AMTEST LABORATORIES

AmTest Inc.
14603 N.E. 87th St.
Redmond, WA
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Fax: 425 883 3495

ANALYSIS REPORT

King County WPCD Env. Lab.
Subcontracting Dept. MS-LAB
322 West Ewing Street
Seattle, WA 98119-1507
Attention: Fritz Grothkopp

Date Received: 4/26/99
Date Reported: 5/ 6/99

Project #: 423056-160
PO Number: 108677

SEDIMENT SAMPLES

AM TEST Identification Number	99-A006406
Client Identification	L15421-1
Sampling Date	4/23/99

PARAMETER	RESULT	Q	D.L.

Conventionals

GRAIN SIZE DISTRIBUTION

PHI	OPENING (MM)	% RETENTION	
	4.75	< 0.1	gravel
-2	4.00	< 0.1	
-1	2.00	0.80	
0	1.00	3.30	
+1	0.50	37.9	sand
+2	0.25	45.7	
+3	0.125	4.30	
+4	0.063	7.00	
+5	0.032	1.00	
+6	0.016	< 0.1	silt
+7	0.008	< 0.1	
+8	0.004	< 0.1	
+9	0.002	< 0.1	
+10	0.001	< 0.1	clay
>+10	<0.001	< 0.1	

Analysis by Tyler Screens and Hydrometer (ASTM D-422)

AMTEST

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Date Received: 4/26/99
Date Reported: 5/ 6/99

Project #: 423056-160
PO Number: 108677

SEDIMENT SAMPLES

AM TEST Identification Number	99-A006407
Client Identification	L15421-2
Sampling Date	4/23/99

PARAMETER	RESULT	Q	D.L.

Conventionals

GRAIN SIZE DISTRIBUTION

PHI	OPENING (MM)	% RETENTION	
	4.75	< 0.1	gravel
-2	4.00	< 0.1	
-1	2.00	0.40	
0	1.00	3.00	
+1	0.50	31.8	sand
+2	0.25	55.6	
+3	0.125	4.10	
+4	0.063	0.40	
+5	0.032	4.70	
+6	0.016	< 0.1	silt
+7	0.008	< 0.1	
+8	0.004	< 0.1	
+9	0.002	< 0.1	
+10	0.001	< 0.1	clay
>+10	<0.001	< 0.1	

Analysis by Tyler Screens and Hydrometer (ASTM D-422)

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ANALYSIS REPORT

King County WPCD Env. Lab.
Subcontracting Dept. MS-LAB
322 West Ewing Street
Seattle, WA 98119-1507
Attention: Fritz Grothkopp

Date Received: 4/26/99
Date Reported: 5/ 6/99

Project #: 423056-160
PO Number: 108677

SEDIMENT SAMPLES

AM TEST Identification Number	99-A006408
Client Identification	L15421-3
Sampling Date	4/23/99

PARAMETER	RESULT	Q	D.L.

Conventionals

GRAIN SIZE DISTRIBUTION

PHI	OPENING (MM)	% RETENTION	
	4.75	< 0.1	gravel
-2	4.00	< 0.1	
-1	2.00	0.40	
0	1.00	1.00	
+1	0.50	28.0	sand
+2	0.25	55.0	
+3	0.125	9.00	
+4	0.063	1.30	
+5	0.032	5.40	
+6	0.016	< 0.1	silt
+7	0.008	< 0.1	
+8	0.004	< 0.1	
+9	0.002	< 0.1	
+10	0.001	< 0.1	clay
>+10	<0.001	< 0.1	

Analysis by Tyler Screens and Hydrometer (ASTM D 422)

AMTEST

ANALYSIS REPORT

King County WPCD Env. Lab.
Subcontracting Dept. MS-LAB
322 West Ewing Street
Seattle, WA 98119-1507
Attention: Fritz Grothkopp

Date Received: 4/26/99
Date Reported: 5/ 6/99

Project #: 423056-160
PO Number: 108677

SEDIMENT SAMPLES

AM TEST Identification Number	99-A006409
Client Identification	L15421-4
Sampling Date	4/23/99

PARAMETER	RESULT	Q	D.L.

