium (ICP)		ug/g	120.	1.
Beryllium (ICP)		ug/g	0.3	0.1
Cadmium (ICP)		ug/g	< 0.3	0.3
Chromium (ICP)		ug/g	51.7	0.2
Cobalt (ICP)		ug/g	10.4	0.3
Copper (ICP)		ug/g	45.5	0.1
Lead (ICP)		ug/g	28.	2.
Molybdenum (ICP)		ug/g	7.6	0.3
Nickel (ICP)		ug/g	30.5	0.5
Silver (ICP)		ug/g	< 0.2	0.2
Vanadium (ICP)		ug/g	59.6	0.2
Zinc (ICP)		ug/g	86.4	0.1
Thallium (ICP-MS)		ug/g	0.11	0.02
Arsenic (ICP-MS)		ug/g	5.6	0.1
Selenium (ICP-MS)		ug/g	0.8	0.1
Antimony (ICP-MS)		ug/g	0.63	0.02
Tin (ICP-MS)		ug/g	3.77	0.02

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 30-17
Sample Date & Time : 05-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Station Code :

Chemex Worksheet Number : 96-03349-1
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

PARAMETER	DATE ANALYZED (DD-MM-YY)	QA/QC BATCH NUM ANAL	RELATIVE PERCENT DIFFERENCE	REFERENCE VALUE	REFERENCE CONTROL LIMITS LOWER	REFERENCE CONTROL LIMITS UPPER	CALIBRATION CHECK RECOV %	CALIBRATION CHECK CONTROL LIMITS LOWER	CALIBRATION CHECK CONTROL LIMITS UPPER
Total Mercury- (CVAA)	20-09-96	1 CH	2.40	0.17	0.11	0.20	NOT APPLICABLE		
Barium (ICP)	27-09-96	11 JCG	4.88	278.00	231.60	283.60	103.8	93.6	105.6
Beryllium (ICP)	27-09-96	11 JCG	3.92	3.95	3.26	4.91	102.9	89.2	110.9
Cadmium (ICP)	27-09-96	11 JCG	0.00	0.00	0.00	1.69	101.7	86.6	113.1
Chromium (ICP)	27-09-96	11 JCG	2.35	47.57	37.84	55.65	100.3	89.8	109.8
Cobalt (ICP)	27-09-96	11 JCG	0.96	19.57	14.89	21.09	100.4	88.3	107.8
Copper (ICP)	27-09-96	11 JCG	1.96	46.75	37.17	49.97	99.9	90.7	105.0
Lead (ICP)	27-09-96	11 JCG	0.00	28.79	19.91	34.23	99.9	91.6	106.7
Molybdenum (ICP)	27-09-96	11 JCG	6.37	21.00	9.96	21.51	101.5	90.5	109.8
Nickel (ICP)	27-09-96	11 JCG	4.70	40.95	35.56	48.92	97.7	90.4	108.1
Silver (ICP)	27-09-96	11 JCG	0.00	NOT APPLICABLE			102.4	93.1	104.1
Vanadium (ICP)	27-09-96	11 JCG	2.16	129.00	99.60	136.95	104.4	93.1	108.8
Zinc (ICP)	27-09-96	11 JCG	0.81	82.47	69.09	95.47	102.0	89.4	109.7
Thallium (ICP-MS)	26-09-96	21 WEM	12.32	NOT APPLICABLE			97.1	80.0	120.0
Arsenic (ICP-MS)	26-09-96	21 WEM	4.06	122.50	38.00	157.30	110.5	81.5	112.6
Selenium (ICP-MS)	26-09-96	21 WEM	50.00	7.81	0.85	18.23	102.6	86.0	105.9
Antimony (ICP-MS)	27-09-96	21 WEM	3.92	NOT APPLICABLE			109.7	80.0	120.0
Tin (ICP-MS)	27-09-96	21 WEM	22.35	NOT APPLICABLE			113.3	80.0	120.0

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 30-17
Sample Date & Time : 05-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-1
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 17, 1996

TOTAL EXTRACTABLE HYDROCARBONS METHOD MODIFIED ASTM D2887

COMPONENT	mg/Kg	BOILING RANGE	COMPONENT	mg/Kg	BOILING RANGE
C 08	3.	98.5 TO 125.7	C 35	< 2.	483.1 TO 491.0
C 09	69.	125.8 TO 150.8	C 36	< 2.	491.1 TO 498.0
C 10	670.	150.9 TO 174.2	C 37	< 2.	498.1 TO 505.0
C 11	2300.	174.3 TO 196.0	C 38	< 2.	505.1 TO 512.0
C 12	3700.	196.1 TO 216.0	C 39	< 2.	512.1 TO 519.0
C 13	9000.	216.1 TO 236.0	C 40	< 5.	519.1 TO 525.0
C 14	4900.	236.1 TO 253.0	C 41	< 5.	525.1 TO 535.0
C 15	6400.	253.1 TO 271.0	C 42	< 5.	531.1 TO 537.0
C 16	3100.	271.1 TO 287.0	C 43	< 5.	537.1 TO 543.0
C 17	3900.	287.1 TO 302.0	C 44	< 5.	543.1 TO 548.0
C 18	2600.	302.1 TO 317.0	C 45	< 5.	548.1 TO 554.0
C 19	1800.	317.1 TO 331.0	C 46	< 5.	554.1 TO 559.0
C 20	1000.	331.1 TO 344.0	C 47	< 5.	559.1 TO 565.0
C 21	500.	344.1 TO 357.0	C 48	< 5.	565.1 TO 570.0
C 22	220.	357.1 TO 366.0	C 49	< 5.	570.1 TO 576.0
C 23	140.	366.1 TO 380.0	C 50	< 5.	576.1 TO 581.0
C 24	60.	380.1 TO 391.0	C 51	< 5.	581.1 TO 584.0
C 25	25.	391.1 TO 402.0	C 52	< 5.	584.1 TO 588.0
C 26	8.	402.1 TO 412.0	C 53	< 5.	588.1 TO 592.0
C 27	5.	412.1 TO 422.0	C 54	< 5.	592.1 TO 596.0
C 28	< 1.	422.1 TO 432.0	C 55	< 5.	596.1 TO 600.0
C 29	< 1.	432.1 TO 441.0	C 56	< 5.	600.1 TO 604.0
C 30	< 1.	441.1 TO 449.0	C 57	< 5.	604.1 TO 608.0
C 31	< 2.	449.1 TO 459.0	C 58	< 5.	608.1 TO 612.0
C 32	< 2.	459.1 TO 468.0	C 59	< 5.	612.1 TO 615.0
C 33	< 2.	468.1 TO 476.0	C 60	< 5.	615.1 TO 619.0
C 34	< 2.	476.1 TO 483.0			

Average molecular weight : 196 AMU TOTAL HYDROCARBONS C8-C10 740. mg/Kg
TOTAL HYDROCARBONS C11-C60 40000. mg/Kg

Surrogate recovery : 118% SOIL surrogate limits : 66% - 140%.
MDL per component : 1. mg/Kg below C31 and 2. mg/Kg above C30
5. mg/Kg above C39 and 5. mg/Kg above C49

Results are reported in accordance with CCME guidelines. All results are corrected for blank levels.
MDL - Method detection level. The reliable detection level is twice the method detection level.
( ) - Bracketed results are values below the reliable detection level, and are subject to reduced levels of confidence.
Results are uncorrected for moisture unless otherwise noted.

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 30-17
Sample Date & Time : 05-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-1
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 17, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

BATCH : 4
DATE : September 17, 1996
ANALYST:ZBN

	BLANK	DUPLICATE			MATRIX SPIKE			CALIBRATION CHECK		
	CONC.	CONC.1	CONC.2	RPD	RECOV	CONTROL LIMITS		RECOV	CONTROL LIMITS	
	mg/Kg	mg/Kg	mg/Kg	%	%	LOWER	UPPER	%	LOWER	UPPER
C 08	< 1.	< 1.	< 1.	0				107	73.	130.
C 09	< 1.	< 1.	< 1.	0				97	74.	120.
C 10	< 1.	< 1.	< 1.	0				102	69.	130.
C 11	< 1.	< 1.	< 1.	0						
C 12	< 1.	< 1.	< 1.	0						
C 13	< 1.	< 1.	< 1.	0						
C 14	< 1.	< 1.	< 1.	0						
C 15	< 1.	< 1.	< 1.	0				101	70.	130.
C 16	< 1.	< 1.	< 1.	0						
C 17	< 1.	< 1.	< 1.	0						
C 18	< 1.	< 1.	< 1.	0						
C 19	< 1.	< 1.	< 1.	0						
C 20	< 1.	< 1.	< 1.	0				102	70.	130.
C 21	< 1.	< 1.	< 1.	0						
C 22	< 1.	< 1.	< 1.	0						
C 23	< 1.	< 1.	< 1.	0						
C 24	< 1.	< 1.	< 1.	0						
C 25	< 1.	< 1.	< 1.	0				96	71.	130.
C 26	< 1.	< 1.	< 1.	0						
C 27	< 1.	< 1.	< 1.	200						
C 28	< 1.	< 1.	< 1.	0						
C 29	< 1.	< 1.	< 1.	200						
C 30	< 1.	< 1.	< 1.	0				98	67.	130.
C 31	< 2.	< 2.	< 2.	200						
C 32	< 2.	(3.)	< 2.	128						
C 33	< 2.	8.	8.	5						
C 34	< 2.	5.	(4.)	21						
C 35	< 2.	(3.)	< 2.	43						
C 36	< 2.	(2.)	< 2.	74						
C 37	< 2.	(4.)	< 2.	69						
C 38	< 2.	< 2.	< 2.	43						
C 39	< 2.	< 2.	< 2.	28						
C 40	< 5.	< 5.	< 5.	58				100		
C 41	< 5.	< 5.	< 5.	0						
C 42	< 5.	< 5.	< 5.	25						
C 43	< 5.	< 5.	< 5.	0						
C 44	< 5.	< 5.	< 5.	0						
C 45	< 5.	< 5.	< 5.	0						

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 30-17
Sample Date & Time : 05-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-1
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 17, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

BATCH : 4	BLANK	DUPLICATE			MATRIX SPIKE			CALIBRATION CHECK		
DATE : September 17, 1996	CONC.	CONC.1	CONC.2	RPD	RECOV	CONTROL LIMITS		RECOV	CONTROL LIMITS	
ANALYST:ZBN	mg/Kg	mg/Kg	mg/Kg	%	%	LOWER	UPPER	%	LOWER	UPPER
C 46	< 5.	< 5.	< 5.	27						
C 47	< 5.	< 5.	< 5.	0						
C 48	< 5.	< 5.	< 5.	16						
C 49	< 5.	< 5.	< 5.	0						
C 50	< 5.	< 5.	< 5.	7				101		
C 51	< 5.	< 5.	< 5.	32						
C 52	< 5.	< 5.	< 5.	6						
C 53	< 5.	(6.)	(6.)	2						
C 54	< 5.	< 5.	< 5.	81						
C 55	< 5.	< 5.	< 5.	0						
C 56	< 5.	< 5.	< 5.	0						
C 57	< 5.	< 5.	< 5.	0						
C 58	< 5.	< 5.	< 5.	0						
C 59	< 5.	< 5.	< 5.	0						
C 60	< 5.	< 5.	< 5.	0				102		

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 30-17
Sample Date & Time : 05-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-1
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 19, 1996

AROCLORS (PCBS) BY MODIFIED EPA METHOD 8081

COMPONENT	CONCENTRATION	UNIT	MDL
Aroclor 1016	< 0.006	mg/Kg	0.006
Aroclor 1221	< 0.006	mg/Kg	0.006
Aroclor 1232	< 0.006	mg/Kg	0.006
Aroclor 1242	< 0.006	mg/Kg	0.006
Aroclor 1248	< 0.006	mg/Kg	0.006
Aroclor 1254	< 0.006	mg/Kg	0.006
Aroclor 1260	< 0.006	mg/Kg	0.006
Aroclor 1262	< 0.006	mg/Kg	0.006
Aroclor 1268	< 0.006	mg/Kg	0.006

NOTES :

Results are reported in accordance with CCME guidelines, "Guidance Manual on Sampling, Analysis, and Data Management for Contaminated Sites, Volume I". All results are corrected for blank levels.

MDL - Method detection level. - Calculated on the basis of the instrument detection level, the dilution used, and the weight of the sample.

( ) - Bracketed results are values below the reliable detection level, and are subject to reduced levels of confidence. The reliable detection level is twice the method detection level.

QA/QC SUMMARY

All samples were spiked with a component whose recovery was monitored to maintain analysis accuracy. Guidelines from SW846 for suggested surrogate recoveries for each matrix are shown below.

Surrogate Recovery : 78% SOIL surrogate limits : 63% - 134%.

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 30-17
Sample Date & Time : 05-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-1
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 19, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

BATCH : 11	BLANK	DUPLICATE			MATRIX SPIKE			CALIBRATION CHECK		
DATE : September 19, 1996	CONC.	CONC.1	CONC.2	RPD	RECOV	CONTROL LIMITS		RECOV	CONTROL LIMITS	
ANALYST:AAM	mg/Kg	mg/Kg	mg/Kg	%	%	LOWER	UPPER	%	LOWER	UPPER
Aroclor 1016	< 0.005	< 0.005	< 0.005	0						
Aroclor 1221	< 0.005	< 0.005	< 0.005	0						
Aroclor 1232	< 0.005	< 0.005	< 0.005	0						
Aroclor 1242	< 0.005	< 0.005	< 0.005	0						
Aroclor 1248	< 0.005	< 0.005	< 0.005	0				88	64.	140.
Aroclor 1254	< 0.005	< 0.005	< 0.005	0						
Aroclor 1260	< 0.005	< 0.005	< 0.005	0	68	64.	130.			
Aroclor 1262	< 0.005	< 0.005	< 0.005	0						
Aroclor 1268	< 0.005	< 0.005	< 0.005	0						

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 30-17
Sample Date & Time : 05-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-1
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 19, 1996

VOLATILE ORGANICS ANALYSIS - BTEX EPA METHOD 8260 MODIFIED

PARAMETER	CONC	BLANK CONC	UNITS	MDL
Benzene	< 0.045	< 0.0004	mg/Kg	0.045
Ethylbenzene	(0.054)	< 0.0004	mg/Kg	0.045
Toluene	(0.089)	< 0.0004	mg/Kg	0.045
m & p-Xylene	0.63	< 0.0004	mg/Kg	0.045
o-Xylene	0.43	< 0.0004	mg/Kg	0.045

NOTES :

Results are reported in accordance with CCME guidelines, "Guidance Manual on Sampling, Analysis, and Data Management for Contaminated Sites, Volume I". All results are corrected for blank levels.

MDL - Method detection level. - Calculated on the basis of the instrument detection level, the dilution used, and the weight of the sample.

( ) - Bracketed results are values below the reliable detection level, and are subject to reduced levels of confidence. The reliable detection level is twice the method detection level.

QA/QC SUMMARY

All samples were spiked with a component whose recovery was monitored to maintain analysis accuracy.
Guidelines from SW846 for suggested surrogate recoveries for each matrix are shown below.
Results are uncorrected for moisture unless otherwise noted.

Instrument : GC/MS
Surrogate Recovery : 102% SOIL surrogate limits : 80% - 117%.

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

ample Description : 30-23
ample Date & Time : 06-09-96
Sampled By : SM
ample Type : COMPOSITE
ample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-2
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 17, 1996

TOTAL EXTRACTABLE HYDROCARBONS METHOD MODIFIED ASTM D2887

COMPONENT	mg/Kg	BOILING RANGE	COMPONENT	mg/Kg	BOILING RANGE
C 08	< 1.	98.5 TO 125.7	C 35	5.	483.1 TO 491.0
C 09	< 1.	125.8 TO 150.8	C 36	(3.)	491.1 TO 498.0
C 10	< 1.	150.9 TO 174.2	C 37	4.	498.1 TO 505.0
C 11	< 1.	174.3 TO 196.0	C 38	5.	505.1 TO 512.0
C 12	< 1.	196.1 TO 216.0	C 39	< 2.	512.1 TO 519.0
C 13	< 1.	216.1 TO 236.0	C 40	< 5.	519.1 TO 525.0
C 14	< 1.	236.1 TO 253.0	C 41	< 5.	525.1 TO 535.0
C 15	< 1.	253.1 TO 271.0	C 42	< 5.	531.1 TO 537.0
C 16	< 1.	271.1 TO 287.0	C 43	< 5.	537.1 TO 543.0
C 17	< 1.	287.1 TO 302.0	C 44	< 5.	543.1 TO 548.0
C 18	< 1.	302.1 TO 317.0	C 45	(6.)	548.1 TO 554.0
C 19	< 1.	317.1 TO 331.0	C 46	< 5.	554.1 TO 559.0
C 20	9.	331.1 TO 344.0	C 47	< 5.	559.1 TO 565.0
C 21	(2.)	344.1 TO 357.0	C 48	< 5.	565.1 TO 570.0
C 22	29.	357.1 TO 366.0	C 49	10.	570.1 TO 576.0
C 23	4.	366.1 TO 380.0	C 50	< 5.	576.1 TO 581.0
C 24	3.	380.1 TO 391.0	C 51	< 5.	581.1 TO 584.0
C 25	< 1.	391.1 TO 402.0	C 52	(7.)	584.1 TO 588.0
C 26	2.	402.1 TO 412.0	C 53	< 5.	588.1 TO 592.0
C 27	(2.)	412.1 TO 422.0	C 54	30.	592.1 TO 596.0
C 28	2.	422.1 TO 432.0	C 55	< 5.	596.1 TO 600.0
C 29	8.	432.1 TO 441.0	C 56	94.	600.1 TO 604.0
C 30	110.	441.1 TO 449.0	C 57	< 5.	604.1 TO 608.0
C 31	40.	449.1 TO 459.0	C 58	20.	608.1 TO 612.0
C 32	27.	459.1 TO 468.0	C 59	< 5.	612.1 TO 615.0
C 33	57.	468.1 TO 476.0	C 60	< 5.	615.1 TO 619.0
C 34	20.	476.1 TO 483.0			

Average molecular weight : 475 AMU TOTAL HYDROCARBONS C8-C10 N.D.
TOTAL HYDROCARBONS C11-C60 500. mg/Kg

urrogate recovery : 118% SOIL surrogate limits : 66% - 140%.
MDL per component : 1. mg/Kg below C31 and 2. mg/Kg above C30
5. mg/Kg above C39 and 5. mg/Kg above C49

Results are reported in accordance with CCME guidelines. All results are corrected for blank levels.
MDL - Method detection level. The reliable detection level is twice the method detection level.
( ) - Bracketed results are values below the reliable detection level, and are subject to reduced levels of confidence.
Results are uncorrected for moisture unless otherwise noted.

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 30-23
Sample Date & Time : 06-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-2
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 17, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

BATCH : 4	BLANK	DUPLICATE			MATRIX SPIKE			CALIBRATION CHECK		
DATE : September 17, 1996	CONC.	CONC.1	CONC.2	RPD	RECOV	CONTROL LIMITS		RECOV	CONTROL LIMITS	
ANALYST:ZBN	mg/Kg	mg/Kg	mg/Kg	%	%	LOWER	UPPER	%	LOWER	UPPER
C 08	< 1.	< 1.	< 1.	0				107	73.	130.
C 09	< 1.	< 1.	< 1.	0				97	74.	120.
C 10	< 1.	< 1.	< 1.	0				102	69.	130.
C 11	< 1.	< 1.	< 1.	0						
C 12	< 1.	< 1.	< 1.	0						
C 13	< 1.	< 1.	< 1.	0						
C 14	< 1.	< 1.	< 1.	0						
C 15	< 1.	< 1.	< 1.	0				101	70.	130.
C 16	< 1.	< 1.	< 1.	0						
C 17	< 1.	< 1.	< 1.	0						
C 18	< 1.	< 1.	< 1.	0						
C 19	< 1.	< 1.	< 1.	0						
C 20	< 1.	< 1.	< 1.	0				102	70.	130.
C 21	< 1.	< 1.	< 1.	0						
C 22	< 1.	< 1.	< 1.	0						
C 23	< 1.	< 1.	< 1.	0						
C 24	< 1.	< 1.	< 1.	0						
C 25	< 1.	< 1.	< 1.	0				96	71.	130.
C 26	< 1.	< 1.	< 1.	0						
C 27	< 1.	< 1.	< 1.	200						
C 28	< 1.	< 1.	< 1.	0						
C 29	< 1.	< 1.	< 1.	200						
C 30	< 1.	< 1.	< 1.	0				98	67.	130.
C 31	< 2.	< 2.	< 2.	200						
C 32	< 2.	(3.)	< 2.	128						
C 33	< 2.	8.	8.	5						
C 34	< 2.	5.	(4.)	21						
C 35	< 2.	(3.)	< 2.	43						
C 36	< 2.	(2.)	< 2.	74						
C 37	< 2.	(4.)	< 2.	69						
C 38	< 2.	< 2.	< 2.	43						
C 39	< 2.	< 2.	< 2.	28						
C 40	< 5.	< 5.	< 5.	58				100		
C 41	< 5.	< 5.	< 5.	0						
C 42	< 5.	< 5.	< 5.	25						
C 43	< 5.	< 5.	< 5.	0						
C 44	< 5.	< 5.	< 5.	0						
C 45	< 5.	< 5.	< 5.	0						

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 30-23
Sample Date & Time : 06-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-2
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 17, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

BATCH : 4	BLANK	DUPLICATE			MATRIX SPIKE			CALIBRATION CHECK		
DATE : September 17, 1996	CONC.	CONC.1	CONC.2	RPD	RECOV	CONTROL LIMITS		RECOV	CONTROL LIMITS	
ANALYST:ZBN	mg/Kg	mg/Kg	mg/Kg	%	%	LOWER	UPPER	%	LOWER	UPPER
C 46	< 5.	< 5.	< 5.	27						
C 47	< 5.	< 5.	< 5.	0						
C 48	< 5.	< 5.	< 5.	16						
C 49	< 5.	< 5.	< 5.	0						
C 50	< 5.	< 5.	< 5.	7				101		
C 51	< 5.	< 5.	< 5.	32						
C 52	< 5.	< 5.	< 5.	6						
C 53	< 5.	(6.)	(6.)	2						
C 54	< 5.	< 5.	< 5.	81						
C 55	< 5.	< 5.	< 5.	0						
C 56	< 5.	< 5.	< 5.	0						
C 57	< 5.	< 5.	< 5.	0						
C 58	< 5.	< 5.	< 5.	0						
C 59	< 5.	< 5.	< 5.	0						
C 60	< 5.	< 5.	< 5.	0				102		

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 30-2
Sample Date & Time : 05-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-3
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 17, 1996

TOTAL EXTRACTABLE HYDROCARBONS METHOD MODIFIED ASTM D2887

COMPONENT	mg/Kg	BOILING RANGE	COMPONENT	mg/Kg	BOILING RANGE
C 08	< 1.	98.5 TO 125.7	C 35	5.	483.1 TO 491.0
C 09	< 1.	125.8 TO 150.8	C 36	(4.)	491.1 TO 498.0
C 10	< 1.	150.9 TO 174.2	C 37	< 2.	498.1 TO 505.0
C 11	< 1.	174.3 TO 196.0	C 38	(2.)	505.1 TO 512.0
C 12	< 1.	196.1 TO 216.0	C 39	< 2.	512.1 TO 519.0
C 13	< 1.	216.1 TO 236.0	C 40	< 5.	519.1 TO 525.0
C 14	< 1.	236.1 TO 253.0	C 41	< 5.	525.1 TO 535.0
C 15	< 1.	253.1 TO 271.0	C 42	< 5.	531.1 TO 537.0
C 16	< 1.	271.1 TO 287.0	C 43	< 5.	537.1 TO 543.0
C 17	< 1.	287.1 TO 302.0	C 44	< 5.	543.1 TO 548.0
C 18	< 1.	302.1 TO 317.0	C 45	< 5.	548.1 TO 554.0
C 19	< 1.	317.1 TO 331.0	C 46	< 5.	554.1 TO 559.0
C 20	< 1.	331.1 TO 344.0	C 47	< 5.	559.1 TO 565.0
C 21	< 1.	344.1 TO 357.0	C 48	< 5.	565.1 TO 570.0
C 22	< 1.	357.1 TO 366.0	C 49	< 5.	570.1 TO 576.0
C 23	< 1.	366.1 TO 380.0	C 50	< 5.	576.1 TO 581.0
C 24	< 1.	380.1 TO 391.0	C 51	< 5.	581.1 TO 584.0
C 25	(2.)	391.1 TO 402.0	C 52	(6.)	584.1 TO 588.0
C 26	(2.)	402.1 TO 412.0	C 53	(8.)	588.1 TO 592.0
C 27	(1.)	412.1 TO 422.0	C 54	< 5.	592.1 TO 596.0
C 28	3.	422.1 TO 432.0	C 55	< 5.	596.1 TO 600.0
C 29	(2.)	432.1 TO 441.0	C 56	< 5.	600.1 TO 604.0
C 30	7.	441.1 TO 449.0	C 57	< 5.	604.1 TO 608.0
C 31	< 2.	449.1 TO 459.0	C 58	(5.)	608.1 TO 612.0
C 32	7.	459.1 TO 468.0	C 59	20.	612.1 TO 615.0
C 33	35.	468.1 TO 476.0	C 60	< 5.	615.1 TO 619.0
C 34	10.	476.1 TO 483.0			

Average molecular weight : 505 AMU

TOTAL HYDROCARBONS C8-C10 N.D.
TOTAL HYDROCARBONS C11-C60 120. mg/Kg

Surrogate recovery : 120% SOIL surrogate limits : 66% - 140%.

MDL per component : 1. mg/Kg below C31 and 2. mg/Kg above C30
5. mg/Kg above C39 and 5. mg/Kg above C49

Results are reported in accordance with CCME guidelines. All results are corrected for blank levels.

MDL - Method detection level. The reliable detection level is twice the method detection level.

( ) - Bracketed results are values below the reliable detection level, and are subject to reduced levels of confidence.

Results are uncorrected for moisture unless otherwise noted.

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 30-2
Sample Date & Time : 05-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-3
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 17, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

BATCH : 4	BLANK	DUPLICATE			MATRIX SPIKE			CALIBRATION CHECK		
DATE : September 17, 1996	CONC.	CONC.1	CONC.2	RPD	RECOV	CONTROL LIMITS		RECOV	CONTROL LIMITS	
ANALYST:ZBN	mg/Kg	mg/Kg	mg/Kg	%	%	LOWER	UPPER	%	LOWER	UPPER
C 08	< 1.	< 1.	< 1.	0				107	73.	130.
C 09	< 1.	< 1.	< 1.	0				97	74.	120.
C 10	< 1.	< 1.	< 1.	0				102	69.	130.
C 11	< 1.	< 1.	< 1.	0						
C 12	< 1.	< 1.	< 1.	0						
C 13	< 1.	< 1.	< 1.	0						
C 14	< 1.	< 1.	< 1.	0						
C 15	< 1.	< 1.	< 1.	0				101	70.	130.
C 16	< 1.	< 1.	< 1.	0						
C 17	< 1.	< 1.	< 1.	0						
C 18	< 1.	< 1.	< 1.	0						
C 19	< 1.	< 1.	< 1.	0						
C 20	< 1.	< 1.	< 1.	0				102	70.	130.
C 21	< 1.	< 1.	< 1.	0						
C 22	< 1.	< 1.	< 1.	0						
C 23	< 1.	< 1.	< 1.	0						
C 24	< 1.	< 1.	< 1.	0						
C 25	< 1.	< 1.	< 1.	0				96	71.	130.
C 26	< 1.	< 1.	< 1.	0						
C 27	< 1.	< 1.	< 1.	200						
C 28	< 1.	< 1.	< 1.	0						
C 29	< 1.	< 1.	< 1.	200						
C 30	< 1.	< 1.	< 1.	0				98	67.	130.
C 31	< 2.	< 2.	< 2.	200						
C 32	< 2.	(3.)	< 2.	128						
C 33	< 2.	8.	8.	5						
C 34	< 2.	5.	(4.)	21						
C 35	< 2.	(3.)	< 2.	43						
C 36	< 2.	(2.)	< 2.	74						
C 37	< 2.	(4.)	< 2.	69						
C 38	< 2.	< 2.	< 2.	43						
C 39	< 2.	< 2.	< 2.	28						
C 40	< 5.	< 5.	< 5.	58				100		
C 41	< 5.	< 5.	< 5.	0						
C 42	< 5.	< 5.	< 5.	25						
C 43	< 5.	< 5.	< 5.	0						
C 44	< 5.	< 5.	< 5.	0						
C 45	< 5.	< 5.	< 5.	0						

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 30-2
Sample Date & Time : 05-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-3
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 17, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

BATCH : 4	BLANK	DUPLICATE			MATRIX SPIKE			CALIBRATION CHECK		
DATE : September 17, 1996	CONC.	CONC.1	CONC.2	RPD	RECOV	CONTROL LIMITS		RECOV	CONTROL LIMITS	
ANALYST:ZBN	mg/Kg	mg/Kg	mg/Kg	%	%	LOWER	UPPER	%	LOWER	UPPER
C 46	< 5.	< 5.	< 5.	27						
C 47	< 5.	< 5.	< 5.	0						
C 48	< 5.	< 5.	< 5.	16						
C 49	< 5.	< 5.	< 5.	0						
C 50	< 5.	< 5.	< 5.	7				101		
C 51	< 5.	< 5.	< 5.	32						
C 52	< 5.	< 5.	< 5.	6						
C 53	< 5.	(6.)	(6.)	2						
C 54	< 5.	< 5.	< 5.	81						
C 55	< 5.	< 5.	< 5.	0						
C 56	< 5.	< 5.	< 5.	0						
C 57	< 5.	< 5.	< 5.	0						
C 58	< 5.	< 5.	< 5.	0						
C 59	< 5.	< 5.	< 5.	0						
C 60	< 5.	< 5.	< 5.	0				102		

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 30-8
Sample Date & Time : 05-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-4
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 17, 1996

TOTAL EXTRACTABLE HYDROCARBONS METHOD MODIFIED ASTM D2887

COMPONENT	mg/Kg	BOILING RANGE	COMPONENT	mg/Kg	BOILING RANGE
C 08	< 1.	98.5 TO 125.7	C 35	< 2.	483.1 TO 491.0
C 09	< 1.	125.8 TO 150.8	C 36	< 2.	491.1 TO 498.0
C 10	< 1.	150.9 TO 174.2	C 37	< 2.	498.1 TO 505.0
C 11	< 1.	174.3 TO 196.0	C 38	< 2.	505.1 TO 512.0
C 12	< 1.	196.1 TO 216.0	C 39	< 2.	512.1 TO 519.0
C 13	< 1.	216.1 TO 236.0	C 40	< 5.	519.1 TO 525.0
C 14	< 1.	236.1 TO 253.0	C 41	< 5.	525.1 TO 535.0
C 15	< 1.	253.1 TO 271.0	C 42	< 5.	531.1 TO 537.0
C 16	< 1.	271.1 TO 287.0	C 43	< 5.	537.1 TO 543.0
C 17	< 1.	287.1 TO 302.0	C 44	< 5.	543.1 TO 548.0
C 18	< 1.	302.1 TO 317.0	C 45	< 5.	548.1 TO 554.0
C 19	< 1.	317.1 TO 331.0	C 46	< 5.	554.1 TO 559.0
C 20	< 1.	331.1 TO 344.0	C 47	< 5.	559.1 TO 565.0
C 21	< 1.	344.1 TO 357.0	C 48	< 5.	565.1 TO 570.0
C 22	< 1.	357.1 TO 366.0	C 49	< 5.	570.1 TO 576.0
C 23	< 1.	366.1 TO 380.0	C 50	< 5.	576.1 TO 581.0
C 24	< 1.	380.1 TO 391.0	C 51	< 5.	581.1 TO 584.0
C 25	< 1.	391.1 TO 402.0	C 52	< 5.	584.1 TO 588.0
C 26	< 1.	402.1 TO 412.0	C 53	< 5.	588.1 TO 592.0
C 27	< 1.	412.1 TO 422.0	C 54	< 5.	592.1 TO 596.0
C 28	< 1.	422.1 TO 432.0	C 55	< 5.	596.1 TO 600.0
C 29	< 1.	432.1 TO 441.0	C 56	< 5.	600.1 TO 604.0
C 30	< 1.	441.1 TO 449.0	C 57	< 5.	604.1 TO 608.0
C 31	< 2.	449.1 TO 459.0	C 58	< 5.	608.1 TO 612.0
C 32	< 2.	459.1 TO 468.0	C 59	< 5.	612.1 TO 615.0
C 33	4.	468.1 TO 476.0	C 60	< 5.	615.1 TO 619.0
C 34	(3.)	476.1 TO 483.0			

Average molecular weight : 454 AMU

TOTAL HYDROCARBONS C8-C10 N.D.
TOTAL HYDROCARBONS C11-C60 7. mg/Kg

Surrogate recovery : 116% SOIL surrogate limits : 66% - 140%.

MDL per component : 1. mg/Kg below C31 and 2. mg/Kg above C30
5. mg/Kg above C39 and 5. mg/Kg above C49

Results are reported in accordance with CCME guidelines. All results are corrected for blank levels.

MDL - Method detection level. The reliable detection level is twice the method detection level.

( ) - Bracketed results are values below the reliable detection level, and are subject to reduced levels of confidence.

Results are uncorrected for moisture unless otherwise noted.

