

SAF-RC-029
Remaining Sites Confirmation Sampling -
Soil
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Kathy Wendt

H4-21

KW 11/20/08
INITIAL/DATE

COMMENTS:

SDG P142039

SAF RC-029

Rad only

Chem only

Rad & Chem

Complete

Partial

Waste Site: 128-H-2

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DEC 16 2003
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TO: Document Control H4-11

DATE: November 18, 2008

COPIES: See Below

FROM: M. W. Perrott
H4-23/372-9088

SUBJECT: 128-H-2 SPLIT DATA

Attached are 21 pages received from the Washington State Department of Ecology (Ecology) on November 6, 2008. Only selected pages of the original report were delivered to WCH by Ecology. The original report from Paragon Analytics, dated September 25, 2008, is Paragon work order 08-08-252.

MWP:lrs

Attachment: 128-H-2 Split Data

Copies: w/a

M. W. Perrott H4-23

M. L. Proctor H4-22

L. R. Shelp H4-22

K. M. Wendt H4-21

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SEP 26 2008

Department of Ecology
NWP - Richland

September 25, 2008

COPY FOR YOUR
INFORMATION

Mr. Noel Smith-Jackson
Washington State Dept. of Ecology
3100 Port of Benton Blvd.
Richland WA 99352

Central Files
File Name:
Cross Reference:

Re: Paragon Workorder: 08-08-252
Client Project Name: Burning Ground #2
Client Project Number: 128-H-2

Dear Mr. Smith-Jackson:

One soil sample was received from Washington State Dept. of Ecology on August 29, 2008.
The sample was scheduled for the following analyses:

PCBs	pages 1-92	GC/MS Volatiles	pages 1-96
Metals	pages 1-222	GC/MS Semivolatiles	pages 1-160
Pesticides	pages 1-75	Gamma Spectroscopy	pages 1-94
Inorganics	pages 1-22	Total Extractable Hydrocarbons (Diesel)	pages 1-61
Gross Alpha/Beta	pages 1-157		

The results for these analyses are contained in the enclosed reports.

Thank you for your confidence in Paragon Analytics. Should you have any questions, please call.

Sincerely,

Debbie Fazio (for)

Paragon Analytics
Lance Steere
Senior Project Manager

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INFORMATION

LRS/eh
Enclosure (s): Report

Paragon Analytics

Sample Number(s) Cross-Reference Table

Paragon OrderNum: 0808252

Client Name: Washington State Dept. of Ecology

Client Project Name: Burning Ground #2

Client Project Number: 128-H-2

Client PO Number: C9700008

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
Ecology-J17FV2	0808252-1		SOIL	27-Aug-08	13:40

PCBs

Method SW8082

Method Blank

Lab Name: Paragon Analytics

Work Order Number: 0808252

Client Name: Washington State Dept. of Ecology

ClientProject ID: Burning Ground #2 128-H-2

Lab ID: EX080905-2MB

Sample Matrix: SOIL
% Moisture: N/A
Date Collected: N/A
Date Extracted: 05-Sep-08
Date Analyzed: 23-Sep-08
Prep Method: SW3540 Rev C

Prep Batch: EX080905-2
QCBatchID: EX080905-2-2
Run ID: PT080922-1
Cleanup: SW3665
Basis: N/A
File Name: 01651.dat

Sample Aliquot: 30 g
Final Volume: 10 ml
Result Units: UG/KG
Clean DF: 1

CASNO	Target Analyte	DF	Result	Reporting Limit	Result Qualifier	EPA Qualifier
12674-11-2	AROCLOR-1016	1	33	33	U	
11104-28-2	AROCLOR-1221	1	67	67	U	
11141-16-5	AROCLOR-1232	1	33	33	U	
53469-21-9	AROCLOR-1242	1	33	33	U	
12672-29-6	AROCLOR-1248	1	33	33	U	
11097-69-1	AROCLOR-1254	1	33	33	U	
11096-82-5	AROCLOR-1260	1	33	33	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
2051-24-3	DECACHLOROBIPHENYL	18		16.7	108	60 - 125
877-09-8	TETRACHLORO-M-XYLENE	18.7		16.7	112	70 - 125

Data Package ID: PT0808252-2

PCBs

Method SW8082

Sample Results

Lab Name: Paragon Analytics
 Work Order Number: 0808252
 Client Name: Washington State Dept. of Ecology
 ClientProject ID: Burning Ground #2 128-H-2

Field ID: Ecology-J17FVZ	Sample Matrix: SOIL	Prep Batch: EX080905-2	Sample Aliquot: 30.09 g
Lab ID: 0808252-1	% Moisture: 2.3	QCBatchID: EX080905-2-2	Final Volume: 10 ml
	Date Collected: 27-Aug-08	Run ID: PT080922-1	Result Units: UG/KG
	Date Extracted: 05-Sep-08	Cleanup: SW3665	Clean DF: 1
	Date Analyzed: 23-Sep-08	Basis: Dry Weight	
	Prep Method: SW3540 Rev C	File Name: 01658.dat	