Conventionals

GRAIN SIZE DISTRIBUTION

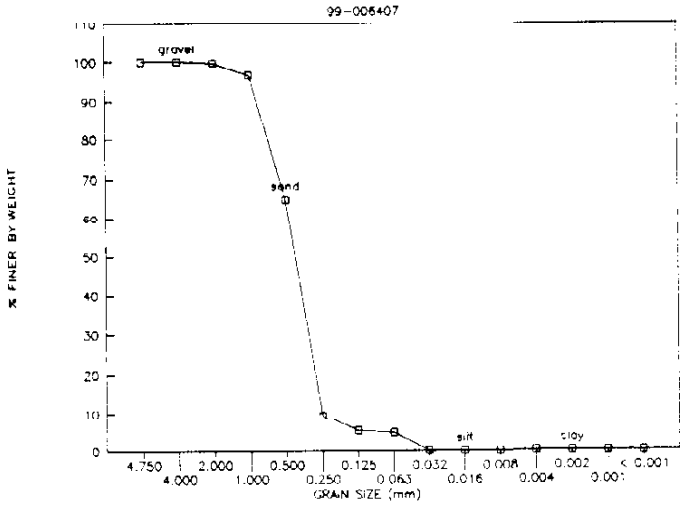
PHI	OPENING (MM)	% RETENTION	
	4.75	< 0.1	gravel
-2	4.00	< 0.1	
-1	2.00	0.40	
0	1.00	3.30	
+1	0.50	44.4	sand
+2	0.25	45.7	
+3	0.125	3.00	
+4	0.063	0.40	
+5	0.032	2.90	
+6	0.016	< 0.1	silt
+7	0.008	< 0.1	
+8	0.004	< 0.1	
+9	0.002	< 0.1	
+10	0.001	< 0.1	clay
>+10	<0.001	< 0.1	

Analysis by Tyler Screens and Hydrometer (ASTM D-422)

