



March 2, 2012

Vanasse Hangen Brustlin, Inc.

Ref: 72016.10

Mr. Timothy Fleury  
Senior Engineer  
Rhode Island Department of Environmental Management  
Office of Waste Management  
235 Promenade Street  
Providence, Rhode Island 02908

Re: Trestle Trail, Coventry Rhode Island  
Response to Site Investigation Report Addendum Comments

Dear Mr. Fleury:

Vanasse Hangen Brustlin Inc. (VHB), on behalf of our client, Prime Engineering, Inc. (PEI), submits this letter to respond to comments dated February 2, 2012 regarding the Trestle Trail Site Investigation Report (SIR) addendum.

For the sake of clarity, VHB has re-stated the question/comment in italics and has provided a response below it.

1. *Site Plan – Coventry Auto Body. The site plan for the Coventry Auto Body area consists of seven soil sampling locations; however, soil sampling location CAB-1 is identified twice on the site figure, one on the eastern edge of the samples and one on the western edge. Please update this plan to accurately depict the soil sampling location of CAB-1 and any other soil sampling locations that may have been located in the vicinity of Coventry Auto Body.*

The correct location for soil sample location CAB-1 is on the western edge of the samples. The soil sample location on the eastern edge of samples is actually soil sample location CAB-4. Please refer to the attached Site Plan that depicts the correct soil sample locations.

2. *Appendices. The laboratory analytical data sheets were not included in this Site Investigation Report Addendum (Addendum). Please submit these analytical reports for each soil sample that was analyzed.*

Please find attached the Certificates of Analysis for the soil samples.

3. *Remedial Alternatives. This Addendum did not include remedial alternatives in accordance with Rule 7.04 Development of Remedial Alternatives of the Remediation Regulations. Rule 7.04 states "The Site Investigation Report shall contain a section proposing remedial alternatives. It should be clear in this section which of these alternatives is most preferable." The Department cannot issue a Program Letter, and*

Mr. Timothy Fleury  
R.I.D.E.M.  
Ref.: 72016.10  
March 2, 2012  
Page 2

*the Responsible Party cannot conduct post-site investigation public notice, until the Department offers its concurrence with a proposed remedial alternative.*

VHB has developed the following summary of remedial alternatives to address soil impacts at the Site.

#### Option 1 – No Action/Natural Attenuation

The No Action/Natural Attenuation remedial response action is most appropriate for sites where the migration of site contaminants is expected to be minimal, the concentration of contaminants poses no significant risk to human health or the environment, and the substances are amenable to natural biodegradation process. The soil impacts identified at the Site are metals and polycyclic aromatic hydrocarbons (PAHs) detected within the surface soil interval. These types of substances are not expected to attenuate to lesser concentrations and their presence within the surface interval creates a condition that should be addressed to facilitate the re-use of the Site.

#### Option 2 – Impacted Soil Excavation and Off-Site Disposal

This option would consist of the total excavation, disposal and replacement of impacted soils above the Rhode Island Department of Environmental Management (RIDEM) Residential Direct Exposure Criteria (RDEC). Excavation is traditionally one of the simplest and most conclusive forms of site remediation. This option is not feasible because the cost of soil disposal and clean backfill would be significant due to the length of impacted trail areas. There are also negative secondary impacts such as consumption of landfill space associated with this approach would be disproportionate to the benefits realized by this option.

#### Option 3 – On-Site Capping of Soils and Environmental Land Use Restriction (ELUR)

It is the opinion of VHB that exposure pathways can be eliminated using an engineered cap. This can be accomplished by encapsulating existing surface soil beneath a two-foot soil cap, one-foot soil cap underlain by geotextile, four inches of pavement underlain with six inches of clean gravel, or four inches of concrete underlain with six inches of clean gravel. Since pavement is proposed as part of trail construction, this option can maximize cost-benefit results.

Some excavation of impacted soil may be necessary to achieve design grades, therefore, excess excavated soil will be re-used in areas where fill is required to the extent possible. Any impacted soil used as fill will be encapsulated with an engineered cap that is part of the trail design. Any excess soil that cannot be re-used under an approved cap, will be disposed at a licensed facility.

Since the impacted soil would be left in place with a cap remedy, an ELUR will be required for the Site. An ELUR is a legal document drafted for the purpose of placing a notice of restrictions



Mr. Timothy Fleury  
R.I.D.E.M.  
Ref.: 72016.10  
March 2, 2012  
Page 3

on the use or physical condition of a property for the protection of human health. The ELUR will require that the capped portions of the property remain in place and are properly maintained.

#### Recommended Alternative

It is VHB's opinion that the most effective way to bring the Site into compliance with RIDEM regulations is to select Option 3. During construction activities, on-Site soil will be managed according to a Soil Management Plan, which will be submitted as an appendix to the Remedial Action Work Plan.

#### *Compliance with RIDEM Risk Management Provisions*

The proposed Remedial Alternative will be implemented with the intent to provide conservative levels of protection for human health and the environment. The remedial goals seek to meet the Method 1 Standards of Risk Management outlined in Section 8.00 of the RIDEM Remediation Regulations by eliminating the exposure pathway so as to be compliant with the Rule 8.10 of the Remediation Regulations.

#### *Technical Feasibility*

Soil encapsulation is not a new or innovative form of remediation and is technically feasible.

#### *Compliance with Federal, State and Local Regulations*

The proposed Remedial Alternative will require the involvement and approval of the RIDEM Office of Waste Management.

#### *The ability of the performing party to perform the preferred remedial alternative.*

The RIDEM Division of Planning and Development is able and ready to perform the preferred remedial alternative.

- 4. Certification Requirements.** *In accordance with Rule 7.05 Certification Requirements of the Remediation Regulations a certification by an authorized representative that prepared the report and by the Performing Party is required. Please submit a certification by the Performing Party responsible for the submittal of the Site Investigation Report.*

Please find attached the signed Certification Requirement.

- 5. Internet Repository.** *At the request of the public during the public meeting held on July 12, 2011, the Department established an internet repository for the Trestle Trail Bike Path. Please submit hard copies*



Mr. Timothy Fleury  
R.I.D.E.M.  
Ref.: 72016.10  
March 2, 2012  
Page 4

*and electronic copies of all future correspondences, reports, and plans to be posted on the Department website.*

Acknowledged. An electronic copy of this response to comments letter is provided on the attached compact disk.

If you have any questions or comments regarding these responses, please feel free to contact me at (401) 272-8100.

Very truly yours,

VANASSE HANGEN BRUSTLIN, INC.



Claude Masse  
Senior Environmental Scientist

Cc: A. Marshall, RIDOT  
R. Bailey, RIDEM  
H. Neenan, Prime Engineering, Inc.  
S. Courtemanche, VHB





---

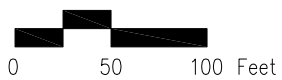
# Revised Figure





Source: PhotoMapper, 2006.

Vanasse Hangen Brustlin, Inc.



Site Plan  
Coventry Auto Body  
Coventry, Rhode Island



---

# Certificates of Analysis





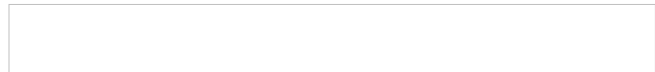
*CERTIFICATE OF ANALYSIS*

Josh Klement  
Vanasse Hangen Brustlin, Inc.  
10 Dorrance Street, Suite 400  
Providence, RI 02903

**RE: Trestle Trail (72016.1)**  
**ESS Laboratory Work Order Number: 1110010**

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard  
Laboratory Director



**Analytical Summary**

The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC and A2LA, except where noted within this project narrative.





*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110010

**SAMPLE RECEIPT**

The following samples were received on October 03, 2011 for the analyses specified on the enclosed Chain of Custody Record.

<b>Lab Number</b>	<b>SampleName</b>	<b>Matrix</b>	<b>Analysis</b>
1110010-01	SB-101 0ft-2ft	Soil	6010B, 8270C
1110010-02	SB-102 0ft-2ft	Soil	6010B, 8270C
1110010-03	SB-103 0ft-2ft	Soil	6010B, 8270C
1110010-04	SB-104 0ft-2ft	Soil	6010B, 8270C
1110010-05	SB-105 0ft-2ft	Soil	6010B, 8270C
1110010-06	SB-106 0ft-2ft	Soil	6010B, 8270C
1110010-07	SB-107 0ft-2ft	Soil	6010B, 8270C
1110010-08	SB-108 0ft-2ft	Soil	6010B, 8270C
1110010-09	SB-109 0ft-2ft	Soil	6010B, 8270C
1110010-10	SB-110 0ft-2ft	Soil	6010B, 8270C
1110010-11	SB-111 0ft-2ft	Soil	6010B, 8270C
1110010-12	SB-112 0ft-2ft	Soil	6010B, 8270C
1110010-13	SB-113 0ft-2ft	Soil	6010B, 8270C
1110010-14	SB-114 0ft-2ft	Soil	6010B, 8270C
1110010-15	SB-115 0ft-2ft	Soil	6010B, 8270C
1110010-16	SB-116 0ft-2ft	Soil	6010B, 8270C
1110010-17	SB-117 0ft-2ft	Soil	6010B, 8270C
1110010-18	SB-118 0ft-2ft	Soil	6010B, 8270C
1110010-19	SB-119 0ft-2ft	Soil	6010B, 8270C
1110010-20	SB-120 0ft-2ft	Soil	6010B, 8270C



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110010

**PROJECT NARRATIVE**

**3050B/6000/7000 Total Metals**

CJ10504-MS1 [Matrix Spike recovery is below lower control limit \(M-\).](#)  
Arsenic (72% @ 75-125%)

**No other observations noted.**

**End of Project Narrative.**

**DATA USABILITY LINKS**

[Definitions of Quality Control Parameters](#)

[Semivolatile Organics Internal Standard Information](#)

[Semivolatile Organics Surrogate Information](#)

[Volatile Organics Internal Standard Information](#)

[Volatile Organics Surrogate Information](#)

[EPH and VPH Alkane Lists](#)



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-101 0ft-2ft  
Date Sampled: 10/03/11 08:15  
Percent Solids: 93

ESS Laboratory Work Order: 1110010  
ESS Laboratory Sample ID: 1110010-01  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	ND (2.6)	6010B	7	1	JP	10/05/11 14:59	2.1	100	CJ10504



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-101 0ft-2ft  
 Date Sampled: 10/03/11 08:15  
 Percent Solids: 93  
 Initial Volume: 15  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110010  
 ESS Laboratory Sample ID: 1110010-01  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/4/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.358)	123	1	10/04/11 17:23	CUJ0007	CJ10324
Acenaphthene	ND (0.358)	43	1	10/04/11 17:23	CUJ0007	CJ10324
Acenaphthylene	ND (0.358)	23	1	10/04/11 17:23	CUJ0007	CJ10324
Anthracene	ND (0.358)	35	1	10/04/11 17:23	CUJ0007	CJ10324
Benzo(a)anthracene	ND (0.358)	0.9	1	10/04/11 17:23	CUJ0007	CJ10324
Benzo(a)pyrene	ND (0.180)	0.4	1	10/04/11 17:23	CUJ0007	CJ10324
Benzo(b)fluoranthene	ND (0.358)	0.9	1	10/04/11 17:23	CUJ0007	CJ10324
Benzo(g,h,i)perylene	ND (0.358)	0.8	1	10/04/11 17:23	CUJ0007	CJ10324
Benzo(k)fluoranthene	ND (0.358)	0.9	1	10/04/11 17:23	CUJ0007	CJ10324
Chrysene	ND (0.180)	0.4	1	10/04/11 17:23	CUJ0007	CJ10324
Dibenzo(a,h)Anthracene	ND (0.180)	0.4	1	10/04/11 17:23	CUJ0007	CJ10324
Fluoranthene	ND (0.358)	20	1	10/04/11 17:23	CUJ0007	CJ10324
Fluorene	ND (0.358)	28	1	10/04/11 17:23	CUJ0007	CJ10324
Indeno(1,2,3-cd)Pyrene	ND (0.358)	0.9	1	10/04/11 17:23	CUJ0007	CJ10324
Naphthalene	ND (0.358)	54	1	10/04/11 17:23	CUJ0007	CJ10324
Phenanthrene	ND (0.358)	40	1	10/04/11 17:23	CUJ0007	CJ10324
Pyrene	ND (0.358)	13	1	10/04/11 17:23	CUJ0007	CJ10324

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	75 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	78 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	70 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	96 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-102 0ft-2ft  
Date Sampled: 10/03/11 08:25  
Percent Solids: 96

ESS Laboratory Work Order: 1110010  
ESS Laboratory Sample ID: 1110010-02  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	2.4 (2.3)	6010B	7	1	JP	10/05/11 15:03	2.22	100	CJ10504



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-102 0ft-2ft  
 Date Sampled: 10/03/11 08:25  
 Percent Solids: 96  
 Initial Volume: 14.8  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110010  
 ESS Laboratory Sample ID: 1110010-02  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/4/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.352)	123	1	10/04/11 17:53	CUJ0007	CJ10324
Acenaphthene	ND (0.352)	43	1	10/04/11 17:53	CUJ0007	CJ10324
Acenaphthylene	ND (0.352)	23	1	10/04/11 17:53	CUJ0007	CJ10324
Anthracene	ND (0.352)	35	1	10/04/11 17:53	CUJ0007	CJ10324
Benzo(a)anthracene	ND (0.352)	0.9	1	10/04/11 17:53	CUJ0007	CJ10324
Benzo(a)pyrene	ND (0.176)	0.4	1	10/04/11 17:53	CUJ0007	CJ10324
Benzo(b)fluoranthene	ND (0.352)	0.9	1	10/04/11 17:53	CUJ0007	CJ10324
Benzo(g,h,i)perylene	ND (0.352)	0.8	1	10/04/11 17:53	CUJ0007	CJ10324
Benzo(k)fluoranthene	ND (0.352)	0.9	1	10/04/11 17:53	CUJ0007	CJ10324
Chrysene	ND (0.176)	0.4	1	10/04/11 17:53	CUJ0007	CJ10324
Dibenzo(a,h)Anthracene	ND (0.176)	0.4	1	10/04/11 17:53	CUJ0007	CJ10324
Fluoranthene	ND (0.352)	20	1	10/04/11 17:53	CUJ0007	CJ10324
Fluorene	ND (0.352)	28	1	10/04/11 17:53	CUJ0007	CJ10324
Indeno(1,2,3-cd)Pyrene	ND (0.352)	0.9	1	10/04/11 17:53	CUJ0007	CJ10324
Naphthalene	ND (0.352)	54	1	10/04/11 17:53	CUJ0007	CJ10324
Phenanthrene	ND (0.352)	40	1	10/04/11 17:53	CUJ0007	CJ10324
Pyrene	ND (0.352)	13	1	10/04/11 17:53	CUJ0007	CJ10324

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	73 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	74 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	67 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	90 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-103 0ft-2ft  
Date Sampled: 10/03/11 08:31  
Percent Solids: 95

ESS Laboratory Work Order: 1110010  
ESS Laboratory Sample ID: 1110010-03  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	4.6 (2.2)	6010B	7	1	JP	10/05/11 15:07	2.34	100	CJ10504



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-103 0ft-2ft  
 Date Sampled: 10/03/11 08:31  
 Percent Solids: 95  
 Initial Volume: 15.5  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110010  
 ESS Laboratory Sample ID: 1110010-03  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/4/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.339)	123	1	10/04/11 18:24	CUJ0007	CJ10324
Acenaphthene	ND (0.339)	43	1	10/04/11 18:24	CUJ0007	CJ10324
Acenaphthylene	ND (0.339)	23	1	10/04/11 18:24	CUJ0007	CJ10324
Anthracene	ND (0.339)	35	1	10/04/11 18:24	CUJ0007	CJ10324
Benzo(a)anthracene	ND (0.339)	0.9	1	10/04/11 18:24	CUJ0007	CJ10324
Benzo(a)pyrene	ND (0.170)	0.4	1	10/04/11 18:24	CUJ0007	CJ10324
Benzo(b)fluoranthene	ND (0.339)	0.9	1	10/04/11 18:24	CUJ0007	CJ10324
Benzo(g,h,i)perylene	ND (0.339)	0.8	1	10/04/11 18:24	CUJ0007	CJ10324
Benzo(k)fluoranthene	ND (0.339)	0.9	1	10/04/11 18:24	CUJ0007	CJ10324
Chrysene	ND (0.170)	0.4	1	10/04/11 18:24	CUJ0007	CJ10324
Dibenzo(a,h)Anthracene	ND (0.170)	0.4	1	10/04/11 18:24	CUJ0007	CJ10324
Fluoranthene	ND (0.339)	20	1	10/04/11 18:24	CUJ0007	CJ10324
Fluorene	ND (0.339)	28	1	10/04/11 18:24	CUJ0007	CJ10324
Indeno(1,2,3-cd)Pyrene	ND (0.339)	0.9	1	10/04/11 18:24	CUJ0007	CJ10324
Naphthalene	ND (0.339)	54	1	10/04/11 18:24	CUJ0007	CJ10324
Phenanthrene	ND (0.339)	40	1	10/04/11 18:24	CUJ0007	CJ10324
Pyrene	ND (0.339)	13	1	10/04/11 18:24	CUJ0007	CJ10324

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	79 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	85 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	74 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	93 %		30-130





*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-104 0ft-2ft  
Date Sampled: 10/03/11 08:38  
Percent Solids: 96

ESS Laboratory Work Order: 1110010  
ESS Laboratory Sample ID: 1110010-04  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	ND (2.5)	6010B	7	1	JP	10/05/11 15:11	2.08	100	CJ10504



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-104 0ft-2ft  
 Date Sampled: 10/03/11 08:38  
 Percent Solids: 96  
 Initial Volume: 15  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110010  
 ESS Laboratory Sample ID: 1110010-04  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/4/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.347)	123	1	10/04/11 18:54	CUJ0007	CJ10324
Acenaphthene	ND (0.347)	43	1	10/04/11 18:54	CUJ0007	CJ10324
Acenaphthylene	ND (0.347)	23	1	10/04/11 18:54	CUJ0007	CJ10324
Anthracene	ND (0.347)	35	1	10/04/11 18:54	CUJ0007	CJ10324
Benzo(a)anthracene	ND (0.347)	0.9	1	10/04/11 18:54	CUJ0007	CJ10324
Benzo(a)pyrene	ND (0.174)	0.4	1	10/04/11 18:54	CUJ0007	CJ10324
Benzo(b)fluoranthene	ND (0.347)	0.9	1	10/04/11 18:54	CUJ0007	CJ10324
Benzo(g,h,i)perylene	ND (0.347)	0.8	1	10/04/11 18:54	CUJ0007	CJ10324
Benzo(k)fluoranthene	ND (0.347)	0.9	1	10/04/11 18:54	CUJ0007	CJ10324
Chrysene	ND (0.174)	0.4	1	10/04/11 18:54	CUJ0007	CJ10324
Dibenzo(a,h)Anthracene	ND (0.174)	0.4	1	10/04/11 18:54	CUJ0007	CJ10324
Fluoranthene	ND (0.347)	20	1	10/04/11 18:54	CUJ0007	CJ10324
Fluorene	ND (0.347)	28	1	10/04/11 18:54	CUJ0007	CJ10324
Indeno(1,2,3-cd)Pyrene	ND (0.347)	0.9	1	10/04/11 18:54	CUJ0007	CJ10324
Naphthalene	ND (0.347)	54	1	10/04/11 18:54	CUJ0007	CJ10324
Phenanthrene	ND (0.347)	40	1	10/04/11 18:54	CUJ0007	CJ10324
Pyrene	ND (0.347)	13	1	10/04/11 18:54	CUJ0007	CJ10324

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	65 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	67 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	60 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	92 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-105 0ft-2ft  
Date Sampled: 10/03/11 08:39  
Percent Solids: 94

ESS Laboratory Work Order: 1110010  
ESS Laboratory Sample ID: 1110010-05  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	ND (2.3)	6010B	7	1	JP	10/05/11 15:15	2.29	100	CJ10504

*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-105 0ft-2ft  
 Date Sampled: 10/03/11 08:39  
 Percent Solids: 94  
 Initial Volume: 15.1  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110010  
 ESS Laboratory Sample ID: 1110010-05  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/4/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.352)	123	1	10/04/11 19:24	CUJ0007	CJ10324
Acenaphthene	ND (0.352)	43	1	10/04/11 19:24	CUJ0007	CJ10324
Acenaphthylene	ND (0.352)	23	1	10/04/11 19:24	CUJ0007	CJ10324
Anthracene	ND (0.352)	35	1	10/04/11 19:24	CUJ0007	CJ10324
Benzo(a)anthracene	ND (0.352)	0.9	1	10/04/11 19:24	CUJ0007	CJ10324
Benzo(a)pyrene	ND (0.176)	0.4	1	10/04/11 19:24	CUJ0007	CJ10324
Benzo(b)fluoranthene	ND (0.352)	0.9	1	10/04/11 19:24	CUJ0007	CJ10324
Benzo(g,h,i)perylene	ND (0.352)	0.8	1	10/04/11 19:24	CUJ0007	CJ10324
Benzo(k)fluoranthene	ND (0.352)	0.9	1	10/04/11 19:24	CUJ0007	CJ10324
Chrysene	ND (0.176)	0.4	1	10/04/11 19:24	CUJ0007	CJ10324
Dibenzo(a,h)Anthracene	ND (0.176)	0.4	1	10/04/11 19:24	CUJ0007	CJ10324
Fluoranthene	ND (0.352)	20	1	10/04/11 19:24	CUJ0007	CJ10324
Fluorene	ND (0.352)	28	1	10/04/11 19:24	CUJ0007	CJ10324
Indeno(1,2,3-cd)Pyrene	ND (0.352)	0.9	1	10/04/11 19:24	CUJ0007	CJ10324
Naphthalene	ND (0.352)	54	1	10/04/11 19:24	CUJ0007	CJ10324
Phenanthrene	ND (0.352)	40	1	10/04/11 19:24	CUJ0007	CJ10324
Pyrene	ND (0.352)	13	1	10/04/11 19:24	CUJ0007	CJ10324

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: 1,2-Dichlorobenzene-d4	69 %		30-130
Surrogate: 2-Fluorobiphenyl	76 %		30-130
Surrogate: Nitrobenzene-d5	67 %		30-130
Surrogate: p-Terphenyl-d14	90 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-106 0ft-2ft  
Date Sampled: 10/03/11 08:48  
Percent Solids: 96

ESS Laboratory Work Order: 1110010  
ESS Laboratory Sample ID: 1110010-06  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	9.9 (2.1)	6010B	7	1	JP	10/05/11 15:19	2.5	100	CJ10504