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
12674-11-2	AROCLOR-1016	1	34	34	U	
11104-28-2	AROCLOR-1221	1	68	68	U	
11141-16-5	AROCLOR-1232	1	34	34	U	
53469-21-9	AROCLOR-1242	1	34	34	U	
12672-29-6	AROCLOR-1248	1	34	34	U	
11097-69-1	AROCLOR-1254	1	34	34	U	
11096-82-5	AROCLOR-1260	1	34	34	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
2051-24-3	DECACHLOROBIPHENYL	16.8		17	99	60 - 125
877-09-8	TETRACHLORO-M-XYLENE	18		17	106	70 - 125

Data Package ID: PT0808252-2

Total ICP Metals

Method SW6010B

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0808252

Client Name: Washington State Dept. of Ecology

ClientProject ID: Burning Ground #2 128-H-2

Field ID: Ecology-J17FV2	Sample Matrix: SOIL	Prep Batch: IP080905-5	Sample Aliquot: 1.02g
Lab ID: 0808252-1	% Moisture: 2.3	QCBatchID: IP080905-5-5	Final Volume: 100ml
	Date Collected: 27-Aug-08	Run ID: IT080908-2A1	Result Units: MG/KG
	Date Extracted: 05-Sep-08	Cleanup: NONE	Clean DF: 1
	Date Analyzed: 08-Sep-08	Basis: Dry Weight	
	Prep Method: SW3050 Rev B	File Name: 080908A	

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINIUM	1	4600	20		
7440-36-0	ANTIMONY	1	2	2	U	
7440-38-2	ARSENIC	1	1	1	U	
7440-39-3	BARIUM	1	49	10		
7440-41-7	BERYLLIUM	1	0.5	0.5	U	
7440-43-9	CADMIUM	1	0.5	0.5	U	
7440-70-2	CALCIUM	1	5900	100		
7440-47-3	CHROMIUM	1	7.1	1		
7440-48-4	COBALT	2	6.2	2		
7440-50-8	COPPER	1	12	1		
7439-89-6	IRON	1	18000	10		
7439-92-1	LEAD	2	4.7	0.6		
7439-95-4	MAGNESIUM	1	3900	100		
7439-96-5	MANGANESE	1	230	1		
7440-02-0	NICKEL	1	9.1	2		
7440-09-7	POTASSIUM	1	720	100		
7782-49-2	SELENIUM	1	0.5	0.5	U	
7440-22-4	SILVER	1	1	1	U	
7440-23-5	SODIUM	1	160	100		
7440-28-0	THALLIUM	2	2	2	U	
7440-62-2	VANADIUM	1	38	1		
7440-66-6	ZINC	1	27	2		

Data Package ID: IT0808252-1

Total Mercury

Method SW7471A

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0808252

Client Name: Washington State Dept. of Ecology

ClientProject ID: Burning Ground #2 128-H-2

Field ID: Ecology-J17FV2
Lab ID: 0808252-1

Sample Matrix: SOIL

% Moisture: 2.3

Date Collected: 27-Aug-08

Date Extracted: 08-Sep-08

Date Analyzed: 09-Sep-08

Prep Method: METHOD

Prep Batch: HG080908-2

QC Batch ID: HG080908-2-1

Run ID: HG080909-1A1

Cleanup: NONE

Basis: Dry Weight

File Name: 08090900

Sample Aliquot: 0.608g

Final Volume: 100ml

Result Units: MG/KG

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
7439-97-6	MERCURY	1	0.034	0.034	U	

Data Package ID: HG0808252-1

Organochlorine Pesticides

Method SW8081A

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0808252

Client Name: Washington State Dept. of Ecology

ClientProject ID: Burning Ground #2 128-H-2

Field ID: Ecology-J17FV2	Sample Matrix: SOIL	Prep Batch: EX080905-2	Sample Aliquot: 30.09 g
Lab ID: 0808252-1	% Moisture: 2.3	QCBatchID: EX080905-2-1	Final Volume: 10 ml
	Date Collected: 27-Aug-08	Run ID: PT080922-4	Result Units: UG/KG
	Date Extracted: 05-Sep-08	Cleanup: NONE	Clean DF: 1
	Date Analyzed: 22-Sep-08	Basis: Dry Weight	
	Prep Method: SW3540 Rev C	File Name: 00325.dat	