AMTEST

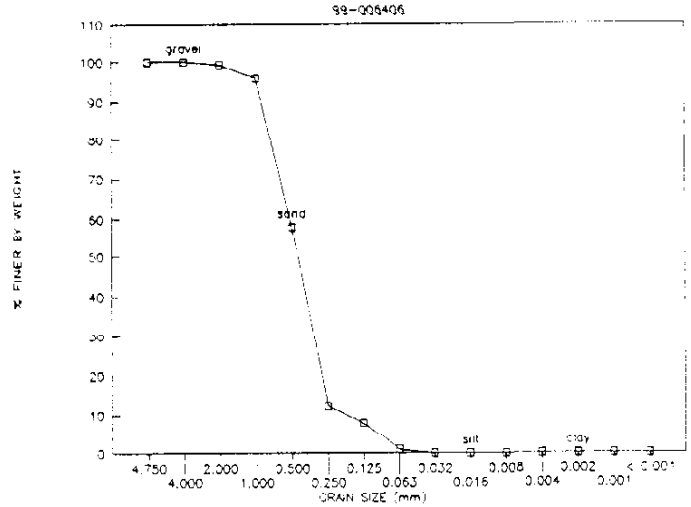
GRAIN SIZE DISTRIBUTION

99-006407



GRAIN SIZE DISTRIBUTION

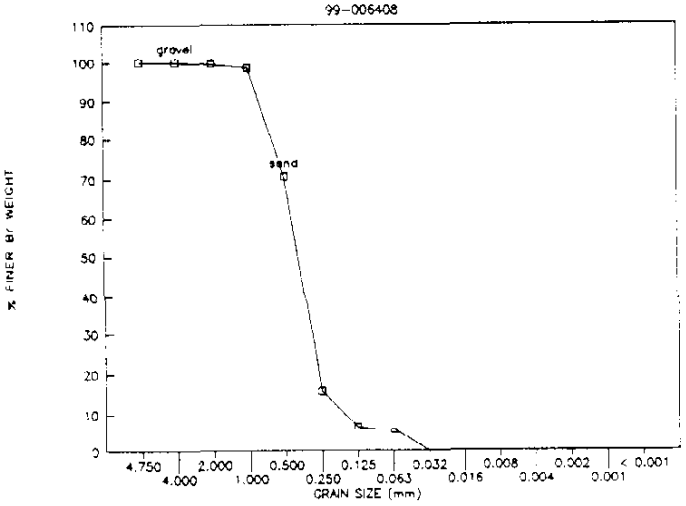
99-006406



AMTEST

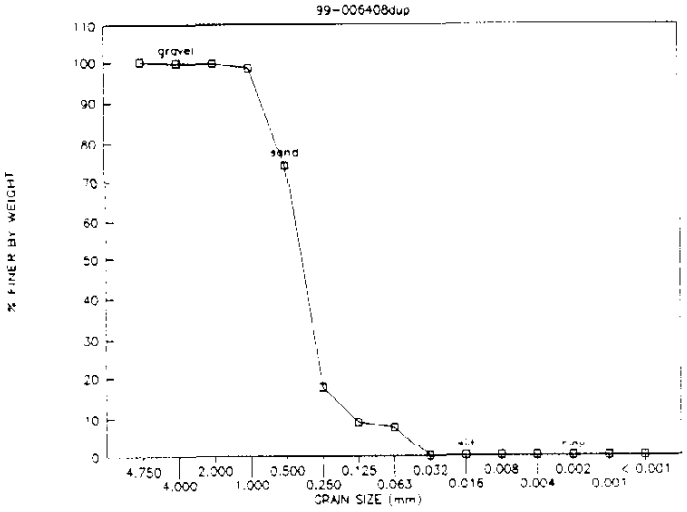
GRAIN SIZE DISTRIBUTION

99-006408



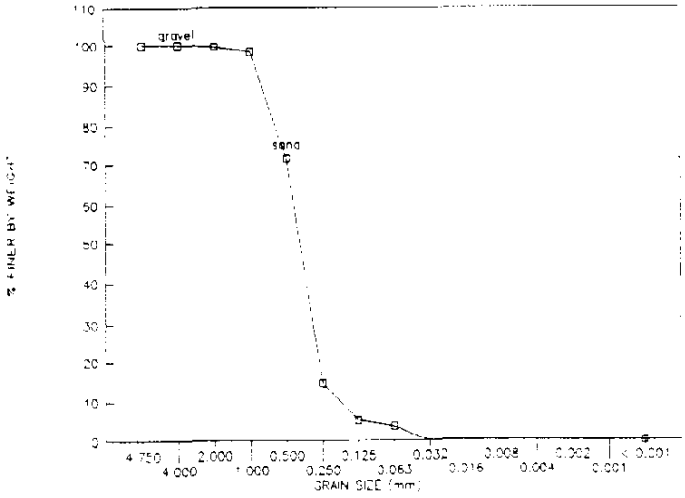
GRAIN SIZE DISTRIBUTION

99-006408dup



GRAIN SIZE DISTRIBUTION

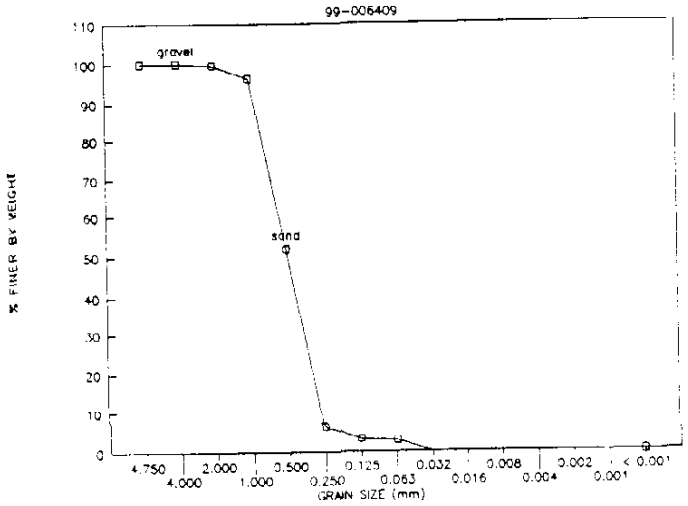
99-006408trip



AMTEST

GRAIN SIZE DISTRIBUTION

99-006409



AMTEST

Quality Control Summary

PSD

QC for 9918532

99-A006406
99-A006407
99-A006408
99-A006409

DUPLICATES

	Sample value	Duplicate value	RPD
99-A006408 DUP:	< 0.1	< 0.1	
99-A006408 DUP:	< 0.1	< 0.1	
99-A006406 DUP: - 2	< 0.1	0.30	
99-A006408 DUP: - 2	< 0.1	< 0.1	
99-A006408 DUP: - 1	0.40	0.20	120
99-A006408 DUP: - 1	0.40	0.40	0.00
A006408 DUP: 0	1.00	1.10	9.5
-A006408 DUP: 0	1.00	1.30	26.
99-A006408 DUP: - 1	28.0	24.8	12.
-A006408 DUP: + 1	28.0	26.9	4.0
A006408 DUP: + 2	55.0	56.2	2.2
99 A006408 DUP: + 2	55.0	56.9	3.1
-A006408 DUP: + 3	9.00	8.50	5.9
A006408 DUP: + 3	9.00	9.20	2.2
99 A006408 DUP: + 4	1.30	1.30	0.00
9-A006408 DUP: + 4	1.30	1.40	7.4
A006408 DUP: + 5	5.40	7.70	35.
A006408 DUP: + 5	5.40	4.00	30.
9-A006408 DUP: + 6	< 0.1	< 0.1	
006408 DUP: + 6	< 0.1	< 0.1	
006408 DUP: + 7	< 0.1	< 0.1	
-A006408 DUP: + 7	< 0.1	< 0.1	
006408 DUP: + 8	< 0.1	< 0.1	
006408 DUP: + 8	< 0.1	< 0.1	
-A006408 DUP: + 9	< 0.1	< 0.1	
A006408 DUP: + 9	< 0.1	< 0.1	
06406 DUP: + 10	< 0.1	< 0.1	
A006408 DUP. + 10	< 0.1	< 0.1	
A006408 DUP: > +10	< 0.1	< 0.1	
6408 DUP: > +10	< 0.1	< 0.1	
	< 0.1	< 0.1	
	< 0.1	< 0.1	

phi size	-1	0	5
	0.4	1	5.4
	0.1	1.1	7.7
	0.4	1.3	4
MEAN	0.3	1.133333	5.7
Standard Dev	0.173205	0.152753	1.868154
%RSD	57.73503	13.47816	32.77463