*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-106 0ft-2ft  
 Date Sampled: 10/03/11 08:48  
 Percent Solids: 96  
 Initial Volume: 15.2  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110010  
 ESS Laboratory Sample ID: 1110010-06  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/4/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.342)	123	1	10/05/11 9:04	CUJ0020	CJ10324
Acenaphthene	ND (0.342)	43	1	10/05/11 9:04	CUJ0020	CJ10324
Acenaphthylene	ND (0.342)	23	1	10/05/11 9:04	CUJ0020	CJ10324
Anthracene	ND (0.342)	35	1	10/05/11 9:04	CUJ0020	CJ10324
<b>Benzo(a)anthracene</b>	<b>0.465</b> (0.342)	0.9	1	10/05/11 9:04	CUJ0020	CJ10324
<b>Benzo(a)pyrene</b>	<b>0.512</b> (0.172)	0.4	1	10/05/11 9:04	CUJ0020	CJ10324
<b>Benzo(b)fluoranthene</b>	<b>1.07</b> (0.342)	0.9	1	10/05/11 9:04	CUJ0020	CJ10324
<b>Benzo(g,h,i)perylene</b>	<b>0.387</b> (0.342)	0.8	1	10/05/11 9:04	CUJ0020	CJ10324
<b>Benzo(k)fluoranthene</b>	<b>0.495</b> (0.342)	0.9	1	10/05/11 9:04	CUJ0020	CJ10324
<b>Chrysene</b>	<b>0.734</b> (0.172)	0.4	1	10/05/11 9:04	CUJ0020	CJ10324
Dibenzo(a,h)Anthracene	ND (0.172)	0.4	1	10/05/11 9:04	CUJ0020	CJ10324
<b>Fluoranthene</b>	<b>0.821</b> (0.342)	20	1	10/05/11 9:04	CUJ0020	CJ10324
Fluorene	ND (0.342)	28	1	10/05/11 9:04	CUJ0020	CJ10324
<b>Indeno(1,2,3-cd)Pyrene</b>	<b>0.400</b> (0.342)	0.9	1	10/05/11 9:04	CUJ0020	CJ10324
Naphthalene	ND (0.342)	54	1	10/05/11 9:04	CUJ0020	CJ10324
Phenanthrene	ND (0.342)	40	1	10/05/11 9:04	CUJ0020	CJ10324
<b>Pyrene</b>	<b>0.697</b> (0.342)	13	1	10/05/11 9:04	CUJ0020	CJ10324

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	68 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	77 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	67 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	88 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-107 0ft-2ft  
Date Sampled: 10/03/11 08:47  
Percent Solids: 96

ESS Laboratory Work Order: 1110010  
ESS Laboratory Sample ID: 1110010-07  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	3.7 (2.4)	6010B	7	1	JP	10/05/11 15:23	2.14	100	CJ10504



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-107 0ft-2ft  
 Date Sampled: 10/03/11 08:47  
 Percent Solids: 96  
 Initial Volume: 15.1  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110010  
 ESS Laboratory Sample ID: 1110010-07  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/4/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.345)	123	1	10/05/11 9:34	CUJ0020	CJ10324
Acenaphthene	ND (0.345)	43	1	10/05/11 9:34	CUJ0020	CJ10324
Acenaphthylene	ND (0.345)	23	1	10/05/11 9:34	CUJ0020	CJ10324
Anthracene	ND (0.345)	35	1	10/05/11 9:34	CUJ0020	CJ10324
Benzo(a)anthracene	ND (0.345)	0.9	1	10/05/11 9:34	CUJ0020	CJ10324
Benzo(a)pyrene	ND (0.173)	0.4	1	10/05/11 9:34	CUJ0020	CJ10324
Benzo(b)fluoranthene	ND (0.345)	0.9	1	10/05/11 9:34	CUJ0020	CJ10324
Benzo(g,h,i)perylene	ND (0.345)	0.8	1	10/05/11 9:34	CUJ0020	CJ10324
Benzo(k)fluoranthene	ND (0.345)	0.9	1	10/05/11 9:34	CUJ0020	CJ10324
Chrysene	ND (0.173)	0.4	1	10/05/11 9:34	CUJ0020	CJ10324
Dibenzo(a,h)Anthracene	ND (0.173)	0.4	1	10/05/11 9:34	CUJ0020	CJ10324
Fluoranthene	ND (0.345)	20	1	10/05/11 9:34	CUJ0020	CJ10324
Fluorene	ND (0.345)	28	1	10/05/11 9:34	CUJ0020	CJ10324
Indeno(1,2,3-cd)Pyrene	ND (0.345)	0.9	1	10/05/11 9:34	CUJ0020	CJ10324
Naphthalene	ND (0.345)	54	1	10/05/11 9:34	CUJ0020	CJ10324
Phenanthrene	ND (0.345)	40	1	10/05/11 9:34	CUJ0020	CJ10324
Pyrene	ND (0.345)	13	1	10/05/11 9:34	CUJ0020	CJ10324

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	71 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	74 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	68 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	87 %		30-130





*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-108 0ft-2ft  
Date Sampled: 10/03/11 08:55  
Percent Solids: 96

ESS Laboratory Work Order: 1110010  
ESS Laboratory Sample ID: 1110010-08  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	11.4 (2.6)	6010B	7	1	JP	10/05/11 15:36	2.02	100	CJ10504

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-108 0ft-2ft  
 Date Sampled: 10/03/11 08:55  
 Percent Solids: 96  
 Initial Volume: 14.8  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110010  
 ESS Laboratory Sample ID: 1110010-08  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/4/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

RI - RES DEC

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.352)	123	1	10/05/11 10:04	CUJ0020	CJ10324
Acenaphthene	ND (0.352)	43	1	10/05/11 10:04	CUJ0020	CJ10324
Acenaphthylene	ND (0.352)	23	1	10/05/11 10:04	CUJ0020	CJ10324
Anthracene	ND (0.352)	35	1	10/05/11 10:04	CUJ0020	CJ10324
Benzo(a)anthracene	ND (0.352)	0.9	1	10/05/11 10:04	CUJ0020	CJ10324
<b>Benzo(a)pyrene</b>	<b>0.228</b> (0.176)	0.4	1	10/05/11 10:04	CUJ0020	CJ10324
<b>Benzo(b)fluoranthene</b>	<b>0.420</b> (0.352)	0.9	1	10/05/11 10:04	CUJ0020	CJ10324
Benzo(g,h,i)perylene	ND (0.352)	0.8	1	10/05/11 10:04	CUJ0020	CJ10324
Benzo(k)fluoranthene	ND (0.352)	0.9	1	10/05/11 10:04	CUJ0020	CJ10324
<b>Chrysene</b>	<b>0.304</b> (0.176)	0.4	1	10/05/11 10:04	CUJ0020	CJ10324
Dibenzo(a,h)Anthracene	ND (0.176)	0.4	1	10/05/11 10:04	CUJ0020	CJ10324
<b>Fluoranthene</b>	<b>0.505</b> (0.352)	20	1	10/05/11 10:04	CUJ0020	CJ10324
Fluorene	ND (0.352)	28	1	10/05/11 10:04	CUJ0020	CJ10324
Indeno(1,2,3-cd)Pyrene	ND (0.352)	0.9	1	10/05/11 10:04	CUJ0020	CJ10324
Naphthalene	ND (0.352)	54	1	10/05/11 10:04	CUJ0020	CJ10324
Phenanthrene	ND (0.352)	40	1	10/05/11 10:04	CUJ0020	CJ10324
<b>Pyrene</b>	<b>0.387</b> (0.352)	13	1	10/05/11 10:04	CUJ0020	CJ10324

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: 1,2-Dichlorobenzene-d4	69 %		30-130
Surrogate: 2-Fluorobiphenyl	76 %		30-130
Surrogate: Nitrobenzene-d5	66 %		30-130
Surrogate: p-Terphenyl-d14	83 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-109 0ft-2ft  
Date Sampled: 10/03/11 08:58  
Percent Solids: 96

ESS Laboratory Work Order: 1110010  
ESS Laboratory Sample ID: 1110010-09  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	8.8 (2.4)	6010B	7	1	JP	10/05/11 15:40	2.19	100	CJ10504

*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-109 0ft-2ft  
 Date Sampled: 10/03/11 08:58  
 Percent Solids: 96  
 Initial Volume: 14.7  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110010  
 ESS Laboratory Sample ID: 1110010-09  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/4/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.354)	123	1	10/05/11 10:35	CUJ0020	CJ10324
Acenaphthene	ND (0.354)	43	1	10/05/11 10:35	CUJ0020	CJ10324
Acenaphthylene	ND (0.354)	23	1	10/05/11 10:35	CUJ0020	CJ10324
Anthracene	ND (0.354)	35	1	10/05/11 10:35	CUJ0020	CJ10324
<b>Benzo(a)anthracene</b>	<b>0.493</b> (0.354)	0.9	1	10/05/11 10:35	CUJ0020	CJ10324
<b>Benzo(a)pyrene</b>	<b>0.448</b> (0.178)	0.4	1	10/05/11 10:35	CUJ0020	CJ10324
<b>Benzo(b)fluoranthene</b>	<b>1.11</b> (0.354)	0.9	1	10/05/11 10:35	CUJ0020	CJ10324
<b>Benzo(g,h,i)perylene</b>	<b>0.435</b> (0.354)	0.8	1	10/05/11 10:35	CUJ0020	CJ10324
<b>Benzo(k)fluoranthene</b>	<b>0.502</b> (0.354)	0.9	1	10/05/11 10:35	CUJ0020	CJ10324
<b>Chrysene</b>	<b>0.864</b> (0.178)	0.4	1	10/05/11 10:35	CUJ0020	CJ10324
Dibenzo(a,h)Anthracene	ND (0.178)	0.4	1	10/05/11 10:35	CUJ0020	CJ10324
<b>Fluoranthene</b>	<b>1.69</b> (0.354)	20	1	10/05/11 10:35	CUJ0020	CJ10324
Fluorene	ND (0.354)	28	1	10/05/11 10:35	CUJ0020	CJ10324
<b>Indeno(1,2,3-cd)Pyrene</b>	<b>0.459</b> (0.354)	0.9	1	10/05/11 10:35	CUJ0020	CJ10324
Naphthalene	ND (0.354)	54	1	10/05/11 10:35	CUJ0020	CJ10324
Phenanthrene	ND (0.354)	40	1	10/05/11 10:35	CUJ0020	CJ10324
<b>Pyrene</b>	<b>1.19</b> (0.354)	13	1	10/05/11 10:35	CUJ0020	CJ10324

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	69 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	79 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	66 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	86 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-110 0ft-2ft  
Date Sampled: 10/03/11 09:04  
Percent Solids: 95

ESS Laboratory Work Order: 1110010  
ESS Laboratory Sample ID: 1110010-10  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	2.9 (2.5)	6010B	7	1	JP	10/05/11 15:44	2.13	100	CJ10504



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-110 0ft-2ft  
 Date Sampled: 10/03/11 09:04  
 Percent Solids: 95  
 Initial Volume: 15.1  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110010  
 ESS Laboratory Sample ID: 1110010-10  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/4/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.348)	123	1	10/05/11 11:05	CUJ0020	CJ10324
Acenaphthene	ND (0.348)	43	1	10/05/11 11:05	CUJ0020	CJ10324
Acenaphthylene	ND (0.348)	23	1	10/05/11 11:05	CUJ0020	CJ10324
Anthracene	ND (0.348)	35	1	10/05/11 11:05	CUJ0020	CJ10324
Benzo(a)anthracene	ND (0.348)	0.9	1	10/05/11 11:05	CUJ0020	CJ10324
Benzo(a)pyrene	ND (0.175)	0.4	1	10/05/11 11:05	CUJ0020	CJ10324
Benzo(b)fluoranthene	ND (0.348)	0.9	1	10/05/11 11:05	CUJ0020	CJ10324
Benzo(g,h,i)perylene	ND (0.348)	0.8	1	10/05/11 11:05	CUJ0020	CJ10324
Benzo(k)fluoranthene	ND (0.348)	0.9	1	10/05/11 11:05	CUJ0020	CJ10324
Chrysene	ND (0.175)	0.4	1	10/05/11 11:05	CUJ0020	CJ10324
Dibenzo(a,h)Anthracene	ND (0.175)	0.4	1	10/05/11 11:05	CUJ0020	CJ10324
Fluoranthene	ND (0.348)	20	1	10/05/11 11:05	CUJ0020	CJ10324
Fluorene	ND (0.348)	28	1	10/05/11 11:05	CUJ0020	CJ10324
Indeno(1,2,3-cd)Pyrene	ND (0.348)	0.9	1	10/05/11 11:05	CUJ0020	CJ10324
Naphthalene	ND (0.348)	54	1	10/05/11 11:05	CUJ0020	CJ10324
Phenanthrene	ND (0.348)	40	1	10/05/11 11:05	CUJ0020	CJ10324
Pyrene	ND (0.348)	13	1	10/05/11 11:05	CUJ0020	CJ10324

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	77 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	82 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	71 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	90 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-111 0ft-2ft  
Date Sampled: 10/03/11 09:05  
Percent Solids: 95

ESS Laboratory Work Order: 1110010  
ESS Laboratory Sample ID: 1110010-11  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	3.5 (2.4)	6010B	7	1	JP	10/05/11 16:05	2.2	100	CJ10504

*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-111 0ft-2ft  
 Date Sampled: 10/03/11 09:05  
 Percent Solids: 95  
 Initial Volume: 15  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110010  
 ESS Laboratory Sample ID: 1110010-11  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/4/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.351)	123	1	10/05/11 11:35	CUJ0020	CJ10324
Acenaphthene	ND (0.351)	43	1	10/05/11 11:35	CUJ0020	CJ10324
Acenaphthylene	ND (0.351)	23	1	10/05/11 11:35	CUJ0020	CJ10324
Anthracene	ND (0.351)	35	1	10/05/11 11:35	CUJ0020	CJ10324
Benzo(a)anthracene	ND (0.351)	0.9	1	10/05/11 11:35	CUJ0020	CJ10324
Benzo(a)pyrene	ND (0.176)	0.4	1	10/05/11 11:35	CUJ0020	CJ10324
Benzo(b)fluoranthene	ND (0.351)	0.9	1	10/05/11 11:35	CUJ0020	CJ10324
Benzo(g,h,i)perylene	ND (0.351)	0.8	1	10/05/11 11:35	CUJ0020	CJ10324
Benzo(k)fluoranthene	ND (0.351)	0.9	1	10/05/11 11:35	CUJ0020	CJ10324
Chrysene	ND (0.176)	0.4	1	10/05/11 11:35	CUJ0020	CJ10324
Dibenzo(a,h)Anthracene	ND (0.176)	0.4	1	10/05/11 11:35	CUJ0020	CJ10324
Fluoranthene	ND (0.351)	20	1	10/05/11 11:35	CUJ0020	CJ10324
Fluorene	ND (0.351)	28	1	10/05/11 11:35	CUJ0020	CJ10324
Indeno(1,2,3-cd)Pyrene	ND (0.351)	0.9	1	10/05/11 11:35	CUJ0020	CJ10324
Naphthalene	ND (0.351)	54	1	10/05/11 11:35	CUJ0020	CJ10324
Phenanthrene	ND (0.351)	40	1	10/05/11 11:35	CUJ0020	CJ10324
Pyrene	ND (0.351)	13	1	10/05/11 11:35	CUJ0020	CJ10324

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	80 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	84 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	76 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	88 %		30-130





*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-112 0ft-2ft  
Date Sampled: 10/03/11 09:13  
Percent Solids: 93

ESS Laboratory Work Order: 1110010  
ESS Laboratory Sample ID: 1110010-12  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	ND (2.4)	6010B	7	1	JP	10/05/11 16:09	2.23	100	CJ10504



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-112 0ft-2ft  
 Date Sampled: 10/03/11 09:13  
 Percent Solids: 93  
 Initial Volume: 14.9  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110010  
 ESS Laboratory Sample ID: 1110010-12  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/4/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.360)	123	1	10/05/11 12:05	CUJ0020	CJ10324
Acenaphthene	ND (0.360)	43	1	10/05/11 12:05	CUJ0020	CJ10324
Acenaphthylene	ND (0.360)	23	1	10/05/11 12:05	CUJ0020	CJ10324
Anthracene	ND (0.360)	35	1	10/05/11 12:05	CUJ0020	CJ10324
Benzo(a)anthracene	ND (0.360)	0.9	1	10/05/11 12:05	CUJ0020	CJ10324
Benzo(a)pyrene	ND (0.181)	0.4	1	10/05/11 12:05	CUJ0020	CJ10324
Benzo(b)fluoranthene	ND (0.360)	0.9	1	10/05/11 12:05	CUJ0020	CJ10324
Benzo(g,h,i)perylene	ND (0.360)	0.8	1	10/05/11 12:05	CUJ0020	CJ10324
Benzo(k)fluoranthene	ND (0.360)	0.9	1	10/05/11 12:05	CUJ0020	CJ10324
Chrysene	ND (0.181)	0.4	1	10/05/11 12:05	CUJ0020	CJ10324
Dibenzo(a,h)Anthracene	ND (0.181)	0.4	1	10/05/11 12:05	CUJ0020	CJ10324
Fluoranthene	ND (0.360)	20	1	10/05/11 12:05	CUJ0020	CJ10324
Fluorene	ND (0.360)	28	1	10/05/11 12:05	CUJ0020	CJ10324
Indeno(1,2,3-cd)Pyrene	ND (0.360)	0.9	1	10/05/11 12:05	CUJ0020	CJ10324
Naphthalene	ND (0.360)	54	1	10/05/11 12:05	CUJ0020	CJ10324
Phenanthrene	ND (0.360)	40	1	10/05/11 12:05	CUJ0020	CJ10324
Pyrene	ND (0.360)	13	1	10/05/11 12:05	CUJ0020	CJ10324

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	84 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	86 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	80 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	90 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-113 0ft-2ft  
Date Sampled: 10/03/11 09:13  
Percent Solids: 93

ESS Laboratory Work Order: 1110010  
ESS Laboratory Sample ID: 1110010-13  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	ND (2.5)	6010B	7	1	JP	10/05/11 16:13	2.13	100	CJ10504

*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-113 0ft-2ft  
 Date Sampled: 10/03/11 09:13  
 Percent Solids: 93  
 Initial Volume: 15.7  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110010  
 ESS Laboratory Sample ID: 1110010-13  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/4/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.342)	123	1	10/05/11 12:35	CUJ0020	CJ10324
Acenaphthene	ND (0.342)	43	1	10/05/11 12:35	CUJ0020	CJ10324
Acenaphthylene	ND (0.342)	23	1	10/05/11 12:35	CUJ0020	CJ10324
Anthracene	ND (0.342)	35	1	10/05/11 12:35	CUJ0020	CJ10324
Benzo(a)anthracene	ND (0.342)	0.9	1	10/05/11 12:35	CUJ0020	CJ10324
Benzo(a)pyrene	ND (0.172)	0.4	1	10/05/11 12:35	CUJ0020	CJ10324
Benzo(b)fluoranthene	ND (0.342)	0.9	1	10/05/11 12:35	CUJ0020	CJ10324
Benzo(g,h,i)perylene	ND (0.342)	0.8	1	10/05/11 12:35	CUJ0020	CJ10324
Benzo(k)fluoranthene	ND (0.342)	0.9	1	10/05/11 12:35	CUJ0020	CJ10324
Chrysene	ND (0.172)	0.4	1	10/05/11 12:35	CUJ0020	CJ10324
Dibenzo(a,h)Anthracene	ND (0.172)	0.4	1	10/05/11 12:35	CUJ0020	CJ10324
Fluoranthene	ND (0.342)	20	1	10/05/11 12:35	CUJ0020	CJ10324
Fluorene	ND (0.342)	28	1	10/05/11 12:35	CUJ0020	CJ10324
Indeno(1,2,3-cd)Pyrene	ND (0.342)	0.9	1	10/05/11 12:35	CUJ0020	CJ10324
Naphthalene	ND (0.342)	54	1	10/05/11 12:35	CUJ0020	CJ10324
Phenanthrene	ND (0.342)	40	1	10/05/11 12:35	CUJ0020	CJ10324
Pyrene	ND (0.342)	13	1	10/05/11 12:35	CUJ0020	CJ10324

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: 1,2-Dichlorobenzene-d4	85 %		30-130
Surrogate: 2-Fluorobiphenyl	92 %		30-130
Surrogate: Nitrobenzene-d5	77 %		30-130
Surrogate: p-Terphenyl-d14	91 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-114 0ft-2ft  
Date Sampled: 10/03/11 09:19  
Percent Solids: 95

ESS Laboratory Work Order: 1110010  
ESS Laboratory Sample ID: 1110010-14  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	3.9 (2.3)	6010B	7	1	JP	10/05/11 16:29	2.28	100	CJ10504



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-114 0ft-2ft  
 Date Sampled: 10/03/11 09:19  
 Percent Solids: 95  
 Initial Volume: 15.3  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110010  
 ESS Laboratory Sample ID: 1110010-14  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/4/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.344)	123	1	10/05/11 13:06	CUJ0020	CJ10324
Acenaphthene	ND (0.344)	43	1	10/05/11 13:06	CUJ0020	CJ10324
Acenaphthylene	ND (0.344)	23	1	10/05/11 13:06	CUJ0020	CJ10324
Anthracene	ND (0.344)	35	1	10/05/11 13:06	CUJ0020	CJ10324
Benzo(a)anthracene	ND (0.344)	0.9	1	10/05/11 13:06	CUJ0020	CJ10324
Benzo(a)pyrene	ND (0.172)	0.4	1	10/05/11 13:06	CUJ0020	CJ10324
Benzo(b)fluoranthene	ND (0.344)	0.9	1	10/05/11 13:06	CUJ0020	CJ10324
Benzo(g,h,i)perylene	ND (0.344)	0.8	1	10/05/11 13:06	CUJ0020	CJ10324
Benzo(k)fluoranthene	ND (0.344)	0.9	1	10/05/11 13:06	CUJ0020	CJ10324
Chrysene	ND (0.172)	0.4	1	10/05/11 13:06	CUJ0020	CJ10324
Dibenzo(a,h)Anthracene	ND (0.172)	0.4	1	10/05/11 13:06	CUJ0020	CJ10324
Fluoranthene	ND (0.344)	20	1	10/05/11 13:06	CUJ0020	CJ10324
Fluorene	ND (0.344)	28	1	10/05/11 13:06	CUJ0020	CJ10324
Indeno(1,2,3-cd)Pyrene	ND (0.344)	0.9	1	10/05/11 13:06	CUJ0020	CJ10324
Naphthalene	ND (0.344)	54	1	10/05/11 13:06	CUJ0020	CJ10324
Phenanthrene	ND (0.344)	40	1	10/05/11 13:06	CUJ0020	CJ10324
Pyrene	ND (0.344)	13	1	10/05/11 13:06	CUJ0020	CJ10324

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	79 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	86 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	77 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	83 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-115 0ft-2ft  
Date Sampled: 10/03/11 09:23  
Percent Solids: 92