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
319-84-6	ALPHA-BHC	1	1.7	1.7	U	
58-89-9	GAMMA-BHC (LINDANE)	1	1.7	1.7	U	
76-44-8	HEPTACHLOR	1	1.7	1.7	U	
309-00-2	ALDRIN	1	1.7	1.7	U	
319-85-7	BETA-BHC	1	1.7	1.7	U	
319-86-8	DELTA-BHC	1	1.7	1.7	U	
1024-57-3	HEPTACHLOR EPOXIDE	1	1.7	1.7	U	
959-98-8	ENDOSULFAN I	1	1.7	1.7	U	
5103-74-2	GAMMA-CHLORDANE	1	1.7	1.7	U	
5103-71-9	ALPHA-CHLORDANE	1	1.7	1.7	U	
72-55-9	4,4'-DDE	1	1.7	1.7	U	
60-57-1	DIELDRIN	1	1.7	1.7	U	
72-20-8	ENDRIN	1	1.7	1.7	U	
72-54-8	4,4'-DDD	1	1.7	1.7	U	
33213-65-9	ENDOSULFAN II	1	1.7	1.7	U	
50-29-3	4,4'-DDT	1	1.7	1.7	U	
7421-93-4	ENDRIN ALDEHYDE	1	1.7	1.7	U	
72-43-5	METHOXYCHLOR	1	8.5	8.5	U	
1031-07-8	ENDOSULFAN SULFATE	1	1.7	1.7	U	
53494-70-5	ENDRIN KETONE	1	1.7	1.7	U	
8001-35-2	TOXAPHENE	1	85	85	U	

Data Package ID: PT0808252-1

Date Printed: Tuesday, September 23, 2008

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LIMS Version: 6.195A

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Organochlorine Pesticides

Method SW8081A

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0808252

Client Name: Washington State Dept. of Ecology

ClientProject ID: Burning Ground #2 128-H-2

Field ID: Ecology-J17FV2
Lab ID: 0808252-1

Sample Matrix: SOIL

% Moisture: 2.3

Date Collected: 27-Aug-08

Date Extracted: 05-Sep-08

Date Analyzed: 22-Sep-08

Prep Method: SW3540 Rev C

Prep Batch: EX080905-2

QC Batch ID: EX080905-2-1

Run ID: PT080922-4

Cleanup: NONE

Basis: Dry Weight

File Name: 00325.dat

Sample Aliquot: 30.09 g

Final Volume: 10 ml

Result Units: UG/KG

Clean DF: 1

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
2051-24-3	DECACHLOROBIPHENYL	15.9		17	94	50 - 120
877-09-8	TETRACHLORO-M-XYLENE	17.2		17	101	51 - 114

Data Package ID: PT0808252-1

Date Printed: Tuesday, September 23, 2008

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Hexavalent Chromium

Method SW7196A

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0808252

Client Name: Washington State Dept. of Ecology

ClientProject ID: Burning Ground #2 12B-H-2

Field ID: Ecology-J17FV2	Sample Matrix: SOIL	Prep Batch: CR080904-1	Sample Aliquot: 2.5 g
Lab ID: 0808252-1	% Moisture: 2.3	QC Batch ID: CR080904-1-1	Final Volume: 100 ml
	Date Collected: 27-Aug-08	Run ID: cr080904-1a	Result Units: MG/KG
	Date Extracted: 04-Sep-08	Cleanup: NONE	Clean DF: 1
	Date Analyzed: 04-Sep-08	Basis: Dry Weight	
	Prep Method: SW3060	File Name: Manual Entry	

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
18540-29-9	CHROMIUM VI	1	0.41	0.41	U	

Data Package ID: cr0808252-1

Gross Alpha/Beta Analysis by GFPC Sample Results Summary

Client Name: Washington State Dept. of Ecology

Laboratory Name: Paragon Analytics

Page: 1 of 1

Client Project Name: Burning Ground #2

PAI Work Order: 0808252

Reported on: Wednesday, September 24, 2008

Client Project Number: 128-H-2

2:38:44 PM

Lab Sample ID	Client Sample ID	Sample Type	Nuclide	Result +/- 2 s TPU	MDC	Units	Matrix	Prep Batch	Date Analyzed	Flags
0808252-1	Ecology-J17FV2	Sample	GROSS ALPHA	2.56 +/- 0.99	0.71	pCi/g	SOIL	AB080917-1	9/22/2008	LT
0808252-1	Ecology-J17FV2	Sample	GROSS BETA	1.53 +/- 0.62	0.98	pCi/g	SOIL	AB080917-1	9/22/2008	LT

Comments:

Data Package ID: AB0808252-1

Qualifiers/Flags:

- U - Result is less than the sample specific MDC.
- LT - Result is less than Requested MDC, greater than sample specific MDC.
- Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.
- Y2 - Chemical Yield outside default limits.
- M - The requested MDC was not met.
- M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

Abbreviation:

- IPU - Total Propagated Uncertainty (see PAI SOP 743)
- MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

Date Printed: Wednesday, September 24, 2008

Paragon Analytics

LIMS Version: 6.195A

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Gross Alpha/Beta Analysis by GFPC

PAI 724 Rev 10

Sample Results

Lab Name: Paragon Analytics
Work Order Number: 0808252
Client Name: Washington State Dept. of Ecology
ClientProject ID: Burning Ground #2 128-H-2