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 30-8
Sample Date & Time : 05-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-4
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 17, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

BATCH : 4	BLANK	DUPLICATE			MATRIX SPIKE			CALIBRATION CHECK		
DATE : September 17, 1996	CONC.	CONC.1	CONC.2	RPD	RECOV	CONTROL LIMITS		RECOV	CONTROL LIMITS	
ANALYST:ZBN	mg/Kg	mg/Kg	mg/Kg	%	%	LOWER	UPPER	%	LOWER	UPPER
C 08	< 1.	< 1.	< 1.	0				107	73.	130.
C 09	< 1.	< 1.	< 1.	0				97	74.	120.
C 10	< 1.	< 1.	< 1.	0				102	69.	130.
C 11	< 1.	< 1.	< 1.	0						
C 12	< 1.	< 1.	< 1.	0						
C 13	< 1.	< 1.	< 1.	0						
C 14	< 1.	< 1.	< 1.	0						
C 15	< 1.	< 1.	< 1.	0				101	70.	130.
C 16	< 1.	< 1.	< 1.	0						
C 17	< 1.	< 1.	< 1.	0						
C 18	< 1.	< 1.	< 1.	0						
C 19	< 1.	< 1.	< 1.	0						
C 20	< 1.	< 1.	< 1.	0				102	70.	130.
C 21	< 1.	< 1.	< 1.	0						
C 22	< 1.	< 1.	< 1.	0						
C 23	< 1.	< 1.	< 1.	0						
C 24	< 1.	< 1.	< 1.	0						
C 25	< 1.	< 1.	< 1.	0				96	71.	130.
C 26	< 1.	< 1.	< 1.	0						
C 27	< 1.	< 1.	< 1.	200						
C 28	< 1.	< 1.	< 1.	0						
C 29	< 1.	< 1.	< 1.	200						
C 30	< 1.	< 1.	< 1.	0				98	67.	130.
C 31	< 2.	< 2.	< 2.	200						
C 32	< 2.	(3.)	< 2.	128						
C 33	< 2.	8.	8.	5						
C 34	< 2.	5.	(4.)	21						
C 35	< 2.	(3.)	< 2.	43						
C 36	< 2.	(2.)	< 2.	74						
C 37	< 2.	(4.)	< 2.	69						
C 38	< 2.	< 2.	< 2.	43						
C 39	< 2.	< 2.	< 2.	28						
C 40	< 5.	< 5.	< 5.	58				100		
C 41	< 5.	< 5.	< 5.	0						
C 42	< 5.	< 5.	< 5.	25						
C 43	< 5.	< 5.	< 5.	0						
C 44	< 5.	< 5.	< 5.	0						
C 45	< 5.	< 5.	< 5.	0						

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 30-8
Sample Date & Time : 05-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-4
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 17, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

BATCH : 4	BLANK	DUPLICATE			MATRIX SPIKE			CALIBRATION CHECK		
DATE : September 17, 1996	CONC.	CONC.1	CONC.2	RPD	RECOV	CONTROL LIMITS		RECOV	CONTROL LIMITS	
ANALYST:ZBN	mg/Kg	mg/Kg	mg/Kg	%	%	LOWER	UPPER	%	LOWER	UPPER
C 46	< 5.	< 5.	< 5.	27						
C 47	< 5.	< 5.	< 5.	0						
C 48	< 5.	< 5.	< 5.	16						
C 49	< 5.	< 5.	< 5.	0						
C 50	< 5.	< 5.	< 5.	7				101		
C 51	< 5.	< 5.	< 5.	32						
C 52	< 5.	< 5.	< 5.	6						
C 53	< 5.	(6.)	(6.)	2						
C 54	< 5.	< 5.	< 5.	81						
C 55	< 5.	< 5.	< 5.	0						
C 56	< 5.	< 5.	< 5.	0						
C 57	< 5.	< 5.	< 5.	0						
C 58	< 5.	< 5.	< 5.	0						
C 59	< 5.	< 5.	< 5.	0						
C 60	< 5.	< 5.	< 5.	0				102		

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 30-19
Sample Date & Time : 06-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-5
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 17, 1996

TOTAL EXTRACTABLE HYDROCARBONS METHOD MODIFIED ASTM D2887

COMPONENT	mg/Kg	BOILING RANGE	COMPONENT	mg/Kg	BOILING RANGE
C 08	< 1.	98.5 TO 125.7	C 35	< 2.	483.1 TO 491.0
C 09	< 1.	125.8 TO 150.8	C 36	< 2.	491.1 TO 498.0
C 10	< 1.	150.9 TO 174.2	C 37	< 2.	498.1 TO 505.0
C 11	< 1.	174.3 TO 196.0	C 38	< 2.	505.1 TO 512.0
C 12	< 1.	196.1 TO 216.0	C 39	< 2.	512.1 TO 519.0
C 13	< 1.	216.1 TO 236.0	C 40	< 5.	519.1 TO 525.0
C 14	< 1.	236.1 TO 253.0	C 41	< 5.	525.1 TO 535.0
C 15	< 1.	253.1 TO 271.0	C 42	< 5.	531.1 TO 537.0
C 16	< 1.	271.1 TO 287.0	C 43	< 5.	537.1 TO 543.0
C 17	< 1.	287.1 TO 302.0	C 44	< 5.	543.1 TO 548.0
C 18	< 1.	302.1 TO 317.0	C 45	< 5.	548.1 TO 554.0
C 19	< 1.	317.1 TO 331.0	C 46	< 5.	554.1 TO 559.0
C 20	< 1.	331.1 TO 344.0	C 47	< 5.	559.1 TO 565.0
C 21	< 1.	344.1 TO 357.0	C 48	< 5.	565.1 TO 570.0
C 22	< 1.	357.1 TO 366.0	C 49	< 5.	570.1 TO 576.0
C 23	< 1.	366.1 TO 380.0	C 50	< 5.	576.1 TO 581.0
C 24	< 1.	380.1 TO 391.0	C 51	< 5.	581.1 TO 584.0
C 25	< 1.	391.1 TO 402.0	C 52	< 5.	584.1 TO 588.0
C 26	< 1.	402.1 TO 412.0	C 53	< 5.	588.1 TO 592.0
C 27	< 1.	412.1 TO 422.0	C 54	< 5.	592.1 TO 596.0
C 28	< 1.	422.1 TO 432.0	C 55	< 5.	596.1 TO 600.0
C 29	< 1.	432.1 TO 441.0	C 56	< 5.	600.1 TO 604.0
C 30	< 1.	441.1 TO 449.0	C 57	< 5.	604.1 TO 608.0
C 31	< 2.	449.1 TO 459.0	C 58	< 5.	608.1 TO 612.0
C 32	< 2.	459.1 TO 468.0	C 59	< 5.	612.1 TO 615.0
C 33	< 2.	468.1 TO 476.0	C 60	< 5.	615.1 TO 619.0
C 34	< 2.	476.1 TO 483.0			

Average molecular weight : N.D. AMU

TOTAL HYDROCARBONS C8-C10 N.D.
TOTAL HYDROCARBONS C11-C60 N.D.

Surrogate recovery : 116% SOIL surrogate limits : 66% - 140%.
MDL per component : 1. mg/Kg below C31 and 2. mg/Kg above C30
5. mg/Kg above C39 and 5. mg/Kg above C49

Results are reported in accordance with CCME guidelines. All results are corrected for blank levels.

MDL - Method detection level. The reliable detection level is twice the method detection level.

( ) - Bracketed results are values below the reliable detection level, and are subject to reduced levels of confidence.

Results are uncorrected for moisture unless otherwise noted.

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 30-19
Sample Date & Time : 06-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-5
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 17, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

BATCH : 4	BLANK	DUPLICATE			MATRIX SPIKE			CALIBRATION CHECK		
DATE : September 17, 1996	CONC.	CONC.1	CONC.2	RPD	RECOV	CONTROL LIMITS		RECOV	CONTROL LIMITS	
ANALYST:ZBN	mg/Kg	mg/Kg	mg/Kg	%	%	LOWER	UPPER	%	LOWER	UPPER
C 08	< 1.	< 1.	< 1.	0				107	73.	130.
C 09	< 1.	< 1.	< 1.	0				97	74.	120.
C 10	< 1.	< 1.	< 1.	0				102	69.	130.
C 11	< 1.	< 1.	< 1.	0						
C 12	< 1.	< 1.	< 1.	0						
C 13	< 1.	< 1.	< 1.	0						
C 14	< 1.	< 1.	< 1.	0						
C 15	< 1.	< 1.	< 1.	0				101	70.	130.
C 16	< 1.	< 1.	< 1.	0						
C 17	< 1.	< 1.	< 1.	0						
C 18	< 1.	< 1.	< 1.	0						
C 19	< 1.	< 1.	< 1.	0						
C 20	< 1.	< 1.	< 1.	0				102	70.	130.
C 21	< 1.	< 1.	< 1.	0						
C 22	< 1.	< 1.	< 1.	0						
C 23	< 1.	< 1.	< 1.	0						
C 24	< 1.	< 1.	< 1.	0						
C 25	< 1.	< 1.	< 1.	0				96	71.	130.
C 26	< 1.	< 1.	< 1.	0						
C 27	< 1.	< 1.	< 1.	200						
C 28	< 1.	< 1.	< 1.	0						
C 29	< 1.	< 1.	< 1.	200						
C 30	< 1.	< 1.	< 1.	0				98	67.	130.
C 31	< 2.	< 2.	< 2.	200						
C 32	< 2.	(3.)	< 2.	128						
C 33	< 2.	8.	8.	5						
C 34	< 2.	5.	(4.)	21						
C 35	< 2.	(3.)	< 2.	43						
C 36	< 2.	(2.)	< 2.	74						
C 37	< 2.	(4.)	< 2.	69						
C 38	< 2.	< 2.	< 2.	43						
C 39	< 2.	< 2.	< 2.	28						
C 40	< 5.	< 5.	< 5.	58				100		
C 41	< 5.	< 5.	< 5.	0						
C 42	< 5.	< 5.	< 5.	25						
C 43	< 5.	< 5.	< 5.	0						
C 44	< 5.	< 5.	< 5.	0						
C 45	< 5.	< 5.	< 5.	0						

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 30-19
Sample Date & Time : 06-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-5
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 17, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

BATCH : 4	BLANK	DUPLICATE			MATRIX SPIKE			CALIBRATION CHECK		
DATE : September 17, 1996	CONC.	CONC.1	CONC.2	RPD	RECOV	CONTROL LIMITS		RECOV	CONTROL LIMITS	
ANALYST:ZBN	mg/Kg	mg/Kg	mg/Kg	%	%	LOWER	UPPER	%	LOWER	UPPER
C 46	< 5.	< 5.	< 5.	27						
C 47	< 5.	< 5.	< 5.	0						
C 48	< 5.	< 5.	< 5.	16						
C 49	< 5.	< 5.	< 5.	0						
C 50	< 5.	< 5.	< 5.	7				101		
C 51	< 5.	< 5.	< 5.	32						
C 52	< 5.	< 5.	< 5.	6						
C 53	< 5.	(6.)	(6.)	2						
C 54	< 5.	< 5.	< 5.	81						
C 55	< 5.	< 5.	< 5.	0						
C 56	< 5.	< 5.	< 5.	0						
C 57	< 5.	< 5.	< 5.	0						
C 58	< 5.	< 5.	< 5.	0						
C 59	< 5.	< 5.	< 5.	0						
C 60	< 5.	< 5.	< 5.	0				102		

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 30-6
Sample Date & Time : 05-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-6
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 19, 1996

AROCLORS (PCBS) BY MODIFIED EPA METHOD 8081

COMPONENT	CONCENTRATION	UNIT	MDL
Aroclor 1016	< 0.005	mg/Kg	0.005
Aroclor 1221	< 0.005	mg/Kg	0.005
Aroclor 1232	< 0.005	mg/Kg	0.005
Aroclor 1242	< 0.005	mg/Kg	0.005
Aroclor 1248	< 0.005	mg/Kg	0.005
Aroclor 1254	< 0.005	mg/Kg	0.005
Aroclor 1260	< 0.005	mg/Kg	0.005
Aroclor 1262	< 0.005	mg/Kg	0.005
Aroclor 1268	< 0.005	mg/Kg	0.005

NOTES :

Results are reported in accordance with CCME guidelines, "Guidance Manual on Sampling, Analysis, and Data Management for Contaminated Sites, Volume I". All results are corrected for blank levels.

MDL - Method detection level. - Calculated on the basis of the instrument detection level, the dilution used, and the weight of the sample.

( ) - Bracketed results are values below the reliable detection level, and are subject to reduced levels of confidence. The reliable detection level is twice the method detection level.

QA/QC SUMMARY

All samples were spiked with a component whose recovery was monitored to maintain analysis accuracy. Guidelines from SW846 for suggested surrogate recoveries for each matrix are shown below.

Surrogate Recovery : 82% SOIL surrogate limits : 63% - 134%.

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 30-6
Sample Date & Time : 05-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-6
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 19, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

BATCH : 11	BLANK	DUPLICATE			MATRIX SPIKE			CALIBRATION CHECK		
DATE : September 19, 1996	CONC.	CONC.1	CONC.2	RPD	RECOV	CONTROL LIMITS		RECOV	CONTROL LIMITS	
ANALYST:AAM	mg/Kg	mg/Kg	mg/Kg	%	%	LOWER	UPPER	%	LOWER	UPPER
Aroclor 1016	< 0.005	< 0.005	< 0.005	0						
Aroclor 1221	< 0.005	< 0.005	< 0.005	0						
Aroclor 1232	< 0.005	< 0.005	< 0.005	0						
Aroclor 1242	< 0.005	< 0.005	< 0.005	0						
Aroclor 1248	< 0.005	< 0.005	< 0.005	0				88	64.	140.
Aroclor 1254	< 0.005	< 0.005	< 0.005	0						
Aroclor 1260	< 0.005	< 0.005	< 0.005	0	68	64.	130.			
Aroclor 1262	< 0.005	< 0.005	< 0.005	0						
Aroclor 1268	< 0.005	< 0.005	< 0.005	0						

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 44-5
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-7
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 20, 1996

PARAMETER DESCRIPTION	NAQUADAT CODE	UNITS	RESULTS	DETECTION LIMIT
Total Mercury- (CVAA)		ug/kg	126.	20.
Barium (ICP)		ug/g	213.	1.
Beryllium (ICP)		ug/g	0.3	0.1
Cadmium (ICP)		ug/g	< 0.3	0.3
Chromium (ICP)		ug/g	210.	0.2
Cobalt (ICP)		ug/g	14.8	0.3
Copper (ICP)		ug/g	384.	0.1
Lead (ICP)		ug/g	355.	2.
Molybdenum (ICP)		ug/g	64.6	0.3
Nickel (ICP)		ug/g	128.	0.5
Silver (ICP)		ug/g	< 0.2	0.2
Vanadium (ICP)		ug/g	59.6	0.2
Zinc (ICP)		ug/g	1270.	0.1
Thallium (ICP-MS)		ug/g	0.10	0.02
Arsenic (ICP-MS)		ug/g	27.8	0.1
Selenium (ICP-MS)		ug/g	0.2	0.1
Antimony (ICP-MS)		ug/g	0.94	0.02
Tin (ICP-MS)		ug/g	668.	0.02

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 44-5
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Station Code :

Chemex Worksheet Number : 96-03349-7
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

PARAMETER	DATE ANALYZED (DD-MM-YY)	QA/QC BATCH NUM ANAL	RELATIVE PERCENT DIFFERENCE	REFERENCE VALUE	CONTROL LIMITS LOWER	CONTROL LIMITS UPPER	CALIBRATION CHECK RECOV %	CONTROL LIMITS LOWER	CONTROL LIMITS UPPER
Total Mercury- (CVAA)	20-09-96	1 CH	2.40	0.17	0.11	0.20	NOT APPLICABLE		
Barium (ICP)	27-09-96	11 JCG	4.88	278.00	231.60	283.60	103.8	93.6	105.6
Beryllium (ICP)	27-09-96	11 JCG	3.92	3.95	3.26	4.91	102.9	89.2	110.9
Cadmium (ICP)	27-09-96	11 JCG	0.00	0.00	0.00	1.69	101.7	86.6	113.1
Chromium (ICP)	27-09-96	11 JCG	2.35	47.57	37.84	55.65	100.3	89.8	109.8
Cobalt (ICP)	27-09-96	11 JCG	0.96	19.57	14.89	21.09	100.4	88.3	107.8
Copper (ICP)	27-09-96	11 JCG	1.96	46.75	37.17	49.97	99.9	90.7	105.0
Lead (ICP)	27-09-96	11 JCG	0.00	28.79	19.91	34.23	99.9	91.6	106.7
Molybdenum (ICP)	27-09-96	11 JCG	6.37	21.00	9.96	21.51	101.5	90.5	109.8
Nickel (ICP)	27-09-96	11 JCG	4.70	40.95	35.56	48.92	97.7	90.4	108.1
Silver (ICP)	27-09-96	11 JCG	0.00	NOT APPLICABLE			102.4	93.1	104.1
Vanadium (ICP)	27-09-96	11 JCG	2.16	129.00	99.60	136.95	104.4	93.1	108.8
Zinc (ICP)	27-09-96	11 JCG	0.81	82.47	69.09	95.47	102.0	89.4	109.7
Thallium (ICP-MS)	26-09-96	21 WEM	12.32	NOT APPLICABLE			97.1	80.0	120.0
Arsenic (ICP-MS)	26-09-96	21 WEM	4.06	122.50	38.00	157.30	110.5	81.5	112.6
Selenium (ICP-MS)	26-09-96	21 WEM	50.00	7.81	0.85	18.23	102.6	86.0	105.9
Antimony (ICP-MS)	27-09-96	21 WEM	3.92	NOT APPLICABLE			109.7	80.0	120.0
Tin (ICP-MS)	27-09-96	21 WEM	22.35	NOT APPLICABLE			113.3	80.0	120.0

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 44-5
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-7
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 17, 1996

TOTAL EXTRACTABLE HYDROCARBONS METHOD MODIFIED ASTM D2887

COMPONENT	mg/Kg	BOILING RANGE	COMPONENT	mg/Kg	BOILING RANGE
C 08	< 1.	98.5 TO 125.7	C 35	< 2.	483.1 TO 491.0
C 09	< 1.	125.8 TO 150.8	C 36	< 2.	491.1 TO 498.0
C 10	< 1.	150.9 TO 174.2	C 37	< 2.	498.1 TO 505.0
C 11	< 1.	174.3 TO 196.0	C 38	< 2.	505.1 TO 512.0
C 12	< 1.	196.1 TO 216.0	C 39	< 2.	512.1 TO 519.0
C 13	< 1.	216.1 TO 236.0	C 40	< 5.	519.1 TO 525.0
C 14	< 1.	236.1 TO 253.0	C 41	< 5.	525.1 TO 535.0
C 15	< 1.	253.1 TO 271.0	C 42	< 5.	531.1 TO 537.0
C 16	< 1.	271.1 TO 287.0	C 43	< 5.	537.1 TO 543.0
C 17	< 1.	287.1 TO 302.0	C 44	< 5.	543.1 TO 548.0
C 18	< 1.	302.1 TO 317.0	C 45	< 5.	548.1 TO 554.0
C 19	< 1.	317.1 TO 331.0	C 46	< 5.	554.1 TO 559.0
C 20	< 1.	331.1 TO 344.0	C 47	< 5.	559.1 TO 565.0
C 21	< 1.	344.1 TO 357.0	C 48	< 5.	565.1 TO 570.0
C 22	< 1.	357.1 TO 366.0	C 49	< 5.	570.1 TO 576.0
C 23	< 1.	366.1 TO 380.0	C 50	< 5.	576.1 TO 581.0
C 24	< 1.	380.1 TO 391.0	C 51	< 5.	581.1 TO 584.0
C 25	< 1.	391.1 TO 402.0	C 52	< 5.	584.1 TO 588.0
C 26	(1.)	402.1 TO 412.0	C 53	< 5.	588.1 TO 592.0
C 27	3.	412.1 TO 422.0	C 54	< 5.	592.1 TO 596.0
C 28	6.	422.1 TO 432.0	C 55	< 5.	596.1 TO 600.0
C 29	5.	432.1 TO 441.0	C 56	< 5.	600.1 TO 604.0
C 30	5.	441.1 TO 449.0	C 57	< 5.	604.1 TO 608.0
C 31	(2.)	449.1 TO 459.0	C 58	< 5.	608.1 TO 612.0
C 32	(3.)	459.1 TO 468.0	C 59	< 5.	612.1 TO 615.0
C 33	(3.)	468.1 TO 476.0	C 60	< 5.	615.1 TO 619.0
C 34	(3.)	476.1 TO 483.0			

Average molecular weight : 404 AMU

TOTAL HYDROCARBONS C8-C10 N.D.
TOTAL HYDROCARBONS C11-C60 30. mg/Kg

Surrogate recovery : 118% SOIL surrogate limits : 66% - 140%.
MDL per component : 1. mg/Kg below C31 and 2. mg/Kg above C30
5. mg/Kg above C39 and 5. mg/Kg above C49

Results are reported in accordance with CCME guidelines. All results are corrected for blank levels.

MDL - Method detection level. The reliable detection level is twice the method detection level.

( ) - Bracketed results are values below the reliable detection level, and are subject to reduced levels of confidence.

Results are uncorrected for moisture unless otherwise noted.

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 44-5
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-7
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 17, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

BATCH : 4	BLANK	DUPLICATE			MATRIX SPIKE			CALIBRATION CHECK		
DATE : September 17, 1996	CONC.	CONC.1	CONC.2	RPD	RECOV	CONTROL LIMITS		RECOV	CONTROL LIMITS	
ANALYST:ZBN	mg/Kg	mg/Kg	mg/Kg	%	%	LOWER	UPPER	%	LOWER	UPPER
C 08	< 1.	< 1.	< 1.	0				107	73.	130.
C 09	< 1.	< 1.	< 1.	0				97	74.	120.
C 10	< 1.	< 1.	< 1.	0				102	69.	130.
C 11	< 1.	< 1.	< 1.	0						
C 12	< 1.	< 1.	< 1.	0						
C 13	< 1.	< 1.	< 1.	0						
C 14	< 1.	< 1.	< 1.	0						
C 15	< 1.	< 1.	< 1.	0				101	70.	130.
C 16	< 1.	< 1.	< 1.	0						
C 17	< 1.	< 1.	< 1.	0						
C 18	< 1.	< 1.	< 1.	0						
C 19	< 1.	< 1.	< 1.	0						
C 20	< 1.	< 1.	< 1.	0				102	70.	130.
C 21	< 1.	< 1.	< 1.	0						
C 22	< 1.	< 1.	< 1.	0						
C 23	< 1.	< 1.	< 1.	0						
C 24	< 1.	< 1.	< 1.	0						
C 25	< 1.	< 1.	< 1.	0				96	71.	130.
C 26	< 1.	< 1.	< 1.	0						
C 27	< 1.	< 1.	< 1.	200						
C 28	< 1.	< 1.	< 1.	0						
C 29	< 1.	< 1.	< 1.	200						
C 30	< 1.	< 1.	< 1.	0				98	67.	130.
C 31	< 2.	< 2.	< 2.	200						
C 32	< 2.	(3.)	< 2.	128						
C 33	< 2.	8.	8.	5						
C 34	< 2.	5.	(4.)	21						
C 35	< 2.	(3.)	< 2.	43						
C 36	< 2.	(2.)	< 2.	74						
C 37	< 2.	(4.)	< 2.	69						
C 38	< 2.	< 2.	< 2.	43						
C 39	< 2.	< 2.	< 2.	28						
C 40	< 5.	< 5.	< 5.	58				100		
C 41	< 5.	< 5.	< 5.	0						
C 42	< 5.	< 5.	< 5.	25						
C 43	< 5.	< 5.	< 5.	0						
C 44	< 5.	< 5.	< 5.	0						
C 45	< 5.	< 5.	< 5.	0						

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 44-5
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-7
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 17, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

BATCH : 4	BLANK	DUPLICATE			MATRIX SPIKE			CALIBRATION CHECK		
DATE : September 17, 1996	CONC.	CONC.1	CONC.2	RPD	RECOV	CONTROL LIMITS		RECOV	CONTROL LIMITS	
ANALYST:ZBN	mg/Kg	mg/Kg	mg/Kg	%	%	LOWER	UPPER	%	LOWER	UPPER
C 46	< 5.	< 5.	< 5.	27						
C 47	< 5.	< 5.	< 5.	0						
C 48	< 5.	< 5.	< 5.	16						
C 49	< 5.	< 5.	< 5.	0						
C 50	< 5.	< 5.	< 5.	7				101		
C 51	< 5.	< 5.	< 5.	32						
C 52	< 5.	< 5.	< 5.	6						
C 53	< 5.	(6.)	(6.)	2						
C 54	< 5.	< 5.	< 5.	81						
C 55	< 5.	< 5.	< 5.	0						
C 56	< 5.	< 5.	< 5.	0						
C 57	< 5.	< 5.	< 5.	0						
C 58	< 5.	< 5.	< 5.	0						
C 59	< 5.	< 5.	< 5.	0						
C 60	< 5.	< 5.	< 5.	0				102		

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

ample Description : 44-5
ample Date & Time : 07-09-96
Sampled By : SM
ample Type : COMPOSITE
ample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-7
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 21, 1996

VOLATILE ORGANICS ANALYSIS - BTEX EPA METHOD 8260 MODIFIED

PARAMETER	CONC	BLANK CONC	UNITS	MDL
Benzene	< 0.0042	< 0.005	mg/Kg	0.0042
Ethylbenzene	< 0.0042	< 0.005	mg/Kg	0.0042
Toluene	< 0.0042	< 0.005	mg/Kg	0.0042
m & p-Xylene	< 0.0042	< 0.005	mg/Kg	0.0042
o-Xylene	< 0.0042	< 0.005	mg/Kg	0.0042

NOTES :

Results are reported in accordance with CCME guidelines, "Guidance Manual on Sampling, Analysis, and Data Management for Contaminated Sites, Volume I". All results are corrected for blank levels.

MDL - Method detection level. - Calculated on the basis of the instrument detection level, the dilution used, and the weight of the sample.

( ) - Bracketed results are values below the reliable detection level, and are subject to reduced levels of confidence. The reliable detection level is twice the method detection level.

QA/QC SUMMARY

All samples were spiked with a component whose recovery was monitored to maintain analysis accuracy.
Guidelines from SW846 for suggested surrogate recoveries for each matrix are shown below.
Results are uncorrected for moisture unless otherwise noted.

Instrument : GC/MS
Surrogate Recovery : 91% SOIL surrogate limits : 80% - 117%.

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 44-1
Sample Date & Time : 06-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-8
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 20, 1996

PARAMETER DESCRIPTION	NAQUADAT CODE	UNITS	RESULTS	DETECTION LIMIT
Total Mercury- (CVAA)		ug/kg	< 20	20.
Barium (ICP)		ug/g	131.	1.
Beryllium (ICP)		ug/g	0.3	0.1
Cadmium (ICP)		ug/g	< 0.3	0.3
Chromium (ICP)		ug/g	82.5	0.2
Cobalt (ICP)		ug/g	13.9	0.3
Copper (ICP)		ug/g	39.4	0.1
Lead (ICP)		ug/g	7.	2.
Molybdenum (ICP)		ug/g	11.8	0.3
Nickel (ICP)		ug/g	42.9	0.5
Silver (ICP)		ug/g	< 0.2	0.2
Vanadium (ICP)		ug/g	87.4	0.2
Zinc (ICP)		ug/g	75.1	0.1
Thallium (ICP-MS)		ug/g	0.12	0.02
Arsenic (ICP-MS)		ug/g	5.0	0.1
Selenium (ICP-MS)		ug/g	1.5	0.1
Antimony (ICP-MS)		ug/g	0.15	0.02
Tin (ICP-MS)		ug/g	7.50	0.02

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 44-1
Sample Date & Time : 06-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Station Code :

Chemex Worksheet Number : 96-03349-8
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

PARAMETER	DATE ANALYZED (DD-MM-YY)	QA/QC BATCH NUM ANAL	RELATIVE PERCENT DIFFERENCE	REFERENCE VALUE	CONTROL LIMITS LOWER	CONTROL LIMITS UPPER	CALIBRATION CHECK RECOV %	CONTROL LIMITS LOWER	CONTROL LIMITS UPPER
Total Mercury- (CVAA)	20-09-96	1 CH	2.40	0.17	0.11	0.20	NOT APPLICABLE		
Barium (ICP)	27-09-96	11 JCG	4.88	278.00	231.60	283.60	103.8	93.6	105.6
Beryllium (ICP)	27-09-96	11 JCG	3.92	3.95	3.26	4.91	102.9	89.2	110.9
Cadmium (ICP)	27-09-96	11 JCG	0.00	0.00	0.00	1.69	101.7	86.6	113.1
Chromium (ICP)	27-09-96	11 JCG	2.35	47.57	37.84	55.65	100.3	89.8	109.8
Cobalt (ICP)	27-09-96	11 JCG	0.96	19.57	14.89	21.09	100.4	88.3	107.8
Copper (ICP)	27-09-96	11 JCG	1.96	46.75	37.17	49.97	99.9	90.7	105.0
Lead (ICP)	27-09-96	11 JCG	0.00	28.79	19.91	34.23	99.9	91.6	106.7
Molybdenum (ICP)	27-09-96	11 JCG	6.37	21.00	9.96	21.51	101.5	90.5	109.8
Nickel (ICP)	27-09-96	11 JCG	4.70	40.95	35.56	48.92	97.7	90.4	108.1
Silver (ICP)	27-09-96	11 JCG	0.00	NOT APPLICABLE			102.4	93.1	104.1
Vanadium (ICP)	27-09-96	11 JCG	2.16	129.00	99.60	136.95	104.4	93.1	108.8
Zinc (ICP)	27-09-96	11 JCG	0.81	82.47	69.09	95.47	102.0	89.4	109.7
Thallium (ICP-MS)	26-09-96	21 WEM	12.32	NOT APPLICABLE			97.1	80.0	120.0
Arsenic (ICP-MS)	26-09-96	21 WEM	4.06	122.50	38.00	157.30	110.5	81.5	112.6
Selenium (ICP-MS)	26-09-96	21 WEM	50.00	7.81	0.85	18.23	102.6	86.0	105.9
Antimony (ICP-MS)	27-09-96	21 WEM	3.92	NOT APPLICABLE			109.7	80.0	120.0
Tin (ICP-MS)	27-09-96	21 WEM	22.35	NOT APPLICABLE			113.3	80.0	120.0

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 44-13
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-9
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 20, 1996

PARAMETER DESCRIPTION	NAQUADAT CODE	UNITS	RESULTS	DETECTION LIMIT
Total Mercury- (CVAA)		ug/kg	33.	20.
Barium (ICP)		ug/g	186.	1.
Beryllium (ICP)		ug/g	0.4	0.1
Cadmium (ICP)		ug/g	< 0.3	0.3
Chromium (ICP)		ug/g	55.7	0.2
Cobalt (ICP)		ug/g	16.0	0.3
Copper (ICP)		ug/g	44.9	0.1
Lead (ICP)		ug/g	11.	2.
Molybdenum (ICP)		ug/g	13.6	0.3
Nickel (ICP)		ug/g	32.9	0.5
Silver (ICP)		ug/g	< 0.2	0.2
Vanadium (ICP)		ug/g	97.0	0.2
Zinc (ICP)		ug/g	88.9	0.1
Thallium (ICP-MS)		ug/g	0.23	0.02
Arsenic (ICP-MS)		ug/g	7.2	0.1
Selenium (ICP-MS)		ug/g	1.1	0.1
Antimony (ICP-MS)		ug/g	0.20	0.02
Tin (ICP-MS)		ug/g	1.75	0.02

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 44-13
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Station Code :

Chemex Worksheet Number : 96-03349-9
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

PARAMETER	DATE ANALYZED (DD-MM-YY)	QA/QC BATCH NUM ANAL	RELATIVE PERCENT DIFFERENCE	REFERENCE VALUE	CONTROL LIMITS LOWER	CONTROL LIMITS UPPER	CALIBRATION CHECK RECOV %	CONTROL LIMITS LOWER	CONTROL LIMITS UPPER
Total Mercury- (CVAA)	20-09-96	1 CH	2.40	0.17	0.11	0.20	NOT APPLICABLE		
Barium (ICP)	27-09-96	11 JCG	4.88	278.00	231.60	283.60	103.8	93.6	105.6
Beryllium (ICP)	27-09-96	11 JCG	3.92	3.95	3.26	4.91	102.9	89.2	110.9
Cadmium (ICP)	27-09-96	11 JCG	0.00	0.00	0.00	1.69	101.7	86.6	113.1
Chromium (ICP)	27-09-96	11 JCG	2.35	47.57	37.84	55.65	100.3	89.8	109.8
Cobalt (ICP)	27-09-96	11 JCG	0.96	19.57	14.89	21.09	100.4	88.3	107.8
Copper (ICP)	27-09-96	11 JCG	0.96	46.75	37.17	49.97	99.9	90.7	105.0
Lead (ICP)	27-09-96	11 JCG	0.00	28.79	19.91	34.23	99.9	91.6	106.7
Molybdenum (ICP)	27-09-96	11 JCG	6.37	21.00	9.96	21.51	101.5	90.5	109.8
Nickel (ICP)	27-09-96	11 JCG	4.70	40.95	35.56	48.92	97.7	90.4	108.1
Silver (ICP)	27-09-96	11 JCG	0.00	NOT APPLICABLE			102.4	93.1	104.1
Vanadium (ICP)	27-09-96	11 JCG	2.16	129.00	99.60	136.95	104.4	93.1	108.8
Zinc (ICP)	27-09-96	11 JCG	0.81	82.47	69.09	95.47	102.0	89.4	109.7
Thallium (ICP-MS)	26-09-96	21 WEM	12.32	NOT APPLICABLE			97.1	80.0	120.0
Arsenic (ICP-MS)	26-09-96	21 WEM	4.06	122.50	38.00	157.30	110.5	81.5	112.6
Selenium (ICP-MS)	26-09-96	21 WEM	50.00	7.81	0.85	18.23	102.6	86.0	105.9
Antimony (ICP-MS)	27-09-96	21 WEM	3.92	NOT APPLICABLE			109.7	80.0	120.0
Tin (ICP-MS)	27-09-96	21 WEM	22.35	NOT APPLICABLE			113.3	80.0	120.0

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 44-9
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-10
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 17, 1996

TOTAL EXTRACTABLE HYDROCARBONS METHOD MODIFIED ASTM D2887

COMPONENT	mg/Kg	BOILING RANGE	COMPONENT	mg/Kg	BOILING RANGE
C 08	< 1.	98.5 TO 125.7	C 35	< 2.	483.1 TO 491.0
C 09	< 1.	125.8 TO 150.8	C 36	< 2.	491.1 TO 498.0
C 10	< 1.	150.9 TO 174.2	C 37	< 2.	498.1 TO 505.0
C 11	< 1.	174.3 TO 196.0	C 38	< 2.	505.1 TO 512.0
C 12	< 1.	196.1 TO 216.0	C 39	< 2.	512.1 TO 519.0
C 13	< 1.	216.1 TO 236.0	C 40	< 6.	519.1 TO 525.0
C 14	< 1.	236.1 TO 253.0	C 41	< 6.	525.1 TO 535.0
C 15	< 1.	253.1 TO 271.0	C 42	< 6.	531.1 TO 537.0
C 16	< 1.	271.1 TO 287.0	C 43	< 6.	537.1 TO 543.0
C 17	< 1.	287.1 TO 302.0	C 44	< 6.	543.1 TO 548.0
C 18	< 1.	302.1 TO 317.0	C 45	< 6.	548.1 TO 554.0
C 19	< 1.	317.1 TO 331.0	C 46	< 6.	554.1 TO 559.0
C 20	< 1.	331.1 TO 344.0	C 47	< 6.	559.1 TO 565.0
C 21	< 1.	344.1 TO 357.0	C 48	< 6.	565.1 TO 570.0
C 22	< 1.	357.1 TO 366.0	C 49	< 6.	570.1 TO 576.0
C 23	< 1.	366.1 TO 380.0	C 50	< 6.	576.1 TO 581.0
C 24	< 1.	380.1 TO 391.0	C 51	< 6.	581.1 TO 584.0
C 25	< 1.	391.1 TO 402.0	C 52	< 6.	584.1 TO 588.0
C 26	< 1.	402.1 TO 412.0	C 53	< 6.	588.1 TO 592.0
C 27	< 1.	412.1 TO 422.0	C 54	< 6.	592.1 TO 596.0
C 28	< 1.	422.1 TO 432.0	C 55	< 6.	596.1 TO 600.0
C 29	< 1.	432.1 TO 441.0	C 56	< 6.	600.1 TO 604.0
C 30	< 1.	441.1 TO 449.0	C 57	< 6.	604.1 TO 608.0
C 31	< 2.	449.1 TO 459.0	C 58	< 6.	608.1 TO 612.0
C 32	< 2.	459.1 TO 468.0	C 59	< 6.	612.1 TO 615.0
C 33	< 2.	468.1 TO 476.0	C 60	< 6.	615.1 TO 619.0
C 34	< 2.	476.1 TO 483.0			

Average molecular weight : N.D. AMU TOTAL HYDROCARBONS C8-C10 N.D.
TOTAL HYDROCARBONS C11-C60 N.D.