ESS Laboratory Work Order: 1110010  
ESS Laboratory Sample ID: 1110010-15  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	ND (2.4)	6010B	7	1	JP	10/05/11 16:33	2.31	100	CJ10504



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-115 0ft-2ft  
 Date Sampled: 10/03/11 09:23  
 Percent Solids: 92  
 Initial Volume: 14.4  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110010  
 ESS Laboratory Sample ID: 1110010-15  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/4/11 15:30

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.377)	123	1	10/05/11 17:20	CUJ0026	CJ10417
Acenaphthene	ND (0.377)	43	1	10/05/11 17:20	CUJ0026	CJ10417
Acenaphthylene	ND (0.377)	23	1	10/05/11 17:20	CUJ0026	CJ10417
Anthracene	ND (0.377)	35	1	10/05/11 17:20	CUJ0026	CJ10417
Benzo(a)anthracene	ND (0.377)	0.9	1	10/05/11 17:20	CUJ0026	CJ10417
Benzo(a)pyrene	ND (0.189)	0.4	1	10/05/11 17:20	CUJ0026	CJ10417
Benzo(b)fluoranthene	ND (0.377)	0.9	1	10/05/11 17:20	CUJ0026	CJ10417
Benzo(g,h,i)perylene	ND (0.377)	0.8	1	10/05/11 17:20	CUJ0026	CJ10417
Benzo(k)fluoranthene	ND (0.377)	0.9	1	10/05/11 17:20	CUJ0026	CJ10417
Chrysene	ND (0.189)	0.4	1	10/05/11 17:20	CUJ0026	CJ10417
Dibenzo(a,h)Anthracene	ND (0.189)	0.4	1	10/05/11 17:20	CUJ0026	CJ10417
Fluoranthene	ND (0.377)	20	1	10/05/11 17:20	CUJ0026	CJ10417
Fluorene	ND (0.377)	28	1	10/05/11 17:20	CUJ0026	CJ10417
Indeno(1,2,3-cd)Pyrene	ND (0.377)	0.9	1	10/05/11 17:20	CUJ0026	CJ10417
Naphthalene	ND (0.377)	54	1	10/05/11 17:20	CUJ0026	CJ10417
Phenanthrene	ND (0.377)	40	1	10/05/11 17:20	CUJ0026	CJ10417
Pyrene	ND (0.377)	13	1	10/05/11 17:20	CUJ0026	CJ10417

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	77 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	85 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	74 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	93 %		30-130





*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-116 0ft-2ft  
Date Sampled: 10/03/11 09:28  
Percent Solids: 95

ESS Laboratory Work Order: 1110010  
ESS Laboratory Sample ID: 1110010-16  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	ND (2.5)	6010B	7	1	JP	10/05/11 16:37	2.13	100	CJ10504



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-116 0ft-2ft  
 Date Sampled: 10/03/11 09:28  
 Percent Solids: 95  
 Initial Volume: 14.4  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110010  
 ESS Laboratory Sample ID: 1110010-16  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/4/11 15:30

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.365)	123	1	10/05/11 17:50	CUJ0026	CJ10417
Acenaphthene	ND (0.365)	43	1	10/05/11 17:50	CUJ0026	CJ10417
Acenaphthylene	ND (0.365)	23	1	10/05/11 17:50	CUJ0026	CJ10417
Anthracene	ND (0.365)	35	1	10/05/11 17:50	CUJ0026	CJ10417
Benzo(a)anthracene	ND (0.365)	0.9	1	10/05/11 17:50	CUJ0026	CJ10417
Benzo(a)pyrene	ND (0.183)	0.4	1	10/05/11 17:50	CUJ0026	CJ10417
Benzo(b)fluoranthene	ND (0.365)	0.9	1	10/05/11 17:50	CUJ0026	CJ10417
Benzo(g,h,i)perylene	ND (0.365)	0.8	1	10/05/11 17:50	CUJ0026	CJ10417
Benzo(k)fluoranthene	ND (0.365)	0.9	1	10/05/11 17:50	CUJ0026	CJ10417
Chrysene	ND (0.183)	0.4	1	10/05/11 17:50	CUJ0026	CJ10417
Dibenzo(a,h)Anthracene	ND (0.183)	0.4	1	10/05/11 17:50	CUJ0026	CJ10417
Fluoranthene	ND (0.365)	20	1	10/05/11 17:50	CUJ0026	CJ10417
Fluorene	ND (0.365)	28	1	10/05/11 17:50	CUJ0026	CJ10417
Indeno(1,2,3-cd)Pyrene	ND (0.365)	0.9	1	10/05/11 17:50	CUJ0026	CJ10417
Naphthalene	ND (0.365)	54	1	10/05/11 17:50	CUJ0026	CJ10417
Phenanthrene	ND (0.365)	40	1	10/05/11 17:50	CUJ0026	CJ10417
Pyrene	ND (0.365)	13	1	10/05/11 17:50	CUJ0026	CJ10417

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	60 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	62 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	56 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	92 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-117 0ft-2ft  
Date Sampled: 10/03/11 09:32  
Percent Solids: 94

ESS Laboratory Work Order: 1110010  
ESS Laboratory Sample ID: 1110010-17  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	7.5 (2.4)	6010B	7	1	JP	10/05/11 16:41	2.24	100	CJ10504

*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-117 0ft-2ft  
 Date Sampled: 10/03/11 09:32  
 Percent Solids: 94  
 Initial Volume: 14.6  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110010  
 ESS Laboratory Sample ID: 1110010-17  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/4/11 15:30

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.364)	123	1	10/05/11 18:20	CUJ0026	CJ10417
Acenaphthene	ND (0.364)	43	1	10/05/11 18:20	CUJ0026	CJ10417
Acenaphthylene	ND (0.364)	23	1	10/05/11 18:20	CUJ0026	CJ10417
Anthracene	ND (0.364)	35	1	10/05/11 18:20	CUJ0026	CJ10417
Benzo(a)anthracene	ND (0.364)	0.9	1	10/05/11 18:20	CUJ0026	CJ10417
Benzo(a)pyrene	ND (0.183)	0.4	1	10/05/11 18:20	CUJ0026	CJ10417
<b>Benzo(b)fluoranthene</b>	<b>0.388</b> (0.364)	0.9	1	10/05/11 18:20	CUJ0026	CJ10417
Benzo(g,h,i)perylene	ND (0.364)	0.8	1	10/05/11 18:20	CUJ0026	CJ10417
Benzo(k)fluoranthene	ND (0.364)	0.9	1	10/05/11 18:20	CUJ0026	CJ10417
<b>Chrysene</b>	<b>0.314</b> (0.183)	0.4	1	10/05/11 18:20	CUJ0026	CJ10417
Dibenzo(a,h)Anthracene	ND (0.183)	0.4	1	10/05/11 18:20	CUJ0026	CJ10417
Fluoranthene	ND (0.364)	20	1	10/05/11 18:20	CUJ0026	CJ10417
Fluorene	ND (0.364)	28	1	10/05/11 18:20	CUJ0026	CJ10417
Indeno(1,2,3-cd)Pyrene	ND (0.364)	0.9	1	10/05/11 18:20	CUJ0026	CJ10417
Naphthalene	ND (0.364)	54	1	10/05/11 18:20	CUJ0026	CJ10417
Phenanthrene	ND (0.364)	40	1	10/05/11 18:20	CUJ0026	CJ10417
Pyrene	ND (0.364)	13	1	10/05/11 18:20	CUJ0026	CJ10417

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	69 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	76 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	67 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	87 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-118 0ft-2ft  
Date Sampled: 10/03/11 09:36  
Percent Solids: 94

ESS Laboratory Work Order: 1110010  
ESS Laboratory Sample ID: 1110010-18  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	ND (2.6)	6010B	7	1	JP	10/05/11 16:45	2.04	100	CJ10504



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-118 0ft-2ft  
 Date Sampled: 10/03/11 09:36  
 Percent Solids: 94  
 Initial Volume: 14.5  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110010  
 ESS Laboratory Sample ID: 1110010-18  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/4/11 15:30

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.366)	123	1	10/05/11 18:51	CUJ0026	CJ10417
Acenaphthene	ND (0.366)	43	1	10/05/11 18:51	CUJ0026	CJ10417
Acenaphthylene	ND (0.366)	23	1	10/05/11 18:51	CUJ0026	CJ10417
Anthracene	ND (0.366)	35	1	10/05/11 18:51	CUJ0026	CJ10417
Benzo(a)anthracene	ND (0.366)	0.9	1	10/05/11 18:51	CUJ0026	CJ10417
Benzo(a)pyrene	ND (0.184)	0.4	1	10/05/11 18:51	CUJ0026	CJ10417
Benzo(b)fluoranthene	ND (0.366)	0.9	1	10/05/11 18:51	CUJ0026	CJ10417
Benzo(g,h,i)perylene	ND (0.366)	0.8	1	10/05/11 18:51	CUJ0026	CJ10417
Benzo(k)fluoranthene	ND (0.366)	0.9	1	10/05/11 18:51	CUJ0026	CJ10417
Chrysene	ND (0.184)	0.4	1	10/05/11 18:51	CUJ0026	CJ10417
Dibenzo(a,h)Anthracene	ND (0.184)	0.4	1	10/05/11 18:51	CUJ0026	CJ10417
Fluoranthene	ND (0.366)	20	1	10/05/11 18:51	CUJ0026	CJ10417
Fluorene	ND (0.366)	28	1	10/05/11 18:51	CUJ0026	CJ10417
Indeno(1,2,3-cd)Pyrene	ND (0.366)	0.9	1	10/05/11 18:51	CUJ0026	CJ10417
Naphthalene	ND (0.366)	54	1	10/05/11 18:51	CUJ0026	CJ10417
Phenanthrene	ND (0.366)	40	1	10/05/11 18:51	CUJ0026	CJ10417
Pyrene	ND (0.366)	13	1	10/05/11 18:51	CUJ0026	CJ10417

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	80 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	92 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	76 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	95 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-119 0ft-2ft  
Date Sampled: 10/03/11 09:42  
Percent Solids: 93

ESS Laboratory Work Order: 1110010  
ESS Laboratory Sample ID: 1110010-19  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	2.6 (2.2)	6010B	7	1	JP	10/05/11 16:49	2.39	100	CJ10504



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-119 0ft-2ft  
 Date Sampled: 10/03/11 09:42  
 Percent Solids: 93  
 Initial Volume: 14.7  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110010  
 ESS Laboratory Sample ID: 1110010-19  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/4/11 15:30

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.365)	123	1	10/05/11 19:21	CUJ0026	CJ10417
Acenaphthene	ND (0.365)	43	1	10/05/11 19:21	CUJ0026	CJ10417
Acenaphthylene	ND (0.365)	23	1	10/05/11 19:21	CUJ0026	CJ10417
Anthracene	ND (0.365)	35	1	10/05/11 19:21	CUJ0026	CJ10417
Benzo(a)anthracene	ND (0.365)	0.9	1	10/05/11 19:21	CUJ0026	CJ10417
Benzo(a)pyrene	ND (0.183)	0.4	1	10/05/11 19:21	CUJ0026	CJ10417
Benzo(b)fluoranthene	ND (0.365)	0.9	1	10/05/11 19:21	CUJ0026	CJ10417
Benzo(g,h,i)perylene	ND (0.365)	0.8	1	10/05/11 19:21	CUJ0026	CJ10417
Benzo(k)fluoranthene	ND (0.365)	0.9	1	10/05/11 19:21	CUJ0026	CJ10417
Chrysene	ND (0.183)	0.4	1	10/05/11 19:21	CUJ0026	CJ10417
Dibenzo(a,h)Anthracene	ND (0.183)	0.4	1	10/05/11 19:21	CUJ0026	CJ10417
Fluoranthene	ND (0.365)	20	1	10/05/11 19:21	CUJ0026	CJ10417
Fluorene	ND (0.365)	28	1	10/05/11 19:21	CUJ0026	CJ10417
Indeno(1,2,3-cd)Pyrene	ND (0.365)	0.9	1	10/05/11 19:21	CUJ0026	CJ10417
Naphthalene	ND (0.365)	54	1	10/05/11 19:21	CUJ0026	CJ10417
Phenanthrene	ND (0.365)	40	1	10/05/11 19:21	CUJ0026	CJ10417
Pyrene	ND (0.365)	13	1	10/05/11 19:21	CUJ0026	CJ10417

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	81 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	90 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	80 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	87 %		30-130





*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-120 0ft-2ft  
Date Sampled: 10/03/11 09:48  
Percent Solids: 96

ESS Laboratory Work Order: 1110010  
ESS Laboratory Sample ID: 1110010-20  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	6.3 (2.5)	6010B	7	1	JP	10/05/11 16:53	2.07	100	CJ10504



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-120 0ft-2ft  
Date Sampled: 10/03/11 09:48  
Percent Solids: 96  
Initial Volume: 14.5  
Final Volume: 0.5  
Extraction Method: 3546

ESS Laboratory Work Order: 1110010  
ESS Laboratory Sample ID: 1110010-20  
Sample Matrix: Soil  
Units: mg/kg dry  
Analyst: IBM  
Prepared: 10/4/11 15:30

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.359)	123	1	10/05/11 19:51	CUJ0026	CJ10417
Acenaphthene	ND (0.359)	43	1	10/05/11 19:51	CUJ0026	CJ10417
Acenaphthylene	ND (0.359)	23	1	10/05/11 19:51	CUJ0026	CJ10417
Anthracene	ND (0.359)	35	1	10/05/11 19:51	CUJ0026	CJ10417
Benzo(a)anthracene	ND (0.359)	0.9	1	10/05/11 19:51	CUJ0026	CJ10417
Benzo(a)pyrene	ND (0.180)	0.4	1	10/05/11 19:51	CUJ0026	CJ10417
Benzo(b)fluoranthene	ND (0.359)	0.9	1	10/05/11 19:51	CUJ0026	CJ10417
Benzo(g,h,i)perylene	ND (0.359)	0.8	1	10/05/11 19:51	CUJ0026	CJ10417
Benzo(k)fluoranthene	ND (0.359)	0.9	1	10/05/11 19:51	CUJ0026	CJ10417
<b>Chrysene</b>	<b>0.259</b> (0.180)	0.4	1	10/05/11 19:51	CUJ0026	CJ10417
Dibenzo(a,h)Anthracene	ND (0.180)	0.4	1	10/05/11 19:51	CUJ0026	CJ10417
Fluoranthene	ND (0.359)	20	1	10/05/11 19:51	CUJ0026	CJ10417
Fluorene	ND (0.359)	28	1	10/05/11 19:51	CUJ0026	CJ10417
Indeno(1,2,3-cd)Pyrene	ND (0.359)	0.9	1	10/05/11 19:51	CUJ0026	CJ10417
Naphthalene	ND (0.359)	54	1	10/05/11 19:51	CUJ0026	CJ10417
Phenanthrene	ND (0.359)	40	1	10/05/11 19:51	CUJ0026	CJ10417
Pyrene	ND (0.359)	13	1	10/05/11 19:51	CUJ0026	CJ10417

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	80 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	91 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	77 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	92 %		30-130



CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110010

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
---------	--------	-----	-------	-------------	---------------	------	-------------	-----	-----------	-----------

3050B/6000/7000 Total Metals

**Batch CJ10504 - 3050B**

<b>Blank</b>										
Arsenic	ND	2.5	mg/kg wet							
<b>LCS</b>										
Arsenic	90.3	9.4	mg/kg wet	109.0		83	80-120			
<b>LCS Dup</b>										
Arsenic	90.5	8.9	mg/kg wet	109.0		83	80-120	0.3	20	
<b>Duplicate Source: 1110010-10</b>										
Arsenic	3.46	2.5	mg/kg dry		2.89			18	35	
<b>Duplicate Source: 1110010-20</b>										
Arsenic	8.90	2.4	mg/kg dry		6.35			33	35	
<b>Matrix Spike Source: 1110010-10</b>										
Arsenic	19.3	2.3	mg/kg dry	22.78	2.89	72	75-125			M-
<b>Matrix Spike Source: 1110010-20</b>										
Arsenic	27.1	2.6	mg/kg dry	25.66	6.35	81	75-125			

8270C Polynuclear Aromatic Hydrocarbons

**Batch CJ10324 - 3546**

<b>Blank</b>										
2-Methylnaphthalene	ND	0.333	mg/kg wet							
Acenaphthene	ND	0.333	mg/kg wet							
Acenaphthylene	ND	0.333	mg/kg wet							
Anthracene	ND	0.333	mg/kg wet							
Benzo(a)anthracene	ND	0.333	mg/kg wet							
Benzo(a)pyrene	ND	0.167	mg/kg wet							
Benzo(b)fluoranthene	ND	0.333	mg/kg wet							
Benzo(g,h,i)perylene	ND	0.333	mg/kg wet							
Benzo(k)fluoranthene	ND	0.333	mg/kg wet							
Chrysene	ND	0.167	mg/kg wet							
Dibenzo(a,h)Anthracene	ND	0.167	mg/kg wet							
Fluoranthene	ND	0.333	mg/kg wet							
Fluorene	ND	0.333	mg/kg wet							
Indeno(1,2,3-cd)Pyrene	ND	0.333	mg/kg wet							
Naphthalene	ND	0.333	mg/kg wet							
Phenanthrene	ND	0.333	mg/kg wet							
Pyrene	ND	0.333	mg/kg wet							
Surrogate: 1,2-Dichlorobenzene-d4	2.96		mg/kg wet	3.333		89	30-130			
Surrogate: 2-Fluorobiphenyl	2.90		mg/kg wet	3.333		87	30-130			
Surrogate: Nitrobenzene-d5	2.68		mg/kg wet	3.333		80	30-130			
Surrogate: p-Terphenyl-d14	3.13		mg/kg wet	3.333		94	30-130			

<b>LCS</b>										
2-Methylnaphthalene	2.75	0.333	mg/kg wet	3.333		82	40-140			
Acenaphthene	2.69	0.333	mg/kg wet	3.333		81	40-140			
Acenaphthylene	2.95	0.333	mg/kg wet	3.333		88	40-140			

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110010

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
---------	--------	-----	-------	-------------	---------------	------	-------------	-----	-----------	-----------

8270C Polynuclear Aromatic Hydrocarbons

**Batch CJ10324 - 3546**

Anthracene	3.04	0.333	mg/kg wet	3.333		91	40-140			
Benzo(a)anthracene	3.08	0.333	mg/kg wet	3.333		93	40-140			
Benzo(a)pyrene	3.05	0.167	mg/kg wet	3.333		92	40-140			
Benzo(b)fluoranthene	3.24	0.333	mg/kg wet	3.333		97	40-140			
Benzo(g,h,i)perylene	3.04	0.333	mg/kg wet	3.333		91	40-140			
Benzo(k)fluoranthene	2.94	0.333	mg/kg wet	3.333		88	40-140			
Chrysene	3.00	0.167	mg/kg wet	3.333		90	40-140			
Dibenzo(a,h)Anthracene	3.14	0.167	mg/kg wet	3.333		94	40-140			
Fluoranthene	2.99	0.333	mg/kg wet	3.333		90	40-140			
Fluorene	2.78	0.333	mg/kg wet	3.333		83	40-140			
Indeno(1,2,3-cd)Pyrene	3.11	0.333	mg/kg wet	3.333		93	40-140			
Naphthalene	2.66	0.333	mg/kg wet	3.333		80	40-140			
Phenanthrene	3.01	0.333	mg/kg wet	3.333		90	40-140			
Pyrene	3.15	0.333	mg/kg wet	3.333		95	40-140			
Surrogate: 1,2-Dichlorobenzene-d4	2.83		mg/kg wet	3.333		85	30-130			
Surrogate: 2-Fluorobiphenyl	3.01		mg/kg wet	3.333		90	30-130			
Surrogate: Nitrobenzene-d5	2.97		mg/kg wet	3.333		89	30-130			
Surrogate: p-Terphenyl-d14	3.36		mg/kg wet	3.333		101	30-130			

**LCS Dup**

2-Methylnaphthalene	2.47	0.333	mg/kg wet	3.333		74	40-140	11	30	
Acenaphthene	2.48	0.333	mg/kg wet	3.333		74	40-140	8	30	
Acenaphthylene	2.74	0.333	mg/kg wet	3.333		82	40-140	7	30	
Anthracene	2.94	0.333	mg/kg wet	3.333		88	40-140	3	30	
Benzo(a)anthracene	3.01	0.333	mg/kg wet	3.333		90	40-140	3	30	
Benzo(a)pyrene	2.96	0.167	mg/kg wet	3.333		89	40-140	3	30	
Benzo(b)fluoranthene	3.16	0.333	mg/kg wet	3.333		95	40-140	2	30	
Benzo(g,h,i)perylene	3.08	0.333	mg/kg wet	3.333		93	40-140	1	30	
Benzo(k)fluoranthene	3.04	0.333	mg/kg wet	3.333		91	40-140	4	30	
Chrysene	2.94	0.167	mg/kg wet	3.333		88	40-140	2	30	
Dibenzo(a,h)Anthracene	3.14	0.167	mg/kg wet	3.333		94	40-140	0.02	30	
Fluoranthene	2.90	0.333	mg/kg wet	3.333		87	40-140	3	30	
Fluorene	2.49	0.333	mg/kg wet	3.333		75	40-140	11	30	
Indeno(1,2,3-cd)Pyrene	3.12	0.333	mg/kg wet	3.333		93	40-140	0.1	30	
Naphthalene	2.41	0.333	mg/kg wet	3.333		72	40-140	10	30	
Phenanthrene	2.88	0.333	mg/kg wet	3.333		86	40-140	5	30	
Pyrene	3.05	0.333	mg/kg wet	3.333		92	40-140	3	30	
Surrogate: 1,2-Dichlorobenzene-d4	2.53		mg/kg wet	3.333		76	30-130			
Surrogate: 2-Fluorobiphenyl	2.77		mg/kg wet	3.333		83	30-130			
Surrogate: Nitrobenzene-d5	2.72		mg/kg wet	3.333		81	30-130			
Surrogate: p-Terphenyl-d14	3.26		mg/kg wet	3.333		98	30-130			

**Batch CJ10417 - 3546**

<b>Blank</b>										
2-Methylnaphthalene	ND	0.333	mg/kg wet							
Acenaphthene	ND	0.333	mg/kg wet							
Acenaphthylene	ND	0.333	mg/kg wet							



CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110010

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
<b>8270C Polynuclear Aromatic Hydrocarbons</b>										
<b>Batch CJ10417 - 3546</b>										
Anthracene	ND	0.333	mg/kg wet							
Benzo(a)anthracene	ND	0.333	mg/kg wet							
Benzo(a)pyrene	ND	0.167	mg/kg wet							
Benzo(b)fluoranthene	ND	0.333	mg/kg wet							
Benzo(g,h,i)perylene	ND	0.333	mg/kg wet							
Benzo(k)fluoranthene	ND	0.333	mg/kg wet							
Chrysene	ND	0.167	mg/kg wet							
Dibenzo(a,h)Anthracene	ND	0.167	mg/kg wet							
Fluoranthene	ND	0.333	mg/kg wet							
Fluorene	ND	0.333	mg/kg wet							
Indeno(1,2,3-cd)Pyrene	ND	0.333	mg/kg wet							
Naphthalene	ND	0.333	mg/kg wet							
Phenanthrene	ND	0.333	mg/kg wet							
Pyrene	ND	0.333	mg/kg wet							
Surrogate: 1,2-Dichlorobenzene-d4	2.72		mg/kg wet	3.333		82	30-130			
Surrogate: 2-Fluorobiphenyl	2.73		mg/kg wet	3.333		82	30-130			
Surrogate: Nitrobenzene-d5	2.51		mg/kg wet	3.333		75	30-130			
Surrogate: p-Terphenyl-d14	3.21		mg/kg wet	3.333		96	30-130			
<b>LCS</b>										
2-Methylnaphthalene	2.59	0.333	mg/kg wet	3.333		78	40-140			
Acenaphthene	2.50	0.333	mg/kg wet	3.333		75	40-140			
Acenaphthylene	2.76	0.333	mg/kg wet	3.333		83	40-140			
Anthracene	2.73	0.333	mg/kg wet	3.333		82	40-140			
Benzo(a)anthracene	2.74	0.333	mg/kg wet	3.333		82	40-140			
Benzo(a)pyrene	2.68	0.167	mg/kg wet	3.333		80	40-140			
Benzo(b)fluoranthene	2.95	0.333	mg/kg wet	3.333		88	40-140			
Benzo(g,h,i)perylene	2.72	0.333	mg/kg wet	3.333		82	40-140			
Benzo(k)fluoranthene	2.56	0.333	mg/kg wet	3.333		77	40-140			
Chrysene	2.59	0.167	mg/kg wet	3.333		78	40-140			
Dibenzo(a,h)Anthracene	2.76	0.167	mg/kg wet	3.333		83	40-140			
Fluoranthene	2.78	0.333	mg/kg wet	3.333		83	40-140			
Fluorene	2.53	0.333	mg/kg wet	3.333		76	40-140			
Indeno(1,2,3-cd)Pyrene	2.75	0.333	mg/kg wet	3.333		82	40-140			
Naphthalene	2.55	0.333	mg/kg wet	3.333		77	40-140			
Phenanthrene	2.69	0.333	mg/kg wet	3.333		81	40-140			
Pyrene	2.70	0.333	mg/kg wet	3.333		81	40-140			
Surrogate: 1,2-Dichlorobenzene-d4	2.55		mg/kg wet	3.333		77	30-130			
Surrogate: 2-Fluorobiphenyl	2.86		mg/kg wet	3.333		86	30-130			
Surrogate: Nitrobenzene-d5	2.55		mg/kg wet	3.333		77	30-130			
Surrogate: p-Terphenyl-d14	2.91		mg/kg wet	3.333		87	30-130			
<b>LCS Dup</b>										
2-Methylnaphthalene	2.63	0.333	mg/kg wet	3.333		79	40-140	2	30	
Acenaphthene	2.54	0.333	mg/kg wet	3.333		76	40-140	2	30	
Acenaphthylene	2.77	0.333	mg/kg wet	3.333		83	40-140	0.4	30	
Anthracene	2.75	0.333	mg/kg wet	3.333		83	40-140	1	30	



CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110010

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
<b>8270C Polynuclear Aromatic Hydrocarbons</b>										
<b>Batch CJ10417 - 3546</b>										
Benzo(a)anthracene	2.82	0.333	mg/kg wet	3.333		85	40-140	3	30	
Benzo(a)pyrene	2.78	0.167	mg/kg wet	3.333		83	40-140	4	30	
Benzo(b)fluoranthene	2.78	0.333	mg/kg wet	3.333		83	40-140	6	30	
Benzo(g,h,i)perylene	2.80	0.333	mg/kg wet	3.333		84	40-140	3	30	
Benzo(k)fluoranthene	2.85	0.333	mg/kg wet	3.333		86	40-140	11	30	
Chrysene	2.70	0.167	mg/kg wet	3.333		81	40-140	4	30	
Dibenzo(a,h)Anthracene	2.90	0.167	mg/kg wet	3.333		87	40-140	5	30	
Fluoranthene	2.78	0.333	mg/kg wet	3.333		83	40-140	0.01	30	
Fluorene	2.59	0.333	mg/kg wet	3.333		78	40-140	2	30	
Indeno(1,2,3-cd)Pyrene	2.84	0.333	mg/kg wet	3.333		85	40-140	3	30	
Naphthalene	2.53	0.333	mg/kg wet	3.333		76	40-140	0.8	30	
Phenanthrene	2.74	0.333	mg/kg wet	3.333		82	40-140	2	30	
Pyrene	2.77	0.333	mg/kg wet	3.333		83	40-140	3	30	
Surrogate: 1,2-Dichlorobenzene-d4	2.59		mg/kg wet	3.333		78	30-130			
Surrogate: 2-Fluorobiphenyl	2.84		mg/kg wet	3.333		85	30-130			
Surrogate: Nitrobenzene-d5	2.90		mg/kg wet	3.333		87	30-130			
Surrogate: p-Terphenyl-d14	3.00		mg/kg wet	3.333		90	30-130			



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110010

**Notes and Definitions**

- U Analyte included in the analysis, but not detected
- M- Matrix Spike recovery is below lower control limit (M-).
- ND Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- MDL Method Detection Limit
- MRL Method Reporting Limit
- LOD Limit of Detection
- LOQ Limit of Quantitation
- DL Detection Limit
- I/V Initial Volume
- F/V Final Volume
- § Subcontracted analysis; see attached report
- 1 Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
- 2 Range result excludes concentrations of target analytes eluting in that range.
- 3 Range result excludes the concentration of the C9-C10 aromatic range.
- Avg Results reported as a mathematical average.
- NR No Recovery
- [CALC] Calculated Analyte



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110010

**ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS**

**ENVIRONMENTAL**

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)

A2LA Accredited: Testing Cert# 2864.01

<http://www.a2la.org/scopepdf/2864-01.pdf>

Rhode Island Potable and Non Potable Water: LAI00179

<http://www.health.ri.gov/labs/waterlabs-instate.php>

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750

[http://www.ct.gov/dph/lib/dph/environmental\\_health/environmental\\_laboratories/pdf/out\\_state.pdf](http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/out_state.pdf)

Maine Potable and Non Potable Water: RI0002

[http://www.maine.gov/dep/blwq/topic/vessel/lab\\_list.pdf](http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf)

Massachusetts Potable and Non Potable Water: M-RI002

<http://public.dep.state.ma.us/labcert/labcert.aspx>

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424

<http://www4.egov.nh.gov/des/nhelap/namesearch.asp>

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313

<http://www.wadsworth.org/labcert/elap/comm.html>

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301

[http://www.mde.state.md.us/assets/document/WSP\\_labs-2009apr20.pdf](http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf)

**CHEMISTRY**

A2LA Accredited: Testing Cert # 2864.01

Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)

<http://www.A2LA.org/dirsearchnew/newsearch.cfm>

CPSC ID# 1141

Lead Paint, Lead in Children's Metals Jewelry

<http://www.cpsc.gov/cgi-bin/labapplist.aspx>



**Sample and Cooler Receipt Checklist**

Client: Vanasse Hangen Brustlin, Inc.  
Client Project ID: \_\_\_\_\_  
Shipped/Delivered Via: Client

ESS Project ID: 11100010  
Date Project Due: 10/10/11  
Days For Project: 5 Day

**Items to be checked upon receipt:**

- |   |                               |   |   |
|---|-------------------------------|---|---|
| 1. Air Bill Manifest Present?   | <input type="checkbox"/> * No | 10. Are the samples properly preserved?   | <input type="checkbox"/> Yes  |
| Air No.:  |                               | 11. Proper sample containers used?        | <input type="checkbox"/> Yes  |
| 2. Were Custody Seals Present?  | <input type="checkbox"/> No   | 12. Any air bubbles in the VOA vials?     | <input type="checkbox"/> N/A  |
| 3. Were Custody Seals Intact?   | <input type="checkbox"/> N/A  | 13. Holding times exceeded?               | <input type="checkbox"/> No   |
| 4. Is Radiation count < 100 CPM?  | <input type="checkbox"/> Yes  | 14. Sufficient sample volumes?            | <input type="checkbox"/> Yes  |
| 5. Is a cooler present?   | <input type="checkbox"/> Yes  | 15. Any Subcontracting needed?            | <input type="checkbox"/> No   |
| <input type="text" value="Cooler Temp: 4.5"/>   |                               | 16. Are ESS labels on correct containers? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <input type="text" value="Iced With: Ice"/>   |                               | 17. Were samples received intact?         | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 6. Was COC included with samples?   | <input type="checkbox"/> Yes  | ESS Sample IDs: _____                     |   |
| 7. Was COC signed and dated by client?  | <input type="checkbox"/> Yes  | Sub Lab: _____                            |   |
| 8. Does the COC match the sample  | <input type="checkbox"/> Yes  | Analysis: _____                           |   |
| 9. Is COC complete and correct?   | <input type="checkbox"/> Yes  | TAT: _____                                |   |
| 18. Was there need to call project manager to discuss status? If yes, please explain. |                               |   |   |

Who was called?: \_\_\_\_\_ By whom? \_\_\_\_\_

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	4 oz Soil Jar	1	NP
2	Yes	4 oz Soil Jar	1	NP
3	Yes	4 oz Soil Jar	1	NP
4	Yes	4 oz Soil Jar	1	NP
5	Yes	4 oz Soil Jar	1	NP
6	Yes	4 oz Soil Jar	1	NP
7	Yes	4 oz Soil Jar	1	NP
8	Yes	4 oz Soil Jar	1	NP
9	Yes	4 oz Soil Jar	1	NP
10	Yes	4 oz Soil Jar	1	NP
11	Yes	4 oz Soil Jar	1	NP
12	Yes	4 oz Soil Jar	1	NP
13	Yes	4 oz Soil Jar	1	NP
14	Yes	4 oz Soil Jar	1	NP
15	Yes	4 oz Soil Jar	1	NP
16	Yes	4 oz Soil Jar	1	NP
17	Yes	4 oz Soil Jar	1	NP
18	Yes	4 oz Soil Jar	1	NP
19	Yes	4 oz Soil Jar	1	NP
20	Yes	4 oz Soil Jar	1	NP

Completed By: mk  
Reviewed By: [Signature]

Date/Time: 10/3/11  
Date/Time: 10/3/11

# ESS Laboratory

Division of Thiesch Engineering, Inc.  
 185 Frances Avenue, Cranston, RI 02910-2211  
 Tel. (401) 461-7181 Fax (401) 461-4486  
 www.esslaboratory.com

# CHAIN OF CUSTODY

Page 1 of 2  
 ESS LAB PROJECT ID: 110010  
 Reporting Limits: RIDE M RDE  
 Electronic Deliverable: Yes  No   
 Format: Excel  Access  PDF  Other

Turn Time:  Standard  Other  
 If faster than 5 days, prior approval by laboratory is required # \_\_\_\_\_  
 State where samples were collected from: MA  RI  NH  NJ  NY  ME  Other   
 Is this project for any of the following: USACE  Other  Navy  Other  MA-MCP  Other  NA

Co. Name	Project #	Project Name (20 Char. or less)	Standard	Other
<u>VHB</u>	<u>72016.1</u>	<u>Trestle Trail</u>		
Contact Person	Address	City	State	Zip
<u>Joshua Klement</u>	<u>10 Dorrance St Suite 400</u>	<u>Providence</u>	<u>RI</u>	<u>02903</u>
Telephone #	Fax #	Email Address		
<u>272-800</u>		<u>JKlement@VHB.com</u>		
ESS LAB Sample #	Date	Collection Time	COMP	GRAB
<u>01</u>	<u>10-3-11</u>	<u>08:15</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>02</u>		<u>08:25</u>	<input type="checkbox"/>	<input type="checkbox"/>
<u>03</u>		<u>08:31</u>	<input type="checkbox"/>	<input type="checkbox"/>
<u>04</u>		<u>08:38</u>	<input type="checkbox"/>	<input type="checkbox"/>
<u>05</u>		<u>08:39</u>	<input type="checkbox"/>	<input type="checkbox"/>
<u>06</u>		<u>08:48</u>	<input type="checkbox"/>	<input type="checkbox"/>
<u>07</u>		<u>08:47</u>	<input type="checkbox"/>	<input type="checkbox"/>
<u>08</u>		<u>08:55</u>	<input type="checkbox"/>	<input type="checkbox"/>
<u>09</u>		<u>08:58</u>	<input type="checkbox"/>	<input type="checkbox"/>
<u>10</u>		<u>09:04</u>	<input type="checkbox"/>	<input type="checkbox"/>
Sample Identification (20 Char. or less)	Number of Containers	Type of Containers	PAHS	Total Arsenic
<u>SB-101 0-2</u>	<u>1</u>	<u>9</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>SB-102 0-2</u>	<u>1</u>	<u>1</u>	<input type="checkbox"/>	<input type="checkbox"/>
<u>SB-103 0-2</u>	<u>1</u>	<u>1</u>	<input type="checkbox"/>	<input type="checkbox"/>
<u>SB-104 0-2</u>	<u>1</u>	<u>1</u>	<input type="checkbox"/>	<input type="checkbox"/>
<u>SB-105 0-2</u>	<u>1</u>	<u>1</u>	<input type="checkbox"/>	<input type="checkbox"/>
<u>SB-106 0-2</u>	<u>1</u>	<u>1</u>	<input type="checkbox"/>	<input type="checkbox"/>
<u>SB-107 0-2</u>	<u>1</u>	<u>1</u>	<input type="checkbox"/>	<input type="checkbox"/>
<u>SB-108 0-2</u>	<u>1</u>	<u>1</u>	<input type="checkbox"/>	<input type="checkbox"/>
<u>SB-109 0-2</u>	<u>1</u>	<u>1</u>	<input type="checkbox"/>	<input type="checkbox"/>
<u>SB-110 0-2</u>	<u>1</u>	<u>1</u>	<input type="checkbox"/>	<input type="checkbox"/>

Container Type: P-Poly G-Glass S-Sterile V-VOA Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present:  Yes  No Internal Use Only:  Yes  No NA:  [ ] Pickup [ ] Technicians

Seals Intact: Yes  No NA:

Cooler Temp: 4.5 ice

Preservation Code: 1-NP, 2-HCl, 3-H<sub>2</sub>SO<sub>4</sub>, 4-HNO<sub>3</sub>, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-

Sampled by: JGK/CM

Comments:

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
<u>Joshua Klement</u>	<u>10/3/11 16:28</u>		

# ESS Laboratory

Division of Thielsch Engineering, Inc.  
 185 Frances Avenue, Cranston, RI 02910-2211  
 Tel. (401) 461-7181 Fax (401) 461-4486  
 www.esslaboratory.com

# CHAIN OF CUSTODY

Page 2 of 26  
 ESS LAB PROJECT ID 1110010  
 Reporting Limits RIDE M RDE  
 Electronic Deliverable Yes  No   
 Format: Excel \_\_\_ Access \_\_\_ PDF \_\_\_ Other \_\_\_

Turn Time  Standard Other \_\_\_\_\_  
 If faster than 5 days, prior approval by laboratory is required # \_\_\_\_\_  
 State where samples were collected from: MA  RI  CT  NH  NJ  NY  ME  Other \_\_\_\_\_  
 Is this project for any of the following: USACE  Other  MA-Navy  MA-MCP

Co. Name **VHB** Project Name (20 Char. or less) **72016.1 Trestle Trail**  
 Contact Person **Joshua Klement** Address **10 Dorrance St Suite 400**  
 City **Providence** State **RI** Zip **02903** PO# \_\_\_\_\_  
 Telephone # **401-272-8100** Fax # \_\_\_\_\_  
 Email Address **J.Klement@VHB.com**  
**C.MASSE@VHB.com**

ESS LAB Sample #	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Type of Containers	Number of Containers	Type of Containers	Write Required Analysis
11	10-3-11	09:05	X		S	SB-111 0-2	X	1	G	PAKs Total Arsenic
12		09:13				SB-112 0-2				
13		09:13				SB-113 0-2				
14		09:19				SB-114 0-2				
15		09:23				SB-115 0-2				
16		09:28				SB-116 0-2				
17		09:32				SB-117 0-2				
18		09:36				SB-118 0-2				
19		09:42				SB-119 0-2				
20		09:48				SB-120 0-2				

Container Type: P-Poly G-Glass S-Sterile V-VOA Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters  
 Cooler Present  Yes \_\_\_ No \_\_\_ Internal Use Only  
 Seals Intact \_\_\_ Yes \_\_\_ No **NA** \_\_\_ [ ] Pickup [ ] Technicians \_\_\_  
 Cooler Temp: **4.5 ice**  
 Preservation Code 1- NP; 2- HCl; 3- H<sub>2</sub>SO<sub>4</sub>; 4- HNO<sub>3</sub>; 5- NaOH; 6- MeOH; 7- Asorbic Acid; 8- ZnAct; 9-  
 Sampled by: **JGK/CM**  
 Comments: \_\_\_\_\_

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
<i>Joshua Klement</i>	10-3-11 16:28	<i>Manal Koon</i>	10/3/11 16:28
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

## CERTIFICATE OF ANALYSIS

Josh Klement  
Vanasse Hangen Brustlin, Inc.  
10 Dorrance Street, Suite 400  
Providence, RI 02903

**RE: Trestle Trail (72016.1)**  
**ESS Laboratory Work Order Number: 1110012**

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.



Laurel Stoddard  
Laboratory Director

**Analytical Summary**

The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC and A2LA, except where noted within this project narrative.



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110012

**SAMPLE RECEIPT**

The following samples were received on October 03, 2011 for the analyses specified on the enclosed Chain of Custody Record.

<b>Lab Number</b>	<b>SampleName</b>	<b>Matrix</b>	<b>Analysis</b>
1110012-01	SB-121 0ft-2ft	Soil	6010B, 8270C
1110012-02	SB-122 0ft-2ft	Soil	6010B, 8270C
1110012-03	SB-123 0ft-2ft	Soil	6010B, 8270C
1110012-04	SB-124 0ft-2ft	Soil	6010B, 8270C
1110012-05	SB-125 0ft-2ft	Soil	6010B, 8270C
1110012-06	SB-126 0ft-2ft	Soil	6010B, 8270C
1110012-07	SB-127 0ft-2ft	Soil	6010B, 8270C
1110012-08	SB-128 0ft-2ft	Soil	6010B, 8270C
1110012-09	SB-129 0ft-2ft	Soil	6010B, 8270C
1110012-10	SB-130 0ft-2ft	Soil	6010B, 8270C
1110012-11	SB-131 0ft-2ft	Soil	6010B, 8270C
1110012-12	SB-132 0ft-2ft	Soil	6010B, 8270C
1110012-13	SB-133 0ft-2ft	Soil	6010B, 8270C
1110012-14	SB-134 0ft-2ft	Soil	6010B, 8270C
1110012-15	SB-135 0ft-2ft	Soil	6010B, 8270C
1110012-16	SB-136 0ft-2ft	Soil	6010B, 8270C
1110012-17	SB-137 0ft-2ft	Soil	6010B, 8270C
1110012-18	SB-138 0ft-2ft	Soil	6010B, 8270C
1110012-19	SB-139 0ft-2ft	Soil	6010B, 8270C



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110012

**PROJECT NARRATIVE**

**No unusual observations noted.**

**End of Project Narrative.**

**DATA USABILITY LINKS**

[Definitions of Quality Control Parameters](#)

[Semivolatile Organics Internal Standard Information](#)

[Semivolatile Organics Surrogate Information](#)

[Volatile Organics Internal Standard Information](#)

[Volatile Organics Surrogate Information](#)

[EPH and VPH Alkane Lists](#)



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-121 0ft-2ft  
Date Sampled: 10/03/11 09:52  
Percent Solids: 95

ESS Laboratory Work Order: 1110012  
ESS Laboratory Sample ID: 1110012-01  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	16.8 (2.0)	6010B	7	1	SVD	10/05/11 0:23	2.64	100	CJ10418

*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-121 0ft-2ft  
 Date Sampled: 10/03/11 09:52  
 Percent Solids: 95  
 Initial Volume: 14.6  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110012  
 ESS Laboratory Sample ID: 1110012-01  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/4/11 15:30

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.360)	123	1	10/05/11 20:21	CUJ0026	CJ10417
Acenaphthene	ND (0.360)	43	1	10/05/11 20:21	CUJ0026	CJ10417
Acenaphthylene	ND (0.360)	23	1	10/05/11 20:21	CUJ0026	CJ10417
Anthracene	ND (0.360)	35	1	10/05/11 20:21	CUJ0026	CJ10417
Benzo(a)anthracene	ND (0.360)	0.9	1	10/05/11 20:21	CUJ0026	CJ10417
<b>Benzo(a)pyrene</b>	<b>0.342</b> (0.181)	0.4	1	10/05/11 20:21	CUJ0026	CJ10417
<b>Benzo(b)fluoranthene</b>	<b>0.851</b> (0.360)	0.9	1	10/05/11 20:21	CUJ0026	CJ10417
Benzo(g,h,i)perylene	ND (0.360)	0.8	1	10/05/11 20:21	CUJ0026	CJ10417
Benzo(k)fluoranthene	ND (0.360)	0.9	1	10/05/11 20:21	CUJ0026	CJ10417
<b>Chrysene</b>	<b>0.645</b> (0.181)	0.4	1	10/05/11 20:21	CUJ0026	CJ10417
Dibenzo(a,h)Anthracene	ND (0.181)	0.4	1	10/05/11 20:21	CUJ0026	CJ10417
<b>Fluoranthene</b>	<b>0.726</b> (0.360)	20	1	10/05/11 20:21	CUJ0026	CJ10417
Fluorene	ND (0.360)	28	1	10/05/11 20:21	CUJ0026	CJ10417
Indeno(1,2,3-cd)Pyrene	ND (0.360)	0.9	1	10/05/11 20:21	CUJ0026	CJ10417
Naphthalene	ND (0.360)	54	1	10/05/11 20:21	CUJ0026	CJ10417
Phenanthrene	ND (0.360)	40	1	10/05/11 20:21	CUJ0026	CJ10417
<b>Pyrene</b>	<b>0.636</b> (0.360)	13	1	10/05/11 20:21	CUJ0026	CJ10417

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	90 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	97 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	85 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	96 %		30-130





*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-122 0ft-2ft  
Date Sampled: 10/03/11 09:55  
Percent Solids: 96

ESS Laboratory Work Order: 1110012  
ESS Laboratory Sample ID: 1110012-02  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	4.2 (1.7)	6010B	7	1	SVD	10/05/11 0:27	3.01	100	CJ10418