Field ID: Ecology-J17FV2	Sample Matrix: SOIL	Prep Batch: AB080917-1	Final Aliquot: 1.53 g
Lab ID: 0808252-1	Prep SOP: PAI 702 Rev 19	QCBatchID: AB080917-1-1	Prep Basis: Dry Weight
	Date Collected: 27-Aug-08	Run ID: AB080917-1A	Moisture(%): NA
	Date Prepared: 17-Sep-08	Count Time: 30 minutes	Result Units: pCi/g
	Date Analyzed: 22-Sep-08	Report Basis: Dry Weight	File Name: ABA0922D

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Requested MDC	Lab Qualifier
12587-46-1	GROSS ALPHA	2.56 +/- 0.99	0.71	3	LT
12587-47-2	GROSS BETA	1.53 +/- 0.62	0.98	4	LT

Comments:

Qualifiers/Flags:

- U - Result is less than the sample specific MDC.
- Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.
- Y2 - Chemical Yield outside default limits.
- LT - Result is less than Requested MDC, greater than sample specific MDC.
- M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
- M - The requested MDC was not met.

Abbreviations:

- TPU - Total Propagated Uncertainty (see PAI SOP 743)
- MDC - Minimum Detectable Concentration (see PAI SOP 709)
- BDL - Below Detection Limit

Data Package ID: AB0808252-1

GC/MS Volatiles

Method SW8260B

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0808252

Client Name: Washington State Dept. of Ecology

ClientProject ID: Burning Ground #2 128-H-2

Field ID: Ecology-J17FV2
Lab ID: 0808252-1

Sample Matrix: SOIL
% Moisture: N/A
Date Collected: 27-Aug-08
Date Extracted: 02-Sep-08
Date Analyzed: 02-Sep-08
Prep Method: SW 8035 Rev A M

Prep Batch: VL080902-5
QC Batch ID: VL080902-5-2
Run ID: VL080902-5A
Cleanup: NONE
Basis: Dry Weight
File Name: B531U1

Sample Allquot: 5g
Final Volume: 5 ml
Result Units: UG/KG
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
75-71-8	DICHLORODIFLUOROMETHANE	1	5	5	U	
74-87-3	CHLOROMETHANE	1	5	5	U	
75-01-4	VINYL CHLORIDE	1	5	5	U	
74-83-9	BROMOMETHANE	1	5	5	U	
75-00-3	CHLOROETHANE	1	5	5	U	
75-69-4	TRICHLOROFLUOROMETHANE	1	5	5	U	
75-35-4	1,1-DICHLOROETHENE	1	5	5	U	
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	1	5	5	U	
67-64-1	ACETONE	1	20	20	U	
74-88-4	IODOMETHANE	1	5	5	U	
75-15-0	CARBON DISULFIDE	1	5	5	U	
75-09-2	METHYLENE CHLORIDE	1	5	5	U	
156-60-5	TRANS-1,2-DICHLOROETHENE	1	5	5	U	
1634-04-4	METHYL TERTIARY BUTYL ETHER	1	5	5	U	
75-34-3	1,1-DICHLOROETHANE	1	5	5	U	
108-05-4	VINYL ACETATE	1	20	20	U	
156-59-2	CIS-1,2-DICHLOROETHENE	1	5	5	U	
78-93-3	2-BUTANONE	1	20	20	U	
74-97-5	BROMOCHLOROMETHANE	1	5	5	U	
67-66-3	CHLOROFORM	1	5	5	U	
71-55-6	1,1,1-TRICHLOROETHANE	1	5	5	U	
594-20-7	2,2-DICHLOROPROPANE	1	5	5	U	
56-23-5	CARBON TETRACHLORIDE	1	5	5	U	
563-58-6	1,1-DICHLOROPROPENE	1	5	5	U	
107-06-2	1,2-DICHLOROETHANE	1	5	5	U	
71-43-2	BENZENE	1	5	5	U	
79-01-6	TRICHLOROETHENE	1	5	5	U	