METAL CHEMISTRY QC DATA

SUMMARY OF QA REVIEW METALS

PARAMETER: Ag,Al,As,Be,Cr,Cu,Cd,Fe,Mn,Ni,Pb,Se,Tl,Zn-ICP; Hg-CVAA

COMPLETENESS: L15421-1 TO 4

qc results not available to qualify the following samples
N/A
data have been qualified with:
samples reported without associated method blank
N/A
data have been qualified with:
samples reported without associated matrix spike
N/A
data have been qualified with:
samples reported without associated replicates
N/A
data have been qualified with:
samples reported without associated SRM
N/A
data have been qualified with:

samples reported with selected QC samples from outside data submission
N/A

samples reported without complete target list
N/A
indicate metals not included

UNITS AND SIGNIFICANT FIGURES

list all samples not reported in ppm dry weight
N/A

HOLD CONDITIONS:

criteria used to determine hold conditions: Mercury: 28 days from sample collection
list all samples which exceed hold time
N/A
data have been qualified with:

METHOD BLANK:

list all metals detected in the method blanks
Fe = 0.11 mg/L: All sample values more than 10X the blank concentration
data have been qualified with: "B"

DETECTION LIMITS:

where MDL and RDL are not reported, the MDL RDL reported DL is a:
N/A

MATRIX SPIKE:

indicate recovery problems observed < 75% and > 125%, indicate any qualifiers used
Aluminum = 171%; "L" - Indigenous sample concentration much higher than the spike concentration (4X rule).
Manganese = 55%; "G" - Indigenous sample concentration much higher than the spike concentration (4X rule).

SRM

indicate recovery of <80% and >120% and qualifier used
Cadmium = 148%; "L" - Typical recovery by this method
Chromium = 49%; no qualifier; Typical recovery by this method
Manganese = 57%; no qualifier; Typical recovery by this method
Nickel = 79%; no qualifier; Typical recovery by this method
Arsenic = 79%; no qualifier; Typical recovery by this method
Selenium = 0%; no qualifier; Certified value below detection limit

REPLICATES:

indicate RPD's >20%

MARINE SEDIMENT Q.C. DATA

Marine Sediments ICP Q.C. Results
For Samples: L15421-1/2/3/4
Collect Date: 23-Apr-99
Prep Date: 30-Apr-99
Date of Analysis: 02-Jun-99
Analyst: Sean McRae

ELEMENT	DUPLICATE SAMPLE #: WG42979-4 L15421-1 BACKGROUND mg/Kg	REPLICATE mg/Kg	RPD	QUALIFIER	ELEMENT SPIKED	SPIKE SAMPLE #: WG42979-5 SPIKE ADDED mg/L	SPIKED BLANK mg/L	SPIKED SAMPLE mg/Kg	PERCENT RECOVERY	QUALIFIER	DETECTION LIMIT mg/Kg	METHOD CODE
Ag	<MDL	<MDL			Ag	1.2	1.15	56.6	94		0.2	16-02-004
AL	7510	7350	2		AL	12	11.4	8530	17'	L	5	16-02-004
As	<MDL	<MDL			As	4	3.75	187	94		2.5	16-02-004
Ba					Ba							16-02-004
Be	0.088	0.091			Be	0.4	0.373	18.7	93		0.05	16-02-004
Ca					Ca							16-02-004
Cd	0.15	<MDL			Cd	1.2	1.12	55.5	92		0.15	16-02-004
Cr	9.94	9.97	0		Cr	1.2	1.13	65.2	92		0.25	16-02-004
Cu	8.73	9.4	7		Cu	1.2	1.14	66.1	96		0.2	16-02-004
Fe	14500	14600	1		Fe	50	45.6	16500	80		2.5	16-02-004
K_					K_							16-02-004
Mg					Mg							16-02-004
Mn	202	198	2		Mn	0.8	0.756	224	55	G	0.1	16-02-004
Mo					Mo							16-02-004
Na					Na							16-02-004
Ni	9.79	9.58	2		Ni	1.2	1.13	65.1	92		1	16-02-004
Pb	3.2	4.2			Pb	4	3.7	185	91		1.5	16-02-004
Sb					Sb							16-02-004
Se	<MDL	<MDL			Se	2	1.91	92.9	93		2.5	16-02-004
TL	<MDL	<MDL			TL	4	3.74	185	93		10	16-02-004
Zn	35.4	35.6	1		Zn	1.2	1.11	87.3	86		0.25	16-02-004