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-122 0ft-2ft  
 Date Sampled: 10/03/11 09:55  
 Percent Solids: 96  
 Initial Volume: 14.4  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110012  
 ESS Laboratory Sample ID: 1110012-02  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/4/11 15:30

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.361)	123	1	10/05/11 20:51	CUJ0026	CJ10417
Acenaphthene	ND (0.361)	43	1	10/05/11 20:51	CUJ0026	CJ10417
Acenaphthylene	ND (0.361)	23	1	10/05/11 20:51	CUJ0026	CJ10417
Anthracene	ND (0.361)	35	1	10/05/11 20:51	CUJ0026	CJ10417
Benzo(a)anthracene	ND (0.361)	0.9	1	10/05/11 20:51	CUJ0026	CJ10417
Benzo(a)pyrene	ND (0.181)	0.4	1	10/05/11 20:51	CUJ0026	CJ10417
Benzo(b)fluoranthene	ND (0.361)	0.9	1	10/05/11 20:51	CUJ0026	CJ10417
Benzo(g,h,i)perylene	ND (0.361)	0.8	1	10/05/11 20:51	CUJ0026	CJ10417
Benzo(k)fluoranthene	ND (0.361)	0.9	1	10/05/11 20:51	CUJ0026	CJ10417
Chrysene	ND (0.181)	0.4	1	10/05/11 20:51	CUJ0026	CJ10417
Dibenzo(a,h)Anthracene	ND (0.181)	0.4	1	10/05/11 20:51	CUJ0026	CJ10417
Fluoranthene	ND (0.361)	20	1	10/05/11 20:51	CUJ0026	CJ10417
Fluorene	ND (0.361)	28	1	10/05/11 20:51	CUJ0026	CJ10417
Indeno(1,2,3-cd)Pyrene	ND (0.361)	0.9	1	10/05/11 20:51	CUJ0026	CJ10417
Naphthalene	ND (0.361)	54	1	10/05/11 20:51	CUJ0026	CJ10417
Phenanthrene	ND (0.361)	40	1	10/05/11 20:51	CUJ0026	CJ10417
Pyrene	ND (0.361)	13	1	10/05/11 20:51	CUJ0026	CJ10417

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: 1,2-Dichlorobenzene-d4	59 %		30-130
Surrogate: 2-Fluorobiphenyl	68 %		30-130
Surrogate: Nitrobenzene-d5	56 %		30-130
Surrogate: p-Terphenyl-d14	95 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-123 0ft-2ft  
Date Sampled: 10/03/11 09:59  
Percent Solids: 96

ESS Laboratory Work Order: 1110012  
ESS Laboratory Sample ID: 1110012-03  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	19.4 (1.9)	6010B	7	1	SVD	10/05/11 0:40	2.79	100	CJ10418

*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-123 0ft-2ft  
 Date Sampled: 10/03/11 09:59  
 Percent Solids: 96  
 Initial Volume: 14.9  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110012  
 ESS Laboratory Sample ID: 1110012-03  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/4/11 15:30

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.349)	123	1	10/05/11 21:22	CUJ0026	CJ10417
Acenaphthene	ND (0.349)	43	1	10/05/11 21:22	CUJ0026	CJ10417
Acenaphthylene	ND (0.349)	23	1	10/05/11 21:22	CUJ0026	CJ10417
Anthracene	ND (0.349)	35	1	10/05/11 21:22	CUJ0026	CJ10417
Benzo(a)anthracene	ND (0.349)	0.9	1	10/05/11 21:22	CUJ0026	CJ10417
<b>Benzo(a)pyrene</b>	<b>0.175</b> (0.175)	0.4	1	10/05/11 21:22	CUJ0026	CJ10417
<b>Benzo(b)fluoranthene</b>	<b>0.491</b> (0.349)	0.9	1	10/05/11 21:22	CUJ0026	CJ10417
Benzo(g,h,i)perylene	ND (0.349)	0.8	1	10/05/11 21:22	CUJ0026	CJ10417
Benzo(k)fluoranthene	ND (0.349)	0.9	1	10/05/11 21:22	CUJ0026	CJ10417
<b>Chrysene</b>	<b>0.363</b> (0.175)	0.4	1	10/05/11 21:22	CUJ0026	CJ10417
Dibenzo(a,h)Anthracene	ND (0.175)	0.4	1	10/05/11 21:22	CUJ0026	CJ10417
<b>Fluoranthene</b>	<b>0.355</b> (0.349)	20	1	10/05/11 21:22	CUJ0026	CJ10417
Fluorene	ND (0.349)	28	1	10/05/11 21:22	CUJ0026	CJ10417
Indeno(1,2,3-cd)Pyrene	ND (0.349)	0.9	1	10/05/11 21:22	CUJ0026	CJ10417
Naphthalene	ND (0.349)	54	1	10/05/11 21:22	CUJ0026	CJ10417
Phenanthrene	ND (0.349)	40	1	10/05/11 21:22	CUJ0026	CJ10417
Pyrene	ND (0.349)	13	1	10/05/11 21:22	CUJ0026	CJ10417

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	82 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	90 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	78 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	93 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-124 0ft-2ft  
Date Sampled: 10/03/11 10:00  
Percent Solids: 93

ESS Laboratory Work Order: 1110012  
ESS Laboratory Sample ID: 1110012-04  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	20.4 (2.1)	6010B	7	1	SVD	10/05/11 0:44	2.5	100	CJ10418



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-124 0ft-2ft  
 Date Sampled: 10/03/11 10:00  
 Percent Solids: 93  
 Initial Volume: 14.5  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110012  
 ESS Laboratory Sample ID: 1110012-04  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/4/11 15:30

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.370)	123	1	10/05/11 21:52	CUJ0026	CJ10417
Acenaphthene	ND (0.370)	43	1	10/05/11 21:52	CUJ0026	CJ10417
Acenaphthylene	ND (0.370)	23	1	10/05/11 21:52	CUJ0026	CJ10417
Anthracene	ND (0.370)	35	1	10/05/11 21:52	CUJ0026	CJ10417
<b>Benzo(a)anthracene</b>	<b>0.716</b> (0.370)	0.9	1	10/05/11 21:52	CUJ0026	CJ10417
<b>Benzo(a)pyrene</b>	<b>0.753</b> (0.186)	0.4	1	10/05/11 21:52	CUJ0026	CJ10417
<b>Benzo(b)fluoranthene</b>	<b>1.46</b> (0.370)	0.9	1	10/05/11 21:52	CUJ0026	CJ10417
<b>Benzo(g,h,i)perylene</b>	<b>0.571</b> (0.370)	0.8	1	10/05/11 21:52	CUJ0026	CJ10417
<b>Benzo(k)fluoranthene</b>	<b>0.544</b> (0.370)	0.9	1	10/05/11 21:52	CUJ0026	CJ10417
<b>Chrysene</b>	<b>1.19</b> (0.186)	0.4	1	10/05/11 21:52	CUJ0026	CJ10417
Dibenzo(a,h)Anthracene	ND (0.186)	0.4	1	10/05/11 21:52	CUJ0026	CJ10417
<b>Fluoranthene</b>	<b>1.70</b> (0.370)	20	1	10/05/11 21:52	CUJ0026	CJ10417
Fluorene	ND (0.370)	28	1	10/05/11 21:52	CUJ0026	CJ10417
<b>Indeno(1,2,3-cd)Pyrene</b>	<b>0.563</b> (0.370)	0.9	1	10/05/11 21:52	CUJ0026	CJ10417
Naphthalene	ND (0.370)	54	1	10/05/11 21:52	CUJ0026	CJ10417
<b>Phenanthrene</b>	<b>0.581</b> (0.370)	40	1	10/05/11 21:52	CUJ0026	CJ10417
<b>Pyrene</b>	<b>1.44</b> (0.370)	13	1	10/05/11 21:52	CUJ0026	CJ10417

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	82 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	91 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	79 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	92 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-125 0ft-2ft  
Date Sampled: 10/03/11 10:06  
Percent Solids: 93

ESS Laboratory Work Order: 1110012  
ESS Laboratory Sample ID: 1110012-05  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	39.1 (2.4)	6010B	7	1	SVD	10/05/11 0:48	2.25	100	CJ10418



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-125 0ft-2ft  
Date Sampled: 10/03/11 10:06  
Percent Solids: 93  
Initial Volume: 14.8  
Final Volume: 0.5  
Extraction Method: 3546

ESS Laboratory Work Order: 1110012  
ESS Laboratory Sample ID: 1110012-05  
Sample Matrix: Soil  
Units: mg/kg dry  
Analyst: IBM  
Prepared: 10/4/11 15:30

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.363)	123	1	10/05/11 22:22	CUJ0026	CJ10417
Acenaphthene	ND (0.363)	43	1	10/05/11 22:22	CUJ0026	CJ10417
Acenaphthylene	ND (0.363)	23	1	10/05/11 22:22	CUJ0026	CJ10417
Anthracene	ND (0.363)	35	1	10/05/11 22:22	CUJ0026	CJ10417
<b>Benzo(a)anthracene</b>	<b>1.17</b> (0.363)	0.9	1	10/05/11 22:22	CUJ0026	CJ10417
<b>Benzo(a)pyrene</b>	<b>1.15</b> (0.182)	0.4	1	10/05/11 22:22	CUJ0026	CJ10417
<b>Benzo(b)fluoranthene</b>	<b>2.45</b> (0.363)	0.9	1	10/05/11 22:22	CUJ0026	CJ10417
<b>Benzo(g,h,i)perylene</b>	<b>0.797</b> (0.363)	0.8	1	10/05/11 22:22	CUJ0026	CJ10417
<b>Benzo(k)fluoranthene</b>	<b>0.855</b> (0.363)	0.9	1	10/05/11 22:22	CUJ0026	CJ10417
<b>Chrysene</b>	<b>1.88</b> (0.182)	0.4	1	10/05/11 22:22	CUJ0026	CJ10417
Dibenzo(a,h)Anthracene	ND (0.182)	0.4	1	10/05/11 22:22	CUJ0026	CJ10417
<b>Fluoranthene</b>	<b>2.69</b> (0.363)	20	1	10/05/11 22:22	CUJ0026	CJ10417
Fluorene	ND (0.363)	28	1	10/05/11 22:22	CUJ0026	CJ10417
<b>Indeno(1,2,3-cd)Pyrene</b>	<b>0.843</b> (0.363)	0.9	1	10/05/11 22:22	CUJ0026	CJ10417
Naphthalene	ND (0.363)	54	1	10/05/11 22:22	CUJ0026	CJ10417
<b>Phenanthrene</b>	<b>0.798</b> (0.363)	40	1	10/05/11 22:22	CUJ0026	CJ10417
<b>Pyrene</b>	<b>2.21</b> (0.363)	13	1	10/05/11 22:22	CUJ0026	CJ10417

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	75 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	91 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	77 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	90 %		30-130





*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-126 0ft-2ft  
Date Sampled: 10/03/11 10:08  
Percent Solids: 90

ESS Laboratory Work Order: 1110012  
ESS Laboratory Sample ID: 1110012-06  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	6.3 (2.5)	6010B	7	1	SVD	10/05/11 0:52	2.2	100	CJ10418

*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-126 0ft-2ft  
 Date Sampled: 10/03/11 10:08  
 Percent Solids: 90  
 Initial Volume: 14.4  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110012  
 ESS Laboratory Sample ID: 1110012-06  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/4/11 15:30

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.385)	123	1	10/05/11 22:52	CUJ0026	CJ10417
Acenaphthene	ND (0.385)	43	1	10/05/11 22:52	CUJ0026	CJ10417
Acenaphthylene	ND (0.385)	23	1	10/05/11 22:52	CUJ0026	CJ10417
Anthracene	ND (0.385)	35	1	10/05/11 22:52	CUJ0026	CJ10417
Benzo(a)anthracene	ND (0.385)	0.9	1	10/05/11 22:52	CUJ0026	CJ10417
Benzo(a)pyrene	ND (0.193)	0.4	1	10/05/11 22:52	CUJ0026	CJ10417
Benzo(b)fluoranthene	ND (0.385)	0.9	1	10/05/11 22:52	CUJ0026	CJ10417
Benzo(g,h,i)perylene	ND (0.385)	0.8	1	10/05/11 22:52	CUJ0026	CJ10417
Benzo(k)fluoranthene	ND (0.385)	0.9	1	10/05/11 22:52	CUJ0026	CJ10417
Chrysene	ND (0.193)	0.4	1	10/05/11 22:52	CUJ0026	CJ10417
Dibenzo(a,h)Anthracene	ND (0.193)	0.4	1	10/05/11 22:52	CUJ0026	CJ10417
Fluoranthene	ND (0.385)	20	1	10/05/11 22:52	CUJ0026	CJ10417
Fluorene	ND (0.385)	28	1	10/05/11 22:52	CUJ0026	CJ10417
Indeno(1,2,3-cd)Pyrene	ND (0.385)	0.9	1	10/05/11 22:52	CUJ0026	CJ10417
Naphthalene	ND (0.385)	54	1	10/05/11 22:52	CUJ0026	CJ10417
Phenanthrene	ND (0.385)	40	1	10/05/11 22:52	CUJ0026	CJ10417
Pyrene	ND (0.385)	13	1	10/05/11 22:52	CUJ0026	CJ10417

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	72 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	81 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	69 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	88 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-127 0ft-2ft  
Date Sampled: 10/03/11 10:14  
Percent Solids: 94

ESS Laboratory Work Order: 1110012  
ESS Laboratory Sample ID: 1110012-07  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	13.8 (2.0)	6010B	7	1	SVD	10/05/11 0:56	2.64	100	CJ10418

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-127 0ft-2ft  
 Date Sampled: 10/03/11 10:14  
 Percent Solids: 94  
 Initial Volume: 14.7  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110012  
 ESS Laboratory Sample ID: 1110012-07  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/4/11 15:30

**8270C Polynuclear Aromatic Hydrocarbons**

RI - RES DEC

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.361)	123	1	10/05/11 23:22	CUJ0026	CJ10417
Acenaphthene	ND (0.361)	43	1	10/05/11 23:22	CUJ0026	CJ10417
Acenaphthylene	ND (0.361)	23	1	10/05/11 23:22	CUJ0026	CJ10417
Anthracene	ND (0.361)	35	1	10/05/11 23:22	CUJ0026	CJ10417
Benzo(a)anthracene	ND (0.361)	0.9	1	10/05/11 23:22	CUJ0026	CJ10417
Benzo(a)pyrene	ND (0.181)	0.4	1	10/05/11 23:22	CUJ0026	CJ10417
<b>Benzo(b)fluoranthene</b>	<b>0.379</b> (0.361)	0.9	1	10/05/11 23:22	CUJ0026	CJ10417
Benzo(g,h,i)perylene	ND (0.361)	0.8	1	10/05/11 23:22	CUJ0026	CJ10417
Benzo(k)fluoranthene	ND (0.361)	0.9	1	10/05/11 23:22	CUJ0026	CJ10417
<b>Chrysene</b>	<b>0.314</b> (0.181)	0.4	1	10/05/11 23:22	CUJ0026	CJ10417
Dibenzo(a,h)Anthracene	ND (0.181)	0.4	1	10/05/11 23:22	CUJ0026	CJ10417
Fluoranthene	ND (0.361)	20	1	10/05/11 23:22	CUJ0026	CJ10417
Fluorene	ND (0.361)	28	1	10/05/11 23:22	CUJ0026	CJ10417
Indeno(1,2,3-cd)Pyrene	ND (0.361)	0.9	1	10/05/11 23:22	CUJ0026	CJ10417
Naphthalene	ND (0.361)	54	1	10/05/11 23:22	CUJ0026	CJ10417
Phenanthrene	ND (0.361)	40	1	10/05/11 23:22	CUJ0026	CJ10417
Pyrene	ND (0.361)	13	1	10/05/11 23:22	CUJ0026	CJ10417

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: 1,2-Dichlorobenzene-d4	71 %		30-130
Surrogate: 2-Fluorobiphenyl	78 %		30-130
Surrogate: Nitrobenzene-d5	66 %		30-130
Surrogate: p-Terphenyl-d14	88 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-128 0ft-2ft  
Date Sampled: 10/03/11 10:16  
Percent Solids: 95

ESS Laboratory Work Order: 1110012  
ESS Laboratory Sample ID: 1110012-08  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	13.2 (2.3)	6010B	7	1	SVD	10/05/11 0:59	2.32	100	CJ10418

*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-128 0ft-2ft  
 Date Sampled: 10/03/11 10:16  
 Percent Solids: 95  
 Initial Volume: 15  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110012  
 ESS Laboratory Sample ID: 1110012-08  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/4/11 15:30

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.351)	123	1	10/05/11 23:52	CUJ0026	CJ10417
Acenaphthene	ND (0.351)	43	1	10/05/11 23:52	CUJ0026	CJ10417
Acenaphthylene	ND (0.351)	23	1	10/05/11 23:52	CUJ0026	CJ10417
Anthracene	ND (0.351)	35	1	10/05/11 23:52	CUJ0026	CJ10417
<b>Benzo(a)anthracene</b>	<b>0.421</b> (0.351)	0.9	1	10/05/11 23:52	CUJ0026	CJ10417
<b>Benzo(a)pyrene</b>	<b>0.478</b> (0.176)	0.4	1	10/05/11 23:52	CUJ0026	CJ10417
<b>Benzo(b)fluoranthene</b>	<b>1.17</b> (0.351)	0.9	1	10/05/11 23:52	CUJ0026	CJ10417
<b>Benzo(g,h,i)perylene</b>	<b>0.407</b> (0.351)	0.8	1	10/05/11 23:52	CUJ0026	CJ10417
<b>Benzo(k)fluoranthene</b>	<b>0.386</b> (0.351)	0.9	1	10/05/11 23:52	CUJ0026	CJ10417
<b>Chrysene</b>	<b>0.785</b> (0.176)	0.4	1	10/05/11 23:52	CUJ0026	CJ10417
Dibenzo(a,h)Anthracene	ND (0.176)	0.4	1	10/05/11 23:52	CUJ0026	CJ10417
<b>Fluoranthene</b>	<b>0.956</b> (0.351)	20	1	10/05/11 23:52	CUJ0026	CJ10417
Fluorene	ND (0.351)	28	1	10/05/11 23:52	CUJ0026	CJ10417
<b>Indeno(1,2,3-cd)Pyrene</b>	<b>0.415</b> (0.351)	0.9	1	10/05/11 23:52	CUJ0026	CJ10417
Naphthalene	ND (0.351)	54	1	10/05/11 23:52	CUJ0026	CJ10417
Phenanthrene	ND (0.351)	40	1	10/05/11 23:52	CUJ0026	CJ10417
<b>Pyrene</b>	<b>0.796</b> (0.351)	13	1	10/05/11 23:52	CUJ0026	CJ10417

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	78 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	89 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	75 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	84 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-129 0ft-2ft  
Date Sampled: 10/03/11 10:20  
Percent Solids: 95

ESS Laboratory Work Order: 1110012  
ESS Laboratory Sample ID: 1110012-09  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	5.1 (2.2)	6010B	7	1	SVD	10/05/11 1:03	2.43	100	CJ10418



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-129 0ft-2ft  
Date Sampled: 10/03/11 10:20  
Percent Solids: 95  
Initial Volume: 15.1  
Final Volume: 0.5  
Extraction Method: 3546

ESS Laboratory Work Order: 1110012  
ESS Laboratory Sample ID: 1110012-09  
Sample Matrix: Soil  
Units: mg/kg dry  
Analyst: IBM  
Prepared: 10/4/11 15:30

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.348)	123	1	10/06/11 0:22	CUJ0026	CJ10417
Acenaphthene	ND (0.348)	43	1	10/06/11 0:22	CUJ0026	CJ10417
Acenaphthylene	ND (0.348)	23	1	10/06/11 0:22	CUJ0026	CJ10417
Anthracene	ND (0.348)	35	1	10/06/11 0:22	CUJ0026	CJ10417
Benzo(a)anthracene	ND (0.348)	0.9	1	10/06/11 0:22	CUJ0026	CJ10417
Benzo(a)pyrene	ND (0.175)	0.4	1	10/06/11 0:22	CUJ0026	CJ10417
Benzo(b)fluoranthene	ND (0.348)	0.9	1	10/06/11 0:22	CUJ0026	CJ10417
Benzo(g,h,i)perylene	ND (0.348)	0.8	1	10/06/11 0:22	CUJ0026	CJ10417
Benzo(k)fluoranthene	ND (0.348)	0.9	1	10/06/11 0:22	CUJ0026	CJ10417
<b>Chrysene</b>	<b>0.216</b> (0.175)	0.4	1	10/06/11 0:22	CUJ0026	CJ10417
Dibenzo(a,h)Anthracene	ND (0.175)	0.4	1	10/06/11 0:22	CUJ0026	CJ10417
Fluoranthene	ND (0.348)	20	1	10/06/11 0:22	CUJ0026	CJ10417
Fluorene	ND (0.348)	28	1	10/06/11 0:22	CUJ0026	CJ10417
Indeno(1,2,3-cd)Pyrene	ND (0.348)	0.9	1	10/06/11 0:22	CUJ0026	CJ10417
Naphthalene	ND (0.348)	54	1	10/06/11 0:22	CUJ0026	CJ10417
Phenanthrene	ND (0.348)	40	1	10/06/11 0:22	CUJ0026	CJ10417
Pyrene	ND (0.348)	13	1	10/06/11 0:22	CUJ0026	CJ10417

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: 1,2-Dichlorobenzene-d4	72 %		30-130
Surrogate: 2-Fluorobiphenyl	82 %		30-130
Surrogate: Nitrobenzene-d5	72 %		30-130
Surrogate: p-Terphenyl-d14	89 %		30-130





*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-130 0ft-2ft  
Date Sampled: 10/03/11 10:24  
Percent Solids: 96

ESS Laboratory Work Order: 1110012  
ESS Laboratory Sample ID: 1110012-10  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	ND (2.0)	6010B	7	1	SVD	10/05/11 1:32	2.59	100	CJ10418



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-130 0ft-2ft  
 Date Sampled: 10/03/11 10:24  
 Percent Solids: 96  
 Initial Volume: 14.8  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110012  
 ESS Laboratory Sample ID: 1110012-10  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/4/11 15:30