Data Package ID: VL0808252-1

Date Printed: Tuesday, September 16, 2008

Paragon Analytics
LIMS Version: 6.192A

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GC/MS Volatiles

Method SW8260B

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0808252

Client Name: Washington State Dept. of Ecology

ClientProject ID: Burning Ground #2 128-H-2

Field ID: Ecology-J17FV2
Lab ID: 0808252-1

Sample Matrix: SOIL

% Moisture: N/A

Date Collected: 27-Aug-08

Date Extracted: 02-Sep-08

Date Analyzed: 02-Sep-08

Prep Method: SW5035 Rev A M

Prep Batch: VL080902-5

QCBatchID: VL080902-5-2

Run ID: VL080902-5A

Cleanup: NONE

Basis: Dry Weight

File Name: B53101

Sample Aliquot: 5g

Final Volume: 5 ml

Result Units: UG/KG

Clean DF: 1

78-87-5	1,2-DICHLOROPROPANE	1	5	5	U
74-95-3	DIBROMOMETHANE	1	5	5	U
75-27-4	BROMODICHLOROMETHANE	1	5	5	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	1	5	5	U
108-10-1	4-METHYL-2-PENTANONE	1	20	20	U
108-88-3	TOLUENE	1	5	5	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	1	5	5	U
79-00-5	1,1,2-TRICHLOROETHANE	1	5	5	U
591-78-6	2-HEXANONE	1	20	20	U
127-18-4	TETRACHLOROETHENE	1	5	5	U
142-28-9	1,3-DICHLOROPROPANE	1	5	5	U
124-48-1	DIBROMOCHLOROMETHANE	1	5	5	U
106-93-4	1,2-DIBROMOETHANE	1	5	5	U
544-10-5	1-CHLOROHEXANE	1	5	5	U
108-90-7	CHLOROBENZENE	1	5	5	U
630-20-6	1,1,1,2-TETRACHLOROETHANE	1	5	5	U
100-41-4	ETHYLBENZENE	1	5	5	U
136777-61-2	M+P-XYLENE	1	5	5	U
95-47-6	O-XYLENE	1	5	5	U
100-42-5	STYRENE	1	5	5	U
75-25-2	BROMOFORM	1	5	5	U
98-82-8	ISOPROPYLBENZENE	1	5	5	U
96-18-4	1,2,3-TRICHLOROPROPANE	1	5	5	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	1	5	5	U
108-86-1	BROMOBENZENE	1	5	5	U
103-65-1	N-PROPYLBENZENE	1	5	5	U
95-49-8	2-CHLOROTOLUENE	1	5	5	U
108-67-8	1,3,5-TRIMETHYLBENZENE	1	5	5	U
106-43-4	4-CHLOROTOLUENE	1	5	5	U

Data Package ID: VL0808252-1

Date Printed: Tuesday, September 16, 2008

Paragon Analytics

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LIMS Version: 6.192A

GC/MS Volatiles

Method SW8260B

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0808252

Client Name: Washington State Dept. of Ecology

ClientProject ID: Burning Ground #2 128-H-2

Field ID: Ecology-J17FV2
Lab ID: 0808252-1

Sample Matrix: SOIL
% Moisture: N/A
Date Collected: 27-Aug-08
Date Extracted: 02-Sep-08
Date Analyzed: 02-Sep-08
Prep Method: SW5035 Rev A M

Prep Batch: VL080902-5
QCBatchID: VL080902-5-2
Run ID: VL080902-5A
Cleanup: NONE
Basis: Dry Weight
File Name: B53101

Sample Aliquot: 5 g
Final Volume: 5 ml
Result Units: UG/KG
Clean DF: 1

Sample ID	Analyte	Concentration (UG/KG)	Flag
98-06-6	TERT-BUTYLBENZENE	5	U
95-63-6	1,2,4-TRIMETHYLBENZENE	5	U
135-98-8	SEC-BUTYLBENZENE	5	U
541-73-1	1,3-DICHLOROBENZENE	5	U
99-87-6	P-ISOPROPYLTOLUENE	5	U
106-46-7	1,4-DICHLOROBENZENE	5	U
104-51-8	N-BUTYLBENZENE	5	U
95-50-1	1,2-DICHLOROBENZENE	5	U
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	10	U
120-82-1	1,2,4-TRICHLOROBENZENE	5	U
87-88-3	HEXACHLOROBUTADIENE	5	U
91-20-3	NAPHTHALENE	5	U
87-81-6	1,2,3-TRICHLOROBENZENE	5	U

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
460-00-4	4-BROMOFLUOROBENZENE	51.9		50	104	52 - 151
1868-53-7	DIBROMOFLUOROMETHANE	48.8		50	98	61 - 134
2037-26-5	TOLUENE-D8	50.9		50	102	57 - 135

Data Package ID: VL0808252-1

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0808252

Client Name: Washington State Dept. of Ecology

ClientProject ID: Burning Ground #2 128-H-2

Field ID: Ecology-J17FV2	Sample Matrix: SOIL	Prep Batch: EX080905-3	Sample Aliquot: 30.77 g
Lab ID: 0808252-1	% Moisture: 2.3	QCBatchID: EX080905-3-1	Final Volume: 1 ml
	Date Collected: 27-Aug-08	Run ID: SV080908-3	Result Units: UG/KG
	Date Extracted: 05-Sep-08	Cleanup: NONE	Clean DF: 1
	Date Analyzed: 08-Sep-08	Basis: Dry Weight	
	Prep Method: SW3540 Rev C	File Name: R9630	