Surrogate recovery : 116% SOIL surrogate limits : 66% - 140%.
MDL per component : 1. mg/Kg below C31 and 2. mg/Kg above C30
6. mg/Kg above C39 and 6. mg/Kg above C49

Results are reported in accordance with CCME guidelines. All results are corrected for blank levels.

MDL - Method detection level. The reliable detection level is twice the method detection level.

( ) - Bracketed results are values below the reliable detection level, and are subject to reduced levels of confidence.

Results are uncorrected for moisture unless otherwise noted.

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 44-9
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-10
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 17, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

BATCH : 4	BLANK	DUPLICATE			MATRIX SPIKE			CALIBRATION CHECK		
DATE : September 17, 1996	CONC.	CONC.1	CONC.2	RPD	RECOV	CONTROL LIMITS		RECOV	CONTROL LIMITS	
ANALYST:ZBN	mg/Kg	mg/Kg	mg/Kg	%	%	LOWER	UPPER	%	LOWER	UPPER
C 08	< 1.	< 1.	< 1.	0				107	73.	130.
C 09	< 1.	< 1.	< 1.	0				97	74.	120.
C 10	< 1.	< 1.	< 1.	0				102	69.	130.
C 11	< 1.	< 1.	< 1.	0						
C 12	< 1.	< 1.	< 1.	0						
C 13	< 1.	< 1.	< 1.	0						
C 14	< 1.	< 1.	< 1.	0						
C 15	< 1.	< 1.	< 1.	0				101	70.	130.
C 16	< 1.	< 1.	< 1.	0						
C 17	< 1.	< 1.	< 1.	0						
C 18	< 1.	< 1.	< 1.	0						
C 19	< 1.	< 1.	< 1.	0						
C 20	< 1.	< 1.	< 1.	0				102	70.	130.
C 21	< 1.	< 1.	< 1.	0						
C 22	< 1.	< 1.	< 1.	0						
C 23	< 1.	< 1.	< 1.	0						
C 24	< 1.	< 1.	< 1.	0						
C 25	< 1.	< 1.	< 1.	0				96	71.	130.
C 26	< 1.	< 1.	< 1.	0						
C 27	< 1.	< 1.	< 1.	200						
C 28	< 1.	< 1.	< 1.	0						
C 29	< 1.	< 1.	< 1.	200						
C 30	< 1.	< 1.	< 1.	0				98	67.	130.
C 31	< 2.	< 2.	< 2.	200						
C 32	< 2.	(3.)	< 2.	128						
C 33	< 2.	8.	8.	5						
C 34	< 2.	5.	(4.)	21						
C 35	< 2.	(3.)	< 2.	43						
C 36	< 2.	(2.)	< 2.	74						
C 37	< 2.	(4.)	< 2.	69						
C 38	< 2.	< 2.	< 2.	43						
C 39	< 2.	< 2.	< 2.	28						
C 40	< 5.	< 5.	< 5.	58				100		
C 41	< 5.	< 5.	< 5.	0						
C 42	< 5.	< 5.	< 5.	25						
C 43	< 5.	< 5.	< 5.	0						
C 44	< 5.	< 5.	< 5.	0						
C 45	< 5.	< 5.	< 5.	0						

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 44-9
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-10
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 17, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

BATCH : 4	BLANK	DUPLICATE			MATRIX SPIKE			CALIBRATION CHECK		
DATE : September 17, 1996	CONC.	CONC.1	CONC.2	RPD	RECOV	CONTROL LIMITS		RECOV	CONTROL LIMITS	
ANALYST:ZBN	mg/Kg	mg/Kg	mg/Kg	%	%	LOWER	UPPER	%	LOWER	UPPER
C 46	< 5.	< 5.	< 5.	27						
C 47	< 5.	< 5.	< 5.	0						
C 48	< 5.	< 5.	< 5.	16						
C 49	< 5.	< 5.	< 5.	0						
C 50	< 5.	< 5.	< 5.	7				101		
C 51	< 5.	< 5.	< 5.	32						
C 52	< 5.	< 5.	< 5.	6						
C 53	< 5.	(6.)	(6.)	2						
C 54	< 5.	< 5.	< 5.	81						
C 55	< 5.	< 5.	< 5.	0						
C 56	< 5.	< 5.	< 5.	0						
C 57	< 5.	< 5.	< 5.	0						
C 58	< 5.	< 5.	< 5.	0						
C 59	< 5.	< 5.	< 5.	0						
C 60	< 5.	< 5.	< 5.	0				102		

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 44-15
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-11
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 17, 1996

TOTAL EXTRACTABLE HYDROCARBONS METHOD MODIFIED ASTM D2887

COMPONENT	mg/Kg	BOILING RANGE	COMPONENT	mg/Kg	BOILING RANGE
C 08	< 1.	98.5 TO 125.7	C 35	(3.)	483.1 TO 491.0
C 09	< 1.	125.8 TO 150.8	C 36	< 2.	491.1 TO 498.0
C 10	< 1.	150.9 TO 174.2	C 37	(2.)	498.1 TO 505.0
C 11	< 1.	174.3 TO 196.0	C 38	(3.)	505.1 TO 512.0
C 12	< 1.	196.1 TO 216.0	C 39	< 2.	512.1 TO 519.0
C 13	< 1.	216.1 TO 236.0	C 40	< 5.	519.1 TO 525.0
C 14	< 1.	236.1 TO 253.0	C 41	< 5.	525.1 TO 535.0
C 15	< 1.	253.1 TO 271.0	C 42	< 5.	531.1 TO 537.0
C 16	< 1.	271.1 TO 287.0	C 43	< 5.	537.1 TO 543.0
C 17	< 1.	287.1 TO 302.0	C 44	< 5.	543.1 TO 548.0
C 18	< 1.	302.1 TO 317.0	C 45	< 5.	548.1 TO 554.0
C 19	< 1.	317.1 TO 331.0	C 46	< 5.	554.1 TO 559.0
C 20	< 1.	331.1 TO 344.0	C 47	< 5.	559.1 TO 565.0
C 21	< 1.	344.1 TO 357.0	C 48	< 5.	565.1 TO 570.0
C 22	< 1.	357.1 TO 366.0	C 49	< 5.	570.1 TO 576.0
C 23	< 1.	366.1 TO 380.0	C 50	< 5.	576.1 TO 581.0
C 24	< 1.	380.1 TO 391.0	C 51	< 5.	581.1 TO 584.0
C 25	< 1.	391.1 TO 402.0	C 52	< 5.	584.1 TO 588.0
C 26	< 1.	402.1 TO 412.0	C 53	< 5.	588.1 TO 592.0
C 27	< 1.	412.1 TO 422.0	C 54	< 5.	592.1 TO 596.0
C 28	< 1.	422.1 TO 432.0	C 55	< 5.	596.1 TO 600.0
C 29	4.	432.1 TO 441.0	C 56	(6.)	600.1 TO 604.0
C 30	< 1.	441.1 TO 449.0	C 57	< 5.	604.1 TO 608.0
C 31	(3.)	449.1 TO 459.0	C 58	(9.)	608.1 TO 612.0
C 32	4.	459.1 TO 468.0	C 59	< 5.	612.1 TO 615.0
C 33	10.	468.1 TO 476.0	C 60	< 5.	615.1 TO 619.0
C 34	8.	476.1 TO 483.0			

Average molecular weight : 510 AMU

TOTAL HYDROCARBONS C8-C10 N.D.
TOTAL HYDROCARBONS C11-C60 52. mg/Kg

Surrogate recovery : 122% SOIL surrogate limits : 66% - 140%.

MDL per component : 1. mg/Kg below C31 and 2. mg/Kg above C30
5. mg/Kg above C39 and 5. mg/Kg above C49

Results are reported in accordance with CCME guidelines. All results are corrected for blank levels.

MDL - Method detection level. The reliable detection level is twice the method detection level.

( ) - Bracketed results are values below the reliable detection level, and are subject to reduced levels of confidence.

Results are uncorrected for moisture unless otherwise noted.

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 44-15
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-11
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 17, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

BATCH : 4	BLANK	DUPLICATE			MATRIX SPIKE			CALIBRATION CHECK		
DATE : September 17, 1996	CONC.	CONC.1	CONC.2	RPD	RECOV	CONTROL LIMITS		RECOV	CONTROL LIMITS	
ANALYST:ZBN	mg/Kg	mg/Kg	mg/Kg	%	%	LOWER	UPPER	%	LOWER	UPPER
C 08	< 1.	< 1.	< 1.	0				107	73.	130.
C 09	< 1.	< 1.	< 1.	0				97	74.	120.
C 10	< 1.	< 1.	< 1.	0				102	69.	130.
C 11	< 1.	< 1.	< 1.	0						
C 12	< 1.	< 1.	< 1.	0						
C 13	< 1.	< 1.	< 1.	0						
C 14	< 1.	< 1.	< 1.	0						
C 15	< 1.	< 1.	< 1.	0				101	70.	130.
C 16	< 1.	< 1.	< 1.	0						
C 17	< 1.	< 1.	< 1.	0						
C 18	< 1.	< 1.	< 1.	0						
C 19	< 1.	< 1.	< 1.	0						
C 20	< 1.	< 1.	< 1.	0				102	70.	130.
C 21	< 1.	< 1.	< 1.	0						
C 22	< 1.	< 1.	< 1.	0						
C 23	< 1.	< 1.	< 1.	0						
C 24	< 1.	< 1.	< 1.	0						
C 25	< 1.	< 1.	< 1.	0				96	71.	130.
C 26	< 1.	< 1.	< 1.	0						
C 27	< 1.	< 1.	< 1.	200						
C 28	< 1.	< 1.	< 1.	0						
C 29	< 1.	< 1.	< 1.	200						
C 30	< 1.	< 1.	< 1.	0				98	67.	130.
C 31	< 2.	< 2.	< 2.	200						
C 32	< 2.	(3.)	< 2.	128						
C 33	< 2.	8.	8.	5						
C 34	< 2.	5.	(4.)	21						
C 35	< 2.	(3.)	< 2.	43						
C 36	< 2.	(2.)	< 2.	74						
C 37	< 2.	(4.)	< 2.	69						
C 38	< 2.	< 2.	< 2.	43						
C 39	< 2.	< 2.	< 2.	28						
C 40	< 5.	< 5.	< 5.	58				100		
C 41	< 5.	< 5.	< 5.	0						
C 42	< 5.	< 5.	< 5.	25						
C 43	< 5.	< 5.	< 5.	0						
C 44	< 5.	< 5.	< 5.	0						
C 45	< 5.	< 5.	< 5.	0						

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 44-15
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-11
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 17, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

BATCH : 4	BLANK	DUPLICATE			MATRIX SPIKE			CALIBRATION CHECK		
DATE : September 17, 1996	CONC.	CONC.1	CONC.2	RPD	RECOV	CONTROL LIMITS		RECOV	CONTROL LIMITS	
ANALYST:ZBN	mg/Kg	mg/Kg	mg/Kg	%	%	LOWER	UPPER	%	LOWER	UPPER
C 46	< 5.	< 5.	< 5.	27						
C 47	< 5.	< 5.	< 5.	0						
C 48	< 5.	< 5.	< 5.	16						
C 49	< 5.	< 5.	< 5.	0						
C 50	< 5.	< 5.	< 5.	7				101		
C 51	< 5.	< 5.	< 5.	32						
C 52	< 5.	< 5.	< 5.	6						
C 53	< 5.	(6.)	(6.)	2						
C 54	< 5.	< 5.	< 5.	81						
C 55	< 5.	< 5.	< 5.	0						
C 56	< 5.	< 5.	< 5.	0						
C 57	< 5.	< 5.	< 5.	0						
C 58	< 5.	< 5.	< 5.	0						
C 59	< 5.	< 5.	< 5.	0						
C 60	< 5.	< 5.	< 5.	0				102		

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 44-6
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-12
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 21, 1996

VOLATILE ORGANICS ANALYSIS - BTEX EPA METHOD 8260 MODIFIED

PARAMETER	CONC	BLANK CONC	UNITS	MDL
Benzene	< 0.0034	< 0.005	mg/Kg	0.0034
Ethylbenzene	< 0.0034	< 0.005	mg/Kg	0.0034
Toluene	< 0.0034	< 0.005	mg/Kg	0.0034
m & p-Xylene	< 0.0034	< 0.005	mg/Kg	0.0034
o-Xylene	< 0.0034	< 0.005	mg/Kg	0.0034

NOTES :

Results are reported in accordance with CCME guidelines, "Guidance Manual on Sampling, Analysis, and Data Management for Contaminated Sites, Volume I". All results are corrected for blank levels.

MDL - Method detection level. - Calculated on the basis of the instrument detection level, the dilution used, and the weight of the sample.

( ) - Bracketed results are values below the reliable detection level, and are subject to reduced levels of confidence. The reliable detection level is twice the method detection level.

QA/QC SUMMARY

All samples were spiked with a component whose recovery was monitored to maintain analysis accuracy.
Guidelines from SW846 for suggested surrogate recoveries for each matrix are shown below.
Results are uncorrected for moisture unless otherwise noted.

Instrument : GC/MS
Surrogate Recovery : 105% SOIL surrogate limits : 80% - 117%.

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Edmonton : 9331 - 48th Street, T6B 2R4, Telephone (403) 465-9877, FAX (403) 466-3332

CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 39-2
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-13
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 20, 1996

PARAMETER DESCRIPTION	NAQUADAT CODE	UNITS	RESULTS	DETECTION LIMIT
Total Mercury- (CVAA)		ug/kg	48.	20.
Barium (ICP)		ug/g	116.	1.
Beryllium (ICP)		ug/g	0.6	0.1
Cadmium (ICP)		ug/g	< 0.3	0.3
Chromium (ICP)		ug/g	44.9	0.2
Cobalt (ICP)		ug/g	16.0	0.3
Copper (ICP)		ug/g	48.9	0.1
Lead (ICP)		ug/g	9.	2.
Molybdenum (ICP)		ug/g	13.8	0.3
Nickel (ICP)		ug/g	24.7	0.5
Silver (ICP)		ug/g	< 0.2	0.2
Vanadium (ICP)		ug/g	101.	0.2
Zinc (ICP)		ug/g	79.9	0.1
Thallium (ICP-MS)		ug/g	0.08	0.02
Arsenic (ICP-MS)		ug/g	8.3	0.1
Selenium (ICP-MS)		ug/g	1.2	0.1
Antimony (ICP-MS)		ug/g	0.17	0.02
Tin (ICP-MS)		ug/g	0.71	0.02

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 39-2
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Station Code :

Chemex Worksheet Number : 96-03349-13
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

PARAMETER	DATE ANALYZED (DD-MM-YY)	QA/QC BATCH NUM ANAL	RELATIVE PERCENT DIFFERENCE	REFERENCE VALUE	REFERENCE CONTROL LIMITS LOWER	REFERENCE CONTROL LIMITS UPPER	CALIBRATION CHECK RECOV %	CALIBRATION CHECK CONTROL LIMITS LOWER	CALIBRATION CHECK CONTROL LIMITS UPPER
Total Mercury- (CVAA)	20-09-96	1 CH	2.40	0.17	0.11	0.20	NOT APPLICABLE		
Barium (ICP)	27-09-96	11 JCG	4.88	278.00	231.60	283.60	103.8	93.6	105.6
Beryllium (ICP)	27-09-96	11 JCG	3.92	3.95	3.26	4.91	102.9	89.2	110.9
Cadmium (ICP)	27-09-96	11 JCG	0.00	0.00	0.00	1.69	101.7	86.6	113.1
Chromium (ICP)	27-09-96	11 JCG	2.35	47.57	37.84	55.65	100.3	89.8	109.8
Cobalt (ICP)	27-09-96	11 JCG	0.96	19.57	14.89	21.09	100.4	88.3	107.8
Copper (ICP)	27-09-96	11 JCG	1.96	46.75	37.17	49.97	99.9	90.7	105.0
Lead (ICP)	27-09-96	11 JCG	0.00	28.79	19.91	34.23	99.9	91.6	106.7
Molybdenum (ICP)	27-09-96	11 JCG	6.37	21.00	9.96	21.51	101.5	90.5	109.8
Nickel (ICP)	27-09-96	11 JCG	4.70	40.95	35.56	48.92	97.7	90.4	108.1
Silver (ICP)	27-09-96	11 JCG	0.00	NOT APPLICABLE			102.4	93.1	104.1
Vanadium (ICP)	27-09-96	11 JCG	2.16	129.00	99.60	136.95	104.4	93.1	108.8
Zinc (ICP)	27-09-96	11 JCG	0.81	82.47	69.09	95.47	102.0	89.4	109.7
Thallium (ICP-MS)	26-09-96	21 WEM	12.32	NOT APPLICABLE			97.1	80.0	120.0
Arsenic (ICP-MS)	26-09-96	21 WEM	4.06	122.50	38.00	157.30	110.5	81.5	112.6
Selenium (ICP-MS)	26-09-96	21 WEM	50.00	7.81	0.85	18.23	102.6	86.0	105.9
Antimony (ICP-MS)	27-09-96	21 WEM	3.92	NOT APPLICABLE			109.7	80.0	120.0
Tin (ICP-MS)	27-09-96	21 WEM	22.35	NOT APPLICABLE			113.3	80.0	120.0

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 39-2
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-13
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 17, 1996

TOTAL EXTRACTABLE HYDROCARBONS METHOD MODIFIED ASTM D2887

COMPONENT	mg/Kg	BOILING RANGE	COMPONENT	mg/Kg	BOILING RANGE
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C 11	< 1.	174.3 TO 196.0	C 38	< 2.	505.1 TO 512.0
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C 14	< 1.	236.1 TO 253.0	C 41	< 5.	525.1 TO 535.0
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C 17	< 1.	287.1 TO 302.0	C 44	< 5.	543.1 TO 548.0
C 18	< 1.	302.1 TO 317.0	C 45	< 5.	548.1 TO 554.0
C 19	< 1.	317.1 TO 331.0	C 46	< 5.	554.1 TO 559.0
C 20	< 1.	331.1 TO 344.0	C 47	< 5.	559.1 TO 565.0
C 21	< 1.	344.1 TO 357.0	C 48	< 5.	565.1 TO 570.0
C 22	< 1.	357.1 TO 366.0	C 49	< 5.	570.1 TO 576.0
C 23	< 1.	366.1 TO 380.0	C 50	< 5.	576.1 TO 581.0
C 24	< 1.	380.1 TO 391.0	C 51	< 5.	581.1 TO 584.0
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C 28	< 1.	422.1 TO 432.0	C 55	< 5.	596.1 TO 600.0
C 29	< 1.	432.1 TO 441.0	C 56	< 5.	600.1 TO 604.0
C 30	< 1.	441.1 TO 449.0	C 57	< 5.	604.1 TO 608.0
C 31	< 2.	449.1 TO 459.0	C 58	< 5.	608.1 TO 612.0
C 32	< 2.	459.1 TO 468.0	C 59	< 5.	612.1 TO 615.0
C 33	8.	468.1 TO 476.0	C 60	< 5.	615.1 TO 619.0
C 34	(4.)	476.1 TO 483.0			

Average molecular weight : 514 AMU

TOTAL HYDROCARBONS C8-C10 N.D.
TOTAL HYDROCARBONS C11-C60 17. mg/Kg

Surrogate recovery : 115% SOIL surrogate limits : 66% - 140%.

MDL per component : 1. mg/Kg below C31 and 2. mg/Kg above C30
5. mg/Kg above C39 and 5. mg/Kg above C49

Results are reported in accordance with CCME guidelines. All results are corrected for blank levels.

MDL - Method detection level. The reliable detection level is twice the method detection level.

( ) - Bracketed results are values below the reliable detection level, and are subject to reduced levels of confidence.

Results are uncorrected for moisture unless otherwise noted.

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 39-2
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-13
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 17, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

BATCH : 4	BLANK	DUPLICATE			MATRIX SPIKE			CALIBRATION CHECK		
DATE : September 17, 1996	CONC.	CONC.1	CONC.2	RPD	RECOV	CONTROL LIMITS		RECOV	CONTROL LIMITS	
ANALYST:ZBN	mg/Kg	mg/Kg	mg/Kg	%	%	LOWER	UPPER	%	LOWER	UPPER
C 08	< 1.	< 1.	< 1.	0				107	73.	130.
C 09	< 1.	< 1.	< 1.	0				97	74.	120.
C 10	< 1.	< 1.	< 1.	0				102	69.	130.
C 11	< 1.	< 1.	< 1.	0						
C 12	< 1.	< 1.	< 1.	0						
C 13	< 1.	< 1.	< 1.	0						
C 14	< 1.	< 1.	< 1.	0						
C 15	< 1.	< 1.	< 1.	0				101	70.	130.
C 16	< 1.	< 1.	< 1.	0						
C 17	< 1.	< 1.	< 1.	0						
C 18	< 1.	< 1.	< 1.	0						
C 19	< 1.	< 1.	< 1.	0						
C 20	< 1.	< 1.	< 1.	0				102	70.	130.
C 21	< 1.	< 1.	< 1.	0						
C 22	< 1.	< 1.	< 1.	0						
C 23	< 1.	< 1.	< 1.	0						
C 24	< 1.	< 1.	< 1.	0						
C 25	< 1.	< 1.	< 1.	0				96	71.	130.
C 26	< 1.	< 1.	< 1.	0						
C 27	< 1.	< 1.	< 1.	200						
C 28	< 1.	< 1.	< 1.	0						
C 29	< 1.	< 1.	< 1.	200						
C 30	< 1.	< 1.	< 1.	0				98	67.	130.
C 31	< 2.	< 2.	< 2.	200						
C 32	< 2.	(3.)	< 2.	128						
C 33	< 2.	8.	8.	5						
C 34	< 2.	5.	(4.)	21						
C 35	< 2.	(3.)	< 2.	43						
C 36	< 2.	(2.)	< 2.	74						
C 37	< 2.	(4.)	< 2.	69						
C 38	< 2.	< 2.	< 2.	43						
C 39	< 2.	< 2.	< 2.	28						
C 40	< 5.	< 5.	< 5.	58				100		
C 41	< 5.	< 5.	< 5.	0						
C 42	< 5.	< 5.	< 5.	25						
C 43	< 5.	< 5.	< 5.	0						
C 44	< 5.	< 5.	< 5.	0						
C 45	< 5.	< 5.	< 5.	0						

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 39-2
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-13
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 17, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

BATCH : 4,	BLANK	DUPLICATE			MATRIX SPIKE			CALIBRATION CHECK		
DATE : September 17, 1996	CONC.	CONC.1	CONC.2	RPD	RECOV	CONTROL LIMITS		RECOV	CONTROL LIMITS	
ANALYST:ZBN	mg/Kg	mg/Kg	mg/Kg	%	%	LOWER	UPPER	%	LOWER	UPPER
C 46	< 5.	< 5.	< 5.	27						
C 47	< 5.	< 5.	< 5.	0						
C 48	< 5.	< 5.	< 5.	16						
C 49	< 5.	< 5.	< 5.	0						
C 50	< 5.	< 5.	< 5.	7				101		
C 51	< 5.	< 5.	< 5.	32						
C 52	< 5.	< 5.	< 5.	6						
C 53	< 5.	(6.)	(6.)	2						
C 54	< 5.	< 5.	< 5.	81						
C 55	< 5.	< 5.	< 5.	0						
C 56	< 5.	< 5.	< 5.	0						
C 57	< 5.	< 5.	< 5.	0						
C 58	< 5.	< 5.	< 5.	0						
C 59	< 5.	< 5.	< 5.	0						
C 60	< 5.	< 5.	< 5.	0				102		

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 39-2
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-13
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 21, 1996

VOLATILE ORGANICS ANALYSIS - BTEX EPA METHOD 8260 MODIFIED

PARAMETER	CONC	BLANK CONC	UNITS	MDL
Benzene	< 0.0048	< 0.005	mg/Kg	0.0048
Ethylbenzene	< 0.0048	< 0.005	mg/Kg	0.0048
Toluene	< 0.0048	< 0.005	mg/Kg	0.0048
m & p-Xylene	< 0.0048	< 0.005	mg/Kg	0.0048
o-Xylene	< 0.0048	< 0.005	mg/Kg	0.0048

NOTES :

Results are reported in accordance with CCME guidelines, "Guidance Manual on Sampling, Analysis, and Data Management for Contaminated Sites, Volume I". All results are corrected for blank levels.

MDL - Method detection level. - Calculated on the basis of the instrument detection level, the dilution used, and the weight of the sample.

( ) - Bracketed results are values below the reliable detection level, and are subject to reduced levels of confidence. The reliable detection level is twice the method detection level.

QA/QC SUMMARY

All samples were spiked with a component whose recovery was monitored to maintain analysis accuracy.
Guidelines from SW846 for suggested surrogate recoveries for each matrix are shown below.
Results are uncorrected for moisture unless otherwise noted.

Instrument : GC/MS
Surrogate Recovery : 99% SOIL surrogate limits : 80% - 117%.

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 39-3
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-14
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 20, 1996

PARAMETER DESCRIPTION	NAQUADAT CODE	UNITS	RESULTS	DETECTION LIMIT
Total Mercury- (CVAA)		ug/kg	36.	20.
Barium (ICP)		ug/g	159.	1.
Beryllium (ICP)		ug/g	0.4	0.1
Cadmium (ICP)		ug/g	< 0.3	0.3
Chromium (ICP)		ug/g	88.5	0.2
Cobalt (ICP)		ug/g	17.0	0.3
Copper (ICP)		ug/g	36.1	0.1
Lead (ICP)		ug/g	18.	2.
Molybdenum (ICP)		ug/g	14.7	0.3
Nickel (ICP)		ug/g	59.0	0.5
Silver (ICP)		ug/g	< 0.2	0.2
Vanadium (ICP)		ug/g	107.	0.2
Zinc (ICP)		ug/g	84.3	0.1
Thallium (ICP-MS)		ug/g	0.10	0.02
Arsenic (ICP-MS)		ug/g	4.3	0.1
Selenium (ICP-MS)		ug/g	0.4	0.1
Antimony (ICP-MS)		ug/g	0.34	0.02
Tin (ICP-MS)		ug/g	3.22	0.02

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 39-3
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Station Code :

Chemex Worksheet Number : 96-03349-14
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

PARAMETER	DATE ANALYZED (DD-MM-YY)	QA/QC BATCH NUM ANAL	RELATIVE PERCENT DIFFERENCE	REFERENCE VALUE	CONTROL LIMITS LOWER	CONTROL LIMITS UPPER	CALIBRATION CHECK RECOV %	CONTROL LIMITS LOWER	CONTROL LIMITS UPPER
Total Mercury- (CVAA)	20-09-96	1 CH	2.40	0.17	0.11	0.20	NOT APPLICABLE		
Barium (ICP)	27-09-96	11 JCG	4.88	278.00	231.60	283.60	103.8	93.6	105.6
Beryllium (ICP)	27-09-96	11 JCG	3.92	3.95	3.26	4.91	102.9	89.2	110.9
Cadmium (ICP)	27-09-96	11 JCG	0.00	0.00	0.00	1.69	101.7	86.6	113.1
Chromium (ICP)	27-09-96	11 JCG	2.35	47.57	37.84	55.65	100.3	89.8	109.8
Cobalt (ICP)	27-09-96	11 JCG	0.96	19.57	14.89	21.09	100.4	88.3	107.8
Copper (ICP)	27-09-96	11 JCG	1.96	46.75	37.17	49.97	99.9	90.7	105.0
Lead (ICP)	27-09-96	11 JCG	0.00	28.79	19.91	34.23	99.9	91.6	106.7
Molybdenum (ICP)	27-09-96	11 JCG	6.37	21.00	9.96	21.51	101.5	90.5	109.8
Nickel (ICP)	27-09-96	11 JCG	4.70	40.95	35.56	48.92	97.7	90.4	108.1
Silver (ICP)	27-09-96	11 JCG	0.00	NOT APPLICABLE			102.4	93.1	104.1
Vanadium (ICP)	27-09-96	11 JCG	2.16	129.00	99.60	136.95	104.4	93.1	108.8
Zinc (ICP)	27-09-96	11 JCG	0.81	82.47	69.09	95.47	102.0	89.4	109.7
Thallium (ICP-MS)	26-09-96	21 WEM	12.32	NOT APPLICABLE			97.1	80.0	120.0
Arsenic (ICP-MS)	26-09-96	21 WEM	4.06	122.50	38.00	157.30	110.5	81.5	112.6
Selenium (ICP-MS)	26-09-96	21 WEM	50.00	7.81	0.85	18.23	102.6	86.0	105.9
Antimony (ICP-MS)	27-09-96	21 WEM	3.92	NOT APPLICABLE			109.7	80.0	120.0
Tin (ICP-MS)	27-09-96	21 WEM	22.35	NOT APPLICABLE			113.3	80.0	120.0

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 39-3
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-14
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 20, 1996

TOTAL EXTRACTABLE HYDROCARBONS METHOD MODIFIED ASTM D2887

COMPONENT	mg/Kg	BOILING RANGE	COMPONENT	mg/Kg	BOILING RANGE
C 08	< 1.	98.5 TO 125.7	C 35	20.	483.1 TO 491.0
C 09	< 1.	125.8 TO 150.8	C 36	9.	491.1 TO 498.0
C 10	< 1.	150.9 TO 174.2	C 37	5.	498.1 TO 505.0
C 11	< 1.	174.3 TO 196.0	C 38	10.	505.1 TO 512.0
C 12	< 1.	196.1 TO 216.0	C 39	5.	512.1 TO 519.0
C 13	< 1.	216.1 TO 236.0	C 40	(6.)	519.1 TO 525.0
C 14	< 1.	236.1 TO 253.0	C 41	(7.)	525.1 TO 535.0
C 15	< 1.	253.1 TO 271.0	C 42	< 5.	531.1 TO 537.0
C 16	< 1.	271.1 TO 287.0	C 43	(7.)	537.1 TO 543.0
C 17	< 1.	287.1 TO 302.0	C 44	< 5.	543.1 TO 548.0
C 18	< 1.	302.1 TO 317.0	C 45	(6.)	548.1 TO 554.0
C 19	< 1.	317.1 TO 331.0	C 46	(6.)	554.1 TO 559.0
C 20	< 1.	331.1 TO 344.0	C 47	(7.)	559.1 TO 565.0
C 21	< 1.	344.1 TO 357.0	C 48	< 5.	565.1 TO 570.0
C 22	< 1.	357.1 TO 366.0	C 49	10.	570.1 TO 576.0
C 23	< 1.	366.1 TO 380.0	C 50	(8.)	576.1 TO 581.0
C 24	< 1.	380.1 TO 391.0	C 51	10.	581.1 TO 584.0
C 25	3.	391.1 TO 402.0	C 52	20.	584.1 TO 588.0
C 26	(2.)	402.1 TO 412.0	C 53	(6.)	588.1 TO 592.0
C 27	5.	412.1 TO 422.0	C 54	(9.)	592.1 TO 596.0
C 28	5.	422.1 TO 432.0	C 55	< 5.	596.1 TO 600.0
C 29	6.	432.1 TO 441.0	C 56	< 5.	600.1 TO 604.0
C 30	8.	441.1 TO 449.0	C 57	< 5.	604.1 TO 608.0
C 31	10.	449.1 TO 459.0	C 58	< 5.	608.1 TO 612.0
C 32	29.	459.1 TO 468.0	C 59	< 5.	612.1 TO 615.0
C 33	20.	468.1 TO 476.0	C 60	< 5.	615.1 TO 619.0
C 34	20.	476.1 TO 483.0			

Average molecular weight : 511 AMU

TOTAL HYDROCARBONS C8-C10 N.D.
TOTAL HYDROCARBONS C11-C60 260. mg/Kg

Surrogate recovery : 103% SOIL surrogate limits : 66% - 140%.