Marine Sediments CVAA-Hg Q.C. Results
For Samples: L15421-1/2/3/4
Collect Date: 23-Apr-99
Prep Date: 30-Apr-99
Date of Analysis: 03-May-99
Analyst: Kevin Cummings

ELEMENT	DUPLICATE SAMPLE #: WG42491-4 L15421-1 BACKGROUND mg/Kg	REPLICATE mg/Kg	RPD	QUALIFIER	ELEMENT SPIKED	SPIKE SAMPLE #: WG42491-5 SPIKE ADDED mg/L	SPIKED BLANK mg/L	SPIKED SAMPLE mg/Kg	PERCENT RECOVERY	QUALIFIER	DETECTION LIMIT mg/Kg	METHOD CODE
Hg	0.042	0.027			Hg	0.005	0.0051	0.505	94		0.02	16-01-005

MARINE SEDIMENT Q.C. DATA

Marine Sediments ICP Q. C. Results
For Samples: L15421-1/2/3/4
Collect Date: 23-Apr-99
Prep Date: 30-Apr-99
Date of Analysis: 02-Jun-99
Analyst: Sean McRae

ELEMENT	MEASURED VALUE mg/Kg	CERTIFIED VALUE mg/Kg	SRM PACS-1 PERCENT RECOVERY	DETECTION LIMIT mg/Kg	QUALIFIER	ELEMENT	BLANK mg/L	BLANK DETECTION LIMIT mg/L	QUALIFIER	METHOD CODE
*Ag	1.7	NC		0.86		Ag	<MDL	0.004		16-02-004
*Al	17400	NC		21		Al	<MDL	0.1		16-02-004
As	168	211 ± 11	79	11		As	<MDL	0.05		16-02-004
Ba						Ba	<MDL			16-02-004
*Be	0.3	NC		0.21		Be	<MDL	0.001		16-02-004
Ca						Ca	<MDL			16-02-004
Cd	3.52	2.38 ± .2	148	0.64	L	Cd	<MDL	0.003		16-02-004
Cr	55.4	113 ± 8	49	1.1		Cr	<MDL	0.005		16-02-004
Cu	424	452 ± 16	94	0.86		Cu	<MDL	0.004		16-02-004
*Fe	34200	NC		11		Fe	0.11	0.05	B	16-02-004
K						K	<MDL			16-02-004
Mg						Mg	<MDL			16-02-004
Mn	270	470 ± 12	57	0.43		Mn	<MDL	0.002		16-02-004
Mo		12.3 ± .9				Mo	<MDL			16-02-004
Na						Na	<MDL			16-02-004
Ni	35	44.1 ± 2	79	4.3		Ni	<MDL	0.02		16-02-004
Pb	380	404 ± 20	94	6.4		Pb	<MDL	0.03		16-02-004
Sb		171 ±14				Sb	<MDL			16-02-004
Se	<MDL	1.09	0	11		Se	<MDL	0.05		16-02-004
*Tl	<MDL	NC		43		Tl	<MDL	0.2		16-02-004
Zn	717	824 ± 22	87	1.1		Zn	<MDL	0.005		16-02-004

* indicates elements not certified

Marine Sediments CVAA-Hg
For Samples: L15421-1/2/3/4
Collect Date: 23-Apr-99
Prep Date: 30-Apr-99
Date of Analysis: 03-May-99
Analyst: Kevin Cummings

ELEMENT	MEASURED VALUE mg/Kg	CERTIFIED VALUE mg/Kg	SRM PACS-1 PERCENT RECOVERY	DETECTION LIMIT mg/Kg	QUALIFIER	ELEMENT	BLANK mg/L	BLANK DETECTION LIMIT mg/L	QUALIFIER	METHOD CODE
Hg	4.5	4.57	99	0.092		Hg	<MDL	0.0002		16-01-005

Analytical Method: [redacted] AA [redacted] FAA [redacted] CP [redacted] -MS

Preparation Method: EPA 245.5

Project Number: 423056-160

Project Description: NORFOLK CSO Outfall

Preparation Date: 4/30/99

Work Group Number: WG 42491

Analyst: KC

Matrix: SALTWATER SED

Analysis: 1st 2nd 3rd

ANALYTICAL SAMPLES

	SAMPLE NUMBER	WEIGHT (g)	FINAL VOLUME (ml)	
1	L15421-1	1.007	100ml	
2	-2	1.005		
3	-3	1.001		
4	-4	1.016		
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

Comments:

QUALITY CONTROL SAMPLES

	QC SAMPLE NUMBER	QC SAMPLE DESCRIPTION	WEIGHT (g)	FINAL VOLUME (ml)	
1	WG42491-1	Method BLK		100ml	
2	-2	SPK BLK			
3	-3	PACS-1	0.218		
4	-4	L15421-1 LABDUP	0.999		
5	-5	L15421-1 MATSPK	1.010		
6					
7					
8					
9					
10					
11					
12					
13					