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
110-86-1	PYRIDINE	1	330	330	U	
62-75-9	N-NITROSODIMETHYLAMINE	1	330	330	U	
62-53-3	ANILINE	1	330	330	U	
108-95-2	PHENOL	1	330	330	U	
111-44-4	BIS(2-CHLOROETHYL)ETHER	1	330	330	U	
95-57-8	2-CHLOROPHENOL	1	330	330	U	
541-73-1	1,3-DICHLOROBENZENE	1	330	330	U	
106-46-7	1,4-DICHLOROBENZENE	1	330	330	U	
95-50-1	1,2-DICHLOROBENZENE	1	330	330	U	
100-51-6	BENZYL ALCOHOL	1	330	330	U	
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	1	330	330	U	
95-48-7	2-METHYLPHENOL	1	330	330	U	
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	1	330	330	U	
108-39-4	3+4-METHYLPHENOL	1	330	330	U	
67-72-1	HEXACHLOROETHANE	1	330	330	U	
98-95-3	NITROBENZENE	1	330	330	U	
78-59-1	ISOPHORONE	1	330	330	U	
88-75-5	2-NITROPHENOL	1	330	330	U	
105-67-9	2,4-DIMETHYLPHENOL	1	330	330	U	
111-91-1	BIS(2-CHLOROETHOXY)METHANE	1	330	330	U	
120-83-2	2,4-DICHLOROPHENOL	1	330	330	U	
65-85-0	BENZOIC ACID	1	1700	1700	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	330	330	U	
91-20-3	NAPHTHALENE	1	330	330	U	
106-47-8	4-CHLOROANILINE	1	330	330	U	
87-68-3	HEXACHLOROBUTADIENE	1	330	330	U	
59-50-7	4-CHLORO-3-METHYLPHENOL	1	330	330	U	

Data Package ID: SV0808252-1

Date Printed: Monday, September 15, 2008

Paragon Analytics
LIMS Version: 6.192A

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GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0808252

Client Name: Washington State Dept. of Ecology

ClientProject ID: Burning Ground #2 12B-H-2

Field ID: Ecology-J17FV2
Lab ID: 0808252-1

Sample Matrix: SOIL
% Moisture: 2.3
Date Collected: 27-Aug-08
Date Extracted: 05-Sep-08
Date Analyzed: 08-Sep-08
Prep Method: SW3540 Rev C

Prep Batch: EX080905-3
QCBatchID: EX080905-3-1
Run ID: SV080908-3
Cleanup: NONE
Basis: Dry Weight
File Name: R9630

Sample Aliquot: 30.77 g
Final Volume: 1 ml
Result Units: UG/KG
Clean DF: 1

91-57-6	2-METHYLNAPHTHALENE	1	330	330	U	
90-12-0	1-METHYLNAPHTHALENE	1	330	330	U	
77-47-4	HEXACHLOROCYCLOPENTADIENE	1	330	330	U	
88-06-2	2,4,6-TRICHLOROPHENOL	1	330	330	U	
95-95-4	2,4,5-TRICHLOROPHENOL	1	330	330	U	
91-58-7	2-CHLORONAPHTHALENE	1	330	330	U	
88-74-4	2-NITROANILINE	1	670	670	U	
131-11-3	DIMETHYL PHTHALATE	1	330	330	U	
606-20-2	2,6-DINITROTOLUENE	1	330	330	U	
208-96-8	ACENAPHTHYLENE	1	330	330	U	
99-09-2	3-NITROANILINE	1	670	670	U	
83-32-9	ACENAPHTHENE	1	330	330	U	
51-28-5	2,4-DINITROPHENOL	1	670	670	U	
100-02-7	4-NITROPHENOL	1	670	670	U	
132-64-9	DIBENZOFURAN	1	330	330	U	
121-14-2	2,4-DINITROTOLUENE	1	330	330	U	
84-66-2	DIETHYL PHTHALATE	1	330	330	U	
86-73-7	FLUORENE	1	330	330	U	
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	1	330	330	U	
100-01-6	4-NITROANILINE	1	670	670	U	
103-33-3	AZOBENZENE	1	330	330	U	
534-52-1	4,6-DINITRO-2-METHYLPHENOL	1	670	670	U	
86-30-6	N-NITROSODIPHENYLAMINE	1	330	330	U	
101-55-3	4-BROMOPHENYL PHENYL ETHER	1	330	330	U	
118-74-1	HEXACHLOROBENZENE	1	330	330	U	
58-90-2	2,3,4,6-TETRACHLOROPHENOL	1	330	330	U	
87-86-5	PENTACHLOROPHENOL	1	670	670	U	
85-01-8	PHENANTHRENE	1	330	330	U	
120-12-7	ANTHRACENE	1	330	330	U	

Data Package ID: SV0808252-1

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0808252

Client Name: Washington State Dept. of Ecology

ClientProject ID: Burning Ground #2 128-H-2

Field ID: Ecology-J17FV2
Lab ID: 0808252-1

Sample Matrix: SOIL
% Moisture: 2.3
Date Collected: 27-Aug-08
Date Extracted: 05-Sep-08
Date Analyzed: 08-Sep-08
Prep Method: SW3540 Rev C

Prep Batch: EX080905-3
QCBatchID: EX080905-3-1
Run ID: SV080908-3
Cleanup: NONE
Basis: Dry Weight
File Name: R9630