MDL per component : 1. mg/Kg below C31 and 2. mg/Kg above C30
5. mg/Kg above C39 and 5. mg/Kg above C49

Results are reported in accordance with CCME guidelines. All results are corrected for blank levels.

MDL - Method detection level. The reliable detection level is twice the method detection level.

( ) - Bracketed results are values below the reliable detection level, and are subject to reduced levels of confidence.

Results are uncorrected for moisture unless otherwise noted.

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 39-3
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-14
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 20, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

BATCH : 4	BLANK	DUPLICATE			MATRIX SPIKE			CALIBRATION CHECK		
DATE : September 20, 1996	CONC.	CONC.1	CONC.2	RPD	RECOV	CONTROL LIMITS		RECOV	CONTROL LIMITS	
ANALYST:ZBN	mg/Kg	mg/Kg	mg/Kg	%	%	LOWER	UPPER	%	LOWER	UPPER
C 08	< 1.							107	73.	130.
C 09	< 1.							97	74.	120.
C 10	< 1.							102	69.	130.
C 11	< 1.									
C 12	< 1.									
C 13	< 1.									
C 14	< 1.									
C 15	< 1.							101	70.	130.
C 16	< 1.									
C 17	< 1.									
C 18	< 1.									
C 19	< 1.									
C 20	< 1.							102	70.	130.
C 21	< 1.									
C 22	< 1.									
C 23	< 1.									
C 24	< 1.									
C 25	< 1.							115	71.	130.
C 26	< 1.									
C 27	< 1.									
C 28	< 1.									
C 29	< 1.									
C 30	< 1.							116	67.	130.
C 31	< 2.									
C 32	< 2.									
C 33	< 2.									
C 34	< 2.									
C 35	< 2.									
C 36	< 2.									
C 37	< 2.									
C 38	< 2.									
C 39	< 2.									
C 40	< 5.							116		
C 41	< 5.									
C 42	< 5.									
C 43	< 5.									
C 44	< 5.									
C 45	< 5.									

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 39-3
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-14
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 20, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

BATCH : 4	BLANK	DUPLICATE			MATRIX SPIKE			CALIBRATION CHECK		
DATE : September 20, 1996	CONC.	CONC.1	CONC.2	RPD	RECOV	CONTROL LIMITS		RECOV	CONTROL LIMITS	
ANALYST:ZBN	mg/Kg	mg/Kg	mg/Kg	%	%	LOWER	UPPER	%	LOWER	UPPER
C 46	< 5.									
C 47	< 5.									
C 48	< 5.									
C 49	< 5.									
C 50	< 5.							92		
C 51	< 5.									
C 52	< 5.									
C 53	< 5.									
C 54	< 5.									
C 55	< 5.									
C 56	< 5.									
C 57	< 5.									
C 58	< 5.									
C 59	< 5.									
C 60	< 5.							69		

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 39-1
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-15
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 20, 1996

PARAMETER DESCRIPTION	NAQUADAT CODE	UNITS	RESULTS	DETECTION LIMIT
Total Mercury- (CVAA)		ug/kg	57.	20.
Barium (ICP)		ug/g	72.9	1.
Beryllium (ICP)		ug/g	0.6	0.1
Cadmium (ICP)		ug/g	< 0.3	0.3
Chromium (ICP)		ug/g	48.4	0.2
Cobalt (ICP)		ug/g	17.1	0.3
Copper (ICP)		ug/g	62.9	0.1
Lead (ICP)		ug/g	8.	2.
Molybdenum (ICP)		ug/g	15.6	0.3
Nickel (ICP)		ug/g	29.4	0.5
Silver (ICP)		ug/g	< 0.2	0.2
Vanadium (ICP)		ug/g	98.0	0.2
Zinc (ICP)		ug/g	91.1	0.1
Thallium (ICP-MS)		ug/g	0.08	0.02
Arsenic (ICP-MS)		ug/g	7.5	0.1
Selenium (ICP-MS)		ug/g	< 0.1	0.1
Antimony (ICP-MS)		ug/g	0.12	0.02
Tin (ICP-MS)		ug/g	0.53	0.02

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 39-1
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Station Code :

Chemex Worksheet Number : 96-03349-15
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

PARAMETER	DATE ANALYZED (DD-MM-YY)	QA/QC BATCH NUM ANAL	RELATIVE PERCENT DIFFERENCE	REFERENCE VALUE	REFERENCE CONTROL LIMITS LOWER	REFERENCE CONTROL LIMITS UPPER	CALIBRATION CHECK RECOV %	CALIBRATION CHECK CONTROL LIMITS LOWER	CALIBRATION CHECK CONTROL LIMITS UPPER
Total Mercury- (CVAA)	20-09-96	1 CH	2.40	0.17	0.11	0.20	NOT APPLICABLE		
Barium (ICP)	27-09-96	11 JCG	4.88	278.00	231.60	283.60	103.8	93.6	105.6
Beryllium (ICP)	27-09-96	11 JCG	3.92	3.95	3.26	4.91	102.9	89.2	110.9
Cadmium (ICP)	27-09-96	11 JCG	0.00	0.00	0.00	1.69	101.7	86.6	113.1
Chromium (ICP)	27-09-96	11 JCG	2.35	47.57	37.84	55.65	100.3	89.8	109.8
Cobalt (ICP)	27-09-96	11 JCG	0.96	19.57	14.89	21.09	100.4	88.3	107.8
Copper (ICP)	27-09-96	11 JCG	1.96	46.75	37.17	49.97	99.9	90.7	105.0
Lead (ICP)	27-09-96	11 JCG	0.00	28.79	19.91	34.23	99.9	91.6	106.7
Molybdenum (ICP)	27-09-96	11 JCG	6.37	21.00	9.96	21.51	101.5	90.5	109.8
Nickel (ICP)	27-09-96	11 JCG	4.70	40.95	35.56	48.92	97.7	90.4	108.1
Silver (ICP)	27-09-96	11 JCG	0.00	NOT APPLICABLE			102.4	93.1	104.1
Vanadium (ICP)	27-09-96	11 JCG	2.16	129.00	99.60	136.95	104.4	93.1	108.8
Zinc (ICP)	27-09-96	11 JCG	0.81	82.47	69.09	95.47	102.0	89.4	109.7
Thallium (ICP-MS)	26-09-96	21 WEM	12.32	NOT APPLICABLE			97.1	80.0	120.0
Arsenic (ICP-MS)	26-09-96	21 WEM	4.06	122.50	38.00	157.30	110.5	81.5	112.6
Selenium (ICP-MS)	26-09-96	21 WEM	50.00	7.81	0.85	18.23	102.6	86.0	105.9
Antimony (ICP-MS)	27-09-96	21 WEM	3.92	NOT APPLICABLE			109.7	80.0	120.0
Tin (ICP-MS)	27-09-96	21 WEM	22.35	NOT APPLICABLE			113.3	80.0	120.0

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 39-4
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-16
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 21, 1996

VOLATILE ORGANICS ANALYSIS - BTEX EPA METHOD 8260 MODIFIED

PARAMETER	CONC	BLANK CONC	UNITS	MDL
Benzene	< 0.0041	< 0.005	mg/Kg	0.0041
Ethylbenzene	< 0.0041	< 0.005	mg/Kg	0.0041
Toluene	< 0.0041	< 0.005	mg/Kg	0.0041
m & p-Xylene	< 0.0041	< 0.005	mg/Kg	0.0041
o-Xylene	< 0.0041	< 0.005	mg/Kg	0.0041

NOTES :

Results are reported in accordance with CCME guidelines, "Guidance Manual on Sampling, Analysis, and Data Management for Contaminated Sites, Volume I". All results are corrected for blank levels.

MDL - Method detection level. - Calculated on the basis of the instrument detection level, the dilution used, and the weight of the sample.

( ) - Bracketed results are values below the reliable detection level, and are subject to reduced levels of confidence. The reliable detection level is twice the method detection level.

QA/QC SUMMARY

All samples were spiked with a component whose recovery was monitored to maintain analysis accuracy.
Guidelines from SW846 for suggested surrogate recoveries for each matrix are shown below.
Results are uncorrected for moisture unless otherwise noted.

Instrument : GC/MS
Surrogate Recovery : 98% SOIL surrogate limits : 80% - 117%.

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 39-7
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-17
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 20, 1996

TOTAL EXTRACTABLE HYDROCARBONS METHOD MODIFIED ASTM D2887

COMPONENT	mg/Kg	BOILING RANGE	COMPONENT	mg/Kg	BOILING RANGE
C 08	< 1.	98.5 TO 125.7	C 35	(3.)	483.1 TO 491.0
C 09	< 1.	125.8 TO 150.8	C 36	< 2.	491.1 TO 498.0
C 10	(2.)	150.9 TO 174.2	C 37	4.	498.1 TO 505.0
C 11	< 1.	174.3 TO 196.0	C 38	(3.)	505.1 TO 512.0
C 12	< 1.	196.1 TO 216.0	C 39	< 2.	512.1 TO 519.0
C 13	< 1.	216.1 TO 236.0	C 40	< 6.	519.1 TO 525.0
C 14	< 1.	236.1 TO 253.0	C 41	< 6.	525.1 TO 535.0
C 15	< 1.	253.1 TO 271.0	C 42	< 6.	531.1 TO 537.0
C 16	< 1.	271.1 TO 287.0	C 43	< 6.	537.1 TO 543.0
C 17	< 1.	287.1 TO 302.0	C 44	< 6.	543.1 TO 548.0
C 18	< 1.	302.1 TO 317.0	C 45	< 6.	548.1 TO 554.0
C 19	< 1.	317.1 TO 331.0	C 46	< 6.	554.1 TO 559.0
C 20	< 1.	331.1 TO 344.0	C 47	< 6.	559.1 TO 565.0
C 21	< 1.	344.1 TO 357.0	C 48	< 6.	565.1 TO 570.0
C 22	< 1.	357.1 TO 366.0	C 49	< 6.	570.1 TO 576.0
C 23	(2.)	366.1 TO 380.0	C 50	< 6.	576.1 TO 581.0
C 24	4.	380.1 TO 391.0	C 51	< 6.	581.1 TO 584.0
C 25	3.	391.1 TO 402.0	C 52	< 6.	584.1 TO 588.0
C 26	2.	402.1 TO 412.0	C 53	< 6.	588.1 TO 592.0
C 27	3.	412.1 TO 422.0	C 54	< 6.	592.1 TO 596.0
C 28	3.	422.1 TO 432.0	C 55	< 6.	596.1 TO 600.0
C 29	3.	432.1 TO 441.0	C 56	< 6.	600.1 TO 604.0
C 30	3.	441.1 TO 449.0	C 57	< 6.	604.1 TO 608.0
C 31	5.	449.1 TO 459.0	C 58	< 6.	608.1 TO 612.0
C 32	7.	459.1 TO 468.0	C 59	< 6.	612.1 TO 615.0
C 33	5.	468.1 TO 476.0	C 60	< 6.	615.1 TO 619.0
C 34	(3.)	476.1 TO 483.0			

Average molecular weight : 388 AMU

TOTAL HYDROCARBONS C8-C10 (2.) mg/Kg
TOTAL HYDROCARBONS C11-C60 53. mg/Kg

Surrogate recovery : 103% SOIL surrogate limits : 66% - 140%.

MDL per component : 1. mg/Kg below C31 and 2. mg/Kg above C30
6. mg/Kg above C39 and 6. mg/Kg above C49

Results are reported in accordance with CCME guidelines. All results are corrected for blank levels.

MDL - Method detection level. The reliable detection level is twice the method detection level.

( ) - Bracketed results are values below the reliable detection level, and are subject to reduced levels of confidence.

Results are uncorrected for moisture unless otherwise noted.

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 39-7
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-17
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 20, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

BATCH : 4	BLANK	DUPLICATE			MATRIX SPIKE			CALIBRATION CHECK		
DATE : September 20, 1996	CONC.	CONC.1	CONC.2	RPD	RECOV	CONTROL LIMITS		RECOV	CONTROL LIMITS	
ANALYST:ZBN	mg/Kg	mg/Kg	mg/Kg	%	%	LOWER	UPPER	%	LOWER	UPPER
C 08	< 1.							107	73.	130.
C 09	< 1.							97	74.	120.
C 10	< 1.							102	69.	130.
C 11	< 1.									
C 12	< 1.									
C 13	< 1.									
C 14	< 1.									
C 15	< 1.							101	70.	130.
C 16	< 1.									
C 17	< 1.									
C 18	< 1.									
C 19	< 1.									
C 20	< 1.							102	70.	130.
C 21	< 1.									
C 22	< 1.									
C 23	< 1.									
C 24	< 1.									
C 25	< 1.							115	71.	130.
C 26	< 1.									
C 27	< 1.									
C 28	< 1.									
C 29	< 1.									
C 30	< 1.							116	67.	130.
C 31	< 2.									
C 32	< 2.									
C 33	< 2.									
C 34	< 2.									
C 35	< 2.									
C 36	< 2.									
C 37	< 2.									
C 38	< 2.									
C 39	< 2.									
C 40	< 5.							116		
C 41	< 5.									
C 42	< 5.									
C 43	< 5.									
C 44	< 5.									
C 45	< 5.									

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 39-7
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : COMPOSITE
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-17
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : September 30, 1996
Analysis Date : September 20, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

BATCH : 4	BLANK	DUPLICATE			MATRIX SPIKE			CALIBRATION CHECK		
DATE : September 20, 1996	CONC.	CONC.1	CONC.2	RPD	RECOV	CONTROL LIMITS		RECOV	CONTROL LIMITS	
ANALYST:ZBN	mg/Kg	mg/Kg	mg/Kg	%	%	LOWER	UPPER	%	LOWER	UPPER
C 46	< 5.									
C 47	< 5.									
C 48	< 5.									
C 49	< 5.									
C 50	< 5.							92		
C 51	< 5.									
C 52	< 5.									
C 53	< 5.									
C 54	< 5.									
C 55	< 5.									
C 56	< 5.									
C 57	< 5.									
C 58	< 5.									
C 59	< 5.									
C 60	< 5.							69		

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 30-W2
Sample Date & Time : 06-09-96
Sampled By : SM
Sample Type : GRAB
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-19
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : WATER
Report Date : September 30, 1996
Analysis Date : September 26, 1996

PARAMETER DESCRIPTION	NAQUADAT CODE	UNITS	RESULTS	DETECTION LIMIT
Aluminum - Total (ICP-AES)	013009	mg/L	33.2	0.01
Arsenic - Total (AA)	033005	mg/L	0.0007	0.0002
Cadmium - Total (ICP-MS)	048023	mg/L	0.0039	0.0002
Chromium - Total (ICP-AES)	024009	mg/L	0.097	0.002
Copper - Total (ICP-AES)	029501	mg/L	0.134	0.001
Iron - Total (ICP-AES)	026009	mg/L	92.4	0.01
Lead - Total (ICP-MS)	082016	mg/L	0.162	0.0003
Mercury - Total (CVAA)	080011	ug/L	< 0.05	0.05
Nickel - Total (ICP-MS)	028016	mg/L	0.0063	0.0005
Selenium - Total (AA)	034005	mg/L	0.0016	0.0002
Silver - Total (ICP-MS)	047016	mg/L	0.0011	0.0001
Zinc - Total (ICP-AES)	030501	mg/L	0.276	0.001

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 30-W2
Sample Date & Time : 06-09-96
Sampled By : SM
Sample Type : GRAB
Sample Station Code :

Chemex Worksheet Number : 96-03349-19
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : WATER
Report Date : September 30, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

PARAMETER	DATE ANALYZED (DD-MM-YY)	QA/QC BATCH NUM ANAL	DUP Rr	MATRIX SPIKES RECOV %	MATRIX SPIKES CONTROL LIMITS LOWER	MATRIX SPIKES CONTROL LIMITS UPPER	CALIBRATION CHECK RECOV %	CALIBRATION CHECK CONTROL LIMITS LOWER	CALIBRATION CHECK CONTROL LIMITS UPPER
Aluminum - Total (ICP-AES)	26-09-96	10 SW	0.0	99.4	89.8	115.5	100.1	94.2	111.5
Arsenic - Total (AA)	23-09-96	1 RJL	0.0	105.9	72.1	119.4	113.7	75.3	122.4
Cadmium - Total (ICP-MS)	27-09-96	20 WEM	3.2	92.0	78.1	120.3	100.2	83.4	114.8
Chromium - Total (ICP-AES)	26-09-96	10 SW	0.0	98.7	87.0	116.3	96.3	89.8	109.8
Copper - Total (ICP-AES)	26-09-96	10 SW	1.0	100.0	90.1	104.7	97.8	90.7	105.0
Iron - Total (ICP-AES)	26-09-96	10 SW	0.0	96.5	88.8	114.6	98.2	92.2	112.0
Lead - Total (ICP-MS)	27-09-96	20 WEM	0.4	99.8	80.5	116.9	97.6	77.8	129.8
Mercury - Total (CVAA)	26-09-96	2 CH	0.0	108.0	66.0	132.7	82.5	69.9	131.2
Nickel - Total (ICP-MS)	27-09-96	20 WEM	3.2	103.8	78.4	116.6	113.6	83.3	118.4
Selenium - Total (AA)	23-09-96	1 RJL	0.0	98.0	79.2	120.7	102.0	76.6	122.4
Silver - Total (ICP-MS)	27-09-96	20 WEM	3.2	95.2	77.7	117.7	100.8	87.3	111.0
Zinc - Total (ICP-AES)	26-09-96	10 SW	0.0	100.6	86.1	117.4	97.7	89.4	109.7

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 44-W1
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : GRAB
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-20
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : WATER
Report Date : September 30, 1996
Analysis Date : September 26, 1996

PARAMETER DESCRIPTION	NAQUADAT CODE	UNITS	RESULTS		DETECTION LIMIT
Aluminum - Total (ICP-AES)	013009	mg/L		0.21	0.01
Arsenic - Total (AA)	033005	mg/L	<	0.0002	0.0002
Cadmium - Total (ICP-MS)	048023	mg/L	<	0.0002	0.0002
Chromium - Total (ICP-AES)	024009	mg/L		0.015	0.002
Copper - Total (ICP-AES)	029501	mg/L		0.001	0.001
Iron - Total (ICP-AES)	026009	mg/L		0.38	0.01
Lead - Total (ICP-MS)	082016	mg/L		0.0009	0.0003
Mercury - Total (CVAA)	080011	ug/L	<	0.05	0.05
Nickel - Total (ICP-MS)	028016	mg/L	<	0.0005	0.0005
Selenium - Total (AA)	034005	mg/L		0.0002	0.0002
Silver - Total (ICP-MS)	047016	mg/L	<	0.0001	0.0001
Zinc - Total (ICP-AES)	030501	mg/L		0.044	0.001

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 44-W1
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : GRAB
Sample Station Code :

Chemex Worksheet Number : 96-03349-20
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : WATER
Report Date : September 30, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

PARAMETER	DATE ANALYZED (DD-MM-YY)	QA/QC BATCH NUM ANAL	DUP Rr	MATRIX SPIKES RECOV %	MATRIX SPIKES CONTROL LIMITS LOWER	MATRIX SPIKES CONTROL LIMITS UPPER	CALIBRATION CHECK RECOV %	CALIBRATION CHECK CONTROL LIMITS LOWER	CALIBRATION CHECK CONTROL LIMITS UPPER
Aluminum - Total (ICP-AES)	26-09-96	10 SW	0.0	99.4	89.8	115.5	100.1	94.2	111.5
Arsenic - Total (AA)	23-09-96	1 RJL	0.0	105.9	72.1	119.4	113.7	75.3	122.4
Cadmium - Total (ICP-MS)	27-09-96	20 WEM	3.2	92.0	78.1	120.3	100.2	83.4	114.8
Chromium - Total (ICP-AES)	26-09-96	10 SW	0.0	98.7	87.0	116.3	96.3	89.8	109.8
Copper - Total (ICP-AES)	26-09-96	10 SW	1.0	100.0	90.1	104.7	97.8	90.7	105.0
Iron - Total (ICP-AES)	26-09-96	10 SW	0.0	96.5	88.8	114.6	98.2	92.2	112.0
Lead - Total (ICP-MS)	27-09-96	20 WEM	0.4	99.8	80.5	116.9	97.6	77.8	129.8
Mercury - Total (CVAA)	26-09-96	2 CH	0.0	108.0	66.0	132.7	82.5	69.9	131.2
Nickel - Total (ICP-MS)	27-09-96	20 WEM	3.2	103.8	78.4	116.6	113.6	83.3	118.4
Selenium - Total (AA)	23-09-96	1 RJL	0.0	98.0	79.2	120.7	102.0	76.6	122.4
Silver - Total (ICP-MS)	27-09-96	20 WEM	3.2	95.2	77.7	117.7	100.8	87.3	111.0
Zinc - Total (ICP-AES)	26-09-96	10 SW	0.0	100.6	86.1	117.4	97.7	89.4	109.7

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 44-W3
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : GRAB
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-21
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : WATER
Report Date : September 30, 1996
Analysis Date : September 26, 1996

PARAMETER DESCRIPTION	NAQUADAT CODE	UNITS	RESULTS	DETECTION LIMIT
Aluminum - Total (ICP-AES)	013009	mg/L	0.14	0.01
Arsenic - Total (AA)	033005	mg/L	0.0003	0.0002
Cadmium - Total (ICP-MS)	048023	mg/L	< 0.0002	0.0002
Chromium - Total (ICP-AES)	024009	mg/L	0.006	0.002
Copper - Total (ICP-AES)	029501	mg/L	0.003	0.001
Iron - Total (ICP-AES)	026009	mg/L	0.16	0.01
Lead - Total (ICP-MS)	082016	mg/L	< 0.0003	0.0003
Mercury - Total (CVAA)	080011	ug/L	< 0.05	0.05
Nickel - Total (ICP-MS)	028016	mg/L	< 0.0005	0.0005
Selenium - Total (AA)	034005	mg/L	< 0.0002	0.0002
Silver - Total (ICP-MS)	047016	mg/L	< 0.0001	0.0001
Zinc - Total (ICP-AES)	030501	mg/L	0.024	0.001

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 44-W3
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : GRAB
Sample Station Code :

Chemex Worksheet Number : 96-03349-21
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : WATER
Report Date : September 30, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

PARAMETER	DATE ANALYZED (DD-MM-YY)	QA/QC BATCH NUM	ANAL	DUP Rr	MATRIX SPIKES RECOV %	CONTROL LIMITS LOWER	CONTROL LIMITS UPPER	CALIBRATION CHECK RECOV %	CONTROL LIMITS LOWER	CONTROL LIMITS UPPER
Aluminum - Total (ICP-AES)	26-09-96	10	SW	0.0	99.4	89.8	115.5	100.1	94.2	111.5
Arsenic - Total (AA)	23-09-96	1	RJL	0.0	105.9	72.1	119.4	113.7	75.3	122.4
Cadmium - Total (ICP-MS)	27-09-96	20	WEM	3.2	92.0	78.1	120.3	100.2	83.4	114.8
Chromium - Total (ICP-AES)	26-09-96	10	SW	0.0	98.7	87.0	116.3	96.3	89.8	109.8
Copper - Total (ICP-AES)	26-09-96	10	SW	1.0	100.0	90.1	104.7	97.8	90.7	105.0
Iron - Total (ICP-AES)	26-09-96	10	SW	0.0	96.5	88.8	114.6	98.2	92.2	112.0
Lead - Total (ICP-MS)	27-09-96	20	WEM	0.4	99.8	80.5	116.9	97.6	77.8	129.8
Mercury - Total (CVAA)	26-09-96	2	CH	0.0	108.0	66.0	132.7	82.5	69.9	131.2
Nickel - Total (ICP-MS)	27-09-96	20	WEM	3.2	103.8	78.4	116.6	113.6	83.3	118.4
Selenium - Total (AA)	23-09-96	1	RJL	0.0	98.0	79.2	120.7	102.0	76.6	122.4
Silver - Total (ICP-MS)	27-09-96	20	WEM	3.2	95.2	77.7	117.7	100.8	87.3	111.0
Zinc - Total (ICP-AES)	26-09-96	10	SW	0.0	100.6	86.1	117.4	97.7	89.4	109.7

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 44-W7
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : GRAB
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-22
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : WATER
Report Date : September 30, 1996
Analysis Date : September 26, 1996

PARAMETER DESCRIPTION	NAQUADAT CODE	UNITS	RESULTS	DETECTION LIMIT
Aluminum - Total (ICP-AES)	013009	mg/L	419.	0.01
Arsenic - Total (AA)	033005	mg/L	0.150	0.0002
Cadmium - Total (ICP-MS)	048023	mg/L	0.0034	0.0002
Chromium - Total (ICP-AES)	024009	mg/L	0.957	0.002
Copper - Total (ICP-AES)	029501	mg/L	1.02	0.001
Iron - Total (ICP-AES)	026009	mg/L	640.	0.01
Lead - Total (ICP-MS)	082016	mg/L	0.153	0.0003
Mercury - Total (CVAA)	080011	ug/L	< 0.05	0.05
Nickel - Total (ICP-MS)	028016	mg/L	< 0.0005	0.0005
Selenium - Total (AA)	034005	mg/L	0.0019	0.0002
Silver - Total (ICP-MS)	047016	mg/L	0.0044	0.0001
Zinc - Total (ICP-AES)	030501	mg/L	1.71	0.001

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 44-W7
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : GRAB
Sample Station Code :

Chemex Worksheet Number : 96-03349-22
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : WATER
Report Date : September 30, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

PARAMETER	DATE ANALYZED (DD-MM-YY)	QA/QC BATCH NUM	ANAL	DUP Rr	MATRIX SPIKES RECOV %	CONTROL LIMITS LOWER	CONTROL LIMITS UPPER	CALIBRATION CHECK RECOV %	CONTROL LIMITS LOWER	CONTROL LIMITS UPPER
Aluminum - Total (ICP-AES)	26-09-96	10	SW	0.0	99.4	89.8	115.5	100.1	94.2	111.5
Arsenic - Total (AA)	23-09-96	1	RJL	0.0	105.9	72.1	119.4	113.7	75.3	122.4
Cadmium - Total (ICP-MS)	27-09-96	20	WEM	3.2	92.0	78.1	120.3	100.2	83.4	114.8
Chromium - Total (ICP-AES)	26-09-96	10	SW	0.0	98.7	87.0	116.3	96.3	89.8	109.8
Copper - Total (ICP-AES)	26-09-96	10	SW	1.0	100.0	90.1	104.7	97.8	90.7	105.0
Iron - Total (ICP-AES)	26-09-96	10	SW	0.0	96.5	88.8	114.6	98.2	92.2	112.0
Lead - Total (ICP-MS)	27-09-96	20	WEM	0.4	99.8	80.5	116.9	97.6	77.8	129.8
Mercury - Total (CVAA)	26-09-96	2	CH	0.0	108.0	66.0	132.7	82.5	69.9	131.2
Nickel - Total (ICP-MS)	27-09-96	20	WEM	3.2	103.8	78.4	116.6	113.6	83.3	118.4
Selenium - Total (AA)	23-09-96	1	RJL	0.0	98.0	79.2	120.7	102.0	76.6	122.4
Silver - Total (ICP-MS)	27-09-96	20	WEM	3.2	95.2	77.7	117.7	100.8	87.3	111.0
Zinc - Total (ICP-AES)	26-09-96	10	SW	0.0	100.6	86.1	117.4	97.7	89.4	109.7

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 44-W5
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : GRAB
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-23
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : WATER
Report Date : September 30, 1996
Analysis Date : September 26, 1996

PARAMETER DESCRIPTION	NAQUADAT CODE	UNITS	RESULTS		DETECTION LIMIT
Aluminum - Total (ICP-AES)	013009	mg/L		0.36	0.01
Arsenic - Total (AA)	033005	mg/L		0.0016	0.0002
Cadmium - Total (ICP-MS)	048023	mg/L	<	0.0002	0.0002
Chromium - Total (ICP-AES)	024009	mg/L		0.016	0.002
Copper - Total (ICP-AES)	029501	mg/L		0.003	0.001
Iron - Total (ICP-AES)	026009	mg/L		0.58	0.01
Lead - Total (ICP-MS)	082016	mg/L		0.0004	0.0003
Mercury - Total (CVAA)	080011	ug/L	<	0.05	0.05
Nickel - Total (ICP-MS)	028016	mg/L	<	0.0005	0.0005
Selenium - Total (AA)	034005	mg/L		0.0004	0.0002
Silver - Total (ICP-MS)	047016	mg/L	<	0.0001	0.0001
Zinc - Total (ICP-AES)	030501	mg/L		0.018	0.001

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 44-W5
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : GRAB
Sample Station Code :

Chemex Worksheet Number : 96-03349-23
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : WATER
Report Date : September 30, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

PARAMETER	DATE ANALYZED (DD-MM-YY)	QA/QC BATCH NUM	ANAL	DUP Rr	MATRIX SPIKES RECOV %	CONTROL LIMITS LOWER	CONTROL LIMITS UPPER	CALIBRATION CHECK RECOV %	CONTROL LIMITS LOWER	CONTROL LIMITS UPPER
Aluminum - Total (ICP-AES)	26-09-96	10	SW	0.0	99.4	89.8	115.5	100.1	94.2	111.5
Arsenic - Total (AA)	23-09-96	1	RJL	0.0	105.9	72.1	119.4	113.7	75.3	122.4
Cadmium - Total (ICP-MS)	27-09-96	20	WEM	3.2	92.0	78.1	120.3	100.2	83.4	114.8
Chromium - Total (ICP-AES)	26-09-96	10	SW	0.0	98.7	87.0	116.3	96.3	89.8	109.8
Copper - Total (ICP-AES)	26-09-96	10	SW	1.0	100.0	90.1	104.7	97.8	90.7	105.0
Iron - Total (ICP-AES)	26-09-96	10	SW	0.0	96.5	88.8	114.6	98.2	92.2	112.0
Lead - Total (ICP-MS)	27-09-96	20	WEM	0.4	99.8	80.5	116.9	97.6	77.8	129.8
Mercury - Total (CVAA)	26-09-96	2	CH	0.0	108.0	66.0	132.7	82.5	69.9	131.2
Nickel - Total (ICP-MS)	27-09-96	20	WEM	3.2	103.8	78.4	116.6	113.6	83.3	118.4
Selenium - Total (AA)	23-09-96	1	RJL	0.0	98.0	79.2	120.7	102.0	76.6	122.4
Silver - Total (ICP-MS)	27-09-96	20	WEM	3.2	95.2	77.7	117.7	100.8	87.3	111.0
Zinc - Total (ICP-AES)	26-09-96	10	SW	0.0	100.6	86.1	117.4	97.7	89.4	109.7

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 44-W6
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : GRAB
Sample Received Date : September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-24
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : WATER
Report Date : September 30, 1996
Analysis Date : September 18, 1996

TOTAL EXTRACTABLE HYDROCARBONS METHOD MODIFIED ASTM D2887

COMPONENT	mg/L	BOILING RANGE	COMPONENT	mg/L	BOILING RANGE
C 08	< 0.04	98.5 TO 125.7	C 35	< 0.08	483.1 TO 491.0
C 09	< 0.04	125.8 TO 150.8	C 36	< 0.08	491.1 TO 498.0
C 10	< 0.04	150.9 TO 174.2	C 37	< 0.08	498.1 TO 505.0
C 11	< 0.04	174.3 TO 196.0	C 38	< 0.08	505.1 TO 512.0
C 12	< 0.04	196.1 TO 216.0	C 39	< 0.08	512.1 TO 519.0
C 13	< 0.04	216.1 TO 236.0	C 40	< 0.2	519.1 TO 525.0
C 14	< 0.04	236.1 TO 253.0	C 41	< 0.2	525.1 TO 535.0
C 15	< 0.04	253.1 TO 271.0	C 42	< 0.2	531.1 TO 537.0
C 16	< 0.04	271.1 TO 287.0	C 43	< 0.2	537.1 TO 543.0
C 17	< 0.04	287.1 TO 302.0	C 44	< 0.2	543.1 TO 548.0
C 18	< 0.04	302.1 TO 317.0	C 45	< 0.2	548.1 TO 554.0
C 19	< 0.04	317.1 TO 331.0	C 46	< 0.2	554.1 TO 559.0
C 20	< 0.04	331.1 TO 344.0	C 47	< 0.2	559.1 TO 565.0
C 21	< 0.04	344.1 TO 357.0	C 48	< 0.2	565.1 TO 570.0
C 22	< 0.04	357.1 TO 366.0	C 49	< 0.2	570.1 TO 576.0
C 23	< 0.04	366.1 TO 380.0	C 50	< 0.2	576.1 TO 581.0
C 24	< 0.04	380.1 TO 391.0	C 51	< 0.2	581.1 TO 584.0
C 25	< 0.04	391.1 TO 402.0	C 52	< 0.2	584.1 TO 588.0
C 26	< 0.04	402.1 TO 412.0	C 53	< 0.2	588.1 TO 592.0
C 27	< 0.04	412.1 TO 422.0	C 54	< 0.2	592.1 TO 596.0
C 28	< 0.04	422.1 TO 432.0	C 55	< 0.2	596.1 TO 600.0
C 29	< 0.04	432.1 TO 441.0	C 56	< 0.2	600.1 TO 604.0
C 30	< 0.04	441.1 TO 449.0	C 57	< 0.2	604.1 TO 608.0
C 31	< 0.08	449.1 TO 459.0	C 58	< 0.2	608.1 TO 612.0
C 32	< 0.08	459.1 TO 468.0	C 59	< 0.2	612.1 TO 615.0
C 33	< 0.08	468.1 TO 476.0	C 60	< 0.2	615.1 TO 619.0
C 34	< 0.08	476.1 TO 483.0			

Average molecular weight : N.D. AMU

TOTAL HYDROCARBONS C8-C10 N.D.
TOTAL HYDROCARBONS C11-C60 N.D.

Surrogate recovery : 108% WATER surrogate limits : 57% - 135%.

MDL per component : 0.04 mg/L below C31 and 0.08 mg/L above C30
0.2 mg/L above C39 and 0.2 mg/L above C49

Results are reported in accordance with CCME guidelines. All results are corrected for blank levels.

MDL - Method detection level. The reliable detection level is twice the method detection level.