SOLUTION	SPIKE ELEMENTS (ug/L)	AMOUNT SPIKED (ul)	FINAL VOLUME (ml)
1A	B - 500; Mo -300; Si - 230; Ti - 1,000		
1B	Sb - 000		
2	As, Pb, Tl - 1,000; Be - 100; Ba, Cd, Cr, Co, Cu, Ni, Ag, V, Zn - 500; K - 20,000; Mn - 200; Se - 500		
3	Al - 1200; Ca - 5,000; Mg - 1,000; Na - 1,000		
MERCURY	Hg - 2000	250	100
OTHER			

Analytical Method	CVAA GFAA (ICP) ICP-MS
Preparation Method:	Sediment digestion
Project Number:	423056
Project Description:	Norfolk Sediment
Preparation Date:	6/2/99

Work Group Number:	WG 42979
Analyst:	SM
Matrix:	Soil Sed
Analysis	(1st) 2nd 3rd

ANALYTICAL SAMPLES

	SAMPLE NUMBER	WEIGHT (g)	FINAL VOLUME (ml)
1	L15421-1	0.9985	50
2	2	1.0334	
3	3	1.0209	
4	4	1.0911	
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

Comments: * Dilution of 15421-1

QUALITY CONTROL SAMPLES

	QC SAMPLE NUMBER	QC SAMPLE DESCRIPTION	WEIGHT (g)	FINAL VOLUME (ml)
1	WG42979 1	Method Blank		50
2	2	Spike Blank		
3	2	PACS-1	0.2323	
4	info only	ERA Soil	0.2027	
5	4	15421-1 Dup	1.0055	
6	info only	1 Trip	1.0001	
7	5	1 Spk	1.0000	
8	info only	1 Spk dup	0.9965	
9	6	1 SOIL	X	
10				
11				
12				
13				

SOLUTION	SPIKE ELEMENTS (mg/l)	AMOUNT SPIKED (ml)	FINAL VOLUME (ml)
1A	B 500, Mo 300, Sr 230, Ti 1,000	200	50
1B	Sb 1000	200	
2	As, Pb, Tl 1,000, Be 100, Bi, Cd, Cr, Co, Cu, Ni, Ag, V, Zn 300; K 20,000; Mn 200, Se 500	200	
3	Al 1200, Ca 5,000; Mg 3,000; Na 1,000	500	
MERCURY	Hg		
OTHER			

ORGANIC CHEMISTRY QC DATA

METRO Environmental Laboratory

WORK GROUP REPORT (wk02)

May 26 1999, 07:54 am

Work Group: WG42504 (BS#89-bna) for Department: 7 - Organics, Trace

Created: 03-MAY-1999 Due: Operator: lm/mm

Sample	Project Number	Project Description	PKey	C	Product	Matrix	Stat	UA	Workdate	Duedate
L15421-1	423056-160	Norfolk Cleanup Study	SED	S	BNA	SALTWTRSED	DONE	U	07-MAY-99	07-JUN-99
L15421-2	423056-160	Norfolk Cleanup Study	SED	S	BNA	SALTWTRSED	DONE	U	07-MAY-99	07-JUN-99
L15421-3	423056-160	Norfolk Cleanup Study	SED	S	BNA	SALTWTRSED	DONE	U	07-MAY-99	07-JUN-99
L15421-4	423056-160	Norfolk Cleanup Study	SED	S	BNA	SALTWTRSED	DONE	U	07-MAY-99	07-JUN-99
WG42504-1	MB			S	BNA	OTHR SOLID	DONE	U	03-MAY-99	
WG42504-2	SB			S	BNA	OTHR SOLID	DONE	U	03-MAY-99	
WG42504-3	MS			S	BNA	SALTWTRSED	DONE	U	03-MAY-99	
WG42504-4	MSD			S	BNA	SALTWTRSED	DONE	U	03-MAY-99	
WG42504-5	LD			S	BNA	SALTWTRSED	DONE	U	03-MAY-99	
WG42504-6	SRM			S	BNA	OTHR SOLID	DONE	U	03-MAY-99	
WG42504-7	MB			S	BNA	OTHR SOLID	DONE	U	10-MAY-99	
WG42504-8	SB			S	BNA	OTHR SOLID	DONE	U	10-MAY-99	

Comments:

L15421-1	3-Grab Composite, 0 - 10 cm
L15421-2	3-Grab Composite, 0 - 10 cm
L15421-3	3-Grab Composite, 0 - 10 cm
L15421-4	3-Grab Composite, 0 - 10 cm
WG42504-1	MB050399
WG42504-2	WG42504-1
WG42504-3	L15421-1
WG42504-4	WG42504-3 L15421-1
WG42504-5	L15421-4
WG42504-6	1941A
WG42504-7	MB05--99
WG42504-8	WG42504-7