Sample Aliquot: 30.77 g
Final Volume: 1 ml
Result Units: UG/KG
Clean DF: 1

86-74-8	CARBAZOLE	1	330	330	U	
84-74-2	DI-N-BUTYL PHTHALATE	1	330	330	U	
206-44-0	FLUORANTHENE	1	330	330	U	
129-00-0	PYRENE	1	330	330	U	
85-68-7	BUTYL BENZYL PHTHALATE	1	330	330	U	
56-55-3	BENZO(A)ANTHRACENE	1	330	330	U	
91-94-1	3,3'-DICHLOROBENZIDINE	1	330	330	U	
218-01-9	CHRYSENE	1	330	330	U	
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	1	330	330	U	
117-84-0	DI-N-OCTYL PHTHALATE	1	330	330	U	
205-99-2	BENZO(B)FLUORANTHENE	1	330	330	U	
207-08-9	BENZO(K)FLUORANTHENE	1	330	330	U	
50-32-8	BENZO(A)PYRENE	1	330	330	U	
193-39-5	INDENO(1,2,3-CD)PYRENE	1	330	330	U	
53-70-3	DIBENZO(A,H)ANTHRACENE	1	330	330	U	
191-24-2	BENZO(G,H,I)PERYLENE	1	330	330	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
118-79-6	2,4,6-TRIBROMOPHENOL	2060		2500	83	33 - 107
321-60-8	2-FLUOROBIPHENYL	1560		1660	94	41 - 106
367-12-4	2-FLUOROPHENOL	2150		2500	86	32 - 98
4165-60-0	NITROBENZENE-D5	1450		1660	87	28 - 113
4165-62-2	PHENOL-D5	2020		2500	81	38 - 98
1718-51-0	TERPHENYL-D14	1610		1660	97	25 - 147

Data Package ID: SV0808252-1

Date Printed: Monday, September 15, 2008

Paragon Analytics
LIMS Version: 6.192A

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Gamma Spectroscopy Results

PAI 713 Rev 10

Sample Results

Lab Name: Paragon Analytics
 Work Order Number: 0808252
 Client Name: Washington State Dept. of Ecology
 ClientProject ID: Burning Ground #2 128-H-2

Field ID: Ecology-J17FV2
 Lab ID: 0808252-1

Library: FANP.LIB

Sample Matrix: SOIL
 Prep SOP: PAI 739 Rev 9
 Date Collected: 27-Aug-08
 Date Prepared: 09-Sep-08
 Date Analyzed: 11-Sep-08

Prep Batch: GS080909-1
 QCBatchID: GS080909-1-1
 Run ID: GS080909-1A
 Count Time: 30 minutes
 Report Basis: Dry Weight

Final Aliquot: 110 g
 Prep Basis: Dry Weight
 Moisture(%): NA
 Result Units: pCi/g
 File Name: 081490d09

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Requested MDC	Lab Qualifier
14331-83-0	Ac-228	1.04 +/- 0.42	0.64		TI
14391-76-5	Ag-110m	-0.05 +/- 0.13	0.25		U
14682-66-7	Al-26	-0.07 +/- 0.13	0.32		U
14596-10-2	Am-241	0.069 +/- 0.094	0.155		U
13966-02-4	Be-7	-0.08 +/- 0.84	1.63		U
14913-49-6	Bi-212	0.4 +/- 1.7	3.0		U
14733-03-0	Bi-214	0.48 +/- 0.28	0.37		J
13982-30-4	Ce-139	-0.013 +/- 0.054	0.102		U
14762-78-8	Ce-144	0.13 +/- 0.31	0.54		U
14093-03-9	Co-56	0.09 +/- 0.28	0.50		U
13981-50-5	Co-57	0.004 +/- 0.032	0.059		U
13981-38-9	Co-58	-0.03 +/- 0.13	0.26		U
10198-40-0	Co-60	-0.02 +/- 0.11	0.24		U
14392-02-0	Cr-51	-0.70 +/- 0.87	1.80		U
13967-70-9	Cs-134	0.01 +/- 0.10	0.19		U

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU
 Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.
 Y2 - Chemical Yield outside default limits.
 LT - Result is less than Requested MDC, greater than sample specific MDC.
 M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
 M - The requested MDC was not met.

SQ - Spectral quality prevents accurate quantitation.
 SI - Nuclide identification and/or quantitation is tentative.
 TI - Nuclide identification is tentative.
 R - Nuclide has exceeded 8 half-lives.
 G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)
 MDC - Minimum Detectable Concentration (see PAI SOP 709)
 BDL - Below Detection Limit

Data Package ID: GSS0808252-1

Gamma Spectroscopy Results

PAI 713 Rev 10

Sample Results

Lab Name: Paragon Analytics
 Work Order Number: 0808252
 Client Name: Washington State Dept. of Ecology
 ClientProject ID: Burning Ground #2 128-H-2

Field ID: Ecology-J17FV2
Lab ID: 0808252-1

Library: FANP.LIB

Sample Matrix: SOIL
 Prep SOP: PAI 739 Rev 9
 Date Collected: 27-Aug-08
 Date Prepared: 09-Sep-08
 Date Analyzed: 11-Sep-08

Prep Batch: GS080909-1
 QC Batch ID: GS080909-1-1
 Run ID: GS080909-1A
 Count Time: 30 minutes
 Report Basis: Dry Weight