( ) - Bracketed results are values below the reliable detection level, and are subject to reduced levels of confidence.

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CCSG ASSOCIATES
ATTENTION : SUE MOODI

Sample Description : 44-W6
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : GRAB
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-24
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : WATER
Report Date : September 30, 1996
Analysis Date : September 18, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

BATCH : 3	BLANK	DUPLICATE			MATRIX SPIKE			CALIBRATION CHECK		
DATE : September 18, 1996	CONC.	CONC.1	CONC.2	RPD	RECOV	CONTROL LIMITS		RECOV	CONTROL LIMITS	
ANALYST:ZBN	mg/L	mg/L	mg/L	%	%	LOWER	UPPER	%	LOWER	UPPER
C 08	< 0.01							107	73.	13[illegible]
C 09	< 0.01							105	74.	12[illegible]
C 10	< 0.01							102	69.	130.
C 11	< 0.01									
C 12	< 0.01									
C 13	< 0.01									
C 14	< 0.01									
C 15	< 0.01							101	70.	13[illegible]
C 16	< 0.01									
C 17	< 0.01									
C 18	< 0.01									
C 19	< 0.01									
C 20	< 0.01							102	70.	130.
C 21	< 0.01									
C 22	< 0.01									
C 23	< 0.01									
C 24	< 0.01									
C 25	< 0.01							96	71.	13[illegible]
C 26	< 0.01									
C 27	< 0.01									
C 28	< 0.01									
C 29	< 0.01									
C 30	< 0.01							89	67.	130.
C 31	< 0.02									
C 32	< 0.02									
C 33	< 0.02									
C 34	< 0.02									
C 35	< 0.02									
C 36	< 0.02									
C 37	< 0.02									
C 38	< 0.02									
C 39	< 0.02									
C 40	< 0.05							56		
C 41	< 0.05									
C 42	< 0.05									
C 43	< 0.05									
C 44	< 0.05									
C 45	< 0.05									

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 44-W6
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : GRAB
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-24
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : WATER
Report Date : September 30, 1996
Analysis Date : September 18, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

BATCH : 3	BLANK	DUPLICATE			MATRIX SPIKE			CALIBRATION CHECK		
DATE : September 18, 1996	CONC.	CONC.1	CONC.2	RPD	RECOV	CONTROL LIMITS		RECOV	CONTROL LIMITS	
ANALYST: ZBN	mg/L	mg/L	mg/L	%	%	LOWER	UPPER	%	LOWER	UPPER
C 46	< 0.05									
C 47	< 0.05									
C 48	< 0.05									
C 49	< 0.05									
C 50	< 0.05							42		
C 51	< 0.05									
C 52	< 0.05									
C 53	< 0.05									
C 54	< 0.05									
C 55	< 0.05									
C 56	< 0.05									
C 57	< 0.05									
C 58	< 0.05									
C 59	< 0.05									
C 60	< 0.05							25		

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 44-W9
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : GRAB
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-25
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : WATER
Report Date : September 30, 1996
Analysis Date : September 20, 1996

TOTAL EXTRACTABLE HYDROCARBONS METHOD MODIFIED ASTM D2887

COMPONENT	mg/L	BOILING RANGE	COMPONENT	mg/L	BOILING RANGE
C 08	< 0.01	98.5 TO 125.7	C 35	< 0.02	483.1 TO 491.0
C 09	< 0.01	125.8 TO 150.8	C 36	< 0.02	491.1 TO 498.0
C 10	< 0.01	150.9 TO 174.2	C 37	< 0.02	498.1 TO 505.0
C 11	< 0.01	174.3 TO 196.0	C 38	< 0.02	505.1 TO 512.0
C 12	< 0.01	196.1 TO 216.0	C 39	< 0.02	512.1 TO 519.0
C 13	< 0.01	216.1 TO 236.0	C 40	< 0.05	519.1 TO 525.0
C 14	< 0.01	236.1 TO 253.0	C 41	< 0.05	525.1 TO 535.0
C 15	< 0.01	253.1 TO 271.0	C 42	< 0.05	531.1 TO 537.0
C 16	< 0.01	271.1 TO 287.0	C 43	< 0.05	537.1 TO 543.0
C 17	< 0.01	287.1 TO 302.0	C 44	< 0.05	543.1 TO 548.0
C 18	< 0.01	302.1 TO 317.0	C 45	< 0.05	548.1 TO 554.0
C 19	0.02	317.1 TO 331.0	C 46	< 0.05	554.1 TO 559.0
C 20	0.03	331.1 TO 344.0	C 47	< 0.05	559.1 TO 565.0
C 21	0.03	344.1 TO 357.0	C 48	< 0.05	565.1 TO 570.0
C 22	0.03	357.1 TO 366.0	C 49	< 0.05	570.1 TO 576.0
C 23	(0.02)	366.1 TO 380.0	C 50	< 0.05	576.1 TO 581.0
C 24	< 0.01	380.1 TO 391.0	C 51	< 0.05	581.1 TO 584.0
C 25	< 0.01	391.1 TO 402.0	C 52	< 0.05	584.1 TO 588.0
C 26	< 0.01	402.1 TO 412.0	C 53	< 0.05	588.1 TO 592.0
C 27	< 0.01	412.1 TO 422.0	C 54	< 0.05	592.1 TO 596.0
C 28	(0.01)	422.1 TO 432.0	C 55	< 0.05	596.1 TO 600.0
C 29	(0.01)	432.1 TO 441.0	C 56	< 0.05	600.1 TO 604.0
C 30	< 0.01	441.1 TO 449.0	C 57	< 0.05	604.1 TO 608.0
C 31	< 0.02	449.1 TO 459.0	C 58	< 0.05	608.1 TO 612.0
C 32	< 0.02	459.1 TO 468.0	C 59	< 0.05	612.1 TO 615.0
C 33	< 0.02	468.1 TO 476.0	C 60	< 0.05	615.1 TO 619.0
C 34	< 0.02	476.1 TO 483.0			

Average molecular weight : 297 AMU TOTAL HYDROCARBONS C8-C10 N.D.
TOTAL HYDROCARBONS C11-C60 0.15 mg/L

Surrogate recovery : 103% WATER surrogate limits : 57% - 135%.

MDL per component : 0.01 mg/L below C31 and 0.02 mg/L above C30
0.05 mg/L above C39 and 0.05 mg/L above C49

Results are reported in accordance with CCME guidelines. All results are corrected for blank levels.

MDL - Method detection level. The reliable detection level is twice the method detection level.

( ) - Bracketed results are values below the reliable detection level, and are subject to reduced levels of confidence.

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CCSG ASSOCIATES
ATTENTION : SUE MOODI

Sample Description : 44-W9
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : GRAB
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-25
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : WATER
Report Date : September 30, 1996
Analysis Date : September 20, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

BATCH : 9	BLANK	DUPLICATE			MATRIX SPIKE			CALIBRATION CHECK		
DATE : September 20, 1996	CONC.	CONC.1	CONC.2	RPD	RECOV	CONTROL LIMITS		RECOV	CONTROL LIMIT	
ANALYST:ZBN	mg/L	mg/L	mg/L	%	%	LOWER	UPPER	%	LOWER	UPPER
C 08	< 0.01							107	73.	13
C 09	< 0.01							97	74.	12
C 10	< 0.01							102	69.	130.
C 11	< 0.01									
C 12	< 0.01									
C 13	< 0.01									
C 14	< 0.01									
C 15	< 0.01							101	70.	13
C 16	< 0.01									
C 17	< 0.01									
C 18	< 0.01									
C 19	< 0.01									
C 20	< 0.01							102	70.	130.
C 21	< 0.01									
C 22	< 0.01									
C 23	< 0.01									
C 24	< 0.01									
C 25	< 0.01							115	71.	13
C 26	< 0.01									
C 27	< 0.01									
C 28	< 0.01									
C 29	< 0.01									
C 30	< 0.01							116	67.	130.
C 31	< 0.02									
C 32	< 0.02									
C 33	< 0.02									
C 34	< 0.02									
C 35	< 0.02									
C 36	< 0.02									
C 37	< 0.02									
C 38	< 0.02									
C 39	< 0.02									
C 40	< 0.05							116		
C 41	< 0.05									
C 42	< 0.05									
C 43	< 0.05									
C 44	< 0.05									
C 45	< 0.05									

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 44-W9
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : GRAB
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-25
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : WATER
Report Date : September 30, 1996
Analysis Date : September 20, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

BATCH : 9	BLANK	DUPLICATE			MATRIX SPIKE			CALIBRATION CHECK		
DATE : September 20, 1996	CONC.	CONC.1	CONC.2	RPD	RECOV	CONTROL LIMITS		RECOV	CONTROL LIMITS	
ANALYST:ZBN	mg/L	mg/L	mg/L	%	%	LOWER	UPPER	%	LOWER	UPPER
C 46	< 0.05									
C 47	< 0.05									
C 48	< 0.05									
C 49	< 0.05									
C 50	< 0.05							92		
C 51	< 0.05									
C 52	< 0.05									
C 53	< 0.05									
C 54	< 0.05									
C 55	< 0.05									
C 56	< 0.05									
C 57	< 0.05									
C 58	< 0.05									
C 59	< 0.05									
C 60	< 0.05							69		

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 39-1
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : GRAB
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-27
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : WATER
Report Date : September 30, 1996
Analysis Date : September 26, 1996

PARAMETER DESCRIPTION	NAQUADAT CODE	UNITS	RESULTS		DETECTION LIMIT
Aluminum - Total (ICP-AES)	013009	mg/L		0.05	0.01
Arsenic - Total (AA)	033005	mg/L		0.0002	0.0002
Cadmium - Total (ICP-MS)	048023	mg/L	<	0.0002	0.0002
Chromium - Total (ICP-AES)	024009	mg/L		0.008	0.002
Copper - Total (ICP-AES)	029501	mg/L		0.002	0.001
Iron - Total (ICP-AES)	026009	mg/L		0.07	0.01
Lead - Total (ICP-MS)	082016	mg/L	<	0.0003	0.0003
Mercury - Total (CVAA)	080011	ug/L	<	0.05	0.05
Nickel - Total (ICP-MS)	028016	mg/L	<	0.0005	0.0005
Selenium - Total (AA)	034005	mg/L	<	0.0002	0.0002
Silver - Total (ICP-MS)	047016	mg/L	<	0.0001	0.0001
Zinc - Total (ICP-AES)	030501	mg/L		0.023	0.001

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 39-1
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : GRAB
Sample Station Code :

Chemex Worksheet Number : 96-03349-27
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : WATER
Report Date : September 30, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

PARAMETER	DATE ANALYZED (DD-MM-YY)	QA/QC BATCH NUM	ANAL	DUP Rr	MATRIX SPIKES RECOV %	CONTROL LIMITS LOWER	CONTROL LIMITS UPPER	CALIBRATION CHECK RECOV %	CONTROL LIMITS LOWER	CONTROL LIMITS UPPER
Aluminum - Total (ICP-AES)	26-09-96	10	SW	0.0	99.4	89.8	115.5	100.1	94.2	111.5
Arsenic - Total (AA)	23-09-96	1	RJL	0.0	105.9	72.1	119.4	113.7	75.3	122.4
Cadmium - Total (ICP-MS)	27-09-96	20	WEM	3.2	92.0	78.1	120.3	100.2	83.4	114.8
Chromium - Total (ICP-AES)	26-09-96	10	SW	0.0	98.7	87.0	116.3	96.3	89.8	109.8
Copper - Total (ICP-AES)	26-09-96	10	SW	1.0	100.0	90.1	104.7	97.8	90.7	105.0
Iron - Total (ICP-AES)	26-09-96	10	SW	0.0	96.5	88.8	114.6	98.2	92.2	112.0
Lead - Total (ICP-MS)	27-09-96	20	WEM	0.4	99.8	80.5	116.9	97.6	77.8	129.8
Mercury - Total (CVAA)	26-09-96	2	CH	0.0	108.0	66.0	132.7	82.5	69.9	131.2
Nickel - Total (ICP-MS)	27-09-96	20	WEM	3.2	103.8	78.4	116.6	113.6	83.3	118.4
Selenium - Total (AA)	23-09-96	1	RJL	0.0	98.0	79.2	120.7	102.0	76.6	122.4
Silver - Total (ICP-MS)	27-09-96	20	WEM	3.2	95.2	77.7	117.7	100.8	87.3	111.0
Zinc - Total (ICP-AES)	26-09-96	10	SW	0.0	100.6	86.1	117.4	97.7	89.4	109.7

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 39-3
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : GRAB
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-28
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : WATER
Report Date : September 30, 1996
Analysis Date : September 26, 1996

PARAMETER DESCRIPTION	NAQUADAT CODE	UNITS	RESULTS		DETECTION LIMIT
Aluminum - Total (ICP-AES)	013009	mg/L		0.09	0.01
Arsenic - Total (AA)	033005	mg/L		0.0002	0.0002
Cadmium - Total (ICP-MS)	048023	mg/L	<	0.0002	0.0002
Chromium - Total (ICP-AES)	024009	mg/L		0.015	0.002
Copper - Total (ICP-AES)	029501	mg/L		0.004	0.001
Iron - Total (ICP-AES)	026009	mg/L		0.07	0.01
Lead - Total (ICP-MS)	082016	mg/L	<	0.0003	0.0003
Mercury - Total (CVAA)	080011	ug/L	<	0.05	0.05
Nickel - Total (ICP-MS)	028016	mg/L	<	0.0005	0.0005
Selenium - Total (AA)	034005	mg/L	<	0.0002	0.0002
Silver - Total (ICP-MS)	047016	mg/L	<	0.0001	0.0001
Zinc - Total (ICP-AES)	030501	mg/L		0.031	0.001

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 39-3
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : GRAB
Sample Station Code :

Chemex Worksheet Number : 96-03349-28
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : WATER
Report Date : September 30, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

PARAMETER	DATE ANALYZED (DD-MM-YY)	QA/QC BATCH NUM ANAL	DUP Rr	MATRIX SPIKES RECOV %	MATRIX SPIKES CONTROL LIMITS LOWER	MATRIX SPIKES CONTROL LIMITS UPPER	CALIBRATION CHECK RECOV %	CALIBRATION CHECK CONTROL LIMITS LOWER	CALIBRATION CHECK CONTROL LIMITS UPPER
Aluminum - Total (ICP-AES)	26-09-96	10 SW	0.0	99.4	89.8	115.5	100.1	94.2	111.5
Arsenic - Total (AA)	23-09-96	1 RJL	0.0	105.9	72.1	119.4	113.7	75.3	122.4
Cadmium - Total (ICP-MS)	27-09-96	20 WEM	3.2	92.0	78.1	120.3	100.2	83.4	114.8
Chromium - Total (ICP-AES)	26-09-96	10 SW	0.0	98.7	87.0	116.3	96.3	89.8	109.8
Copper - Total (ICP-AES)	26-09-96	10 SW	1.0	100.0	90.1	104.7	97.8	90.7	105.0
Iron - Total (ICP-AES)	26-09-96	10 SW	0.0	96.5	88.8	114.6	98.2	92.2	112.0
Lead - Total (ICP-MS)	27-09-96	20 WEM	0.4	99.8	80.5	116.9	97.6	77.8	129.8
Mercury - Total (CVAA)	26-09-96	2 CH	0.0	108.0	66.0	132.7	82.5	69.9	131.2
Nickel - Total (ICP-MS)	27-09-96	20 WEM	3.2	103.8	78.4	116.6	113.6	83.3	118.4
Selenium - Total (AA)	23-09-96	1 RJL	0.0	98.0	79.2	120.7	102.0	76.6	122.4
Silver - Total (ICP-MS)	27-09-96	20 WEM	3.2	95.2	77.7	117.7	100.8	87.3	111.0
Zinc - Total (ICP-AES)	26-09-96	10 SW	0.0	100.6	86.1	117.4	97.7	89.4	109.7

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 39-4
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : GRAB
Sample Received Date: September 17, 1996
Sample Station Code :

Chemex Worksheet Number : 96-03349-29
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : WATER
Report Date : September 30, 1996
Analysis Date : September 26, 1996

PARAMETER DESCRIPTION	NAQUADAT CODE	UNITS	RESULTS		DETECTION LIMIT
Aluminum - Total (ICP-AES)	013009	mg/L		0.08	0.01
Arsenic - Total (AA)	033005	mg/L	<	0.0002	0.0002
Cadmium - Total (ICP-MS)	048023	mg/L	<	0.0002	0.0002
Chromium - Total (ICP-AES)	024009	mg/L		0.010	0.002
Copper - Total (ICP-AES)	029501	mg/L		0.002	0.001
Iron - Total (ICP-AES)	026009	mg/L		1.11	0.01
Lead - Total (ICP-MS)	082016	mg/L	<	0.0003	0.0003
Mercury - Total (CVAA)	080011	ug/L	<	0.05	0.05
Nickel - Total (ICP-MS)	028016	mg/L	<	0.0005	0.0005
Selenium - Total (AA)	034005	mg/L	<	0.0002	0.0002
Silver - Total (ICP-MS)	047016	mg/L	<	0.0001	0.0001
Zinc - Total (ICP-AES)	030501	mg/L		0.013	0.001

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CCSG ASSOCIATES
ATTENTION : SUE MOODI

Sample Description : 39-4
Sample Date & Time : 07-09-96
Sampled By : SM
Sample Type : GRAB
Sample Station Code :

Chemex Worksheet Number : 96-03349-29
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : WATER
Report Date : September 30, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

PARAMETER	DATE ANALYZED (DD-MM-YY)	QA/QC BATCH NUM ANAL	DUP Rr	MATRIX SPIKES RECOV %	MATRIX SPIKES CONTROL LIMITS LOWER	MATRIX SPIKES CONTROL LIMITS UPPER	CALIBRATION CHECK RECOV %	CALIBRATION CHECK CONTROL LIMITS LOWER	CALIBRATION CHECK CONTROL LIMITS UPPER
Aluminum - Total (ICP-AES)	26-09-96	10 SW	0.0	99.4	89.8	115.5	100.1	94.2	111.5
Arsenic - Total (AA)	23-09-96	1 RJL	0.0	105.9	72.1	119.4	113.7	75.3	122.4
Cadmium - Total (ICP-MS)	27-09-96	20 WEM	3.2	92.0	78.1	120.3	100.2	83.4	114.8
Chromium - Total (ICP-AES)	26-09-96	10 SW	0.0	98.7	87.0	116.3	96.3	89.8	109.8
Copper - Total (ICP-AES)	26-09-96	10 SW	1.0	100.0	90.1	104.7	97.8	90.7	105.0
Iron - Total (ICP-AES)	26-09-96	10 SW	0.0	96.5	88.8	114.6	98.2	92.2	112.0
Lead - Total (ICP-MS)	27-09-96	20 WEM	0.4	99.8	80.5	116.9	97.6	77.8	129.8
Mercury - Total (CVAA)	26-09-96	2 CH	0.0	108.0	66.0	132.7	82.5	69.9	131.2
Nickel - Total (ICP-MS)	27-09-96	20 WEM	3.2	103.8	78.4	116.6	113.6	83.3	118.4
Selenium - Total (AA)	23-09-96	1 RJL	0.0	98.0	79.2	120.7	102.0	76.6	122.4
Silver - Total (ICP-MS)	27-09-96	20 WEM	3.2	95.2	77.7	117.7	100.8	87.3	111.0
Zinc - Total (ICP-AES)	26-09-96	10 SW	0.0	100.6	86.1	117.4	97.7	89.4	109.7

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 30-30
Sample Date & Time : 18-09-96
Sampled By :
Sample Type : COMPOSITE
Sample Received Date: October 24, 1996
Sample Station Code :

Chemex Worksheet Number : 96-04160-1
Chemex Project Number : CCSG010-0501
Sample Access
Sample Matrix : SOIL
Report Date : November 8, 1996
Analysis Date : October 30, 1996

PARAMETER DESCRIPTION	NAQUADAT CODE	UNITS	RESULTS	DETECTION LIMIT
Total Mercury- (CVAA)		ug/kg	< 20	20.
Barium (ICP)		ug/g	7.4	1.
Beryllium (ICP)		ug/g	< 0.1	0.1
Cadmium (ICP)		ug/g	< 0.3	0.3
Chromium (ICP)		ug/g	0.4	0.2
Cobalt (ICP)		ug/g	1.2	0.3
Copper (ICP)		ug/g	2.2	0.1
Lead (ICP)		ug/g	< 2	2.
Molybdenum (ICP)		ug/g	0.3	0.3
Nickel (ICP)		ug/g	< 0.5	0.5
Silver (ICP)		ug/g	< 0.2	0.2
Vanadium (ICP)		ug/g	13.0	0.2
Zinc (ICP)		ug/g	8.0	0.1
Thallium (ICP-MS)		ug/g	0.19	0.02
Arsenic (ICP-MS)		ug/g	0.5	0.1
Selenium (ICP-MS)		ug/g	< 0.1	0.1
Antimony (ICP-MS)		ug/g	0.03	0.02
Tin (ICP-MS)		ug/g	< 0.02	0.02

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 30-30
Sample Date & Time : 18-09-96
Sampled By :
Sample Type : COMPOSITE
Sample Station Code :

Chemex Worksheet Number : 96-04160-1
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : November 8, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

PARAMETER	DATE ANALYZED (DD-MM-YY)	QA/QC BATCH NUM ANAL	RELATIVE PERCENT DIFFERENCE	REFERENCE VALUE	CONTROL LIMITS LOWER	CONTROL LIMITS UPPER	CALIBRATION CHECK RECOV %	CONTROL LIMITS LOWER	CONTROL LIMITS UPPER
Total Mercury- (CVAA)	30-10-96	1 CH	7.50	0.17	0.11	0.20	NOT APPLICABLE		
Barium (ICP)	31-10-96	11 SW	7.69	246.53	231.60	283.60	98.3	93.6	105.6
Beryllium (ICP)	31-10-96	11 SW	0.00	3.92	3.26	4.91	96.4	89.2	110.9
Cadmium (ICP)	31-10-96	11 SW	0.00	0.00	0.00	1.69	95.8	86.6	113.1
Chromium (ICP)	31-10-96	11 SW	9.56	42.31	37.84	55.65	94.4	89.8	109.8
Cobalt (ICP)	31-10-96	11 SW	1.36	16.34	14.89	21.09	96.0	88.3	107.8
Copper (ICP)	31-10-96	11 SW	0.20	41.19	37.17	49.97	95.3	90.7	105.0
Lead (ICP)	31-10-96	11 SW	10.53	30.66	19.91	34.23	97.5	91.6	106.7
Molybdenum (ICP)	31-10-96	11 SW	20.47	15.66	9.96	21.51	97.8	90.5	109.8
Nickel (ICP)	31-10-96	11 SW	2.97	38.50	35.56	48.92	94.0	90.4	108.1
Silver (ICP)	31-10-96	11 SW	0.00	NOT APPLICABLE			100.3	93.1	104.1
Vanadium (ICP)	31-10-96	11 SW	5.56	113.63	99.60	136.95	100.5	93.1	108.8
Zinc (ICP)	31-10-96	11 SW	3.21	83.51	69.09	95.47	97.8	89.4	109.7
Thallium (ICP-MS)	05-11-96	21 WEM	6.98	NOT APPLICABLE			102.3	80.0	120.0
Arsenic (ICP-MS)	05-11-96	21 WEM	18.56	116.40	38.00	157.30	110.9	81.5	112.6
Selenium (ICP-MS)	05-11-96	21 WEM	0.00	6.03	0.85	18.23	94.0	86.0	105.9
Antimony (ICP-MS)	05-11-96	21 WEM	9.52	NOT APPLICABLE			99.2	80.0	120.0
Tin (ICP-MS)	05-11-96	21 WEM	40.00	NOT APPLICABLE			92.0	80.0	120.0

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 39-11
Sample Date & Time : 17-09-96
Sampled By :
Sample Type : COMPOSITE
Sample Received Date: October 24, 1996
Sample Station Code :

Chemex Worksheet Number 96-04160-2
Chemex Project Number CCSG010-0501
Sample Access
Sample Matrix SOIL
Report Date : November 8, 1996
Analysis Date : October 30, 1996

PARAMETER DESCRIPTION	NAQUADAT CODE	UNITS	RESULTS	DETECTION LIMIT
Total Mercury- (CVAA)		ug/kg	41.	20.
Barium (ICP)		ug/g	117.	1.
Beryllium (ICP)		ug/g	0.9	0.1
Cadmium (ICP)		ug/g	< 0.3	0.3
Chromium (ICP)		ug/g	64.8	0.2
Cobalt (ICP)		ug/g	20.1	0.3
Copper (ICP)		ug/g	37.7	0.1
Lead (ICP)		ug/g	12.	2.
Molybdenum (ICP)		ug/g	8.4	0.3
Nickel (ICP)		ug/g	31.6	0.5
Silver (ICP)		ug/g	0.5	0.2
Vanadium (ICP)		ug/g	106.	0.2
Zinc (ICP)		ug/g	78.5	0.1
Thallium (ICP-MS)		ug/g	0.27	0.02
Arsenic (ICP-MS)		ug/g	9.92	0.1
Selenium (ICP-MS)		ug/g	< 0.1	0.1
Antimony (ICP-MS)		ug/g	0.15	0.02
Tin (ICP-MS)		ug/g	< 0.02	0.02

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 39-11
Sample Date & Time : 17-09-96
Sampled By :
Sample Type : COMPOSITE
Sample Station Code :

Chemex Worksheet Number : 96-04160-2
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : November 8, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

PARAMETER	DATE ANALYZED (DD-MM-YY)	QA/QC BATCH NUM ANAL	RELATIVE PERCENT DIFFERENCE	REFERENCE VALUE	REFERENCE CONTROL LIMITS LOWER	REFERENCE CONTROL LIMITS UPPER	CALIBRATION CHECK RECOV %	CALIBRATION CHECK CONTROL LIMITS LOWER	CALIBRATION CHECK CONTROL LIMITS UPPER
Total Mercury- (CVAA)	30-10-96	1 CH	7.50	0.17	0.11	0.20	NOT APPLICABLE		
Barium (ICP)	31-10-96	11 SW	7.69	246.53	231.60	283.60	98.3	93.6	105.6
Beryllium (ICP)	31-10-96	11 SW	0.00	3.92	3.26	4.91	96.4	89.2	110.9
Cadmium (ICP)	31-10-96	11 SW	0.00	0.00	0.00	1.69	95.8	86.6	113.1
Chromium (ICP)	31-10-96	11 SW	9.56	42.31	37.84	55.65	94.4	89.8	109.8
Cobalt (ICP)	31-10-96	11 SW	1.36	16.34	14.89	21.09	96.0	88.3	107.8
Copper (ICP)	31-10-96	11 SW	0.20	41.19	37.17	49.97	95.3	90.7	105.0
Lead (ICP)	31-10-96	11 SW	10.53	30.66	19.91	34.23	97.5	91.6	106.7
Molybdenum (ICP)	31-10-96	11 SW	20.47	15.66	9.96	21.51	97.8	90.5	109.8
Nickel (ICP)	31-10-96	11 SW	2.97	38.50	35.56	48.92	94.0	90.4	108.1
Silver (ICP)	31-10-96	11 SW	0.00	NOT APPLICABLE			100.3	93.1	104.1
Vanadium (ICP)	31-10-96	11 SW	5.56	113.63	99.60	136.95	100.5	93.1	108.8
Zinc (ICP)	31-10-96	11 SW	3.21	83.51	69.09	95.47	97.8	89.4	109.7
Thallium (ICP-MS)	05-11-96	21 WEM	6.98	NOT APPLICABLE			102.3	80.0	120.0
Arsenic (ICP-MS)	05-11-96	21 WEM	18.56	116.40	38.00	157.30	110.9	81.5	112.6
Selenium (ICP-MS)	05-11-96	21 WEM	0.00	6.03	0.85	18.23	94.0	86.0	105.9
Antimony (ICP-MS)	05-11-96	21 WEM	9.52	NOT APPLICABLE			99.2	80.0	120.0
Tin (ICP-MS)	05-11-96	21 WEM	40.00	NOT APPLICABLE			92.0	80.0	120.0

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CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 44-17
Sample Date & Time : 18-09-96
Sampled By :
Sample Type : COMPOSITE
Sample Received Date: October 24, 1996
Sample Station Code :

Chemex Worksheet Number 96-04160-3
Chemex Project Number CCSG010-0501
Sample Access
Sample Matrix SOIL
Report Date : November 8, 1996
Analysis Date : October 30, 1996

PARAMETER DESCRIPTION	NAQUADAT CODE	UNITS	RESULTS	DETECTION LIMIT
Total Mercury- (CVAA)		ug/kg	44.	20.
Barium (ICP)		ug/g	175.	1.
Beryllium (ICP)		ug/g	0.7	0.1
Cadmium (ICP)		ug/g	< 0.3	0.3
Chromium (ICP)		ug/g	50.8	0.2
Cobalt (ICP)		ug/g	14.6	0.3
Copper (ICP)		ug/g	48.8	0.1
Lead (ICP)		ug/g	10.	2.
Molybdenum (ICP)		ug/g	5.7	0.3
Nickel (ICP)		ug/g	29.9	0.5
Silver (ICP)		ug/g	0.4	0.2
Vanadium (ICP)		ug/g	89.1	0.2
Zinc (ICP)		ug/g	92.1	0.1
Thallium (ICP-MS)		ug/g	0.36	0.02
Arsenic (ICP-MS)		ug/g	5.2	0.1
Selenium (ICP-MS)		ug/g	< 0.1	0.1
Antimony (ICP-MS)		ug/g	0.15	0.02
Tin (ICP-MS)		ug/g	< 0.02	0.02

CHEMEX Labs Alberta Inc.

Calgary : 2021 - 41st Avenue N.E., T2E 6P2. Telephone (403) 291-3077, FAX (403) 291-9468
Edmonton : 9331 - 48th Street, T6B 2R4, Telephone (403) 465-9877, FAX (403) 466-3332

CCSG ASSOCIATES
ATTENTION : SUE MOODIE

Sample Description : 44-17
Sample Date & Time : 18-09-96
Sampled By :
Sample Type : COMPOSITE
Sample Station Code :

Chemex Worksheet Number : 96-04160-3
Chemex Project Number : CCSG010-0501
Sample Access :
Sample Matrix : SOIL
Report Date : November 8, 1996

BATCH SPECIFIC QUALITY ASSURANCE REPORT

PARAMETER	DATE ANALYZED (DD-MM-YY)	QA/QC BATCH NUM	ANAL	RELATIVE PERCENT DIFFERENCE	REFERENCE VALUE	CONTROL LIMITS LOWER	CONTROL LIMITS UPPER	CALIBRATION CHECK RECOV %	CONTROL LIMITS LOWER	CONTROL LIMITS UPPER
Total Mercury- (CVAA)	30-10-96	1	CH	7.50	0.17	0.11	0.20	NOT APPLICABLE		
Barium (ICP)	31-10-96	11	SW	7.69	246.53	231.60	283.60	98.3	93.6	105.6
Beryllium (ICP)	31-10-96	11	SW	0.00	3.92	3.26	4.91	96.4	89.2	110.9
Cadmium (ICP)	31-10-96	11	SW	0.00	0.00	0.00	1.69	95.8	86.6	113.1
Chromium (ICP)	31-10-96	11	SW	9.56	42.31	37.84	55.65	94.4	89.8	109.8
Cobalt (ICP)	31-10-96	11	SW	1.36	16.34	14.89	21.09	96.0	88.3	107.8
Copper (ICP)	31-10-96	11	SW	0.20	41.19	37.17	49.97	95.3	90.7	105.0
Lead (ICP)	31-10-96	11	SW	10.53	30.66	19.91	34.23	97.5	91.6	106.7
Molybdenum (ICP)	31-10-96	11	SW	20.47	15.66	9.96	21.51	97.8	90.5	109.8
Nickel (ICP)	31-10-96	11	SW	2.97	38.50	35.56	48.92	94.0	90.4	108.1
Silver (ICP)	31-10-96	11	SW	0.00	NOT APPLICABLE			100.3	93.1	104.1
Vanadium (ICP)	31-10-96	11	SW	5.56	113.63	99.60	136.95	100.5	93.1	108.8
Zinc (ICP)	31-10-96	11	SW	3.21	83.51	69.09	95.47	97.8	89.4	109.7
Thallium (ICP-MS)	05-11-96	21	WEM	6.98	NOT APPLICABLE			102.3	80.0	120.0
Arsenic (ICP-MS)	05-11-96	21	WEM	18.56	116.40	38.00	157.30	110.9	81.5	112.6
Selenium (ICP-MS)	05-11-96	21	WEM	0.00	6.03	0.85	18.23	94.0	86.0	105.9
Antimony (ICP-MS)	05-11-96	21	WEM	9.52	NOT APPLICABLE			99.2	80.0	120.0
Tin (ICP-MS)	05-11-96	21	WEM	40.00	NOT APPLICABLE			92.0	80.0	120.0

FILE NO.: 1001-96-03349
Date : Sep 19, 1996

Company Name : CCSG Associates
Attention : Sue Moodie

Project ID : None specified

Client ID : 39-2
Chemex ID : 96-03349-13
Date Sampled : Sep 07, 1996
Date Received : Sep 13, 1996

Date Extracted : Sep 17, 1996
Date Analyzed : Sep 18, 1996
Matrix : Soil
Dilution Factor : 1

Polyaromatic Hydrocarbons by GC/MSD (US EPA SW-846 Method 8270 Modified)

Parameter	Result	Unit	RDL	MDL
Naphthalene	0.0095	mg/Kg	0.0050	0.0025
Acenaphthylene	< 0.0025	mg/Kg	0.0050	0.0025
Acenaphthene	< 0.0025	mg/Kg	0.0050	0.0025
Fluorene	< 0.0025	mg/Kg	0.0050	0.0025
Phenanthrene	< 0.0025	mg/Kg	0.0050	0.0025
Anthracene	< 0.0025	mg/Kg	0.0050	0.0025
Acridine	< 0.025	mg/Kg	0.050	0.025
Fluoranthene	< 0.0025	mg/Kg	0.0050	0.0025
Pyrene	< 0.0025	mg/Kg	0.0050	0.0025
Benzo[c]phenanthrene	< 0.0025	mg/Kg	0.0050	0.0025
Benzo[a]anthracene	[0.0005]	mg/Kg	0.0010	0.0005
Chrysene	< 0.0025	mg/Kg	0.0050	0.0025
7,12-Dibenz[a]anthracene	< 0.025	mg/Kg	0.050	0.025
Benzo[b&j]fluoranthene	< 0.0005	mg/Kg	0.0010	0.0005
Benzo[k]fluoranthene	< 0.0005	mg/Kg	0.0010	0.0005
3-Methylcholanthrene	< 0.0025	mg/Kg	0.0050	0.0025
Benzo[a]pyrene	[0.0005]	mg/Kg	0.0010	0.0005
Indeno[1,2,3-cd]pyrene	< 0.0025	mg/Kg	0.0050	0.0025
Dibenzo[a,h]anthracene	< 0.0005	mg/Kg	0.0010	0.0005
Benzo[g,h,i]perylene	< 0.0025	mg/Kg	0.0050	0.0025
Dibenzo[a,h]pyrene	< 0.0050	mg/Kg	0.0100	0.0050
Dibenzo[a,i]pyrene	< 0.0050	mg/Kg	0.0100	0.0050
Dibenzo[a,l]pyrene	< 0.0050	mg/Kg	0.0100	0.0050

Surrogates	% Recovery	Limits	FLAG
Nitrobenzene-d5	38.9	23 - 120	Pass
2-Fluorobiphenyl	75.1	30 - 115	Pass
p-Terphenyl-d14	80.3	18 - 137	Pass

NA - Denotes compound not analyzed
MDL - Method Detection Level
RDL - Reliable Detection Level (as per CCME guidelines 2 X MDL)

Note : Bracketed results denote concentrations which fall between the MDL and RDL. As per CCME guidelines confidence levels for the bracketed values are reduced.