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 06/07/1999 08:51
Run ID: R29242 Workgroup: WG42504 (BS#89-bna)

MB:WG42504-1 Matrix: OTHR SOLID Listtype: ORBNA Method: EPA 35503/8270C (7-3-01-004) Project: PKey: SED

Parameter	Mdl	Rdl	Units	MB Value	Qual
N-Nitrosodimethylamine	110	160	ug/Kg	<MDL	
Phenol	110	160	ug/Kg	<MDL	
Bis(2-Chloroethyl)Ether	16	26.7	ug/Kg	<MDL	
2-Chlorophenol	53	107	ug/Kg	<MDL	
Bis(2-Chloroisopropyl)Ether	53	107	ug/Kg	<MDL	
N-Nitrosodi-N-Propylamine	27	53.3	ug/Kg	<MDL	
Hexachloroethane	27	53.3	ug/Kg	<MDL	
Nitrobenzene	27	53.3	ug/Kg	<MDL	
Isophorone	27	53.3	ug/Kg	<MDL	
2-Nitrophenol	27	53.3	ug/Kg	<MDL	
2,4-Dimethylphenol	27	53.3	ug/Kg	<MDL	
Bis(2-Chloroethoxy)Methane	27	53.3	ug/Kg	<MDL	
2,4-Dichlorophenol	27	53.3	ug/Kg	<MDL	
Naphthalene	43	80	ug/Kg	<MDL	
Hexachlorobutadiene	27	53.3	ug/Kg	<MDL	
4-Chloro-3-Methylphenol	53	107	ug/Kg	<MDL	
Hexachlorocyclopentadiene	27	53.3	ug/Kg	<MDL	
2,4,6-Trichlorophenol	110	213	ug/Kg	<MDL	
2-Chloronaphthalene	16	26.7	ug/Kg	<MDL	
Acenaphthylene	16	26.7	ug/Kg	<MDL	
Dimethyl Phthalate	11	16	ug/Kg	<MDL	
2,6-Dinitrotoluene	11	21.3	ug/Kg	<MDL	
Acenaphthene	11	21.3	ug/Kg	<MDL	
2,4-Dinitrophenol	53	107	ug/Kg	<MDL	
4-Nitrophenol	53	107	ug/Kg	<MDL	
2,4-Dinitrotoluene	11	21.3	ug/Kg	<MDL	
Fluorene	16	26.7	ug/Kg	<MDL	
Diethyl Phthalate	27	53.3	ug/Kg	<MDL	
4-Chlorophenyl Phenyl Ether	16	26.7	ug/Kg	<MDL	
4,6-Dinitro-O-Cresol	53	107	ug/Kg	<MDL	
N-Nitrosodiphenylamine	27	53.3	ug/Kg	<MDL	
1,2-Diphenylhydrazine	53	107	ug/Kg	<MDL	
4-Bromophenyl Phenyl Ether	11	16	ug/Kg	<MDL	
Pentachlorophenol	27	53.3	ug/Kg	<MDL	
Phenanthrene	16	26.7	ug/Kg	<MDL	
Anthracene	16	26.7	ug/Kg	<MDL	
Di-N-Butyl Phthalate	27	53.3	ug/Kg	<MDL	
Fluoranthene	16	32	ug/Kg	<MDL	
Benzidine	640	1280	ug/Kg	<MDL	
Pyrene	16	26.7	ug/Kg	<MDL	
Benzyl Butyl Phthalate	16	26.7	ug/Kg	<MDL	
Benzo(a)anthracene	16	26.7	ug/Kg	<MDL	
Chrysene	16	26.7	ug/Kg	<MDL	
3,3'-Dichlorobenzidine	27	53.3	ug/Kg	<MDL	
Bis(2-Ethylhexyl)Phthalate	16	26.7	ug/Kg	<MDL	
Di-N-Octyl Phthalate	16	26.7	ug/Kg	<MDL	
Benzo(b)fluoranthene	43	80	ug/Kg	<MDL	
Benzo(k)fluoranthene	43	80	ug/Kg	<MDL	
Benzo(a)pyrene	27	53.3	ug/Kg	<MDL	
Indeno(1,2,3-Cd)Pyrene	27	53.3	ug/Kg	<MDL	
Dibenzo(a,h)anthracene	43	80	ug/Kg	<MDL	

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 06/07/1999 08:51
Run ID: R29242 Workgroup: WG42504 (BS#89-bna)

MB:WG42504-1 Matrix: OTHR SOLID Listtype: ORBNA Method: EPA 3550B/8270C (7-3-01-004) Project: PKey: SED