Final Aliquot: 110 g
 Prep Basis: Dry Weight
 Moisture(%): NA
 Result Units: pCi/g
 File Name: 081490d09

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Requested MDC	Lab Qualifier
10045-97-3	Cs-137	0.09 +/- 0.13	0.21	0.5	U
14683-23-9	Eu-152	0 +/- 0.37	0.88		U
15585-10-1	Eu-154	-0.39 +/- 0.61	1.37		U
14391-16-3	Eu-155	0 +/- 0.16	0.29		U
14596-12-4	Fe-59	0.08 +/- 0.29	0.54		U
10043-66-0	I-131	0.05 +/- 0.33	0.59		U
13966-00-2	K-40	11.9 +/- 3.4	2.0		
13966-31-9	Mn-54	0.061 +/- 0.095	0.160		U
13966-32-0	Na-22	0.02 +/- 0.14	0.27		U
14681-63-1	Nb-94	0.04 +/- 0.11	0.19		U
13967-76-5	Nb-95	0.02 +/- 0.12	0.23		U
15100-28-4	Pa-234m	14 +/- 17	26		U
15092-94-1	Pb-212	0.59 +/- 0.21	0.24		
15067-28-4	Pb-214	0.42 +/- 0.21	0.42		J
13967-48-1	Ru-106	0.09 +/- 0.73	1.41		U

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU
 Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.
 Y2 - Chemical Yield outside default limits.
 LT - Result is less than Requested MDC, greater than sample specific MDC.
 M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
 M - The requested MDC was not met.

SQ - Spectral quality prevents accurate quantitation.
 SI - Nuclide identification and/or quantitation is tentative.
 TI - Nuclide identification is tentative.
 R - Nuclide has exceeded 8 half-lives.
 G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)
 MDC - Minimum Detectable Concentration (see PAI SOP 709)
 BDL - Below Detection Limit

Data Package ID: GSS0808252-1

Gamma Spectroscopy Results

PAI 713 Rev 10

Sample Results

Lab Name: Paragon Analytics
 Work Order Number: 0808252
 Client Name: Washington State Dept. of Ecology
 ClientProject ID: Burning Ground #2 128-H-2

Field ID: Ecology-J17FV2
 Lab ID: 0808252-1

Library: FANP.LIB

Sample Matrix: SOIL
 Prep SOP: PAI 739 Rev 9
 Date Collected: 27-Aug-08
 Date Prepared: 09-Sep-08
 Date Analyzed: 11-Sep-08

Prep Batch: GS080909-1
 QCBatchID: GS080909-1-1
 Run ID: GS080909-1A
 Count Time: 30 minutes
 Report Basis: Dry Weight

Final Aliquot: 110 g
 Prep Basis: Dry Weight
 Moisture(%): NA
 Result Units: pCi/g
 File Name: 081490d09

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Requested MDC	Lab Qualifier
14683-10-4	Sb-124	0.03 +/- 0.12	0.22		U
14234-35-6	Sb-125	0.03 +/- 0.24	0.44		U
13957-63-0	Sc-46	-0.01 +/- 0.12	0.25		U
15623-47-9	Th-227	0.30 +/- 0.42	0.70		U
15065-10-8	Th-234	0.62 +/- 0.74	1.40		U
14913-50-9	Tl-208	0.26 +/- 0.13	0.14		
15117-96-1	U-235	0.08 +/- 0.34	0.61		U
13982-39-3	Zn-65	0.07 +/- 0.29	0.54		U

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU
 Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.
 Y2 - Chemical Yield outside default limits.
 LT - Result is less than Requested MDC, greater than sample specific MDC.
 M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
 M - The requested MDC was not met.

SQ - Spectral quality prevents accurate quantitation.
 SI - Nuclide identification and/or quantitation is tentative.
 TI - Nuclide identification is tentative.
 R - Nuclide has exceeded 8 half-lives.
 G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)
 MDC - Minimum Detectable Concentration (see PAI SOP 709)
 BDL - Below Detection Limit

Data Package ID: GSS0808252-1

Diesel Range Organics

Method SW8015MB

Sample Results

Lab Name: Paragon Analytics

Work Order Number: 0808252

Client Name: Washington State Dept. of Ecology

ClientProject ID: Burning Ground #2 128-H-2

Field ID: Ecology-J17FV2
Lab ID: 0808252-1

Sample Matrix: SOIL
% Moisture: 2.3
Date Collected: 27-Aug-08
Date Extracted: 02-Sep-08
Date Analyzed: 03-Sep-08
Prep Method: METHOD

Prep Batch: EX080902-1
QCBatchID: EX080902-1-1
Run ID: HCD080902-3B
Cleanup: NONE
Basis: Dry Weight
File Name: F3F32420

Sample Aliquot: 20.32 g
Final Volume: 5 ml
Result Units: MG/KG
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
68334-30-5	Diesel Range Organics	1	5	5	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
84-15-1	O-TERPHENYL	11.7		12.6	93	47 - 142

Data Package ID: HCD0808252-1