Comments : All samples have been corrected for blank values.

FILE NO.: 1001-96-03349
Date : Sep 19, 1996

Company Name : CCSG Associates
Attention : Sue Moodie

Project ID : None specified

Client ID : 39-3
Chemex ID : 96-03349-14
Date Sampled : Sep 07, 1996
Date Received : Sep 13, 1996

Date Extracted : Sep 17, 1996
Date Analyzed : Sep 18, 1996
Matrix : Soil
Dilution Factor : 1

Polyaromatic Hydrocarbons by GC/MSD (US EPA SW-846 Method 8270 Modified)

Parameter	Result	Unit	RDL	MDL
Naphthalene	0.017	mg/Kg	0.0050	0.0025
Acenaphthylene	0.0090	mg/Kg	0.0050	0.0025
Acenaphthene	< 0.0025	mg/Kg	0.0050	0.0025
Fluorene	< 0.0025	mg/Kg	0.0050	0.0025
Phenanthrene	0.0050	mg/Kg	0.0050	0.0025
Anthracene	[0.0030]	mg/Kg	0.0050	0.0025
Acridine	< 0.025	mg/Kg	0.050	0.025
Fluoranthene	< 0.0025	mg/Kg	0.0050	0.0025
Pyrene	< 0.0025	mg/Kg	0.0050	0.0025
Benzo[c]phenanthrene	< 0.0025	mg/Kg	0.0050	0.0025
Benzo[a]anthracene	0.0020	mg/Kg	0.0010	0.0005
Chrysene	< 0.0025	mg/Kg	0.0050	0.0025
7,12-Dibenz[a]anthracene	< 0.025	mg/Kg	0.050	0.025
Benzo[b&j]fluoranthene	< 0.0005	mg/Kg	0.0010	0.0005
Benzo[k]fluoranthene	< 0.0005	mg/Kg	0.0010	0.0005
3-Methylcholanthrene	< 0.0025	mg/Kg	0.0050	0.0025
Benzo[a]pyrene	0.0025	mg/Kg	0.0010	0.0005
Indeno[1,2,3-cd]pyrene	< 0.0025	mg/Kg	0.0050	0.0025
Dibenzo[a,h]anthracene	0.0010	mg/Kg	0.0010	0.0005
Benzo[g,h,i]perylene	< 0.0025	mg/Kg	0.0050	0.0025
Dibenzo[a,h]pyrene	< 0.0050	mg/Kg	0.0100	0.0050
Dibenzo[a,i]pyrene	< 0.0050	mg/Kg	0.0100	0.0050
Dibenzo[a,l]pyrene	< 0.0050	mg/Kg	0.0100	0.0050

Surrogates	% Recovery	Limits	FLAG
Nitrobenzene-d5	46.3	23 - 120	Pass
2-Fluorobiphenyl	92.6	30 - 115	Pass
p-Terphenyl-d14	86.3	18 - 137	Pass

NA - Denotes compound not analyzed
MDL - Method Detection Level
RDL - Reliable Detection Level (as per CCME guidelines 2 X MDL)

Note : Bracketed results denote concentrations which fall between the MDL and RDL. As per CCME guidelines confidence levels for the bracketed values are reduced.

Comments : All samples have been corrected for blank values.

FILE NO.: 1001-96-03349
Date : Sep 19, 1996

Company Name : CCSG Associates
Attention : Sue Moodie

Project ID : None specified

Client ID : 39-10
Chemex ID : 96-03349-18
Date Sampled : Sep 07, 1996
Date Received : Sep 13, 1996

Date Extracted : Sep 17, 1996
Date Analyzed : Sep 18, 1996
Matrix : Soil
Dilution Factor : 1

Polyaromatic Hydrocarbons by GC/MSD (US EPA SW-846 Method 8270 Modified)

Parameter	Result	Unit	RDL	MDL
Naphthalene	0.014	mg/Kg	0.0050	0.0025
Acenaphthylene	< 0.0025	mg/Kg	0.0050	0.0025
Acenaphthene	< 0.0025	mg/Kg	0.0050	0.0025
Fluorene	< 0.0025	mg/Kg	0.0050	0.0025
Phenanthrene	[0.0030]	mg/Kg	0.0050	0.0025
Anthracene	< 0.0025	mg/Kg	0.0050	0.0025
Acridine	< 0.025	mg/Kg	0.050	0.025
Fluoranthene	< 0.0025	mg/Kg	0.0050	0.0025
Pyrene	< 0.0025	mg/Kg	0.0050	0.0025
Benzo[c]phenanthrene	< 0.0025	mg/Kg	0.0050	0.0025
Benzo[a]anthracene	< 0.0005	mg/Kg	0.0010	0.0005
Chrysene	< 0.0025	mg/Kg	0.0050	0.0025
7,12-Dibenz[a]anthracene	< 0.025	mg/Kg	0.050	0.025
Benzo[b&j]fluoranthene	0.0015	mg/Kg	0.0010	0.0005
Benzo[k]fluoranthene	[0.0005]	mg/Kg	0.0010	0.0005
3-Methylcholanthrene	< 0.0025	mg/Kg	0.0050	0.0025
Benzo[a]pyrene	0.0015	mg/Kg	0.0010	0.0005
Indeno[1,2,3-cd]pyrene	< 0.0025	mg/Kg	0.0050	0.0025
Dibenzo[a,h]anthracene	[0.0005]	mg/Kg	0.0010	0.0005
Benzo[g,h,i]perylene	< 0.0025	mg/Kg	0.0050	0.0025
Dibenzo[a,h]pyrene	< 0.0050	mg/Kg	0.0099	0.0050
Dibenzo[a,i]pyrene	< 0.0050	mg/Kg	0.0099	0.0050
Dibenzo[a,l]pyrene	< 0.0050	mg/Kg	0.0099	0.0050

Surrogates	% Recovery	Limits	FLAG
Nitrobenzene-d5	39.1	23 - 120	Pass
2-Fluorobiphenyl	86.1	30 - 115	Pass
p-Terphenyl-d14	83.5	18 - 137	Pass

NA - Denotes compound not analyzed
MDL - Method Detection Level
RDL - Reliable Detection Level (as per CCME guidelines 2 X MDL)

Note : Bracketed results denote concentrations which fall between the MDL and RDL. As per CCME guidelines confidence levels for the bracketed values are reduced.

Comments : All samples have been corrected for blank values.

FILE NO.: 1001-96-03349
Date : Sep 19, 1996

Company Name : CCSG Associates
Attention : Sue Moodie

Project ID : None specified

Client ID : 44-W8
Chemex ID : 96-03349-26
Date Sampled : Sep 07, 1996
Date Received : Sep 13, 1996

Date Extracted : Sep 17, 1996
Date Analyzed : Sep 18, 1996
Matrix : Water
Dilution Factor : 1

Polyaromatic Hydrocarbons by GC/MSD (US EPA SW-846 Method 8270 Modified)

Parameter	Result	Unit	RDL	MDL
Naphthalene	< 0.055	µg/L	0.11	0.055
Acenaphthylene	< 0.055	µg/L	0.11	0.055
Acenaphthene	< 0.055	µg/L	0.11	0.055
Fluorene	< 0.055	µg/L	0.11	0.055
Phenanthrene	< 0.055	µg/L	0.11	0.055
Anthracene	< 0.055	µg/L	0.11	0.055
Acridine	< 0.55	µg/L	1.1	0.55
Fluoranthene	< 0.055	µg/L	0.11	0.055
Pyrene	< 0.055	µg/L	0.11	0.055
Benzo[c]phenanthrene	< 0.055	µg/L	0.11	0.055
Benzo[a]anthracene	< 0.011	µg/L	0.022	0.011
Chrysene	< 0.055	µg/L	0.11	0.055
7,12-Dibenz[a]anthracene	< 0.55	µg/L	1.1	0.55
Benzo[b&j]fluoranthene	[0.011]	µg/L	0.022	0.011
Benzo[k]fluoranthene	[0.011]	µg/L	0.022	0.011
3-Methylcholanthrene	< 0.055	µg/L	0.11	0.055
Benzo[a]pyrene	< 0.011	µg/L	0.022	0.011
Indeno[1,2,3-cd]pyrene	< 0.055	µg/L	0.11	0.055
Dibenzo[a,h]anthracene	< 0.011	µg/L	0.022	0.011
Benzo[g,h,i]perylene	< 0.055	µg/L	0.11	0.055
Dibenzo[a,h]pyrene	< 0.11	µg/L	0.22	0.11
Dibenzo[a,i]pyrene	< 0.11	µg/L	0.22	0.11
Dibenzo[a,l]pyrene	< 0.11	µg/L	0.22	0.11

Surrogates	% Recovery	Limits	FLAG
Nitrobenzene-d5	44.3	35 - 114	Pass
2-Fluorobiphenyl	91.1	43 - 116	Pass
p-Terphenyl-d14	77.6	33 - 141	Pass

NA - Denotes compound not analyzed
MDL - Method Detection Level
RDL - Reliable Detection Level (as per CCME guidelines 2 X MDL)

Note : Bracketed results denote concentrations which fall between the MDL and RDL. As per CCME guidelines confidence levels for the bracketed values are reduced.

Comments : All samples have been corrected for blank values.

FILE NO.: 1001-96-03349
Date : Sep 19, 1996

Company Name : CCSG Associates
Attention : Sue Moodie

Project ID : None specified

Client ID : Soil Blank
Chemex ID : 96-03349-SBLK
Date Sampled :
Date Received :

Date Extracted : Sep 17, 1996
Date Analyzed : Sep 18, 1996
Matrix : Soil
Dilution Factor : 1

Polyaromatic Hydrocarbons by GC/MSD (US EPA SW-846 Method 8270 Modified)

Parameter	Result	Unit	RDL	MDL
Naphthalene	[0.0045]	mg/Kg	0.0050	0.0025
Acenaphthylene	< 0.0025	mg/Kg	0.0050	0.0025
Acenaphthene	< 0.0025	mg/Kg	0.0050	0.0025
Fluorene	< 0.0025	mg/Kg	0.0050	0.0025
Phenanthrene	< 0.0025	mg/Kg	0.0050	0.0025
Anthracene	< 0.0025	mg/Kg	0.0050	0.0025
Acridine	< 0.025	mg/Kg	0.050	0.025
Fluoranthene	< 0.0025	mg/Kg	0.0050	0.0025
Pyrene	< 0.0025	mg/Kg	0.0050	0.0025
Benzo[c]phenanthrene	< 0.0025	mg/Kg	0.0050	0.0025
Benzo[a]anthracene	[0.0005]	mg/Kg	0.0010	0.0005
Chrysene	< 0.0025	mg/Kg	0.0050	0.0025
7,12-Dibenz[a]anthracene	< 0.025	mg/Kg	0.050	0.025
Benzo[b&j]fluoranthene	[0.0005]	mg/Kg	0.0010	0.0005
Benzo[k]fluoranthene	[0.0005]	mg/Kg	0.0010	0.0005
3-Methylcholanthrene	< 0.0025	mg/Kg	0.0050	0.0025
Benzo[a]pyrene	< 0.0005	mg/Kg	0.0010	0.0005
Indeno[1,2,3-cd]pyrene	< 0.0025	mg/Kg	0.0050	0.0025
Dibenzo[a,h]anthracene	< 0.0005	mg/Kg	0.0010	0.0005
Benzo[g,h,i]perylene	< 0.0025	mg/Kg	0.0050	0.0025
Dibenzo[a,h]pyrene	< 0.0050	mg/Kg	0.010	0.0050
Dibenzo[a,i]pyrene	< 0.0050	mg/Kg	0.010	0.0050
Dibenzo[a,l]pyrene	< 0.0050	mg/Kg	0.010	0.0050

Surrogates	% Recovery	Limits	FLAG
Nitrobenzene-d5	54.7	23 - 120	Pass
2-Fluorobiphenyl	89.8	30 - 115	Pass
p-Terphenyl-d14	91.3	18 - 137	Pass

NA - Denotes compound not analyzed
MDL - Method Detection Level
RDL - Reliable Detection Level (as per CCME guidelines 2 X MDL)

Note : Bracketed results denote concentrations which fall between the MDL and RDL. As per CCME guidelines confidence levels for the bracketed values are reduced.

Comments :

FILE NO.: 1001-96-03349
Date : Sep 19, 1996

Company Name : CCSG Associates
Attention : Sue Moodie

Project ID : None specified

Client ID : Soil Spike
Chemex ID : 96-03349-SSPK
Date Sampled :
Date Received :

Date Extracted : Sep 17, 1996
Date Analyzed : Sep 18, 1996
Matrix : Soil
Dilution Factor : 1

Polyaromatic Hydrocarbons by GC/MSD (US EPA SW-846 Method 8270 Modified)

Parameter	% Recovery	Limits	FLAG
Acenaphthene	91.4	31 - 137	Pass
Pyrene	115.3	35 - 142	Pass

Surrogates	% Recovery	Limits	FLAG
Nitrobenzene-d5	33.2	23 - 120	Pass
2-Fluorobiphenyl	79.4	30 - 115	Pass
p-Terphenyl-d14	89.3	18 - 137	Pass

NA - Denotes compound not analyzed
MDL - Method Detection Level
RDL - Reliable Detection Level (as per CCME guidelines 2 X MDL)

Note : Bracketed results denote concentrations which fall between the MDL and RDL. As per CCME guidelines confidence levels for the bracketed values are reduced.

FILE NO.: 1001-96-03349
Date : Sep 19, 1996

Company Name : CCSG Associates
Attention : Sue Moodie

Project ID : None specified

Client ID : Water Blank
Chemex ID : 96-03349-WBLK
Date Sampled :
Date Received :

Date Extracted : Sep 17, 1996
Date Analyzed : Sep 18, 1996
Matrix : Water
Dilution Factor : 1

Polyaromatic Hydrocarbons by GC/MSD (US EPA SW-846 Method 8270 Modified)

Parameter	Result	Unit	RDL	MDL
Naphthalene	< 0.050	µg/L	0.10	0.050
Acenaphthylene	< 0.050	µg/L	0.10	0.050
Acenaphthene	< 0.050	µg/L	0.10	0.050
Fluorene	< 0.050	µg/L	0.10	0.050
Phenanthrene	< 0.050	µg/L	0.10	0.050
Anthracene	< 0.050	µg/L	0.10	0.050
Acridine	< 0.50	µg/L	1.0	0.50
Fluoranthene	< 0.050	µg/L	0.10	0.050
Pyrene	< 0.050	µg/L	0.10	0.050
Benzo[c]phenanthrene	< 0.050	µg/L	0.10	0.050
Benzo[a]anthracene	[0.010]	µg/L	0.020	0.010
Chrysene	< 0.050	µg/L	0.10	0.050
7,12-Dibenz[a]anthracene	< 0.50	µg/L	1.0	0.50
Benzo[b&j]fluoranthene	< 0.010	µg/L	0.020	0.010
Benzo[k]fluoranthene	< 0.010	µg/L	0.020	0.010
3-Methylcholanthrene	< 0.050	µg/L	0.10	0.050
Benzo[a]pyrene	[0.010]	µg/L	0.020	0.010
Indeno[1,2,3-cd]pyrene	< 0.050	µg/L	0.10	0.050
Dibenzo[a,h]anthracene	[0.010]	µg/L	0.020	0.010
Benzo[g,h,i]perylene	< 0.050	µg/L	0.10	0.050
Dibenzo[a,h]pyrene	< 0.10	µg/L	0.20	0.10
Dibenzo[a,i]pyrene	< 0.10	µg/L	0.20	0.10
Dibenzo[a,l]pyrene	< 0.10	µg/L	0.20	0.10

Surrogates	% Recovery	Limits	FLAG
Nitrobenzene-d5	45.8	35 - 114	Pass
2-Fluorobiphenyl	80.6	43 - 116	Pass
p-Terphenyl-d14	95.1	33 - 141	Pass

NA - Denotes compound not analyzed
MDL - Method Detection Level
RDL - Reliable Detection Level (as per CCME guidelines 2 X MDL)

Note : Bracketed results denote concentrations which fall between the MDL and RDL. As per CCME guidelines confidence levels for the bracketed values are reduced.

Comments :

FILE NO.: 1001-96-03349
Date : Sep 19, 1996

Company Name : CCSG Associates
Attention : Sue Moodie

Project ID : None specified

Client ID : Water Spike
Chemex ID : 96-03349-WSPK
Date Sampled :
Date Received :

Date Extracted : Sep 17, 1996
Date Analyzed : Sep 18, 1996
Matrix : Water
Dilution Factor : 1

Polyaromatic Hydrocarbons by GC/MSD (US EPA SW-846 Method 8270 Modified)

Parameter	% Recovery	Limits	FLAG
Acenaphthene	82.1	43 - 118	Pass
Pyrene	106.1	26 - 127	Pass

Surrogates	% Recovery	Limits	FLAG
Nitrobenzene-d5	49.4	35 - 114	Pass
2-Fluorobiphenyl	78.4	43 - 116	Pass
p-Terphenyl-d14	87.2	33 - 141	Pass

NA - Denotes compound not analyzed
MDL - Method Detection Level
RDL - Reliable Detection Level (as per CCME guidelines 2 X MDL)

Note : Bracketed results denote concentrations which fall between the MDL and RDL. As per CCME guidelines confidence levels for the bracketed values are reduced.

FILE NO.: 1001-96-03349

Date : 96-09-23

Company Name : CCSG Associates
Attention : Sue Moodie

Client ID : 30-17
Chemex ID : 96-03349-01
Date Sampled : 96-09-05
Date Received : 96-09-17

Date Extracted : 96-09-18
Date Analyzed : 96-09-19
Matrix : Solid
Dilution Factor : 100

Organo Chloride Pesticides by GC/MSD (US EPA SW-846 Method 8270 Modified)

Parameter	Result	Unit	RDL	MDL
Trifluralin	< 0.49	mg/Kg	0.98	0.49
alpha-BHC	< 0.49	mg/Kg	0.98	0.49
beta-BHC	< 0.49	mg/Kg	0.98	0.49
gamma-BHC (Lindane)	< 0.49	mg/Kg	0.98	0.49
Triallate	< 0.49	mg/Kg	0.98	0.49
delta-BHC	< 0.49	mg/Kg	0.98	0.49
Heptachlor	< 0.49	mg/Kg	0.98	0.49
Aldrin	< 0.49	mg/Kg	0.98	0.49
Heptachlor Epoxide	< 0.49	mg/Kg	0.98	0.49
gamma-Chlordane	< 0.49	mg/Kg	0.98	0.49
Endosulfan I	< 0.49	mg/Kg	0.98	0.49
alpha-Chlordane	< 0.49	mg/Kg	0.98	0.49
4,4'-DDE	< 0.49	mg/Kg	0.98	0.49
Dieldrin	< 0.49	mg/Kg	0.98	0.49
Endrin	< 0.49	mg/Kg	0.98	0.49
Endosulfan II	< 0.49	mg/Kg	0.98	0.49
4,4'-DDD	< 0.49	mg/Kg	0.98	0.49
Endrin Aldehyde	< 0.49	mg/Kg	0.98	0.49
Endosulfan Sulfate	< 0.49	mg/Kg	0.98	0.49
4,4'-DDT	< 0.49	mg/Kg	0.98	0.49
Methoxychlor	< 0.49	mg/Kg	0.98	0.49

Surrogate	% Recovery	Limits	Flag
2,4,5,6-TMX	D*	23 - 120	D*

*D - Durrogate diluted out of calibration range.
NA - Denotes compound not analyzed
MDL - Method Detection Level
RDL - Reliable Detection Level (as per CCME guidelines 2 X MDL)

Note : Bracketed results denote concentrations which fall between the MDL and RDL. As per CCME guidelines confidence levels for the bracketed values are reduced.

Comments : All results have been corrected for blank values. Dilutions required to minimize the masking of the internal standard by unidentified non-target compounds.

FILE NO.: 1001-96-03349

Date : 96-09-23

Company Name : CCSG Associates
Attention : Sue Moodie

Client ID : 39-2
Chemex ID : 96-03349-13
Date Sampled : 96-09-07
Date Received : 96-09-17

Date Extracted : 96-09-18
Date Analyzed : 96-09-19
Matrix : Solid
Dilution Factor : 1

Organo Chloride Pesticides by GC/MSD (US EPA SW-846 Method 8270 Modified)

Parameter	Result	Unit	RDL	MDL
Trifluralin	< 0.0050	mg/Kg	0.0099	0.0050
alpha-BHC	< 0.0050	mg/Kg	0.0099	0.0050
beta-BHC	< 0.0050	mg/Kg	0.0099	0.0050
gamma-BHC (Lindane)	< 0.0050	mg/Kg	0.0099	0.0050
Triallate	< 0.0050	mg/Kg	0.0099	0.0050
delta-BHC	< 0.0050	mg/Kg	0.0099	0.0050
Heptachlor	< 0.0050	mg/Kg	0.0099	0.0050
Aldrin	< 0.0050	mg/Kg	0.0099	0.0050
Heptachlor Epoxide	< 0.0050	mg/Kg	0.0099	0.0050
gamma-Chlordane	< 0.0050	mg/Kg	0.0099	0.0050
Endosulfan I	< 0.0050	mg/Kg	0.0099	0.0050
alpha-Chlordane	< 0.0050	mg/Kg	0.0099	0.0050
4,4'-DDE	< 0.0050	mg/Kg	0.0099	0.0050
Dieldrin	< 0.0050	mg/Kg	0.0099	0.0050
Endrin	< 0.0050	mg/Kg	0.0099	0.0050
Endosulfan II	< 0.0050	mg/Kg	0.0099	0.0050
4,4'-DDD	< 0.0050	mg/Kg	0.0099	0.0050
Endrin Aldehyde	< 0.0050	mg/Kg	0.0099	0.0050
Endosulfan Sulfate	< 0.0050	mg/Kg	0.0099	0.0050
4,4'-DDT	< 0.0050	mg/Kg	0.0099	0.0050
Methoxychlor	< 0.0050	mg/Kg	0.0099	0.0050

Surrogate	% Recovery	Limits	Flag
2,4,5,6-TMX	78.4	23 - 120	Pass

NA - Denotes compound not analyzed
MDL - Method Detection Level
RDL - Reliable Detection Level (as per CCME guidelines 2 X MDL)

Note : Bracketed results denote concentrations which fall between the MDL and RDL. As per CCME guidelines confidence levels for the bracketed values are reduced.

Comments : All results have been corrected for blank values.

CHEMEX

FILE NO.: 1001-96-03349

Date : 96-09-23

Company Name : CCSG Associates
Attention : Sue Moodie

Client ID : Method Blank
Chemex ID : 96-03349-mb
Date Sampled :
Date Received :

Date Extracted : 96-09-18
Date Analyzed : 96-09-19
Matrix : Solid
Dilution Factor : 1

Organo Chloride Pesticides by GC/MSD (US EPA SW-846 Method 8270 Modified)

Parameter	Result	Unit	RDL	MDL
Trifluralin	< 0.0050	mg/Kg	0.010	0.0050
alpha-BHC	< 0.0050	mg/Kg	0.010	0.0050
beta-BHC	< 0.0050	mg/Kg	0.010	0.0050
gamma-BHC (Lindane)	< 0.0050	mg/Kg	0.010	0.0050
Triallate	< 0.0050	mg/Kg	0.010	0.0050
delta-BHC	< 0.0050	mg/Kg	0.010	0.0050
Heptachlor	< 0.0050	mg/Kg	0.010	0.0050
Aldrin	< 0.0050	mg/Kg	0.010	0.0050
Heptachlor Epoxide	< 0.0050	mg/Kg	0.010	0.0050
gamma-Chlordane	< 0.0050	mg/Kg	0.010	0.0050
Endosulfan I	< 0.0050	mg/Kg	0.010	0.0050
alpha-Chlordane	< 0.0050	mg/Kg	0.010	0.0050
4,4'-DDE	[0.0075]	mg/Kg	0.010	0.0050
Dieldrin	< 0.0050	mg/Kg	0.010	0.0050
Endrin	< 0.0050	mg/Kg	0.010	0.0050
Endosulfan II	< 0.0050	mg/Kg	0.010	0.0050
4,4'-DDD	< 0.0050	mg/Kg	0.010	0.0050
Endrin Aldehyde	< 0.0050	mg/Kg	0.010	0.0050
Endosulfan Sulfate	< 0.0050	mg/Kg	0.010	0.0050
4,4'-DDT	< 0.0050	mg/Kg	0.010	0.0050
Methoxychlor	< 0.0050	mg/Kg	0.010	0.0050

Surrogate	% Recovery	Limits	Flag
2,4,5,6-TMX	70.4	23 - 120	Pass

NA - Denotes compound not analyzed
MDL - Method Detection Level
RDL - Reliable Detection Level (as per CCME guidelines 2 X MDL)

Note : Bracketed results denote concentrations which fall between the MDL and RDL. As per CCME guidelines confidence levels for the bracketed values are reduced.

Comments :

FILE NO.: 1001-96-03349

Date : 96-09-23

Company Name : CCSG Associates
Attention : Sue Moodie

Client ID : Method Spike
Chemex ID : 96-03349-mb spike
Date Sampled :
Date Received :

Date Extracted : 96-09-18
Date Analyzed : 96-09-19
Matrix : Solid
Dilution Factor : 1

Organo Chloride Pesticides by GC/MSD (US EPA SW-846 Method 8270 Modified)

Parameter	% Recovery	Limits	FLAG
Trifluralin	NA	35 - 120	NA
alpha-BHC	68	35 - 120	Pass
beta-BHC	77	35 - 120	Pass
gamma-BHC (Lindane)	69	35 - 120	Pass
Triallate	NA	35 - 120	NA
delta-BHC	77	35 - 120	Pass
Heptachlor	56	35 - 120	Pass
Aldrin	72	35 - 120	Pass
Heptachlor Epoxide	77	35 - 120	Pass
gamma-Chlordane	80	35 - 120	Pass
Endosulfan I	81	35 - 120	Pass
alpha-Chlordane	86	35 - 120	Pass
4,4'-DDE	97	35 - 120	Pass
Dieldrin	86	35 - 120	Pass
Endrin	86	35 - 120	Pass
Endosulfan II	82	35 - 120	Pass
4,4'-DDD	90	35 - 120	Pass
Endrin Aldehyde	47	35 - 120	Pass
Endosulfan Sulfate	94	35 - 120	Pass
4,4'-DDT	66	35 - 120	Pass
Methoxychlor	74	35 - 120	Pass

Surrogate	% Recovery	Limits	FLAG
2,4,5,6-TMX	65.4	35 - 114	Pass

NA - Denotes compound not analyzed
MDL - Method Detection Level
RDL - Reliable Detection Level (as per CCME guidelines 2 X MDL)

Note : Bracketed results denote concentrations which fall between the MDL and RDL. As per CCME guidelines confidence levels for the bracketed values are reduced.

File No : 1001-96-03349

Date : Sep 23, 1996

Company Name : CCSG Associates
Attention : Sue Moodie

Project ID : None specified

Client ID : 39-2
Chemex ID : 96-03349-13
Date Sampled : Sep 07, 1996
Date Received : Sep 13, 1996

Date Extracted : Sep 18, 1996
Date Analyzed : Sep 19, 1996
Matrix : Soil
Dilution Factor : 10

Phenoxy Acid Herbicides by GC/MSD (US EPA SW-846 Method 8270 Modified)

Parameter	Result	Unit	RDL	MDL
3,5-Dichlorobenzoate	< 0.020	mg/Kg	0.040	0.020
Lontrel	< 0.020	mg/Kg	0.040	0.020
Dicamba	< 0.020	mg/Kg	0.040	0.020
MCPP (Mecoprop)	< 0.020	mg/Kg	0.040	0.020
MCPA	< 0.020	mg/Kg	0.040	0.020
Dichloroprop	< 0.020	mg/Kg	0.040	0.020
Bromoxynil	< 0.020	mg/Kg	0.040	0.020
2,4-D	[0.025]	mg/Kg	0.040	0.020
Pentachlorophenol	< 0.020	mg/Kg	0.040	0.020
2,4,5-TP	< 0.020	mg/Kg	0.040	0.020
2,4,5-T	< 0.020	mg/Kg	0.040	0.020
Chloramben	< 0.020	mg/Kg	0.040	0.020
MCPB	< 0.020	mg/Kg	0.040	0.020
Dinoseb	[0.020]	mg/Kg	0.040	0.020
Bentazon	< 0.020	mg/Kg	0.040	0.020
2,4-DB	< 0.020	mg/Kg	0.040	0.020
Picloram	< 0.020	mg/Kg	0.040	0.020
DCPA Diacid	< 0.020	mg/Kg	0.040	0.020
Acifluorfen	< 0.020	mg/Kg	0.040	0.020
Diclofop-methyl	< 0.020	mg/Kg	0.040	0.020

Surrogate	% Recovery	Limits	Flag
2,4,6-Tribromophenol	100.9	19 - 122	Pass

NA - Denotes compound not analyzed
MDL - Method Detection Level
RDL - Reliable Detection Level (as per CCME guidelines 2 X MDL)

Note : Bracketed results denote concentrations which fall between the MDL and RDL. As per CCME guidelines confidence levels for the bracketed values are reduced.

Comments : All samples have been corrected for blank values.

File No : 1001-96-03349

Date : Sep 23, 1996

Company Name : CCSG Associates
Attention : Sue Moodie

Project ID : None specified

Client ID : Blank
Chemex ID : 96-03349-BLK
Date Sampled :
Date Received :

Date Extracted : Sep 18, 1996
Date Analyzed : Sep 19, 1996
Matrix : Soil
Dilution Factor : 1

Phenoxy Acid Herbicides by GC/MSD (US EPA SW-846 Method 8270 Modified)

Parameter	Result	Unit	RDL	MDL
3,5-Dichlorobenzoate	< 0.0020	mg/Kg	0.0040	0.0020
Lontrel	< 0.0020	mg/Kg	0.0040	0.0020
Dicamba	< 0.0020	mg/Kg	0.0040	0.0020
MCPP (Mecoprop)	< 0.0020	mg/Kg	0.0040	0.0020
MCPA	< 0.0020	mg/Kg	0.0040	0.0020
Dichloroprop	< 0.0020	mg/Kg	0.0040	0.0020
Bromoxynil	< 0.0020	mg/Kg	0.0040	0.0020
2,4-D	< 0.0020	mg/Kg	0.0040	0.0020
Pentachlorophenol	< 0.0020	mg/Kg	0.0040	0.0020
2,4,5-TP	< 0.0020	mg/Kg	0.0040	0.0020
2,4,5-T	< 0.0020	mg/Kg	0.0040	0.0020
Chloramben	< 0.0020	mg/Kg	0.0040	0.0020
MCPB	< 0.0020	mg/Kg	0.0040	0.0020
Dinoseb	< 0.0020	mg/Kg	0.0040	0.0020
Bentazon	< 0.0020	mg/Kg	0.0040	0.0020
2,4-DB	< 0.0020	mg/Kg	0.0040	0.0020
Picloram	< 0.0020	mg/Kg	0.0040	0.0020
DCPA Diacid	< 0.0020	mg/Kg	0.0040	0.0020
Acifluorfen	< 0.0020	mg/Kg	0.0040	0.0020
Diclofop-methyl	< 0.0020	mg/Kg	0.0040	0.0020

Surrogate	% Recovery	Limits	Flag
2,4,6-Tribromophenol	87.5	19 - 122	Pass

NA - Denotes compound not analyzed
MDL - Method Detection Level
RDL - Reliable Detection Level (as per CCME guidelines 2 X MDL)

Note : Bracketed results denote concentrations which fall between the MDL and RDL. As per CCME guidelines confidence levels for the bracketed values are reduced.

Comments : All samples have been corrected for blank values.

File No : 1001-96-03349

Date : Sep 23, 1996

Company Name : CCSG Associates
Attention : Sue Moodie

Project ID : None specified

Client ID : Spike
Chemex ID : 96-03349-SPK
Date Sampled :
Date Received :

Date Extracted : Sep 18, 1996
Date Analyzed : Sep 19, 1996
Matrix : Soil
Dilution Factor : 1

Phenoxy Acid Herbicides by GC/MSD (US EPA SW-846 Method 8270 Modified)
Matrix Spike Recovery Report

Parameter	Spike	Sample	Theoretical	% Rec	Limits	Flag
MCPP	20.63	0.00	20	103.2	50 - 150	Pass
MCPA	22.06	0.00	20	110.3	50 - 150	Pass
2,4-D	19.47	0.00	20	97.4	50 - 150	Pass
2,4,5-TP	18.62	0.00	20	93.1	50 - 150	Pass
2,4,5-T	20.63	0.00	20	103.2	50 - 150	Pass
2,4-DB	19.98	0.00	20	99.9	50 - 150	Pass

Surrogate	Spike	Theoretical	% Rec	Limits	Flag
2,4,6-Tribromophenol	19.0	20	94.95	19 - 122	Pass

Note : Bracketed results denote concentrations which fall between the MDL and RDL. As per CCME guidelines confidence levels for the bracketed values are reduced.