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.352)	123	1	10/06/11 0:52	CUJ0026	CJ10417
Acenaphthene	ND (0.352)	43	1	10/06/11 0:52	CUJ0026	CJ10417
Acenaphthylene	ND (0.352)	23	1	10/06/11 0:52	CUJ0026	CJ10417
Anthracene	ND (0.352)	35	1	10/06/11 0:52	CUJ0026	CJ10417
Benzo(a)anthracene	ND (0.352)	0.9	1	10/06/11 0:52	CUJ0026	CJ10417
Benzo(a)pyrene	ND (0.176)	0.4	1	10/06/11 0:52	CUJ0026	CJ10417
Benzo(b)fluoranthene	ND (0.352)	0.9	1	10/06/11 0:52	CUJ0026	CJ10417
Benzo(g,h,i)perylene	ND (0.352)	0.8	1	10/06/11 0:52	CUJ0026	CJ10417
Benzo(k)fluoranthene	ND (0.352)	0.9	1	10/06/11 0:52	CUJ0026	CJ10417
Chrysene	ND (0.176)	0.4	1	10/06/11 0:52	CUJ0026	CJ10417
Dibenzo(a,h)Anthracene	ND (0.176)	0.4	1	10/06/11 0:52	CUJ0026	CJ10417
Fluoranthene	ND (0.352)	20	1	10/06/11 0:52	CUJ0026	CJ10417
Fluorene	ND (0.352)	28	1	10/06/11 0:52	CUJ0026	CJ10417
Indeno(1,2,3-cd)Pyrene	ND (0.352)	0.9	1	10/06/11 0:52	CUJ0026	CJ10417
Naphthalene	ND (0.352)	54	1	10/06/11 0:52	CUJ0026	CJ10417
Phenanthrene	ND (0.352)	40	1	10/06/11 0:52	CUJ0026	CJ10417
Pyrene	ND (0.352)	13	1	10/06/11 0:52	CUJ0026	CJ10417

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	78 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	81 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	74 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	93 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-131 0ft-2ft  
Date Sampled: 10/03/11 10:29  
Percent Solids: 93

ESS Laboratory Work Order: 1110012  
ESS Laboratory Sample ID: 1110012-11  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	4.5 (2.6)	6010B	7	1	SVD	10/05/11 1:36	2.05	100	CJ10418

*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-131 0ft-2ft  
 Date Sampled: 10/03/11 10:29  
 Percent Solids: 93  
 Initial Volume: 15  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110012  
 ESS Laboratory Sample ID: 1110012-11  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/4/11 15:30

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.358)	123	1	10/06/11 1:23	CUJ0026	CJ10417
Acenaphthene	ND (0.358)	43	1	10/06/11 1:23	CUJ0026	CJ10417
Acenaphthylene	ND (0.358)	23	1	10/06/11 1:23	CUJ0026	CJ10417
Anthracene	ND (0.358)	35	1	10/06/11 1:23	CUJ0026	CJ10417
Benzo(a)anthracene	ND (0.358)	0.9	1	10/06/11 1:23	CUJ0026	CJ10417
Benzo(a)pyrene	ND (0.180)	0.4	1	10/06/11 1:23	CUJ0026	CJ10417
Benzo(b)fluoranthene	ND (0.358)	0.9	1	10/06/11 1:23	CUJ0026	CJ10417
Benzo(g,h,i)perylene	ND (0.358)	0.8	1	10/06/11 1:23	CUJ0026	CJ10417
Benzo(k)fluoranthene	ND (0.358)	0.9	1	10/06/11 1:23	CUJ0026	CJ10417
Chrysene	ND (0.180)	0.4	1	10/06/11 1:23	CUJ0026	CJ10417
Dibenzo(a,h)Anthracene	ND (0.180)	0.4	1	10/06/11 1:23	CUJ0026	CJ10417
Fluoranthene	ND (0.358)	20	1	10/06/11 1:23	CUJ0026	CJ10417
Fluorene	ND (0.358)	28	1	10/06/11 1:23	CUJ0026	CJ10417
Indeno(1,2,3-cd)Pyrene	ND (0.358)	0.9	1	10/06/11 1:23	CUJ0026	CJ10417
Naphthalene	ND (0.358)	54	1	10/06/11 1:23	CUJ0026	CJ10417
Phenanthrene	ND (0.358)	40	1	10/06/11 1:23	CUJ0026	CJ10417
Pyrene	ND (0.358)	13	1	10/06/11 1:23	CUJ0026	CJ10417

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: 1,2-Dichlorobenzene-d4	82 %		30-130
Surrogate: 2-Fluorobiphenyl	90 %		30-130
Surrogate: Nitrobenzene-d5	80 %		30-130
Surrogate: p-Terphenyl-d14	96 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-132 0ft-2ft  
Date Sampled: 10/03/11 10:32  
Percent Solids: 96

ESS Laboratory Work Order: 1110012  
ESS Laboratory Sample ID: 1110012-12  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	5.5 (2.3)	6010B	7	1	SVD	10/05/11 1:40	2.27	100	CJ10418

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-132 0ft-2ft  
 Date Sampled: 10/03/11 10:32  
 Percent Solids: 96  
 Initial Volume: 15.1  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110012  
 ESS Laboratory Sample ID: 1110012-12  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/4/11 15:30

**8270C Polynuclear Aromatic Hydrocarbons**

RI - RES DEC

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.345)	123	1	10/06/11 1:53	CUJ0026	CJ10417
Acenaphthene	ND (0.345)	43	1	10/06/11 1:53	CUJ0026	CJ10417
Acenaphthylene	ND (0.345)	23	1	10/06/11 1:53	CUJ0026	CJ10417
Anthracene	ND (0.345)	35	1	10/06/11 1:53	CUJ0026	CJ10417
Benzo(a)anthracene	ND (0.345)	0.9	1	10/06/11 1:53	CUJ0026	CJ10417
Benzo(a)pyrene	ND (0.173)	0.4	1	10/06/11 1:53	CUJ0026	CJ10417
<b>Benzo(b)fluoranthene</b>	<b>0.346</b> (0.345)	0.9	1	10/06/11 1:53	CUJ0026	CJ10417
Benzo(g,h,i)perylene	ND (0.345)	0.8	1	10/06/11 1:53	CUJ0026	CJ10417
Benzo(k)fluoranthene	ND (0.345)	0.9	1	10/06/11 1:53	CUJ0026	CJ10417
<b>Chrysene</b>	<b>0.313</b> (0.173)	0.4	1	10/06/11 1:53	CUJ0026	CJ10417
Dibenzo(a,h)Anthracene	ND (0.173)	0.4	1	10/06/11 1:53	CUJ0026	CJ10417
<b>Fluoranthene</b>	<b>0.449</b> (0.345)	20	1	10/06/11 1:53	CUJ0026	CJ10417
Fluorene	ND (0.345)	28	1	10/06/11 1:53	CUJ0026	CJ10417
Indeno(1,2,3-cd)Pyrene	ND (0.345)	0.9	1	10/06/11 1:53	CUJ0026	CJ10417
Naphthalene	ND (0.345)	54	1	10/06/11 1:53	CUJ0026	CJ10417
Phenanthrene	ND (0.345)	40	1	10/06/11 1:53	CUJ0026	CJ10417
<b>Pyrene</b>	<b>0.395</b> (0.345)	13	1	10/06/11 1:53	CUJ0026	CJ10417

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: 1,2-Dichlorobenzene-d4	78 %		30-130
Surrogate: 2-Fluorobiphenyl	88 %		30-130
Surrogate: Nitrobenzene-d5	73 %		30-130
Surrogate: p-Terphenyl-d14	94 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-133 0ft-2ft  
Date Sampled: 10/03/11 10:36  
Percent Solids: 92

ESS Laboratory Work Order: 1110012  
ESS Laboratory Sample ID: 1110012-13  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	2.2 (2.1)	6010B	7	1	SVD	10/05/11 1:44	2.59	100	CJ10418



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-133 0ft-2ft  
 Date Sampled: 10/03/11 10:36  
 Percent Solids: 92  
 Initial Volume: 15.2  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110012  
 ESS Laboratory Sample ID: 1110012-13  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/4/11 15:30

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.357)	123	1	10/06/11 2:23	CUJ0026	CJ10417
Acenaphthene	ND (0.357)	43	1	10/06/11 2:23	CUJ0026	CJ10417
Acenaphthylene	ND (0.357)	23	1	10/06/11 2:23	CUJ0026	CJ10417
Anthracene	ND (0.357)	35	1	10/06/11 2:23	CUJ0026	CJ10417
Benzo(a)anthracene	ND (0.357)	0.9	1	10/06/11 2:23	CUJ0026	CJ10417
Benzo(a)pyrene	ND (0.179)	0.4	1	10/06/11 2:23	CUJ0026	CJ10417
Benzo(b)fluoranthene	ND (0.357)	0.9	1	10/06/11 2:23	CUJ0026	CJ10417
Benzo(g,h,i)perylene	ND (0.357)	0.8	1	10/06/11 2:23	CUJ0026	CJ10417
Benzo(k)fluoranthene	ND (0.357)	0.9	1	10/06/11 2:23	CUJ0026	CJ10417
Chrysene	ND (0.179)	0.4	1	10/06/11 2:23	CUJ0026	CJ10417
Dibenzo(a,h)Anthracene	ND (0.179)	0.4	1	10/06/11 2:23	CUJ0026	CJ10417
Fluoranthene	ND (0.357)	20	1	10/06/11 2:23	CUJ0026	CJ10417
Fluorene	ND (0.357)	28	1	10/06/11 2:23	CUJ0026	CJ10417
Indeno(1,2,3-cd)Pyrene	ND (0.357)	0.9	1	10/06/11 2:23	CUJ0026	CJ10417
Naphthalene	ND (0.357)	54	1	10/06/11 2:23	CUJ0026	CJ10417
Phenanthrene	ND (0.357)	40	1	10/06/11 2:23	CUJ0026	CJ10417
Pyrene	ND (0.357)	13	1	10/06/11 2:23	CUJ0026	CJ10417

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	80 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	85 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	76 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	91 %		30-130





*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-134 0ft-2ft  
Date Sampled: 10/03/11 10:38  
Percent Solids: 93

ESS Laboratory Work Order: 1110012  
ESS Laboratory Sample ID: 1110012-14  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	4.3 (2.2)	6010B	7	1	SVD	10/05/11 1:48	2.46	100	CJ10418

*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-134 0ft-2ft  
Date Sampled: 10/03/11 10:38  
Percent Solids: 93  
Initial Volume: 15.3  
Final Volume: 0.5  
Extraction Method: 3546

ESS Laboratory Work Order: 1110012  
ESS Laboratory Sample ID: 1110012-14  
Sample Matrix: Soil  
Units: mg/kg dry  
Analyst: IBM  
Prepared: 10/4/11 15:30

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.351)	123	1	10/06/11 2:53	CUJ0026	CJ10417
Acenaphthene	ND (0.351)	43	1	10/06/11 2:53	CUJ0026	CJ10417
Acenaphthylene	ND (0.351)	23	1	10/06/11 2:53	CUJ0026	CJ10417
Anthracene	ND (0.351)	35	1	10/06/11 2:53	CUJ0026	CJ10417
Benzo(a)anthracene	ND (0.351)	0.9	1	10/06/11 2:53	CUJ0026	CJ10417
Benzo(a)pyrene	ND (0.176)	0.4	1	10/06/11 2:53	CUJ0026	CJ10417
Benzo(b)fluoranthene	ND (0.351)	0.9	1	10/06/11 2:53	CUJ0026	CJ10417
Benzo(g,h,i)perylene	ND (0.351)	0.8	1	10/06/11 2:53	CUJ0026	CJ10417
Benzo(k)fluoranthene	ND (0.351)	0.9	1	10/06/11 2:53	CUJ0026	CJ10417
Chrysene	ND (0.176)	0.4	1	10/06/11 2:53	CUJ0026	CJ10417
Dibenzo(a,h)Anthracene	ND (0.176)	0.4	1	10/06/11 2:53	CUJ0026	CJ10417
Fluoranthene	ND (0.351)	20	1	10/06/11 2:53	CUJ0026	CJ10417
Fluorene	ND (0.351)	28	1	10/06/11 2:53	CUJ0026	CJ10417
Indeno(1,2,3-cd)Pyrene	ND (0.351)	0.9	1	10/06/11 2:53	CUJ0026	CJ10417
Naphthalene	ND (0.351)	54	1	10/06/11 2:53	CUJ0026	CJ10417
Phenanthrene	ND (0.351)	40	1	10/06/11 2:53	CUJ0026	CJ10417
Pyrene	ND (0.351)	13	1	10/06/11 2:53	CUJ0026	CJ10417

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	77 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	87 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	75 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	93 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-135 0ft-2ft  
Date Sampled: 10/03/11 10:49  
Percent Solids: 95

ESS Laboratory Work Order: 1110012  
ESS Laboratory Sample ID: 1110012-15  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	3.1 (2.5)	6010B	7	1	SVD	10/05/11 1:52	2.14	100	CJ10418

*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-135 0ft-2ft  
 Date Sampled: 10/03/11 10:49  
 Percent Solids: 95  
 Initial Volume: 14.9  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110012  
 ESS Laboratory Sample ID: 1110012-15  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: ML  
 Prepared: 10/5/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.353)	123	1	10/06/11 17:22	CUJ0045	CJ10508
Acenaphthene	ND (0.353)	43	1	10/06/11 17:22	CUJ0045	CJ10508
Acenaphthylene	ND (0.353)	23	1	10/06/11 17:22	CUJ0045	CJ10508
Anthracene	ND (0.353)	35	1	10/06/11 17:22	CUJ0045	CJ10508
Benzo(a)anthracene	ND (0.353)	0.9	1	10/06/11 17:22	CUJ0045	CJ10508
Benzo(a)pyrene	ND (0.177)	0.4	1	10/06/11 17:22	CUJ0045	CJ10508
Benzo(b)fluoranthene	ND (0.353)	0.9	1	10/06/11 17:22	CUJ0045	CJ10508
Benzo(g,h,i)perylene	ND (0.353)	0.8	1	10/06/11 17:22	CUJ0045	CJ10508
Benzo(k)fluoranthene	ND (0.353)	0.9	1	10/06/11 17:22	CUJ0045	CJ10508
Chrysene	ND (0.177)	0.4	1	10/06/11 17:22	CUJ0045	CJ10508
Dibenzo(a,h)Anthracene	ND (0.177)	0.4	1	10/06/11 17:22	CUJ0045	CJ10508
Fluoranthene	ND (0.353)	20	1	10/06/11 17:22	CUJ0045	CJ10508
Fluorene	ND (0.353)	28	1	10/06/11 17:22	CUJ0045	CJ10508
Indeno(1,2,3-cd)Pyrene	ND (0.353)	0.9	1	10/06/11 17:22	CUJ0045	CJ10508
Naphthalene	ND (0.353)	54	1	10/06/11 17:22	CUJ0045	CJ10508
Phenanthrene	ND (0.353)	40	1	10/06/11 17:22	CUJ0045	CJ10508
Pyrene	ND (0.353)	13	1	10/06/11 17:22	CUJ0045	CJ10508

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	85 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	89 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	78 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	102 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-136 0ft-2ft  
Date Sampled: 10/03/11 10:46  
Percent Solids: 95

ESS Laboratory Work Order: 1110012  
ESS Laboratory Sample ID: 1110012-16  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	7.9 (2.5)	6010B	7	1	SVD	10/05/11 1:56	2.12	100	CJ10418



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-136 0ft-2ft  
 Date Sampled: 10/03/11 10:46  
 Percent Solids: 95  
 Initial Volume: 14.7  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110012  
 ESS Laboratory Sample ID: 1110012-16  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: ML  
 Prepared: 10/5/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.358)	123	1	10/06/11 17:53	CUJ0045	CJ10508
Acenaphthene	ND (0.358)	43	1	10/06/11 17:53	CUJ0045	CJ10508
Acenaphthylene	ND (0.358)	23	1	10/06/11 17:53	CUJ0045	CJ10508
Anthracene	ND (0.358)	35	1	10/06/11 17:53	CUJ0045	CJ10508
Benzo(a)anthracene	ND (0.358)	0.9	1	10/06/11 17:53	CUJ0045	CJ10508
Benzo(a)pyrene	ND (0.179)	0.4	1	10/06/11 17:53	CUJ0045	CJ10508
Benzo(b)fluoranthene	ND (0.358)	0.9	1	10/06/11 17:53	CUJ0045	CJ10508
Benzo(g,h,i)perylene	ND (0.358)	0.8	1	10/06/11 17:53	CUJ0045	CJ10508
Benzo(k)fluoranthene	ND (0.358)	0.9	1	10/06/11 17:53	CUJ0045	CJ10508
<b>Chrysene</b>	<b>0.256 (0.179)</b>	0.4	1	10/06/11 17:53	CUJ0045	CJ10508
Dibenzo(a,h)Anthracene	ND (0.179)	0.4	1	10/06/11 17:53	CUJ0045	CJ10508
Fluoranthene	ND (0.358)	20	1	10/06/11 17:53	CUJ0045	CJ10508
Fluorene	ND (0.358)	28	1	10/06/11 17:53	CUJ0045	CJ10508
Indeno(1,2,3-cd)Pyrene	ND (0.358)	0.9	1	10/06/11 17:53	CUJ0045	CJ10508
Naphthalene	ND (0.358)	54	1	10/06/11 17:53	CUJ0045	CJ10508
Phenanthrene	ND (0.358)	40	1	10/06/11 17:53	CUJ0045	CJ10508
Pyrene	ND (0.358)	13	1	10/06/11 17:53	CUJ0045	CJ10508

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	83 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	87 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	78 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	99 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-137 0ft-2ft  
Date Sampled: 10/03/11 10:54  
Percent Solids: 93

ESS Laboratory Work Order: 1110012  
ESS Laboratory Sample ID: 1110012-17  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	ND (2.4)	6010B	7	1	SVD	10/05/11 2:00	2.22	100	CJ10418

*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-137 0ft-2ft  
 Date Sampled: 10/03/11 10:54  
 Percent Solids: 93  
 Initial Volume: 14.6  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110012  
 ESS Laboratory Sample ID: 1110012-17  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/5/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.368)	123	1	10/06/11 12:54	CUJ0031	CJ10508
Acenaphthene	ND (0.368)	43	1	10/06/11 12:54	CUJ0031	CJ10508
Acenaphthylene	ND (0.368)	23	1	10/06/11 12:54	CUJ0031	CJ10508
Anthracene	ND (0.368)	35	1	10/06/11 12:54	CUJ0031	CJ10508
Benzo(a)anthracene	ND (0.368)	0.9	1	10/06/11 12:54	CUJ0031	CJ10508
Benzo(a)pyrene	ND (0.184)	0.4	1	10/06/11 12:54	CUJ0031	CJ10508
Benzo(b)fluoranthene	ND (0.368)	0.9	1	10/06/11 12:54	CUJ0031	CJ10508
Benzo(g,h,i)perylene	ND (0.368)	0.8	1	10/06/11 12:54	CUJ0031	CJ10508
Benzo(k)fluoranthene	ND (0.368)	0.9	1	10/06/11 12:54	CUJ0031	CJ10508
Chrysene	ND (0.184)	0.4	1	10/06/11 12:54	CUJ0031	CJ10508
Dibenzo(a,h)Anthracene	ND (0.184)	0.4	1	10/06/11 12:54	CUJ0031	CJ10508
Fluoranthene	ND (0.368)	20	1	10/06/11 12:54	CUJ0031	CJ10508
Fluorene	ND (0.368)	28	1	10/06/11 12:54	CUJ0031	CJ10508
Indeno(1,2,3-cd)Pyrene	ND (0.368)	0.9	1	10/06/11 12:54	CUJ0031	CJ10508
Naphthalene	ND (0.368)	54	1	10/06/11 12:54	CUJ0031	CJ10508
Phenanthrene	ND (0.368)	40	1	10/06/11 12:54	CUJ0031	CJ10508
Pyrene	ND (0.368)	13	1	10/06/11 12:54	CUJ0031	CJ10508

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: 1,2-Dichlorobenzene-d4	59 %		30-130
Surrogate: 2-Fluorobiphenyl	66 %		30-130
Surrogate: Nitrobenzene-d5	54 %		30-130
Surrogate: p-Terphenyl-d14	94 %		30-130





*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-138 0ft-2ft  
Date Sampled: 10/03/11 10:52  
Percent Solids: 96

ESS Laboratory Work Order: 1110012  
ESS Laboratory Sample ID: 1110012-18  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	ND (2.3)	6010B	7	1	SVD	10/05/11 2:04	2.31	100	CJ10418

*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-138 0ft-2ft  
 Date Sampled: 10/03/11 10:52  
 Percent Solids: 96  
 Initial Volume: 14.6  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110012  
 ESS Laboratory Sample ID: 1110012-18  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/5/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.356)	123	1	10/06/11 13:24	CUJ0031	CJ10508
Acenaphthene	ND (0.356)	43	1	10/06/11 13:24	CUJ0031	CJ10508
Acenaphthylene	ND (0.356)	23	1	10/06/11 13:24	CUJ0031	CJ10508
Anthracene	ND (0.356)	35	1	10/06/11 13:24	CUJ0031	CJ10508
Benzo(a)anthracene	ND (0.356)	0.9	1	10/06/11 13:24	CUJ0031	CJ10508
Benzo(a)pyrene	ND (0.179)	0.4	1	10/06/11 13:24	CUJ0031	CJ10508
Benzo(b)fluoranthene	ND (0.356)	0.9	1	10/06/11 13:24	CUJ0031	CJ10508
Benzo(g,h,i)perylene	ND (0.356)	0.8	1	10/06/11 13:24	CUJ0031	CJ10508
Benzo(k)fluoranthene	ND (0.356)	0.9	1	10/06/11 13:24	CUJ0031	CJ10508
Chrysene	ND (0.179)	0.4	1	10/06/11 13:24	CUJ0031	CJ10508
Dibenzo(a,h)Anthracene	ND (0.179)	0.4	1	10/06/11 13:24	CUJ0031	CJ10508
Fluoranthene	ND (0.356)	20	1	10/06/11 13:24	CUJ0031	CJ10508
Fluorene	ND (0.356)	28	1	10/06/11 13:24	CUJ0031	CJ10508
Indeno(1,2,3-cd)Pyrene	ND (0.356)	0.9	1	10/06/11 13:24	CUJ0031	CJ10508
Naphthalene	ND (0.356)	54	1	10/06/11 13:24	CUJ0031	CJ10508
Phenanthrene	ND (0.356)	40	1	10/06/11 13:24	CUJ0031	CJ10508
Pyrene	ND (0.356)	13	1	10/06/11 13:24	CUJ0031	CJ10508

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	85 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	91 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	80 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	98 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-139 0ft-2ft  
Date Sampled: 10/03/11 11:01  
Percent Solids: 95

ESS Laboratory Work Order: 1110012  
ESS Laboratory Sample ID: 1110012-19  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	3.7 (2.6)	6010B	7	1	SVD	10/05/11 2:16	2.05	100	CJ10418