Parameter	Mdl	Rdl	Units	MB Value	Qual
Benzo(g,h,i)perylene	27	53.3	ug/Kg	<MDL	
Aniline	53	107	ug/Kg	<MDL	
Benzyl Alcohol	27	53.3	ug/Kg	<MDL	
2-Methylphenol	27	53.3	ug/Kg	<MDL	
4-Methylphenol	27	53.3	ug/Kg	<MDL	
Benzoic Acid	110	160	ug/Kg	<MDL	
4-Chloroaniline	53	107	ug/Kg	<MDL	
2-Methylnaphthalene	43	80	ug/Kg	<MDL	
2,4,5-Trichlorophenol	110	213	ug/Kg	<MDL	
2-Nitroaniline	110	160	ug/Kg	<MDL	
3-Nitroaniline	110	160	ug/Kg	<MDL	
Dibenzofuran	27	53.3	ug/Kg	<MDL	
4-Nitroaniline	110	160	ug/Kg	<MDL	
Carbazole	27	53.3	ug/Kg	<MDL	
Coprostanol	270	533	ug/Kg	<MDL	
Caffeine	5.3	26.7	ug/Kg	<MDL	

SB:WG42504-2 MB:WG42504-1 Matrix: OTHR SOLID Listtype: ORBNA Method: EPA 3550B/8270C (7-3-01-004) Project: PKey: SED

Parameter	Mdl	Rdl	Units	MB Value	Truevalue	S3 Value	% Rec.	Qual	Limits	Truevalue	Value	% Rec.	Qual	Limits	RPD/RSD	Qual	Limits
N-Nitrosodimethylamine	110	160	ug/Kg	<MDL	1333.3333	862	65		50-150								100
Phenol	110	160	ug/Kg	<MDL	1333.3333	378	28	*	50-150								100
Bis(2-Chloroethyl)Ether	16	26.7	ug/Kg	<MDL	1333.3333	445	33	*	50-150								100
2-Chlorophenol	53	107	ug/Kg	<MDL	1333.3333	496	37	*	50-150								100
Bis(2-Chloroisopropyl)Ether	53	107	ug/Kg	<MDL	1333.3333	457	34	*	50-150								100
N-Nitrosodi-N-Propylamine	27	53.3	ug/Kg	<MDL	1333.3333	576	43	*	50-150								100
Hexachloroethane	27	53.3	ug/Kg	<MDL	1333.3333	689	52		50-150								100
Nitrobenzene	27	53.3	ug/Kg	<MDL	1333.3333	652	49	*	50-150								100
Isophorone	27	53.3	ug/Kg	<MDL	1333.3333	481	36	*	50-150								100
2-Nitrophenol	27	53.3	ug/Kg	<MDL	1333.3333	616	46	*	50-150								100
2,4-Dimethylphenol	27	53.3	ug/Kg	<MDL	1333.3333	102	8	*	50-150								100
Bis(2-Chloroethoxy)Methane	27	53.3	ug/Kg	<MDL	1333.3333	652	49	*	50-150								100
2,4-Dichlorophenol	27	53.3	ug/Kg	<MDL	1333.3333	642	48	*	50-150								100
Naphthalene	43	80	ug/Kg	<MDL	1333.3333	704	53		50-150								100
Hexachlorobutadiene	27	53.3	ug/Kg	<MDL	1333.3333	681	51		50-150								100
4-Chloro-3-Methylphenol	53	107	ug/Kg	<MDL	1333.3333	1040	78		50-150								100
Hexachlorocyclopentadiene	27	53.3	ug/Kg	<MDL	1333.3333	346	26	*	50-150								100
2,4,6-Trichlorophenol	110	213	ug/Kg	<MDL	1333.3333	827	62		50-150								100
2-Chloronaphthalene	16	26.7	ug/Kg	<MDL	1333.3333	726	54		50-150								100
Acenaphthylene	16	26.7	ug/Kg	<MDL	1333.3333	860	65		50-150								100
Dimethyl Phthalate	11	16	ug/Kg	<MDL	1333.3333	1130	85		50-150								100
2,6-Dinitrotoluene	11	21.3	ug/Kg	<MDL	1333.3333	1030	77		50-150								100
Acenaphthene	11	21.3	ug/Kg	<MDL	1333.3333	851	64		50-150								100
2,4-Dinitrophenol	53	107	ug/Kg	<MDL	1333.3333	873	65		50-150								100
4-Nitrophenol	53	107	ug/Kg	<MDL	1333.3333	1170	87		50-150								100
2,4-Dinitrotoluene	11	21.3	ug/Kg	<MDL	1333.3333	1140	85		50-150								100
Fluorene	16	26.7	ug/Kg	<MDL	1333.3333	1070	81		50-150								100
Diethyl Phthalate	27	53.3	ug/Kg	<MDL	1333.3333	1230	92		50-150								100
4-Chlorophenyl Phenyl Ether	16	26.7	ug/Kg	<MDL	1333.3333	1010	76		50-150								100