Comments : US EPA SW-846 Methods do not contain any recovery limits for Phenoxy Acid herbicides. Studies by Chemex are currently being done to determine these limits.

FILE NO.: 1001-96-03349

Date : 96-09-23

Company Name : CCSG Associates
Attention : Sue Moodie

Client ID : Method Spike
Chemex ID : 96-03349-mb spike
Date Sampled :
Date Received :

Date Extracted : 96-09-18
Date Analyzed : 96-09-19
Matrix : Solid
Dilution Factor : 1

Organo Chloride Pesticides by GC/MSD (US EPA SW-846 Method 8270 Modified)

Parameter	% Recovery	Limits	FLAG
Trifluralin	NA	35 - 120	NA
alpha-BHC	68	35 - 120	Pass
beta-BHC	77	35 - 120	Pass
gamma-BHC (Lindane)	69	35 - 120	Pass
Triallate	NA	35 - 120	NA
delta-BHC	77	35 - 120	Pass
Heptachlor	56	35 - 120	Pass
Aldrin	72	35 - 120	Pass
Heptachlor Epoxide	77	35 - 120	Pass
gamma-Chlordane	80	35 - 120	Pass
Endosulfan I	81	35 - 120	Pass
alpha-Chlordane	86	35 - 120	Pass
4,4'-DDE	97	35 - 120	Pass
Dieldrin	86	35 - 120	Pass
Endrin	86	35 - 120	Pass
Endosulfan II	82	35 - 120	Pass
4,4'-DDD	90	35 - 120	Pass
Endrin Aldehyde	47	35 - 120	Pass
Endosulfan Sulfate	94	35 - 120	Pass
4,4'-DDT	66	35 - 120	Pass
Methoxychlor	74	35 - 120	Pass

Surrogate	% Recovery	Limits	FLAG
2,4,5,6-TMX	65.4	35 - 114	Pass

NA - Denotes compound not analyzed
MDL - Method Detection Level
RDL - Reliable Detection Level (as per CCME guidelines 2 X MDL)

Note : Bracketed results denote concentrations which fall between the MDL and RDL. As per CCME guidelines confidence levels for the bracketed values are reduced.

FILE NO.: 1001-96-03349

Date : 96-09-23

Company Name : CCSG Associates
Attention : Sue Moodie

Client ID : Method Blank
Chemex ID : 96-03349-mb
Date Sampled :
Date Received :

Date Extracted : 96-09-18
Date Analyzed : 96-09-19
Matrix : Solid
Dilution Factor : 1

Organo Chloride Pesticides by GC/MSD (US EPA SW-846 Method 8270 Modified)

Parameter	Result	Unit	RDL	MDL
Trifluralin	< 0.0050	mg/Kg	0.010	0.0050
alpha-BHC	< 0.0050	mg/Kg	0.010	0.0050
beta-BHC	< 0.0050	mg/Kg	0.010	0.0050
gamma-BHC (Lindane)	< 0.0050	mg/Kg	0.010	0.0050
Triallate	< 0.0050	mg/Kg	0.010	0.0050
delta-BHC	< 0.0050	mg/Kg	0.010	0.0050
Heptachlor	< 0.0050	mg/Kg	0.010	0.0050
Aldrin	< 0.0050	mg/Kg	0.010	0.0050
Heptachlor Epoxide	< 0.0050	mg/Kg	0.010	0.0050
gamma-Chlordane	< 0.0050	mg/Kg	0.010	0.0050
Endosulfan I	< 0.0050	mg/Kg	0.010	0.0050
alpha-Chlordane	< 0.0050	mg/Kg	0.010	0.0050
4,4'-DDE	[0.0075]	mg/Kg	0.010	0.0050
Dieldrin	< 0.0050	mg/Kg	0.010	0.0050
Endrin	< 0.0050	mg/Kg	0.010	0.0050
Endosulfan II	< 0.0050	mg/Kg	0.010	0.0050
4,4'-DDD	< 0.0050	mg/Kg	0.010	0.0050
Endrin Aldehyde	< 0.0050	mg/Kg	0.010	0.0050
Endosulfan Sulfate	< 0.0050	mg/Kg	0.010	0.0050
4,4'-DDT	< 0.0050	mg/Kg	0.010	0.0050
Methoxychlor	< 0.0050	mg/Kg	0.010	0.0050

Surrogate	% Recovery	Limits	Flag
2,4,5,6-TMX	70.4	23 - 120	Pass

NA - Denotes compound not analyzed
MDL - Method Detection Level
RDL - Reliable Detection Level (as per CCME guidelines 2 X MDL)

Note : Bracketed results denote concentrations which fall between the MDL and RDL. As per CCME guidelines confidence levels for the bracketed values are reduced.

Comments :

FILE NO.: 1001-96-03349
Date : Sep 19, 1996

Company Name : CCSG Associates
Attention : Sue Moodie

Project ID : None specified

Client ID : Water Spike
Chemex ID : 96-03349-WSPK
Date Sampled :
Date Received :

Date Extracted : Sep 17, 1996
Date Analyzed : Sep 18, 1996
Matrix : Water
Dilution Factor : 1

Polyaromatic Hydrocarbons by GC/MSD (US EPA SW-846 Method 8270 Modified)

Parameter	% Recovery	Limits	FLAG
Acenaphthene	82.1	43 - 118	Pass
Pyrene	106.1	26 - 127	Pass

Surrogates	% Recovery	Limits	FLAG
Nitrobenzene-d5	49.4	35 - 114	Pass
2-Fluorobiphenyl	78.4	43 - 116	Pass
p-Terphenyl-d14	87.2	33 - 141	Pass

NA - Denotes compound not analyzed
MDL - Method Detection Level
RDL - Reliable Detection Level (as per CCME guidelines 2 X MDL)

Note : Bracketed results denote concentrations which fall between the MDL and RDL. As per CCME guidelines confidence levels for the bracketed values are reduced.

FILE NO.: 1001-96-03349
Date : Sep 19, 1996

Company Name : CCSG Associates
Attention : Sue Moodie

Project ID : None specified

Client ID : Water Blank
Chemex ID : 96-03349-WBLK
Date Sampled :
Date Received :

Date Extracted : Sep 17, 1996
Date Analyzed : Sep 18, 1996
Matrix : Water
Dilution Factor : 1

Polyaromatic Hydrocarbons by GC/MSD (US EPA SW-846 Method 8270 Modified)

Parameter	Result	Unit	RDL	MDL
Naphthalene	< 0.050	µg/L	0.10	0.050
Acenaphthylene	< 0.050	µg/L	0.10	0.050
Acenaphthene	< 0.050	µg/L	0.10	0.050
Fluorene	< 0.050	µg/L	0.10	0.050
Phenanthrene	< 0.050	µg/L	0.10	0.050
Anthracene	< 0.050	µg/L	0.10	0.050
Acridine	< 0.50	µg/L	1.0	0.50
Fluoranthene	< 0.050	µg/L	0.10	0.050
Pyrene	< 0.050	µg/L	0.10	0.050
Benzo[c]phenanthrene	< 0.050	µg/L	0.10	0.050
Benzo[a]anthracene	[0.010]	µg/L	0.020	0.010
Chrysene	< 0.050	µg/L	0.10	0.050
7,12-Dibenz[a]anthracene	< 0.50	µg/L	1.0	0.50
Benzo[b&j]fluoranthene	< 0.010	µg/L	0.020	0.010
Benzo[k]fluoranthene	< 0.010	µg/L	0.020	0.010
3-Methylcholanthrene	< 0.050	µg/L	0.10	0.050
Benzo[a]pyrene	[0.010]	µg/L	0.020	0.010
Indeno[1,2,3-cd]pyrene	< 0.050	µg/L	0.10	0.050
Dibenzo[a,h]anthracene	[0.010]	µg/L	0.020	0.010
Benzo[g,h,i]perylene	< 0.050	µg/L	0.10	0.050
Dibenzo[a,h]pyrene	< 0.10	µg/L	0.20	0.10
Dibenzo[a,i]pyrene	< 0.10	µg/L	0.20	0.10
Dibenzo[a,l]pyrene	< 0.10	µg/L	0.20	0.10

Surrogates	% Recovery	Limits	FLAG
Nitrobenzene-d5	45.8	35 - 114	Pass
2-Fluorobiphenyl	80.6	43 - 116	Pass
p-Terphenyl-d14	95.1	33 - 141	Pass

NA - Denotes compound not analyzed
MDL - Method Detection Level
RDL - Reliable Detection Level (as per CCME guidelines 2 X MDL)

Note : Bracketed results denote concentrations which fall between the MDL and RDL. As per CCME guidelines confidence levels for the bracketed values are reduced.

Comments :

CHEMEX Labs Alberta Inc.

CERTIFICATE OF ANALYSIS: OCCUPATIONAL HYGIENE

Date September 18, 1996 Date Received September 17, 1996 File No. CCSG010-96-03349

Company Name CCSG Associates Company Contact Sue Moody

Analytical Procedure Asbestos Fibre Identification NIOSH # 9002

SAMPLE NUMBER	SAMPLE LOCATION	RESULT
96-03349-30	30-1A	NON ASBESTOS
96-03349-31	30-2A	NON ASBESTOS
96-03349-32	30-3A	30 - 50% Chrysotile

FILE NO.: 1001-96-03349
Date : Sep 19, 1996

Company Name : CCSG Associates
Attention : Sue Moodie

Project ID : None specified

Client ID : 30-17
Chemex ID : 96-03349-01
Date Sampled : Sep 05, 1996
Date Received : Sep 13, 1996

Date Extracted : Sep 17, 1996
Date Analyzed : Sep 18, 1996
Matrix : Soil
Dilution Factor : 100

Polyaromatic Hydrocarbons by GC/MSD (US EPA SW-846 Method 8270 Modified)

Parameter	Result	Unit	RDL	MDL
Naphthalene	< 0.24	mg/Kg	0.48	0.24
Acenaphthylene	< 0.24	mg/Kg	0.48	0.24
Acenaphthene	< 0.24	mg/Kg	0.48	0.24
Fluorene	< 0.24	mg/Kg	0.48	0.24
Phenanthrene	< 0.24	mg/Kg	0.48	0.24
Anthracene	< 0.24	mg/Kg	0.48	0.24
Acridine	< 2.4	mg/Kg	4.8	2.4
Fluoranthene	< 0.24	mg/Kg	0.48	0.24
Pyrene	< 0.24	mg/Kg	0.48	0.24
Benzo[c]phenanthrene	< 0.24	mg/Kg	0.48	0.24
Benzo[a]anthracene	< 0.048	mg/Kg	0.097	0.048
Chrysene	< 0.24	mg/Kg	0.48	0.24
7,12-Dibenz[a]anthracene	< 2.4	mg/Kg	4.8	2.4
Benzo[b&j]fluoranthene	< 0.048	mg/Kg	0.097	0.048
Benzo[k]fluoranthene	< 0.048	mg/Kg	0.097	0.048
3-Methylcholanthrene	< 0.24	mg/Kg	0.48	0.24
Benzo[a]pyrene	< 0.048	mg/Kg	0.097	0.048
Indeno[1,2,3-cd]pyrene	< 0.24	mg/Kg	0.48	0.24
Dibenzo[a,h]anthracene	< 0.048	mg/Kg	0.097	0.048
Benzo[g,h,i]perylene	< 0.24	mg/Kg	0.48	0.24
Dibenzo[a,h]pyrene	< 0.48	mg/Kg	0.97	0.48
Dibenzo[a,i]pyrene	< 0.48	mg/Kg	0.97	0.48
Dibenzo[a,l]pyrene	< 0.48	mg/Kg	0.97	0.48

Surrogates	% Recovery	Limits	FLAG
Nitrobenzene-d5	D	23 - 120	See below
2-Fluorobiphenyl	D	30 - 115	See below
p-Terphenyl-d14	D	18 - 137	See below

D - Suoorgates diluted past calibrated range of instrumentation.
MDL - Method Detection Level
RDL - Reliable Detection Level (as per CCME guidelines 2 X MDL)

Note : Bracketed results denote concentrations which fall between the MDL and RDL. As per CCME guidelines confidence levels for the bracketed values are reduced.

Comments : All samples have been corrected for blank values. Dilutions required to minimize the masking of the internal standards by unidentified non-target compounds.

FILE NO.: 1001-96-03349
Date : Sep 19, 1996

Company Name : CCSG Associates
Attention : Sue Moodie

Project ID : None specified

Client ID : 30-23
Chemex ID : 96-03349-02
Date Sampled : Sep 06, 1996
Date Received : Sep 13, 1996

Date Extracted : Sep 17, 1996
Date Analyzed : Sep 18, 1996
Matrix : Soil
Dilution Factor : 1

Polyaromatic Hydrocarbons by GC/MSD (US EPA SW-846 Method 8270 Modified)

Parameter	Result	Unit	RDL	MDL
Naphthalene	< 0.0025	mg/Kg	0.0049	0.0025
Acenaphthylene	< 0.0025	mg/Kg	0.0049	0.0025
Acenaphthene	< 0.0025	mg/Kg	0.0049	0.0025
Fluorene	< 0.0025	mg/Kg	0.0049	0.0025
Phenanthrene	[0.0025]	mg/Kg	0.0049	0.0025
Anthracene	< 0.0025	mg/Kg	0.0049	0.0025
Acridine	< 0.025	mg/Kg	0.049	0.025
Fluoranthene	< 0.0025	mg/Kg	0.0049	0.0025
Pyrene	< 0.0025	mg/Kg	0.0049	0.0025
Benzo[c]phenanthrene	< 0.0025	mg/Kg	0.0049	0.0025
Benzo[a]anthracene	[0.0005]	mg/Kg	0.0010	0.0005
Chrysene	< 0.0025	mg/Kg	0.0049	0.0025
7,12-Dibenz[a]anthracene	< 0.025	mg/Kg	0.049	0.025
Benzo[b&j]fluoranthene	[0.0005]	mg/Kg	0.0010	0.0005
Benzo[k]fluoranthene	[0.0005]	mg/Kg	0.0010	0.0005
3-Methylcholanthrene	< 0.0025	mg/Kg	0.0049	0.0025
Benzo[a]pyrene	[0.0005]	mg/Kg	0.0010	0.0005
Indeno[1,2,3-cd]pyrene	< 0.0025	mg/Kg	0.0049	0.0025
Dibenzo[a,h]anthracene	0.0010	mg/Kg	0.0010	0.0005
Benzo[g,h,i]perylene	[0.0025]	mg/Kg	0.0049	0.0025
Dibenzo[a,h]pyrene	< 0.0049	mg/Kg	0.0099	0.0049
Dibenzo[a,i]pyrene	< 0.0049	mg/Kg	0.0099	0.0049
Dibenzo[a,l]pyrene	< 0.0049	mg/Kg	0.0099	0.0049

Surrogates	% Recovery	Limits	FLAG
Nitrobenzene-d5	37.9	23 - 120	Pass
2-Fluorobiphenyl	63.6	30 - 115	Pass
p-Terphenyl-d14	79.7	18 - 137	Pass

NA - Denotes compound not analyzed
MDL - Method Detection Level
RDL - Reliable Detection Level (as per CCME guidelines 2 X MDL)

Note : Bracketed results denote concentrations which fall between the MDL and RDL. As per CCME guidelines confidence levels for the bracketed values are reduced.

Comments : All samples have been corrected for blank values.

FILE NO.: 1001-96-03349

Date : 96-09-23

Company Name : CCSG Associates
Attention : Sue Moodie

Client ID : Method Spike
Chemex ID : 96-03349-mb spike
Date Sampled :
Date Received :

Date Extracted : 96-09-18
Date Analyzed : 96-09-19
Matrix : Solid
Dilution Factor : 1

Organo Chloride Pesticides by GC/MSD (US EPA SW-846 Method 8270 Modified)

Parameter	% Recovery	Limits	FLAG
Trifluralin	NA	35 - 120	NA
alpha-BHC	68	35 - 120	Pass
beta-BHC	77	35 - 120	Pass
gamma-BHC (Lindane)	69	35 - 120	Pass
Triallate	NA	35 - 120	NA
delta-BHC	77	35 - 120	Pass
Heptachlor	56	35 - 120	Pass
Aldrin	72	35 - 120	Pass
Heptachlor Epoxide	77	35 - 120	Pass
gamma-Chlordane	80	35 - 120	Pass
Endosulfan I	81	35 - 120	Pass
alpha-Chlordane	86	35 - 120	Pass
4,4'-DDE	97	35 - 120	Pass
Dieldrin	86	35 - 120	Pass
Endrin	86	35 - 120	Pass
Endosulfan II	82	35 - 120	Pass
4,4'-DDD	90	35 - 120	Pass
Endrin Aldehyde	47	35 - 120	Pass
Endosulfan Sulfate	94	35 - 120	Pass
4,4'-DDT	66	35 - 120	Pass
Methoxychlor	74	35 - 120	Pass

Surrogate	% Recovery	Limits	FLAG
2,4,5,6-TMX	65.4	35 - 114	Pass

NA - Denotes compound not analyzed
MDL - Method Detection Level
RDL - Reliable Detection Level (as per CCME guidelines 2 X MDL)

Note : Bracketed results denote concentrations which fall between the MDL and RDL. As per CCME guidelines confidence levels for the bracketed values are reduced.

FILE NO.: 1001-96-03349

Date : 96-09-23

Company Name : CCSG Associates
Attention : Sue Moodie

Client ID : Method Blank
Chemex ID : 96-03349-mb
Date Sampled :
Date Received :

Date Extracted : 96-09-18
Date Analyzed : 96-09-19
Matrix : Solid
Dilution Factor : 1

Organo Chloride Pesticides by GC/MSD (US EPA SW-846 Method 8270 Modified)

Parameter	Result	Unit	RDL	MDL
Trifluralin	< 0.0050	mg/Kg	0.010	0.0050
alpha-BHC	< 0.0050	mg/Kg	0.010	0.0050
beta-BHC	< 0.0050	mg/Kg	0.010	0.0050
gamma-BHC (Lindane)	< 0.0050	mg/Kg	0.010	0.0050
Triallate	< 0.0050	mg/Kg	0.010	0.0050
delta-BHC	< 0.0050	mg/Kg	0.010	0.0050
Heptachlor	< 0.0050	mg/Kg	0.010	0.0050
Aldrin	< 0.0050	mg/Kg	0.010	0.0050
Heptachlor Epoxide	< 0.0050	mg/Kg	0.010	0.0050
gamma-Chlordane	< 0.0050	mg/Kg	0.010	0.0050
Endosulfan I	< 0.0050	mg/Kg	0.010	0.0050
alpha-Chlordane	< 0.0050	mg/Kg	0.010	0.0050
4,4'-DDE	[0.0075]	mg/Kg	0.010	0.0050
Dieldrin	< 0.0050	mg/Kg	0.010	0.0050
Endrin	< 0.0050	mg/Kg	0.010	0.0050
Endosulfan II	< 0.0050	mg/Kg	0.010	0.0050
4,4'-DDD	< 0.0050	mg/Kg	0.010	0.0050
Endrin Aldehyde	< 0.0050	mg/Kg	0.010	0.0050
Endosulfan Sulfate	< 0.0050	mg/Kg	0.010	0.0050
4,4'-DDT	< 0.0050	mg/Kg	0.010	0.0050
Methoxychlor	< 0.0050	mg/Kg	0.010	0.0050

Surrogate	% Recovery	Limits	Flag
2,4,5,6-TMX	70.4	23 - 120	Pass

NA - Denotes compound not analyzed
MDL - Method Detection Level
RDL - Reliable Detection Level (as per CCME guidelines 2 X MDL)

Note : Bracketed results denote concentrations which fall between the MDL and RDL. As per CCME guidelines confidence levels for the bracketed values are reduced.

Comments :

FILE NO.: 1001-96-03349
Date : Sep 19, 1996

Company Name : CCSG Associates
Attention : Sue Moodie

Project ID : None specified

Client ID : Water Spike
Chemex ID : 96-03349-WSPK
Date Sampled :
Date Received :

Date Extracted : Sep 17, 1996
Date Analyzed : Sep 18, 1996
Matrix : Water
Dilution Factor : 1

Polyaromatic Hydrocarbons by GC/MSD (US EPA SW-846 Method 8270 Modified)

Parameter	% Recovery	Limits	FLAG
Acenaphthene	82.1	43 - 118	Pass
Pyrene	106.1	26 - 127	Pass

Surrogates	% Recovery	Limits	FLAG
Nitrobenzene-d5	49.4	35 - 114	Pass
2-Fluorobiphenyl	78.4	43 - 116	Pass
p-Terphenyl-d14	87.2	33 - 141	Pass

NA - Denotes compound not analyzed
MDL - Method Detection Level
RDL - Reliable Detection Level (as per CCME guidelines 2 X MDL)

Note : Bracketed results denote concentrations which fall between the MDL and RDL. As per CCME guidelines confidence levels for the bracketed values are reduced.

FILE NO.: 1001-96-03349
Date : Sep 19, 1996

Company Name : CCSG Associates
Attention : Sue Moodie

Project ID : None specified

Client ID : Water Blank
Chemex ID : 96-03349-WBLK
Date Sampled :
Date Received :

Date Extracted : Sep 17, 1996
Date Analyzed : Sep 18, 1996
Matrix : Water
Dilution Factor : 1

Polyaromatic Hydrocarbons by GC/MSD (US EPA SW-846 Method 8270 Modified)

Parameter	Result	Unit	RDL	MDL
Naphthalene	< 0.050	µg/L	0.10	0.050
Acenaphthylene	< 0.050	µg/L	0.10	0.050
Acenaphthene	< 0.050	µg/L	0.10	0.050
Fluorene	< 0.050	µg/L	0.10	0.050
Phenanthrene	< 0.050	µg/L	0.10	0.050
Anthracene	< 0.050	µg/L	0.10	0.050
Acridine	< 0.50	µg/L	1.0	0.50
Fluoranthene	< 0.050	µg/L	0.10	0.050
Pyrene	< 0.050	µg/L	0.10	0.050
Benzo[c]phenanthrene	< 0.050	µg/L	0.10	0.050
Benzo[a]anthracene	[0.010]	µg/L	0.020	0.010
Chrysene	< 0.050	µg/L	0.10	0.050
7,12-Dibenz[a]anthracene	< 0.50	µg/L	1.0	0.50
Benzo[b&j]fluoranthene	< 0.010	µg/L	0.020	0.010
Benzo[k]fluoranthene	< 0.010	µg/L	0.020	0.010
3-Methylcholanthrene	< 0.050	µg/L	0.10	0.050
Benzo[a]pyrene	[0.010]	µg/L	0.020	0.010
Indeno[1,2,3-cd]pyrene	< 0.050	µg/L	0.10	0.050
Dibenzo[a,h]anthracene	[0.010]	µg/L	0.020	0.010
Benzo[g,h,i]perylene	< 0.050	µg/L	0.10	0.050
Dibenzo[a,h]pyrene	< 0.10	µg/L	0.20	0.10
Dibenzo[a,i]pyrene	< 0.10	µg/L	0.20	0.10
Dibenzo[a,l]pyrene	< 0.10	µg/L	0.20	0.10

Surrogates	% Recovery	Limits	FLAG
Nitrobenzene-d5	45.8	35 - 114	Pass
2-Fluorobiphenyl	80.6	43 - 116	Pass
p-Terphenyl-d14	95.1	33 - 141	Pass

NA - Denotes compound not analyzed
MDL - Method Detection Level
RDL - Reliable Detection Level (as per CCME guidelines 2 X MDL)

Note : Bracketed results denote concentrations which fall between the MDL and RDL. As per CCME guidelines confidence levels for the bracketed values are reduced.

Comments :

FILE NO.: 1001-96-03349
Date : Sep 19, 1996

Company Name : CCSG Associates
Attention : Sue Moodie

Project ID : None specified

Client ID : Soil Spike
Chemex ID : 96-03349-SSPK
Date Sampled :
Date Received :

Date Extracted : Sep 17, 1996
Date Analyzed : Sep 18, 1996
Matrix : Soil
Dilution Factor : 1

Polyaromatic Hydrocarbons by GC/MSD (US EPA SW-846 Method 8270 Modified)

Parameter	% Recovery	Limits	FLAG
Acenaphthene	91.4	31 - 137	Pass
Pyrene	115.3	35 - 142	Pass

Surrogates	% Recovery	Limits	FLAG
Nitrobenzene-d5	33.2	23 - 120	Pass
2-Fluorobiphenyl	79.4	30 - 115	Pass
p-Terphenyl-d14	89.3	18 - 137	Pass

NA - Denotes compound not analyzed
MDL - Method Detection Level
RDL - Reliable Detection Level (as per CCME guidelines 2 X MDL)

Note : Bracketed results denote concentrations which fall between the MDL and RDL. As per CCME guidelines confidence levels for the bracketed values are reduced.

FILE NO.: 1001-96-03349
Date : Sep 19, 1996

Company Name : CCSG Associates
Attention : Sue Moodie

Project ID : None specified

Client ID : Soil Blank
Chemex ID : 96-03349-SBLK
Date Sampled :
Date Received :

Date Extracted : Sep 17, 1996
Date Analyzed : Sep 18, 1996
Matrix : Soil
Dilution Factor : 1

Polyaromatic Hydrocarbons by GC/MSD (US EPA SW-846 Method 8270 Modified)

Parameter	Result	Unit	RDL	MDL
Naphthalene	[0.0045]	mg/Kg	0.0050	0.0025
Acenaphthylene	< 0.0025	mg/Kg	0.0050	0.0025
Acenaphthene	< 0.0025	mg/Kg	0.0050	0.0025
Fluorene	< 0.0025	mg/Kg	0.0050	0.0025
Phenanthrene	< 0.0025	mg/Kg	0.0050	0.0025
Anthracene	< 0.0025	mg/Kg	0.0050	0.0025
Acridine	< 0.025	mg/Kg	0.050	0.025
Fluoranthene	< 0.0025	mg/Kg	0.0050	0.0025
Pyrene	< 0.0025	mg/Kg	0.0050	0.0025
Benzo[c]phenanthrene	< 0.0025	mg/Kg	0.0050	0.0025
Benzo[a]anthracene	[0.0005]	mg/Kg	0.0010	0.0005
Chrysene	< 0.0025	mg/Kg	0.0050	0.0025
7,12-Dibenz[a]anthracene	< 0.025	mg/Kg	0.050	0.025
Benzo[b&j]fluoranthene	[0.0005]	mg/Kg	0.0010	0.0005
Benzo[k]fluoranthene	[0.0005]	mg/Kg	0.0010	0.0005
3-Methylcholanthrene	< 0.0025	mg/Kg	0.0050	0.0025
Benzo[a]pyrene	< 0.0005	mg/Kg	0.0010	0.0005
Indeno[1,2,3-cd]pyrene	< 0.0025	mg/Kg	0.0050	0.0025
Dibenzo[a,h]anthracene	< 0.0005	mg/Kg	0.0010	0.0005
Benzo[g,h,i]perylene	< 0.0025	mg/Kg	0.0050	0.0025
Dibenzo[a,h]pyrene	< 0.0050	mg/Kg	0.010	0.0050
Dibenzo[a,i]pyrene	< 0.0050	mg/Kg	0.010	0.0050
Dibenzo[a,l]pyrene	< 0.0050	mg/Kg	0.010	0.0050

Surrogates	% Recovery	Limits	FLAG
Nitrobenzene-d5	54.7	23 - 120	Pass
2-Fluorobiphenyl	89.8	30 - 115	Pass
p-Terphenyl-d14	91.3	18 - 137	Pass

NA - Denotes compound not analyzed
MDL - Method Detection Level
RDL - Reliable Detection Level (as per CCME guidelines 2 X MDL)

Note : Bracketed results denote concentrations which fall between the MDL and RDL. As per CCME guidelines confidence levels for the bracketed values are reduced.

Comments :

Appendix E - 30

National Classification System Worksheet

Site 30 - Burwash Landing

FACILITY SITE DESCRIPTION

Site No: **Site 30**
Custodian Dept.:
Type of Site: **Old pumping station**
Zone:

Site Name: **Burwash**
Facility Name:

UTM Coordinates: **573 200** Easting
6 831 750 Northing

Province/Territory: **Yukon Territory**
Site Operator/Manager
Site Owner:
Latitude: **61** deg. **36** min. **45** sec.
Longitude: **139** deg. **37** min. **20** sec.

Location: **54.0 km north of Burwash Landing on the Alaska Highway**
Address:

Legal Land Description: **Untitled**
Provincial Parcel No.:

Brief Description of Site: **Extending for 300 metres along the south side of the highway and running 150 metres deep. Centre of the site includes an abandoned pumphouse, to the west of this is an old concrete foundation. Surface debris throughout.**

Site Land Use: Current: **Site used for hunting** Proposed: **Unknown**

Comments:

Summary of Site Classification Information:
Completed Evaluation Form: Detailed: ✓ Short
Site Score: **62.3** Total ± 12.5 Estimated Score
Class: (1,2,3, N, or I) **2** Risk: **Medium**
Notes:

Contact Name: **Sue Moodie/Lewis Rifkind**
Position:
Address: **Box 3946**
City: **Whitehorse** Prov./Terr.: **Y.T.** Postal Code: **Y1A 3T3**
Phone No.: **(403) 668-6828** Fax No.:
Site Classified by above ✓ or

Degree of familiarity with Site: ✓ Very familiar Moderately Familiar Indirectly Familiar Unfamiliar
Visited Site: ✓ Yes No

I CONTAMINANTS CHARACTERISTICS

A	**Degree of hazards**	**List possible contaminants and Estimated Concentrations**	**Information Source**	**Score**
	Medium concern contaminants - high concentration	Hydrocarbons, PAH	Field test 30-S1, 30-S2, 30-S5, 30-S7, 30-S8, 30-S9, 30-S15, 30-S17, 30-S23	8 ✓
B	**Contaminant Quantity**	**Estimated or measured area/ Volume of contaminated zone**		**Score**
	<2ha or 100 cubic metres	Two pits < 2 ha	Field Test 30-S17, 30-S23	2 ✓
C	**Physical State of Contaminants**	**Does the site contain primarily liquids/gases, sludges or solids?**		**Score**
	Liquid/gas	Waste oil	Field test 30-S17	9 ✓

		Total ✓	**Total ?**	**Total ✓ + ?**
Total site score for CONTAMINANT CHARACTERISTICS	Section A	8		8
	Section B	2		2
	Section C	9		9
	Total	**17**		**19**

II EXPOSURE PATHWAYS

A Groundwater

2 Potential for Groundwater Contamination

a) Engineered subsurface containment	**Document engineered systems protecting groundwater**	**Information Source**	**Score**
No containment	No documents	Site visit of Sept. 05/06, 1996	4 ✓
b) Thickness of confining layer over aquifer	**Document local geological conditions/Identify water-bearing zones used for water supply**		
3 m. or less	Examination of existing pits in ground	Site visit of Sept. 05/06, 1996	0.75 ?
c) Hydraulic conductivity of the confining layer	**Estimate hydraulic conductivity of Any confining layer**		
Unknown			0.75 ?
d) Annual Rainfall	**Document Rainfall Data**		
< 200 mm	191.7 mm/annum for years 1967 - 1996 at the Burwash Landing weather station	Yukon Weather Centre	0.2 ✓
e) Hydraulic conductivity of aquifer(s) of concern	**Estimate hydraulic conductivity of relevant aquifer(s)**		
Unknown	Unknown - no deep test pits		1.5 ?

		Total ✓	**Total ?**	**Total ✓ + ?**
Total site score for GROUNDWATER	Section 2	4.2	3	7.2
	Total	**4.2**	**3**	**7.2**

B Surface Water

2 Potential for Surface Water Contamination

a) Surface Containment	**Review and document engineered or natural systems protecting surface water**	**Information Source**	**Score**
No containment	No reports available	Archival research, site visit of Sept. 05/06, 1996	5 ✓
b) Distance to perennial surface water	**Estimate distance from site to nearest stream or other water body**		
>300 metres	350 metres	Site visit of Sept. 05/06, 1996	0.5 ✓
c) Topography	**Document terrain conditions**		
Contaminants at or below ground level	Visual site inspection	Site visit of Sept. 05/06, 1996	0 ✓
d) Run-off Potential	**Document geological and rainfall conditions**		
Unknown	Unknown		0.5 ?
e) Flood potential	**Estimate flood frequency of nearby water courses or water bodies**		
1 in 50 years	No nearby water courses or large water bodies	Site visit of Sept. 05/06, 1996	0.1 ✓

		Total ✓	**Total ?**	**Total ✓ + ?**
Total site score for SURFACE WATER	Section B	5.6	0.5	6.1
	Total	**5.6**	**0.5**	**6.1**

C Direct Contact

2 Potential for Direct Human and/or Animal Contact

a)Airborne Emissions	**Document reports of off-site contamination due to contact contaminated soil, dust, air etc.**	**Information Source**	**Score**
No airborne emissions	No reports available	Archival research	5 ?
b)Accessibility of Site	**Review and document avenues of site access by humans and animals**		
Limited barriers to prevent site access; contaminants not covered	Site visits	Site visit of Sept. 05/06, 1996	4 ✓
c)Hazardous soil gas migration	**Review potential for hazardous soil gas production and migration from site**		
Contaminants are putrescible; Soil permeability is unknown	Site visit, archival review		2 ?

		Total ✓	**Total ?**	**Total ✓ + ?**
Total site score for DIRECT CONTACT	Section A	4	7	11
	Total	**4**	**7**	**11**

III RECEPTORS

A Human and Animal Users

2 Potential for Impact on Humans or Animals

a) i)Known Impact on Drinking Water Supply	**Record known or suspected adverse effects on humans or domestic animals**	**Information Source**	**Score**
Drinking water supply is known not to be contaminated	No drinking water obtained in this area	Site visit of Sept. 05/06, 1996	0 ✓
b) ii)Potential for impact on water resources	**Locate and measure nearest water resource areas to site**		
300m to < 1 km	Small lake	Site visit of Sept. 05/06, 1996	1 ✓
Use of water resources	**Record use of nearby water resources**		
Recreational (fishing, swimming)	Site visit is accessible to highway public	Site visit of Sept. 05/06, 1996	2 ✓
c) i)Known contamination of land used by humans	**Record land use type (current or proposed) and level of contamination for land known to be contaminated due to site**		
Known contamination of land used for agricultural or residential/parkland/school purposes above AG or R/P EQC values	Site used for hunting	Archival research	5 ✓

		Total ✓	Total ?	Total ✓ + ?
Total site score for HUMAN AND ANIMAL RECEPTORS	Section A	8	0	8
	Total	**8**	**0**	**8**

B Environmental Receptors

2 Potential for Impact on Sensitive Environments

a)Distance from the site to the nearest sensitive environment	**Document location, distance, type and details of any nearby sensitive environments or habitats**	**Information Source**	**Score**
0 to < 500 metres	In wilderness area	Site visit of Sept. 05/06, 1996	10 ✓
b)Groundwater	**Measure distance to major recharge or discharge area**		
5 to 10 km	No known habitat within 5 km	Site visit of Sept. 05/06, 1996	1 ✓

		Total ✓	Total ?	Total ✓ + ?
Total site score for ENVIRONMENTAL RECEPTORS	Section B	11		11
	Total	**11**		**11**

			Category Score -CS (✓ + ?)	Estimated Score -ES (? Only)	Total Category Score (CS)	Total Estimate Score (ES)
I	**CONTAMINANT CHARACTERISTICS (33)**		19	2	19	± 2
II	**EXPOSURE PATHWAYS(33)**					
	A	Groundwater (11)	7.2	3	7.2	± 3
	B	Surface Water (11)	6.1	0.5	6.1	± 0.5
	C	Direct Contact (11)	4	7	11	± 7
III	**RECEPTORS (34)**					
	A	Human and Animal (18)	8	0	8	± 0
	B	Environment (16)	11	0	11	± 0
Total					**62.3**	**± 12.5**
					Total Score for The Site (TS)	Estimated Score For Site (ES)
					Classification:	Class 2

Appendix E - 39

National Classification System Worksheet

Site 39 - Kathleen River Crossing

FACILITY SITE DESCRIPTION

Site No: **Site 39**
Custodian Dept.:
Type of Site: **Old Maintenance Site**
Zone:

Site Name: **Kathleen River Crossing,**
Facility Name:

UTM Coordinates: **377 560** Easting
6 719 200 Northing

Province/Territory: **Yukon Territory**
Site Operator/Manager
Site Owner:
Latitude: **60** deg. **34** min. sec.
Longitude: **137** deg.**14** min. sec.

Location: **25.4 km south of Haines Junction on the Haines Highway**
Address:
Legal Land Description: **Untitled**
Provincial Parcel No.:
Brief Description of Site: **Northwest side of Kathleen River bridge, between the highway and Lot 68, G.803, Plan 52276.**
Site Land Use: Current: **Informal Recreational Area** Proposed: **Unknown**

Comments:

Summary of Site Classification Information:
Completed Evaluation Form: Detailed: ✓ Short
Site Score:**56.2** Total ± **0** Estimated Score
Class: (1,2,3, N, or I) **2** Risk: **Medium**
Notes:

Contact Name: **Sue Moodie/Lewis Rifkind**
Position:
Address: **Box 3946**
City: **Whitehorse** Prov./Terr.: **Y.T.** Postal Code: **Y1A 3T3**
Phone No.: **(403) 668-6828** Fax No.:
Site Classified by above ✓ or

Degree of familiarity with Site: ✓ Very familiar Moderately Familiar Indirectly Familiar Unfamiliar
Visited Site: ✓ Yes No

I CONTAMINANTS CHARACTERISTICS

A	**Degree of hazards**	**List possible contaminants and Estimated Concentrations**	**Information Source**	**Score**
	High concern contaminants - low concentration	2,4-d and Dinoseb (phenoxy acid herbicide)	Field test 39 -S2	11 ✓
B	**Contaminant Quantity**	**Estimated or measured area/ Volume of contaminated zone**	**Information Source**	**Score**
	<2ha or 100 cubic metres	2 m by 4 m test pit	Field Test 39-S2	2 ✓
C	**Physical State of Contaminants**	**Does the site contain primarily liquids/gases, sludges or solids?**	**Information Source**	**Score**
	Liquid/gas	Waste oil and herbicides	Field test 39 -S2	9 ✓

		Total ✓	**Total ?**	**Total ✓ + ?**
Total site score for CONTAMINANT CHARACTERISTICS	Section A	11		11
	Section B	2		2
	Section C	9		9
	Total	**22**		**22**

II EXPOSURE PATHWAYS

A Groundwater

2 Potential for Groundwater Contamination

a) Engineered subsurface containment	**Document engineered systems protecting groundwater**	**Information Source**	**Score**
No containment	No documents	Site visit of Sept. 07, 1996	4 ✓
b) Thickness of confining layer over aquifer	**Document local geological conditions/Identify water-bearing zones used for water supply**		
3 m. or less	Test pit of 1.75 metres revealed no groundwater	Site visit of Sept. 07, 1996	1.5 ✓
c) Hydraulic conductivity of the confining layer	**Estimate hydraulic conductivity of Any confining layer**		
> 10E-4 cm/sec	Test pits revealed sand, gravel	Site visit of Sept. 07, 1996	1.5 ✓
d) Annual Rainfall	**Document Rainfall Data**		
< 200 mm	166.2 mm/annum for years 1987 - 1996 at the HJ YTG Maintenance Yard	Yukon Weather Centre	0.2 ✓
e) Hydraulic conductivity of aquifer(s) of concern	**Estimate hydraulic conductivity of relevant aquifer(s)**		
>10E-2 cm/sec	Refer to "Range of Values of Hydraulic Conductivity and Permeability"	Supplied with CCME guidelines	3 ✓

		Total ✓	**Total ?**	**Total ✓ + ?**
Total site score for GROUNDWATER	Section 2	10.2		10.2
	Total	**10.2**		**10.2**

B Surface Water

1	Observed or Measured Contamination of Water/Effluent Discharged from Site		Information Source	Score
	Meets Canadian Water Quality Guidelines	Refer to field tests 39-W1, 39-W2 and 39-W3	Site visit of Sept. 07, 1996	0 ✓

		Total ✓	Total ?	Total ✓ + ?
Total site score for SURFACE WATER	Section A	0		0
	Total	**0**		**0**

C Direct Contact

2 Potential for Direct Human and/or Animal Contact

a)Airborne Emissions	**Document reports of off-site contamination due to contact contaminated soil, dust, air etc.**	**Information Source**	**Score**
No airborne emissions	No reports available	Interview with adjacent landowners	0 ✓
b)Accessibility of Site	**Review and document avenues of site access by humans and animals**		
Moderate accessibility or no intervening barriers; contaminants are covered	Site visit	Site visit of Sept. 07, 1996	3 ✓
c)Hazardous soil gas migration	**Review potential for hazardous soil gas production and migration from site**		
No putrescible contaminants at the site	Site visit, record review	Site visit of Sept. 07, 1996	0 ✓

		Total ✓	Total ?	Total ✓ + ?
Total site score for DIRECT CONTACT	Section A	3		3
	Total	**3**		**3**

III RECEPTORS

A Human and Animal Users

2 Potential for Impact on Humans or Animals

a) i)Known Impact on Drinking Water Supply	**Record known or suspected adverse effects on humans or domestic animals**	**Information Source**	**Score**
Drinking water supply is known not to be contaminated	Interview with adjacent landowner	Interview with adjacent landowner	0 ✓
b) i)Known impact on water resources	**Record information on water resource that is or is potentially affected by site contamination**		
Water resource in known not to be contaminated	Site testing	39-W4	0 ✓
c) i)Known contamination of land used by humans	**Record land use type (current or**		

	proposed) and level of contamination for land known to be contaminated due to site		
Known contamination of land used for agricultural or residential/parkland/school purposes above AG or R/P EQC values	Site used for fishing, raspberry picking	Site Visit of Sept. 07, 1996	5 ✓

		Total ✓	**Total ?**	**Total ✓ + ?**
Total site score for HUMAN AND ANIMAL RECEPTORS	Section A	5		5
	Total	**5**		**5**

B Environmental Receptors

2 Potential for Impact on Sensitive Environments

a)Distance from the site to the nearest sensitive environment	**Document location, distance, type and details of any nearby sensitive environments or habitats**	**Information Source**	**Score**
0 to < 500 metres	Adjacent to Kluane National Park	See topo. map	10 ✓
b)Groundwater	**Measure distance to major recharge or discharge area**		
0 to < 500 metres	Adjacent lot drinking well	See topo. map	6 ✓

		Total ✓	**Total ?**	**Total ✓ + ?**
Total site score for ENVIRONMENTAL RECEPTORS	Section B	16		16
	Total	**16**		**16**

		Category Score -CS (✓ + ?)	**Estimated Score -ES (? Only)**	**Total Category Score (CS)**	**Total Estimate Score (ES)**
I	**CONTAMINANT CHARACTERISTICS (33)**	22	0	22	± 0
II	**EXPOSURE PATHWAYS(33)**				
A	Groundwater (11)	10.2	0	10.2	± 0
B	Surface Water (11)	0	0	0	± 0
C	Direct Contact (11)	3	0	3	± 0
III	**RECEPTORS (34)**				
A	Human and Animal (18)	5	0	5	± 0
B	Environment (16)	16	0	16	± 0
Total				**56.2**	**± 0**
				Total Score for The Site (TS)	Estimated Score For Site (ES)
				Classification:	Class 2

Appendix E - 44

National Classification System Worksheet

Site 44 - Marshall Creek

FACILITY SITE DESCRIPTION

Site No: **Site 44**
Custodian Dept.:
Type of Site: **Old Refuse Site**
Zone:

Site Name: **Marshall Creek**
Facility Name:

Province/Territory: **Yukon Territory**
Site Operator/Manager
Site Owner:

UTM Coordinates: **368 500** Easting
6 739 000 Northing

Latitude: **60** deg. **46** min. sec.
Longitude: **137** deg.**25** min. sec.

Location: **5.2 km east of Haines Junction on the Marshall Creek Road**
Address:
Legal Land Description:
Provincial Parcel No.:
Brief Description of Site: **South side of the Marshall Creek road, 300 metres down a dirt track.**
Site Land Use: Current: **Informal fishing spot** Proposed: **Unknown**

Comments:

Summary of Site Classification Information:
Completed Evaluation Form: Detailed: ✓ Short
Site Score:**80.2** Total ± **11** Estimated Score
Class: (1,2,3, N, or I) **1** Risk:**High**
Notes:

Contact Name: **Sue Moodie/Lewis Rifkind**
Position:
Address: **Box 3946**
City: **Whitehorse** Prov./Terr.: **Y.T.** Postal Code: **Y1A 3T3**
Phone No.: **(403) 668-6828** Fax No.:
Site Classified by above ✓ or

Degree of familiarity with Site: ✓ Very familiar Moderately Familiar Indirectly Familiar Unfamiliar
Visited Site: ✓ Yes No

I CONTAMINANTS CHARACTERISTICS

A	**Degree of hazards**	**List possible contaminants and Estimated Concentrations**	**Information Source**	**Score**
	Medium concern contaminants - high concentration	PAH, metals, HC - exceed CCME	Field test 44-W8, 44-S13	8 ✓
B	**Contaminant Quantity**	**Estimated or measured area/ Volume of contaminated zone**	**Information Source**	**Score**
	>10 ha or 1000 cubic metres or drums of liquid	5 drums	Site visit of Sept. 06, 1996	10 ✓
C	**Physical State of Contaminants**	**Does the site contain primarily liquids/gases, sludges or solids?**	**Information Source**	**Score**
	Liquid/gas	Waste oil	Site visit of Sept. 06, 1996	9 ✓

		Total ✓	Total ?	Total ✓ + ?
Total site score for CONTAMINANT CHARACTERISTICS	Section A	8		8
	Section B	10		10
	Section C	9		9
	Total	**27**		**27**

II EXPOSURE PATHWAYS

A Groundwater

2 Potential for Groundwater Contamination

a) Engineered subsurface containment	**Document engineered systems protecting groundwater**	**Information Source**	**Score**
No containment	None	Site visit of Sept. 06, 1996	4 ✓
b) Thickness of confining layer over aquifer	**Document local geological conditions/Identify water-bearing zones used for water supply**		
Unknown		Site visit of Sept. 06, 1996	0.75 ?
c) Hydraulic conductivity of the confining layer	**Estimate hydraulic conductivity of Any confining layer**		
>10E-4 cm/sec	Test pits revealed sand/gravel but no laboratory testing done on it.	Site visit of Sept. 06, 1996	1.5 ?
d) Annual Rainfall	**Document Rainfall Data**		
<200 mm/annum	166.2 mm/annum for years 1987 - 1966, HJ YTG Yard - not 30 year average.		0.2 ✓
e) Hydraulic conductivity of aquifer(s) of concern	**Estimate hydraulic conductivity of relevant aquifer(s)**		
>10E-2 cm/sec	Refer to "Range of Values of Hydraulic Conductivity and Permeability"	Supplied with CCME guidelines	3 ?

		Total ✓	Total ?	Total ✓ + ?
Total site score for GROUNDWATER	Section 2	4.2	5.25	9.45
	Total	**4.2**	**5.25**	**9.45**

B Surface Water

2 Potential for Surface Water Contamination

a) Surface Containment	**Review and document engineered or natural systems protecting surface water**	**Information Source**	**Score**
Partial containment	Barrels in small pond	Site visit of Sept. 06, 1996	3 ✓
b) Distance to perennial surface water	**Estimate distance from site to nearest stream or other water body**		
0 to < 100 metres	0 metres	Site visit of Sept. 06, 1996	3 ✓
c) Topography	**Document terrain conditions**		
Contaminants at or below ground level	Visual site inspection	Site visit of Sept. 06, 1996	0 ✓
d) Run-off Potential	**Document geological and rainfall conditions**		
Unknown	Unknown		0.5 ?
e) Flood potential	**Estimate flood frequency of nearby water courses or water bodies**		
1 in 2 years	Nearby water courses or large water bodies	Site visit of Sept. 06, 1996	0.25 ✓

		Total ✓	Total ?	Total ✓ + ?
Total site score for SURFACE WATER	Section B	6	0.75	6.75
	Total	**6**	**0.75**	**6.75**

C Direct Contact

2 Potential for Direct Human and/or Animal Contact

a)Airborne Emissions	**Document reports of off-site contamination due to contact contaminated soil, dust, air etc.**	**Information Source**	**Score**
No airborne emissions	No reports discovered	Archival research	2.5 ?
b)Accessibility of Site	**Review and document avenues of site access by humans and animals**		
Limited barriers to prevent site access; contaminants not covered	Site visits	Site visit of Sept. 06, 1996	4 ✓
c)Hazardous soil gas migration	**Review potential for hazardous soil gas production and migration from site**		
Contaminants are putrescible and soil permeability is high	It is not known if contaminants are putrescible, but permeability is high		2 ?

		Total ✓	Total ?	Total ✓ + ?
Total site score for DIRECT CONTACT	Section A	4	4.5	8.5
	Total	**4**	**4.5**	**8.5**

III RECEPTORS

A Human and Animal Users

2 Potential for Impact on Humans or Animals

a) ii)Potential for impact on drinking water supply	**Identify nearest drinking water well and measure distance to site**	**Information Source**	**Score**
Proximity to drinking water supply			
1 to 3 km	HJ water intake over 5 km from site	Site visit of Sept. 06, 1996	3 ✓
Potential for impact on drinking water supply	**Document availability of alternate sources of drinking water and ease of implementation**		
Availability of alternate drinking water supply			
Alternate drinking water supply available	Groundwater wells		0.5 ?
b) ii)Potential for impact on water resources	**Locate and measure nearest water resource areas to site**		
0 to < 100 km	8 metres	Site visit of Sept. 06, 1996	2 ✓
Use of water resources	**Record use of nearby water resources**		
Recreational (fishing, swimming)	Site visit is accessible to highway public	Site visit of Sept. 06, 1996	2 ✓
c) i)Known contamination of land used by humans	**Record land use type (current or proposed) and level of contamination for land known to be contaminated due to site**		
Known contamination of land used for agricultural or residential/parkland/school purposes above AG or R/P EQC values .	Site used for fishing	Site visit of Sept. 06, 1996	5 ✓

		Total ✓	Total ?	Total ✓ + ?
Total site score for HUMAN AND ANIMAL RECEPTORS	Section A	12	0.5	12.5
	Total	**12**	**0.5**	**12.5**

B Environmental Receptors

1 Known Adverse Impact on the Environment as a Result of the Contaminated Sites	**Record known impact(s) on any sensitive biological environment at and/or around the site**	**Information Source**	**Score**
Known adverse impact on sensitive environment	Visual observations	Site visit of Sept. 06, 1996	16 ✓

		Total ✓	Total ?	Total ✓ + ?
Total site score for ENVIRONMENTAL RECEPTORS	Section B	16		16
	Total	**16**		**16**

			Category Score -CS (✓ + ?)	Estimated Score -ES (? Only)	Total Category Score (CS)	Total Estimate Score (ES)
I	**CONTAMINANT CHARACTERISTICS (33)**		27		27	± 0
II	**EXPOSURE PATHWAYS(33)**					
	A	Groundwater (11)	9.45	5.25	9.45	± 5.25
	B	Surface Water (11)	6.75	0.75	6.75	± 0.75
	C	Direct Contact (11)	8.5	4.5	8.5	± 4.5
III	**RECEPTORS (34)**					
	A	Human and Animal (18)	12.5	0.5	12.5	± 0.5
	B	Environment (16)	16	0	16	± 0
Total					**80.2**	**± 11**
					Total Score for The Site (TS)	Estimated Score For Site (ES)
					Classification:	Class 1

Appendix F

Water Survey of Canada Data

YUKON TERRITORY

DEZADEASH RIVER AT HAINES JUNCTION - STATION NO. 08AA003

ANNUAL EXTREMES OF DISCHARGE AND ANNUAL TOTAL DISCHARGE FOR THE PERIOD OF RECORD

YEAR	MAXIMUM INSTANTANEOUS DISCHARGE (m^3/s)	MAXIMUM DAILY DISCHARGE (m^3/s)	MINIMUM DAILY DISCHARGE (m^3/s)	TOTAL DISCHARGE (dam^3)	YEAR
1953	---	133 ON JUL 16	8.16B ON MAR 20	1 390 000	1953
1954	---	164 E ON JUN 07	11.3 B ON APR 27	1 390 000	1954
1955	---	184 ON JUN 26	12.7 B ON DEC 31	1 510 000	1955
1956	---	125 ON JUN 29	10.5 B ON MAR 24	1 180 000	1956
1957	---	210 ON JUN 13	13.9 B ON MAR 14	1 780 000	1957
1958	---	70.8 ON JUN 07	14.3 B ON MAR 21	850 000	1958
1959	---	157 ON JUN 24	10.2 B ON MAR 30	1 350 000	1959
1960	---	141 ON MAY 31	11.3 B ON APR 16	1 360 000	1960
1961	---	286 ON JUN 28	11.9 B ON APR 01	1 450 000	1961
1962	---	275 ON JUN 21	9.91B ON MAR 01	1 800 000	1962
1963	---	180 ON JUL 07	15.9 B ON APR 01	1 810 000	1963
1964	---	236 ON JUN 08	14.1 B ON DEC 26	1 720 000	1964
1965	---	111 ON JUL 08	12.3 B ON MAR 26	1 020 000	1965
1966	---	199 ON JUN 21	8.92B ON FEB 21	1 130 000	1966
1967	---	158 ON JUN 06	6.74B ON MAR 22	1 470 000	1967
1968	---	261 ON MAY 23	10.2 B ON FEB 01	1 490 000	1968
1969	---	123 ON MAY 25	12.7 B ON MAR 17	1 430 000	1969
1970	---	81.0 ON JUN 17	14.4 B ON DEC 31	1 130 000	1970
1971	151 AT 05:56 YST ON JUN 29	148 ON JUN 29	9.23B ON MAR 31	1 110 000	1971
1972	198 AT 07:30 YST ON MAY 31	190 ON MAY 31	9.77B ON JAN 18	1 300 000	1972
1973	124 AT 08:15 YST ON JUN 21	119 ON JUN 21	10.5 B ON APR 12	1 100 000	1973
1974	98.8 AT 20:26 YST ON JUN 24	91.7 ON JUN 24	7.93B ON MAR 09	1 030 000	1974
1975	---	---	7.50B ON APR 06	---	1975
1976	184 AT 13:06 YST ON JUL 12	183 ON JUL 12	15.9 B ON APR 06	1 510 000	1976
1977	172 AT 12:27 YST ON JUN 03	166 ON JUN 03	20.0 B ON FEB 14	1 400 000	1977
1978	96.6 AT 07:00 YST ON JUN 06	90.3 ON JUN 06	16.1 B ON APR 21	1 090 000	1978
1979	150 AT 16:25 YST ON JUN 23	147 ON JUN 24	13.2 B ON DEC 22	1 360 000	1979
1980	124 AT 01:10 YST ON JUN 08	121 ON JUN 07	12.1 B ON APR 05	1 110 000	1980
1981	87.9 AT 09:00 YST ON MAY 28	86.2A ON MAY 28	11.4 B ON FEB 16	1 130 000	1981
1982	---	700 E ON JUN 08 *	10.0 B ON MAR 08	1 670 000	1982
1983	131 AT 06:20 YST ON JUN 01	121 ON JUN 01	11.6 B ON MAR 28	1 110 000	1983
1984	108 AT 05:46 YST ON JUL 01	105 ON JUL 01	11.0 B ON JAN 1[illegible]	1 020 000	1984
1985	152 AT 11:08 YST ON JUN 05	148 ON JUN 05	11.2 B ON DEC 31	1 320 000	1985
1986	126 AT 09:47 YST ON JUL 03	160 ON JUL 03	10.6 B ON JAN 09	1 490 000	1986
1987	180 AT 07:13 YST ON JUN 01	168 ON JUN 01	21.0 B ON FEB 27	1 270 000	1987
1988	155 AT 13:37 YST ON JUL 17 *	337 ON JUL 17	19.2 B ON APR 07	2 120 000	1988
1989	141 AT 06:43 YST ON MAY 31	130 ON MAY 31	21.5 B ON APR 07	1 560 000	1989
1990	171 AT 07:55 YST ON JUN 02	166 ON JUN 02	18.9 B ON DEC 14	1 470 000	1990
1991	137 AT 05:00 YST ON JUL 29	136 ON JUL 29	20.1 B ON JAN 07	1 640 000	1991
1992	197 AT 16:59 YST ON JUL 15	192 ON JUL 15	22.2 B ON FEB 12	1 840 000	1992
				1 380 000	MEAN

A - MANUAL GAUGE (SEE REFERENCE INDEX) B - ICE CONDITIONS E - ESTIMATED * - EXTREME RECORDED FOR THE PERIOD OF RECORD

DONJEK RIVER BELOW KLUANE RIVER - STATION NO. 09CA003

MONTHLY AND ANNUAL MEAN DISCHARGES IN CUBIC METRES PER SECOND FOR THE PERIOD OF RECORD

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN	YEAR
1979	---	---	---	---	---	---	---	---	---	187	57.4	26.5	---	1979
1980	20.6	19.8	26.6	44.7	77.2	277	515	438	232	149	69.1	30.3	159	1980
1981	24.4	20.2	18.7	22.2	119	210	460	478	274	142	41.1	27.3	153	1981
1982	16.5	14.8	16.7	19.9	50.0	296	490	470	217	56.7	30.3	21.3	142	1982
1983	19.1	19.8	20.5	28.7	69.7	274	524	519	254	135	63.2	26.7	167	1983
1984	---	---	---	---	---	---	458	---	---	---	---	---	---	1984
1985	---	---	---	---	---	---	---	---	---	118	36.6	28.5	---	1985
1986	---	---	---	---	---	---	---	---	---	---	---	---	---	1986
1987	22.3	16.8	17.2	20.8	78.4	---	---	---	---	---	---	---	---	1987
1988	23.5	19.0	16.5	20.4	97.5	231	689	502	221	97.4	54.3	41.9	169	1988
1989	31.5	24.7	18.9	18.3	94.9	236	504	421	188	72.3	27.3	16.9	139	1989
1990	13.4	11.9	11.2	12.8	72.9	348	481	400	145	56.4	36.8	24.0	135	1990
1991	15.6	11.7	15.4	34.2	112	384	619	518	407	183	56.8	30.0	199	1991
1992	24.5	21.9	32.8	46.6	102	251	673	517	245	114	66.1	40.4	179	1992
MEAN	20.9	18.2	19.5	26.9	87.4	276	543	474	242	119	49.0	27.6	160	MEAN

LOCATION - LAT 62 04 56 N LONG 139 51 35 W DRAINAGE AREA, 12 400 km² NATURAL FLOW

DONJEK RIVER BELOW KLUANE RIVER - STATION NO. 09CA003

ANNUAL EXTREMES OF DISCHARGE AND ANNUAL TOTAL DISCHARGE FOR THE PERIOD OF RECORD

YEAR	MAXIMUM INSTANTANEOUS DISCHARGE (m^3/s)	MAXIMUM DAILY DISCHARGE (m^3/s)	MINIMUM DAILY DISCHARGE (m^3/s)	TOTAL DISCHARGE (dam^3)	YEAR
1979	---	---	---	---	1979
1980	673 AT 17:51 YST ON AUG 13	642 ON JUL 15	18.7B ON FEB 18	5 030 000	1980
1981	758 AT 16:18 YST ON JUL 21	709 ON JUL 21	15.0B ON DEC 31	4 830 000	1981
1982	828 AT 12:20 YST ON JUL 31	746 ON JUL 31	13.5B ON JAN 25	4 470 000	1982
1983	853 AT 12:17 YST ON JUL 06	862 ON JUL 06	17.9E ON JAN 22	5 260 000	1983
1984	777 AT 15:19 YST ON AUG 08	756 ON AUG 08	---	---	1984
1985	---	---	---	---	1985
1986	---	---	---	---	1986
1987	---	---	16.4B ON MAR 22	---	1987
1988	1 700 AT 21:20 YST ON JUL 16 *	1 430 ON JUL 16 *	15.6B ON MAR 26	5 340 000	1988
1989	782 AT 13:39 YST ON JUL 13	712 ON JUL 13	14.7B ON DEC 31	4 380 000	1989
1990	---	701A ON JUL 22	10.9B ON MAR 25 *	4 270 000	1990
1991	833 AT 19:00 YST ON JUL 02	788 ON JUL 02	17.1B ON FEB 21	6 260 000	1991
1992	850 AT 10:13 YST ON JUL 14	826 ON JUL 14	20.3B ON FEB 19	5 660 000	1992
				5 060 000	MEAN

A - MANUAL GAUGE (SEE REFERENCE INDEX) B - ICE CONDITIONS * - EXTREME RECORDED FOR THE PERIOD OF RECORD

YUKON TERRITORY

CLINTON CREEK ABOVE WOLVERINE CREEK - STATION NO. 09EC001

MONTHLY AND ANNUAL MEAN DISCHARGES IN CUBIC METRES PER SECOND FOR THE PERIOD OF RECORD

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
1964	---	---	---	---	---	5.86	0.367	0.253	0.208	---	---	---	---
1965	---	---	---	---	5.07	7.57	8.40	1.82	0.598	---	---	---	---
MEAN	---	---	---	---	5.07	6.72	4.38	1.04	0.403	---	---	---	---

LOCATION - LAT 64 26 54 N
LONG 140 42 24 W NATURAL FLOW

CLINTON CREEK ABOVE WOLVERINE CREEK - STATION NO. 09EC001

ANNUAL EXTREMES OF DISCHARGE AND ANNUAL TOTAL DISCHARGE FOR THE PERIOD OF RECORD

YEAR	MAXIMUM INSTANTANEOUS DISCHARGE (m^3/s)	MAXIMUM DAILY DISCHARGE (m^3/s)	MINIMUM DAILY DISCHARGE (m^3/s)	TOTAL DISCHARGE (dam^3)
1964	---	---	---	---
1965	---	---	OB ON JAN 20 *	---

B - ICE CONDITIONS * - EXTREME RECORDED FOR THE PERIOD OF RECORD

DEZADEASH RIVER AT HAINES JUNCTION - STATION NO. 08AA003

MONTHLY AND ANNUAL MEAN DISCHARGES IN CUBIC METRES PER SECOND FOR THE PERIOD OF RECORD

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
1953	13.2	9.70	8.89	12.6	49.6	87.6	100	71.0	66.7	50.6	35.3	21.1	44.1
1954	14.9	13.6	12.9	12.0	61.2	106	94.4	72.4	53.4	41.9	25.2	18.9	44.1
1955	17.2	15.6	15.0	15.2	40.2	102	142	87.6	59.2	41.6	21.9	14.1	47.8
1956	12.7	14.9	10.9	14.9	48.0	67.9	80.4	55.1	45.4	42.9	32.4	22.9	37.1
1957	18.2	14.4	14.3	16.2	71.1	173	124	78.0	63.5	52.0	30.2	19.7	56.4
1958	16.7	15.7	14.8	19.5	46.0	58.0	37.5	26.8	29.6	24.8	18.1	15.5	27.0
1959	13.3	11.4	10.5	10.7	53.6	125	72.1	70.3	55.5	43.4	27.4	21.3	43.0
1960	17.8	15.2	13.5	12.5	71.4	96.7	92.8	70.8	49.5	33.9	21.0	19.3	43.0
1961	17.0	14.4	12.7	13.0	54.1	119	117	67.0	51.2	38.7	24.4	22.1	45.9
1962	17.0	12.4	9.91	9.91	36.1	171	152	94.1	64.8	51.3	38.7	26.6	57.2
1963	21.2	17.6	16.4	15.9	65.4	101	156	95.5	74.1	58.9	35.5	27.8	57.5
1964	23.6	19.9	17.5	18.5	40.3	189	109	88.1	68.9	42.5	21.9	14.6	54.5
1965	13.8	13.3	12.6	12.6	34.2	71.4	88.8	45.5	32.7	27.8	17.8	15.4	32.3
1966	11.1	9.06	10.3	15.3	26.7	111	79.4	54.5	45.7	33.2	19.5	14.9	36.0
1967	12.1	9.01	7.09	11.9	54.8	130	105	75.9	67.5	45.6	24.1	15.6	46.5
1968	14.6	14.9	14.7	19.0	72.5	77.6	101	74.4	71.5	54.2	27.7	21.3	47.1
1969	16.4	15.8	14.4	22.7	52.5	86.0	60.3	63.5	68.4	69.4	42.1	29.4	45.2
1970	19.3	17.0	16.3	22.7	44.7	70.5	68.2	50.7	42.3	34.7	25.5	17.2	35.9
1971	12.2	11.0	9.93	10.2	31.8	92.8	83.5	62.7	43.6	30.6	18.3	12.5	35.0
1972	10.5	11.3	12.3	12.8	53.9	109	84.2	76.5	50.0	35.9	20.8	15.1	41.7
1973	13.6	12.7	11.3	13.7	33.2	68.3	77.9	66.5	52.6	36.9	17.7	14.8	34.9
1974	11.8	9.16	8.49	9.55	42.5	65.4	61.1	59.1	53.6	32.9	18.6	17.8	32.6
1975	15.1	11.6	8.40	10.3	50.3	---	---	99.9	117	77.6	23.8	22.4	---
1976	19.4	19.7	20.4	18.1	41.4	115	132	67.7	41.0	38.5	29.9	26.2	47.6
1977	22.4	21.6	22.3	28.0	31.2	102	97.6	65.7	44.4	38.2	31.5	28.2	44.5
1978	22.6	19.4	17.9	18.4	42.2	70.6	50.7	47.8	40.3	35.1	28.6	21.1	34.6
1979	18.7	16.1	18.4	22.3	51.1	98.4	97.4	57.6	54.9	42.3	23.3	15.3	43.1
1980	16.7	19.9	17.8	20.9	44.8	85.2	55.2	42.4	37.4	35.6	27.5	16.5	35.0
1981	15.6	15.5	15.3	17.6	55.1	61.5	54.3	44.3	46.6	45.8	30.8	22.3	35.5
1982	20.2	16.6	14.9	17.9	62.1	271	62.5	57.9	40.0	34.1	21.7	17.8	53.9
1983	17.2	17.8	14.2	32.3	44.0	75.9	69.0	45.6	36.9	30.0	21.8	16.1	35.1
1984	13.1	13.4	17.6	31.8	35.0	64.0	62.6	46.2	43.9	27.3	13.6	16.3	32.1
1985	17.8	21.0	20.1	26.4	51.4	84.9	106	55.6	41.5	30.4	21.0	13.2	41.8
1986	11.7	17.3	15.6	13.8	28.5	107	134	85.4	63.7	43.3	21.8	23.7	47.3
1987	23.2	22.4	26.6	26.2	43.9	74.0	64.1	51.2	51.7	45.5	32.0	27.0	40.4
1988	24.5	21.6	20.6	23.3	71.1	130	179	127	71.5	54.8	41.6	34.8	67.0
1989	29.2	26.3	23.0	29.7	84.5	104	85.8	56.1	46.2	41.5	32.6	31.7	49.3
1990	29.8	24.9	23.2	33.0	64.7	119	85.5	51.6	45.4	35.3	24.8	19.8	46.5
1991	21.1	23.4	22.0	23.8	38.0	77.0	98.0	87.4	102	65.8	31.0	29.9	51.8
1992	26.2	23.2	24.2	30.6	48.8	124	157	94.2	66.7	40.7	34.0	27.3	58.1
MEAN	17.6	16.2	15.3	18.7	49.5	104	94.3	67.3	55.0	42.1	26.3	20.7	43.8

LOCATION - LAT 60 44 54 N
LONG 137 30 19 W

DRAINAGE AREA, 8 500 km^2
REGULATED SINCE 1974