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-139 0ft-2ft  
 Date Sampled: 10/03/11 11:01  
 Percent Solids: 95  
 Initial Volume: 14.5  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110012  
 ESS Laboratory Sample ID: 1110012-19  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: ML  
 Prepared: 10/5/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.363)	123	1	10/06/11 18:23	CUJ0045	CJ10508
Acenaphthene	ND (0.363)	43	1	10/06/11 18:23	CUJ0045	CJ10508
Acenaphthylene	ND (0.363)	23	1	10/06/11 18:23	CUJ0045	CJ10508
<b>Anthracene</b>	<b>0.758</b> (0.363)	35	1	10/06/11 18:23	CUJ0045	CJ10508
<b>Benzo(a)anthracene</b>	<b>5.76</b> (0.363)	0.9	1	10/06/11 18:23	CUJ0045	CJ10508
<b>Benzo(a)pyrene</b>	<b>3.30</b> (0.182)	0.4	1	10/06/11 18:23	CUJ0045	CJ10508
<b>Benzo(b)fluoranthene</b>	<b>4.42</b> (0.363)	0.9	1	10/06/11 18:23	CUJ0045	CJ10508
<b>Benzo(g,h,i)perylene</b>	<b>1.17</b> (0.363)	0.8	1	10/06/11 18:23	CUJ0045	CJ10508
<b>Benzo(k)fluoranthene</b>	<b>1.36</b> (0.363)	0.9	1	10/06/11 18:23	CUJ0045	CJ10508
<b>Chrysene</b>	<b>4.58</b> (0.182)	0.4	1	10/06/11 18:23	CUJ0045	CJ10508
<b>Dibenzo(a,h)Anthracene</b>	<b>0.580</b> (0.182)	0.4	1	10/06/11 18:23	CUJ0045	CJ10508
<b>Fluoranthene</b>	<b>8.42</b> (0.363)	20	1	10/06/11 18:23	CUJ0045	CJ10508
Fluorene	ND (0.363)	28	1	10/06/11 18:23	CUJ0045	CJ10508
<b>Indeno(1,2,3-cd)Pyrene</b>	<b>1.24</b> (0.363)	0.9	1	10/06/11 18:23	CUJ0045	CJ10508
<b>Naphthalene</b>	<b>0.384</b> (0.363)	54	1	10/06/11 18:23	CUJ0045	CJ10508
<b>Phenanthrene</b>	<b>1.94</b> (0.363)	40	1	10/06/11 18:23	CUJ0045	CJ10508
<b>Pyrene</b>	<b>6.71</b> (0.363)	13	1	10/06/11 18:23	CUJ0045	CJ10508

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: 1,2-Dichlorobenzene-d4	77 %		30-130
Surrogate: 2-Fluorobiphenyl	89 %		30-130
Surrogate: Nitrobenzene-d5	75 %		30-130
Surrogate: p-Terphenyl-d14	91 %		30-130



CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110012

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
---------	--------	-----	-------	-------------	---------------	------	-------------	-----	-----------	-----------

3050B/6000/7000 Total Metals

**Batch CJ10418 - 3050B**

<b>Blank</b>										
Arsenic	ND	2.5	mg/kg wet							
<b>LCS</b>										
Arsenic	106	9.1	mg/kg wet	109.0		97	80-120			
<b>LCS Dup</b>										
Arsenic	106	9.1	mg/kg wet	109.0		97	80-120	0.1	20	
<b>Duplicate Source: 1110012-09</b>										
Arsenic	6.26	2.3	mg/kg dry		5.14			20	35	
<b>Duplicate Source: 1110012-19</b>										
Arsenic	4.19	2.4	mg/kg dry		3.68			13	35	
<b>Matrix Spike Source: 1110012-09</b>										
Arsenic	26.1	2.3	mg/kg dry	23.19	5.14	90	75-125			
<b>Matrix Spike Source: 1110012-19</b>										
Arsenic	25.5	2.5	mg/kg dry	24.94	3.68	88	75-125			

8270C Polynuclear Aromatic Hydrocarbons

**Batch CJ10417 - 3546**

<b>Blank</b>										
2-Methylnaphthalene	ND	0.333	mg/kg wet							
Acenaphthene	ND	0.333	mg/kg wet							
Acenaphthylene	ND	0.333	mg/kg wet							
Anthracene	ND	0.333	mg/kg wet							
Benzo(a)anthracene	ND	0.333	mg/kg wet							
Benzo(a)pyrene	ND	0.167	mg/kg wet							
Benzo(b)fluoranthene	ND	0.333	mg/kg wet							
Benzo(g,h,i)perylene	ND	0.333	mg/kg wet							
Benzo(k)fluoranthene	ND	0.333	mg/kg wet							
Chrysene	ND	0.167	mg/kg wet							
Dibenzo(a,h)Anthracene	ND	0.167	mg/kg wet							
Fluoranthene	ND	0.333	mg/kg wet							
Fluorene	ND	0.333	mg/kg wet							
Indeno(1,2,3-cd)Pyrene	ND	0.333	mg/kg wet							
Naphthalene	ND	0.333	mg/kg wet							
Phenanthrene	ND	0.333	mg/kg wet							
Pyrene	ND	0.333	mg/kg wet							
Surrogate: 1,2-Dichlorobenzene-d4	2.72		mg/kg wet	3.333		82	30-130			
Surrogate: 2-Fluorobiphenyl	2.73		mg/kg wet	3.333		82	30-130			
Surrogate: Nitrobenzene-d5	2.51		mg/kg wet	3.333		75	30-130			
Surrogate: p-Terphenyl-d14	3.21		mg/kg wet	3.333		96	30-130			
<b>LCS</b>										
2-Methylnaphthalene	2.59	0.333	mg/kg wet	3.333		78	40-140			
Acenaphthene	2.50	0.333	mg/kg wet	3.333		75	40-140			
Acenaphthylene	2.76	0.333	mg/kg wet	3.333		83	40-140			

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110012

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
<b>8270C Polynuclear Aromatic Hydrocarbons</b>										
<b>Batch CJ10417 - 3546</b>										
Anthracene	2.73	0.333	mg/kg wet	3.333		82	40-140			
Benzo(a)anthracene	2.74	0.333	mg/kg wet	3.333		82	40-140			
Benzo(a)pyrene	2.68	0.167	mg/kg wet	3.333		80	40-140			
Benzo(b)fluoranthene	2.95	0.333	mg/kg wet	3.333		88	40-140			
Benzo(g,h,i)perylene	2.72	0.333	mg/kg wet	3.333		82	40-140			
Benzo(k)fluoranthene	2.56	0.333	mg/kg wet	3.333		77	40-140			
Chrysene	2.59	0.167	mg/kg wet	3.333		78	40-140			
Dibenzo(a,h)Anthracene	2.76	0.167	mg/kg wet	3.333		83	40-140			
Fluoranthene	2.78	0.333	mg/kg wet	3.333		83	40-140			
Fluorene	2.53	0.333	mg/kg wet	3.333		76	40-140			
Indeno(1,2,3-cd)Pyrene	2.75	0.333	mg/kg wet	3.333		82	40-140			
Naphthalene	2.55	0.333	mg/kg wet	3.333		77	40-140			
Phenanthrene	2.69	0.333	mg/kg wet	3.333		81	40-140			
Pyrene	2.70	0.333	mg/kg wet	3.333		81	40-140			
Surrogate: 1,2-Dichlorobenzene-d4	2.55		mg/kg wet	3.333		77	30-130			
Surrogate: 2-Fluorobiphenyl	2.86		mg/kg wet	3.333		86	30-130			
Surrogate: Nitrobenzene-d5	2.55		mg/kg wet	3.333		77	30-130			
Surrogate: p-Terphenyl-d14	2.91		mg/kg wet	3.333		87	30-130			
<b>LCS Dup</b>										
2-Methylnaphthalene	2.63	0.333	mg/kg wet	3.333		79	40-140	2	30	
Acenaphthene	2.54	0.333	mg/kg wet	3.333		76	40-140	2	30	
Acenaphthylene	2.77	0.333	mg/kg wet	3.333		83	40-140	0.4	30	
Anthracene	2.75	0.333	mg/kg wet	3.333		83	40-140	1	30	
Benzo(a)anthracene	2.82	0.333	mg/kg wet	3.333		85	40-140	3	30	
Benzo(a)pyrene	2.78	0.167	mg/kg wet	3.333		83	40-140	4	30	
Benzo(b)fluoranthene	2.78	0.333	mg/kg wet	3.333		83	40-140	6	30	
Benzo(g,h,i)perylene	2.80	0.333	mg/kg wet	3.333		84	40-140	3	30	
Benzo(k)fluoranthene	2.85	0.333	mg/kg wet	3.333		86	40-140	11	30	
Chrysene	2.70	0.167	mg/kg wet	3.333		81	40-140	4	30	
Dibenzo(a,h)Anthracene	2.90	0.167	mg/kg wet	3.333		87	40-140	5	30	
Fluoranthene	2.78	0.333	mg/kg wet	3.333		83	40-140	0.01	30	
Fluorene	2.59	0.333	mg/kg wet	3.333		78	40-140	2	30	
Indeno(1,2,3-cd)Pyrene	2.84	0.333	mg/kg wet	3.333		85	40-140	3	30	
Naphthalene	2.53	0.333	mg/kg wet	3.333		76	40-140	0.8	30	
Phenanthrene	2.74	0.333	mg/kg wet	3.333		82	40-140	2	30	
Pyrene	2.77	0.333	mg/kg wet	3.333		83	40-140	3	30	
Surrogate: 1,2-Dichlorobenzene-d4	2.59		mg/kg wet	3.333		78	30-130			
Surrogate: 2-Fluorobiphenyl	2.84		mg/kg wet	3.333		85	30-130			
Surrogate: Nitrobenzene-d5	2.90		mg/kg wet	3.333		87	30-130			
Surrogate: p-Terphenyl-d14	3.00		mg/kg wet	3.333		90	30-130			
<b>Matrix Spike Source: 1110012-10</b>										
2-Methylnaphthalene	2.97	0.364	mg/kg dry	3.642	ND	81	40-140			
Acenaphthene	2.73	0.364	mg/kg dry	3.642	ND	75	40-140			
Acenaphthylene	3.00	0.364	mg/kg dry	3.642	ND	82	40-140			
Anthracene	3.10	0.364	mg/kg dry	3.642	ND	85	40-140			



CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110012

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
---------	--------	-----	-------	-------------	---------------	------	-------------	-----	-----------	-----------

8270C Polynuclear Aromatic Hydrocarbons

**Batch CJ10417 - 3546**

Benzo(a)anthracene	3.10	0.364	mg/kg dry	3.642	ND	85	40-140			
Benzo(a)pyrene	3.06	0.182	mg/kg dry	3.642	ND	84	40-140			
Benzo(b)fluoranthene	3.19	0.364	mg/kg dry	3.642	ND	88	40-140			
Benzo(g,h,i)perylene	3.26	0.364	mg/kg dry	3.642	ND	90	40-140			
Benzo(k)fluoranthene	3.08	0.364	mg/kg dry	3.642	ND	84	40-140			
Chrysene	3.02	0.182	mg/kg dry	3.642	ND	83	40-140			
Dibenzo(a,h)Anthracene	3.37	0.182	mg/kg dry	3.642	ND	92	40-140			
Fluoranthene	3.34	0.364	mg/kg dry	3.642	ND	92	40-140			
Fluorene	2.87	0.364	mg/kg dry	3.642	ND	79	40-140			
Indeno(1,2,3-cd)Pyrene	3.33	0.364	mg/kg dry	3.642	ND	91	40-140			
Naphthalene	2.78	0.364	mg/kg dry	3.642	ND	76	40-140			
Phenanthrene	3.03	0.364	mg/kg dry	3.642	ND	83	40-140			
Pyrene	3.00	0.364	mg/kg dry	3.642	ND	82	40-140			
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	2.73		mg/kg dry	3.642		75	30-130			
<i>Surrogate: 2-Fluorobiphenyl</i>	3.06		mg/kg dry	3.642		84	30-130			
<i>Surrogate: Nitrobenzene-d5</i>	2.74		mg/kg dry	3.642		75	30-130			
<i>Surrogate: p-Terphenyl-d14</i>	3.24		mg/kg dry	3.642		89	30-130			

**Matrix Spike Dup Source: 1110012-10**

2-Methylnaphthalene	2.95	0.354	mg/kg dry	3.543	ND	83	40-140	0.7	30	
Acenaphthene	2.71	0.354	mg/kg dry	3.543	ND	76	40-140	0.7	30	
Acenaphthylene	3.00	0.354	mg/kg dry	3.543	ND	85	40-140	0.009	30	
Anthracene	2.98	0.354	mg/kg dry	3.543	ND	84	40-140	4	30	
Benzo(a)anthracene	3.05	0.354	mg/kg dry	3.543	ND	86	40-140	1	30	
Benzo(a)pyrene	3.04	0.178	mg/kg dry	3.543	ND	86	40-140	0.6	30	
Benzo(b)fluoranthene	3.31	0.354	mg/kg dry	3.543	ND	94	40-140	4	30	
Benzo(g,h,i)perylene	3.18	0.354	mg/kg dry	3.543	ND	90	40-140	3	30	
Benzo(k)fluoranthene	2.67	0.354	mg/kg dry	3.543	ND	75	40-140	14	30	
Chrysene	3.00	0.178	mg/kg dry	3.543	ND	85	40-140	0.7	30	
Dibenzo(a,h)Anthracene	3.29	0.178	mg/kg dry	3.543	ND	93	40-140	2	30	
Fluoranthene	3.08	0.354	mg/kg dry	3.543	ND	87	40-140	8	30	
Fluorene	2.77	0.354	mg/kg dry	3.543	ND	78	40-140	4	30	
Indeno(1,2,3-cd)Pyrene	3.28	0.354	mg/kg dry	3.543	ND	93	40-140	1	30	
Naphthalene	2.75	0.354	mg/kg dry	3.543	ND	78	40-140	0.9	30	
Phenanthrene	3.03	0.354	mg/kg dry	3.543	ND	85	40-140	0.007	30	
Pyrene	3.08	0.354	mg/kg dry	3.543	ND	87	40-140	3	30	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	2.72		mg/kg dry	3.543		77	30-130			
<i>Surrogate: 2-Fluorobiphenyl</i>	2.95		mg/kg dry	3.543		83	30-130			
<i>Surrogate: Nitrobenzene-d5</i>	2.61		mg/kg dry	3.543		74	30-130			
<i>Surrogate: p-Terphenyl-d14</i>	3.28		mg/kg dry	3.543		92	30-130			

**Batch CJ10508 - 3546**

<b>Blank</b>										
2-Methylnaphthalene	ND	0.333	mg/kg wet							
Acenaphthene	ND	0.333	mg/kg wet							
Acenaphthylene	ND	0.333	mg/kg wet							
Anthracene	ND	0.333	mg/kg wet							



CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110012

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
<b>8270C Polynuclear Aromatic Hydrocarbons</b>										
<b>Batch CJ10508 - 3546</b>										
Benzo(a)anthracene	ND	0.333	mg/kg wet							
Benzo(a)pyrene	ND	0.167	mg/kg wet							
Benzo(b)fluoranthene	ND	0.333	mg/kg wet							
Benzo(g,h,i)perylene	ND	0.333	mg/kg wet							
Benzo(k)fluoranthene	ND	0.333	mg/kg wet							
Chrysene	ND	0.167	mg/kg wet							
Dibenzo(a,h)Anthracene	ND	0.167	mg/kg wet							
Fluoranthene	ND	0.333	mg/kg wet							
Fluorene	ND	0.333	mg/kg wet							
Indeno(1,2,3-cd)Pyrene	ND	0.333	mg/kg wet							
Naphthalene	ND	0.333	mg/kg wet							
Phenanthrene	ND	0.333	mg/kg wet							
Pyrene	ND	0.333	mg/kg wet							
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	2.87		mg/kg wet	3.333		86	30-130			
<i>Surrogate: 2-Fluorobiphenyl</i>	3.09		mg/kg wet	3.333		93	30-130			
<i>Surrogate: Nitrobenzene-d5</i>	2.68		mg/kg wet	3.333		80	30-130			
<i>Surrogate: p-Terphenyl-d14</i>	3.32		mg/kg wet	3.333		100	30-130			
<b>LCS</b>										
2-Methylnaphthalene	2.59	0.333	mg/kg wet	3.333		78	40-140			
Acenaphthene	2.44	0.333	mg/kg wet	3.333		73	40-140			
Acenaphthylene	2.72	0.333	mg/kg wet	3.333		82	40-140			
Anthracene	2.67	0.333	mg/kg wet	3.333		80	40-140			
Benzo(a)anthracene	2.72	0.333	mg/kg wet	3.333		82	40-140			
Benzo(a)pyrene	2.75	0.167	mg/kg wet	3.333		82	40-140			
Benzo(b)fluoranthene	2.79	0.333	mg/kg wet	3.333		84	40-140			
Benzo(g,h,i)perylene	2.84	0.333	mg/kg wet	3.333		85	40-140			
Benzo(k)fluoranthene	2.89	0.333	mg/kg wet	3.333		87	40-140			
Chrysene	2.68	0.167	mg/kg wet	3.333		80	40-140			
Dibenzo(a,h)Anthracene	2.94	0.167	mg/kg wet	3.333		88	40-140			
Fluoranthene	2.80	0.333	mg/kg wet	3.333		84	40-140			
Fluorene	2.45	0.333	mg/kg wet	3.333		74	40-140			
Indeno(1,2,3-cd)Pyrene	2.88	0.333	mg/kg wet	3.333		86	40-140			
Naphthalene	2.51	0.333	mg/kg wet	3.333		75	40-140			
Phenanthrene	2.67	0.333	mg/kg wet	3.333		80	40-140			
Pyrene	2.73	0.333	mg/kg wet	3.333		82	40-140			
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	2.57		mg/kg wet	3.333		77	30-130			
<i>Surrogate: 2-Fluorobiphenyl</i>	2.97		mg/kg wet	3.333		89	30-130			
<i>Surrogate: Nitrobenzene-d5</i>	2.55		mg/kg wet	3.333		77	30-130			
<i>Surrogate: p-Terphenyl-d14</i>	3.04		mg/kg wet	3.333		91	30-130			
<b>LCS Dup</b>										
2-Methylnaphthalene	2.72	0.333	mg/kg wet	3.333		82	40-140	5	30	
Acenaphthene	2.51	0.333	mg/kg wet	3.333		75	40-140	3	30	
Acenaphthylene	2.76	0.333	mg/kg wet	3.333		83	40-140	1	30	
Anthracene	2.75	0.333	mg/kg wet	3.333		83	40-140	3	30	
Benzo(a)anthracene	2.81	0.333	mg/kg wet	3.333		84	40-140	3	30	



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110012

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
<b>8270C Polynuclear Aromatic Hydrocarbons</b>										
<b>Batch CJ10508 - 3546</b>										
Benzo(a)pyrene	2.80	0.167	mg/kg wet	3.333		84	40-140	2	30	
Benzo(b)fluoranthene	3.00	0.333	mg/kg wet	3.333		90	40-140	7	30	
Benzo(g,h,i)perylene	2.96	0.333	mg/kg wet	3.333		89	40-140	4	30	
Benzo(k)fluoranthene	2.82	0.333	mg/kg wet	3.333		85	40-140	2	30	
Chrysene	2.72	0.167	mg/kg wet	3.333		81	40-140	1	30	
Dibenzo(a,h)Anthracene	3.05	0.167	mg/kg wet	3.333		91	40-140	3	30	
Fluoranthene	2.89	0.333	mg/kg wet	3.333		87	40-140	3	30	
Fluorene	2.55	0.333	mg/kg wet	3.333		76	40-140	4	30	
Indeno(1,2,3-cd)Pyrene	3.00	0.333	mg/kg wet	3.333		90	40-140	4	30	
Naphthalene	2.56	0.333	mg/kg wet	3.333		77	40-140	2	30	
Phenanthrene	2.68	0.333	mg/kg wet	3.333		80	40-140	0.4	30	
Pyrene	2.72	0.333	mg/kg wet	3.333		82	40-140	0.4	30	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>2.85</i>		<i>mg/kg wet</i>	<i>3.333</i>		<i>85</i>	<i>30-130</i>			
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>2.98</i>		<i>mg/kg wet</i>	<i>3.333</i>		<i>89</i>	<i>30-130</i>			
<i>Surrogate: Nitrobenzene-d5</i>	<i>2.62</i>		<i>mg/kg wet</i>	<i>3.333</i>		<i>79</i>	<i>30-130</i>			
<i>Surrogate: p-Terphenyl-d14</i>	<i>3.22</i>		<i>mg/kg wet</i>	<i>3.333</i>		<i>97</i>	<i>30-130</i>			



## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.

Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110012

### Notes and Definitions

- U Analyte included in the analysis, but not detected
- ND Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- MDL Method Detection Limit
- MRL Method Reporting Limit
- LOD Limit of Detection
- LOQ Limit of Quantitation
- DL Detection Limit
- I/V Initial Volume
- F/V Final Volume
- § Subcontracted analysis; see attached report
- 1 Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
- 2 Range result excludes concentrations of target analytes eluting in that range.
- 3 Range result excludes the concentration of the C9-C10 aromatic range.
- Avg Results reported as a mathematical average.
- NR No Recovery
- [CALC] Calculated Analyte

## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110012

## ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

## ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)

A2LA Accredited: Testing Cert# 2864.01

<http://www.a2la.org/scopepdf/2864-01.pdf>

Rhode Island Potable and Non Potable Water: LAI00179

<http://www.health.ri.gov/labs/waterlabs-instate.php>

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750

[http://www.ct.gov/dph/lib/dph/environmental\\_health/environmental\\_laboratories/pdf/out\\_state.pdf](http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/out_state.pdf)

Maine Potable and Non Potable Water: RI0002

[http://www.maine.gov/dep/blwq/topic/vessel/lab\\_list.pdf](http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf)

Massachusetts Potable and Non Potable Water: M-RI002

<http://public.dep.state.ma.us/labcert/labcert.aspx>

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424

<http://www4.egov.nh.gov/des/nhelap/namesearch.asp>

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313

<http://www.wadsworth.org/labcert/elap/comm.html>

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301

[http://www.mde.state.md.us/assets/document/WSP\\_labs-2009apr20.pdf](http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf)

## CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01

Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)

<http://www.A2LA.org/dirsearchnew/newsearch.cfm>

CPSC ID# 1141

Lead Paint, Lead in Children's Metals Jewelry

<http://www.cpsc.gov/cgi-bin/labapplist.aspx>

**Sample and Cooler Receipt Checklist**

Client: Vanasse Hangen Brustlin, Inc.  
Client Project ID: \_\_\_\_\_  
Shipped/Delivered Via: ESS Courier


ESS Project ID: 11100012  
Date Project Due: 10/10/11  
Days For Project: 5 Day

**Items to be checked upon receipt:**

- |   |                               |   |   |
|---|-------------------------------|---|---|
| 1. Air Bill Manifest Present?   | <input type="checkbox"/> * No | 10. Are the samples properly preserved?   | <input type="checkbox"/> Yes  |
| Air No.:  |                               | 11. Proper sample containers used?        | <input type="checkbox"/> Yes  |
| 2. Were Custody Seals Present?  | <input type="checkbox"/> No   | 12. Any air bubbles in the VOA vials?     | <input type="checkbox"/> N/A  |
| 3. Were Custody Seals Intact?   | <input type="checkbox"/> N/A  | 13. Holding times exceeded?               | <input type="checkbox"/> No   |
| 4. Is Radiation count < 100 CPM?  | <input type="checkbox"/> Yes  | 14. Sufficient sample volumes?            | <input type="checkbox"/> Yes  |
| 5. Is a cooler present?   | <input type="checkbox"/> Yes  | 15. Any Subcontracting needed?            | <input type="checkbox"/> No   |
| <input type="text" value="Cooler Temp: 4.5"/>   |                               | 16. Are ESS labels on correct containers? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <input type="text" value="Iced With: Ice"/>   |                               | 17. Were samples received intact?         | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 6. Was COC included with samples?   | <input type="checkbox"/> Yes  | ESS Sample IDs: _____                     |   |
| 7. Was COC signed and dated by client?  | <input type="checkbox"/> Yes  | Sub Lab: _____                            |   |
| 8. Does the COC match the sample  | <input type="checkbox"/> Yes  | Analysis: _____                           |   |
| 9. Is COC complete and correct?   | <input type="checkbox"/> Yes  | TAT: _____                                |   |
| 18. Was there need to call project manager to discuss status? If yes, please explain. | _____                         |   |   |

Who was called?: \_\_\_\_\_ By whom? \_\_\_\_\_

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	4 oz Soil Jar	1	NP
2	Yes	4 oz Soil Jar	1	NP
3	Yes	4 oz Soil Jar	1	NP
4	Yes	4 oz Soil Jar	1	NP
5	Yes	4 oz Soil Jar	1	NP
6	Yes	4 oz Soil Jar	1	NP
7	Yes	4 oz Soil Jar	1	NP
8	Yes	4 oz Soil Jar	1	NP
9	Yes	4 oz Soil Jar	1	NP
10	Yes	4 oz Soil Jar	1	NP
11	Yes	4 oz Soil Jar	1	NP
12	Yes	4 oz Soil Jar	1	NP
13	Yes	4 oz Soil Jar	1	NP
14	Yes	4 oz Soil Jar	1	NP
15	Yes	4 oz Soil Jar	1	NP
16	Yes	4 oz Soil Jar	1	NP
17	Yes	4 oz Soil Jar	1	NP
18	Yes	4 oz Soil Jar	1	NP
19	Yes	4 oz Soil Jar	1	NP

Completed By:  \_\_\_\_\_  
Reviewed By: \_\_\_\_\_

Date/Time: 10/3/11  
Date/Time: 10/3/11

# ESS Laboratory

Division of Thielsch Engineering, Inc.  
 185 Frances Avenue, Cranston, RI 02910-2211  
 Tel. (401) 461-7181 Fax (401) 461-4486  
 www.esslaboratory.com

# CHAIN OF CUSTODY

Page 43 of 67 <sup>7 of 2</sup>  
 ESS LAB PROJECT ID 1110012  
 Reporting Limits \_\_\_\_\_  
 Electronic Deliverable Yes  No \_\_\_\_\_  
 Format: Excel \_\_\_ Access \_\_\_ PDF \_\_\_ Other \_\_\_

Turn Time  Standard Other \_\_\_\_\_  
 If faster than 5 days, prior approval by laboratory is required # \_\_\_\_\_  
 State where samples were collected from: MA  RI \_\_\_ NH \_\_\_ NJ \_\_\_ NY \_\_\_ ME \_\_\_ Other \_\_\_  
 Is this project for any of the following: USACE \_\_\_ Other NA  
 MA-MCP \_\_\_ Navy \_\_\_

Co. Name	Project #	Project Name (20 Char. or less)	Address	City	State	Zip	PO#	ESS LAB Sample #	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Pres Code	Type of Containers	Number of Containers	Type of Containers	Write Required Analysis
VHB	72016.1	Trestle Trail	10 Dorrance St, Suite 400	Providence	RI	02903		01	10-3-11	09:52	X	S	S	SB-1210-2	A	1	1	1	PAHS Total Arsenic
								02		09:55				SB-1220-2					
								03		09:59				SB-1230-2					
								04		10:00				SB-1240-2					
								05		10:06				SB-1250-2					
								06		10:06				SB-1260-2					
								07		10:14				SB-1270-2					
								08		10:16				SB-1280-2					
								09		10:20				SB-1290-2					
								10		10:24				SB-1300-2					

Container Type: P-Poly G-Glass S-Sterile V-VOA Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present  Yes \_\_\_ No \_\_\_ Internal Use Only  Yes \_\_\_ No \_\_\_ NA  X

Seals Intact Yes \_\_\_ No \_\_\_ NA  X

Cooler Temp: 4.5 ice

Preservation Code 1- NP, 2- HCl, 3- H<sub>2</sub>SO<sub>4</sub>, 4- HNO<sub>3</sub>, 5- NaOH, 6- MeOH, 7- Asorbic Acid, 8- ZnAct, 9- \_\_\_\_\_

Sampled by: SGK/CM

Comments: \_\_\_\_\_

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
<i>[Signature]</i>	10-3-11	<i>[Signature]</i>	10-3-11
<i>[Signature]</i>	10-28	<i>[Signature]</i>	10-3-11

\*By circling MA-MCP, client acknowledges samples were collected in accordance with MADFP CAM VII A  
 Please fax all changes to Chain of Custody in writing.  
 I (White) Lab Copy 2 (Yellow) Client Receipt  
 10/28/11 A

**ESS Laboratory**  
 Division of Thielsch Engineering, Inc.  
 185 Frances Avenue, Cranston, RI 02910-2211  
 Tel. (401) 461-7181 Fax (401) 461-4486  
 www.esslaboratory.com

# CHAIN OF CUSTODY

Page 4 of 6

Turn Time:  Standard Other \_\_\_\_\_  
 If faster than 5 days, prior approval by laboratory is required # \_\_\_\_\_  
 State where samples were collected from: MA RI CT NH NJ NY ME Other \_\_\_\_\_  
 Is this project for any of the following: USACE Other MA  
 MA-MCP Navy Other \_\_\_\_\_

Reporting Limits: RIDEM RDEC 11/00/2 10/31  
 Electronic Deliverable: Yes  No \_\_\_\_\_  
 Format: Excel \_\_\_\_\_ Access \_\_\_\_\_ PDF \_\_\_\_\_ Other \_\_\_\_\_

Co. Name: VHB  
 Contact Person: Soshua Klement  
 City: Providence, RI  
 Telephone #: 401-272-8100  
 Project Name (20 Char. or less): Trestle Trail  
 Address: 10 Dorrance St Suite 400  
 Zip: 02903  
 Email Address: sklement@vhb.com  
 Project ID: 110012

ESS LAB Sample #	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Pres Code	Number of Containers	Type of Containers	Write Required Analysis
11	10-3-11	10:29	X		S	SB-131 0-2-	1	1	G	FAHS Total Arsenic
12		10:32				SB-132 0-2-				
13		10:36				SB-133 0-2-				
14		10:38				SB-134 0-2-				
15		10:49				SB-135 0-2-				
16		10:46				SB-136 0-2-				
17		10:54				SB-137 0-2-				
18		10:52				SB-138 0-2-				
19	X	11:01	X		X	SB-139 0-2-	X	X	X	

Container Type: P-Poly G-Glass S-Sterile V-VOA Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters  
 Cooler Present: Yes  No \_\_\_\_\_ Internal Use Only  
 Seals Intact: Yes  No NA:  [ ] Pickup  
 Cooler Temp: 4.5 ice [ ] Technicians \_\_\_\_\_  
 Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-  
 Sampled by: JGK/CM  
 Comments: \_\_\_\_\_

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Soshua Klement	10-3-11 16:28	Anna Krome	10/3/11 16:28

## CERTIFICATE OF ANALYSIS

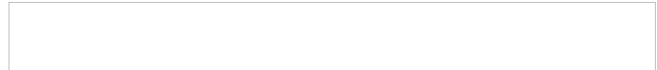
Josh Klement  
Vanasse Hangen Brustlin, Inc.  
10 Dorrance Street, Suite 400  
Providence, RI 02903

**RE: Trestle Trail (72016.1)**  
**ESS Laboratory Work Order Number: 1110015**

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.



Laurel Stoddard  
Laboratory Director

**Analytical Summary**

The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC and A2LA, except where noted within this project narrative.



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110015

**SAMPLE RECEIPT**

The following samples were received on October 03, 2011 for the analyses specified on the enclosed Chain of Custody Record.

<b>Lab Number</b>	<b>SampleName</b>	<b>Matrix</b>	<b>Analysis</b>
1110015-01	SB-201 0ft-2ft	Soil	6010B, 7471A, 7841, 8270C
1110015-02	SB-202 0ft-2ft	Soil	6010B, 7471A, 7841, 8270C
1110015-03	SB-203 0ft-2ft	Soil	6010B, 7471A, 7841, 8270C
1110015-04	SB-204 0ft-2ft	Soil	6010B, 7471A, 7841, 8270C
1110015-05	SB-301 0ft-2ft	Soil	6010B
1110015-06	SB-302 0ft-2ft	Soil	6010B
1110015-07	SB-303 0ft-2ft	Soil	6010B
1110015-08	SB-401 0ft-2ft	Soil	6010B, 8270C
1110015-09	SB-402 0ft-2ft	Soil	6010B, 8270C
1110015-10	SB-403 0ft-2ft	Soil	6010B, 8270C
1110015-11	SB-404 0ft-2ft	Soil	6010B, 8270C
1110015-12	SB-405 0ft-2ft	Soil	6010B, 8270C
1110015-13	SB-406 0ft-2ft	Soil	6010B, 8270C
1110015-14	SB-407 0ft-2ft	Soil	6010B, 8270C
1110015-15	SB-408 0ft-2ft	Soil	6010B, 8270C
1110015-16	SB-409 0ft-2ft	Soil	6010B, 8270C
1110015-17	SB-410 0ft-2ft	Soil	6010B, 8270C
1110015-18	SB-411 0ft-2ft	Soil	6010B, 8270C
1110015-19	SB-412 0ft-2ft	Soil	6010B, 8270C





*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110015

**PROJECT NARRATIVE**

**3050B/6000/7000 Total Metals**

CJ10517-BS1 [Blank Spike recovery is below lower control limit \(B-\).](#)

Selenium (78% @ 80-120%)

CJ10517-MS1 [Matrix Spike recovery is below lower control limit \(M-\).](#)

Arsenic (71% @ 75-125%)

CJ10517-MS2 [Matrix Spike recovery is below lower control limit \(M-\).](#)

Arsenic (69% @ 75-125%)

**8270C Polynuclear Aromatic Hydrocarbons**

1110015-08 [Internal Standard\(s\) outside of criteria due to matrix \(UCM/coelution is present\) \(IM\).](#)

Acenaphthene-d10 (20% @ 50-200%), Chrysene-d12 (18% @ 50-200%)

1110015-08 [Surrogate recovery\(ies\) outside of criteria due to matrix \(UCM/coelution/matrix is present\) \(SM\).](#)

2-Fluorobiphenyl (240% @ 30-130%), Perylene-d12 (0% @ 50-200%)

**No other observations noted.**

**End of Project Narrative.**

**DATA USABILITY LINKS**

[Definitions of Quality Control Parameters](#)

[Semivolatile Organics Internal Standard Information](#)

[Semivolatile Organics Surrogate Information](#)

[Volatile Organics Internal Standard Information](#)

[Volatile Organics Surrogate Information](#)

[EPH and VPH Alkane Lists](#)



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-201 0ft-2ft  
 Date Sampled: 10/03/11 11:50  
 Percent Solids: 92

ESS Laboratory Work Order: 1110015  
 ESS Laboratory Sample ID: 1110015-01  
 Sample Matrix: Soil  
 Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Antimony	ND (5.2)	6010B	10	1	JP	10/06/11 20:03	2.11	100	CJ10517
Arsenic	<b>9.3</b> (2.6)	6010B	7	1	JP	10/06/11 20:03	2.11	100	CJ10517
Beryllium	<b>0.13</b> (0.11)	6010B	0.4	1	JP	10/06/11 20:03	2.11	100	CJ10517
Cadmium	ND (0.52)	6010B	39	1	JP	10/06/11 20:03	2.11	100	CJ10517
Chromium	<b>1.1</b> (1.0)	6010B	1400	1	JP	10/06/11 20:03	2.11	100	CJ10517
Copper	<b>7.6</b> (2.6)	6010B	3100	1	JP	10/06/11 20:03	2.11	100	CJ10517
Lead	<b>13.9</b> (5.2)	6010B	150	1	JP	10/06/11 20:03	2.11	100	CJ10517
Mercury	ND (0.035)	7471A	23	1	KJK	10/11/11 13:24	0.61	40	CJ10518
Nickel	ND (2.6)	6010B	1000	1	JP	10/06/11 20:03	2.11	100	CJ10517
Selenium	ND (5.2)	6010B	390	1	JP	10/06/11 20:03	2.11	100	CJ10517
Silver	ND (0.51)	6010B	200	1	SVD	10/12/11 22:37	2.15	100	CJ11223
Thallium	ND (1.27)	7841	5.5	5	SVD	10/11/11 18:21	2.11	100	CJ10517
Zinc	<b>10.0</b> (2.6)	6010B	6000	1	JP	10/06/11 20:03	2.11	100	CJ10517

*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-201 0ft-2ft  
 Date Sampled: 10/03/11 11:50  
 Percent Solids: 92  
 Initial Volume: 14.5  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110015  
 ESS Laboratory Sample ID: 1110015-01  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: ML  
 Prepared: 10/5/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.374)	123	1	10/06/11 18:53	CUJ0045	CJ10508
Acenaphthene	ND (0.374)	43	1	10/06/11 18:53	CUJ0045	CJ10508
Acenaphthylene	ND (0.374)	23	1	10/06/11 18:53	CUJ0045	CJ10508
Anthracene	ND (0.374)	35	1	10/06/11 18:53	CUJ0045	CJ10508
<b>Benzo(a)anthracene</b>	<b>0.489</b> (0.374)	0.9	1	10/06/11 18:53	CUJ0045	CJ10508
<b>Benzo(a)pyrene</b>	<b>0.450</b> (0.188)	0.4	1	10/06/11 18:53	CUJ0045	CJ10508
<b>Benzo(b)fluoranthene</b>	<b>0.845</b> (0.374)	0.9	1	10/06/11 18:53	CUJ0045	CJ10508
Benzo(g,h,i)perylene	ND (0.374)	0.8	1	10/06/11 18:53	CUJ0045	CJ10508
Benzo(k)fluoranthene	ND (0.374)	0.9	1	10/06/11 18:53	CUJ0045	CJ10508
<b>Chrysene</b>	<b>0.668</b> (0.188)	0.4	1	10/06/11 18:53	CUJ0045	CJ10508
Dibenzo(a,h)Anthracene	ND (0.188)	0.4	1	10/06/11 18:53	CUJ0045	CJ10508
<b>Fluoranthene</b>	<b>1.00</b> (0.374)	20	1	10/06/11 18:53	CUJ0045	CJ10508
Fluorene	ND (0.374)	28	1	10/06/11 18:53	CUJ0045	CJ10508
Indeno(1,2,3-cd)Pyrene	ND (0.374)	0.9	1	10/06/11 18:53	CUJ0045	CJ10508
Naphthalene	ND (0.374)	54	1	10/06/11 18:53	CUJ0045	CJ10508
Phenanthrene	ND (0.374)	40	1	10/06/11 18:53	CUJ0045	CJ10508
<b>Pyrene</b>	<b>0.824</b> (0.374)	13	1	10/06/11 18:53	CUJ0045	CJ10508

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	84 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	90 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	78 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	96 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-202 0ft-2ft  
Date Sampled: 10/03/11 11:40  
Percent Solids: 94

ESS Laboratory Work Order: 1110015  
ESS Laboratory Sample ID: 1110015-02  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Antimony	ND (4.3)	6010B	10	1	JP	10/06/11 20:07 2.48		100	CJ10517
Arsenic	9.2 (2.1)	6010B	7	1	JP	10/06/11 20:07 2.48		100	CJ10517
Beryllium	0.14 (0.09)	6010B	0.4	1	JP	10/06/11 20:07 2.48		100	CJ10517
Cadmium	ND (0.43)	6010B	39	1	JP	10/06/11 20:07 2.48		100	CJ10517
Chromium	1.2 (0.9)	6010B	1400	1	JP	10/06/11 20:07 2.48		100	CJ10517
Copper	7.3 (2.1)	6010B	3100	1	JP	10/06/11 20:07 2.48		100	CJ10517
Lead	13.4 (4.3)	6010B	150	1	JP	10/06/11 20:07 2.48		100	CJ10517
Mercury	ND (0.031)	7471A	23	1	KJK	10/11/11 13:27 0.69		40	CJ10518
Nickel	ND (2.1)	6010B	1000	1	JP	10/06/11 20:07 2.48		100	CJ10517
Selenium	ND (4.3)	6010B	390	1	JP	10/06/11 20:07 2.48		100	CJ10517
Silver	ND (0.48)	6010B	200	1	SVD	10/12/11 22:41 2.22		100	CJ11223
Thallium	ND (1.06)	7841	5.5	5	SVD	10/11/11 18:27 2.48		100	CJ10517
Zinc	10.1 (2.1)	6010B	6000	1	JP	10/06/11 20:07 2.48		100	CJ10517

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-202 0ft-2ft  
 Date Sampled: 10/03/11 11:40  
 Percent Solids: 94  
 Initial Volume: 15.1  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110015  
 ESS Laboratory Sample ID: 1110015-02  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: ML  
 Prepared: 10/5/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

RI - RES DEC

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.352)	123	1	10/06/11 19:23	CUJ0045	CJ10508
Acenaphthene	ND (0.352)	43	1	10/06/11 19:23	CUJ0045	CJ10508
Acenaphthylene	ND (0.352)	23	1	10/06/11 19:23	CUJ0045	CJ10508
Anthracene	ND (0.352)	35	1	10/06/11 19:23	CUJ0045	CJ10508
Benzo(a)anthracene	ND (0.352)	0.9	1	10/06/11 19:23	CUJ0045	CJ10508
Benzo(a)pyrene	ND (0.176)	0.4	1	10/06/11 19:23	CUJ0045	CJ10508
Benzo(b)fluoranthene	ND (0.352)	0.9	1	10/06/11 19:23	CUJ0045	CJ10508
Benzo(g,h,i)perylene	ND (0.352)	0.8	1	10/06/11 19:23	CUJ0045	CJ10508
Benzo(k)fluoranthene	ND (0.352)	0.9	1	10/06/11 19:23	CUJ0045	CJ10508
<b>Chrysene</b>	<b>0.179</b> (0.176)	0.4	1	10/06/11 19:23	CUJ0045	CJ10508
Dibenzo(a,h)Anthracene	ND (0.176)	0.4	1	10/06/11 19:23	CUJ0045	CJ10508
Fluoranthene	ND (0.352)	20	1	10/06/11 19:23	CUJ0045	CJ10508
Fluorene	ND (0.352)	28	1	10/06/11 19:23	CUJ0045	CJ10508
Indeno(1,2,3-cd)Pyrene	ND (0.352)	0.9	1	10/06/11 19:23	CUJ0045	CJ10508
Naphthalene	ND (0.352)	54	1	10/06/11 19:23	CUJ0045	CJ10508
Phenanthrene	ND (0.352)	40	1	10/06/11 19:23	CUJ0045	CJ10508
Pyrene	ND (0.352)	13	1	10/06/11 19:23	CUJ0045	CJ10508

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: 1,2-Dichlorobenzene-d4	82 %		30-130
Surrogate: 2-Fluorobiphenyl	86 %		30-130
Surrogate: Nitrobenzene-d5	73 %		30-130
Surrogate: p-Terphenyl-d14	101 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-203 0ft-2ft  
 Date Sampled: 10/03/11 12:00  
 Percent Solids: 94

ESS Laboratory Work Order: 1110015  
 ESS Laboratory Sample ID: 1110015-03  
 Sample Matrix: Soil  
 Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Antimony	ND (5.1)	6010B	10	1	JP	10/06/11 20:11	2.07	100	CJ10517
<b>Arsenic</b>	<b>3.2</b> (2.6)	6010B	7	1	JP	10/06/11 20:11	2.07	100	CJ10517
<b>Beryllium</b>	<b>0.25</b> (0.11)	6010B	0.4	1	JP	10/06/11 20:11	2.07	100	CJ10517
Cadmium	ND (0.52)	6010B	39	1	JP	10/06/11 20:11	2.07	100	CJ10517
Chromium	ND (1.0)	6010B	1400	1	JP	10/06/11 20:11	2.07	100	CJ10517
<b>Copper</b>	<b>10.6</b> (2.6)	6010B	3100	1	JP	10/06/11 20:11	2.07	100	CJ10517
<b>Lead</b>	<b>8.8</b> (5.1)	6010B	150	1	JP	10/06/11 20:11	2.07	100	CJ10517
Mercury	ND (0.028)	7471A	23	1	KJK	10/11/11 13:30	0.75	40	CJ10518
Nickel	ND (2.6)	6010B	1000	1	JP	10/06/11 20:11	2.07	100	CJ10517
Selenium	ND (5.1)	6010B	390	1	JP	10/06/11 20:11	2.07	100	CJ10517
Silver	ND (0.51)	6010B	200	1	SVD	10/12/11 22:46	2.09	100	CJ11223
Thallium	ND (1.27)	7841	5.5	5	SVD	10/11/11 18:32	2.07	100	CJ10517
<b>Zinc</b>	<b>12.4</b> (2.6)	6010B	6000	1	JP	10/06/11 20:11	2.07	100	CJ10517



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-203 0ft-2ft  
 Date Sampled: 10/03/11 12:00  
 Percent Solids: 94  
 Initial Volume: 15  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110015  
 ESS Laboratory Sample ID: 1110015-03  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: ML  
 Prepared: 10/5/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.354)	123	1	10/06/11 19:53	CUJ0045	CJ10508
Acenaphthene	ND (0.354)	43	1	10/06/11 19:53	CUJ0045	CJ10508
Acenaphthylene	ND (0.354)	23	1	10/06/11 19:53	CUJ0045	CJ10508
Anthracene	ND (0.354)	35	1	10/06/11 19:53	CUJ0045	CJ10508
Benzo(a)anthracene	ND (0.354)	0.9	1	10/06/11 19:53	CUJ0045	CJ10508
Benzo(a)pyrene	ND (0.178)	0.4	1	10/06/11 19:53	CUJ0045	CJ10508
Benzo(b)fluoranthene	ND (0.354)	0.9	1	10/06/11 19:53	CUJ0045	CJ10508
Benzo(g,h,i)perylene	ND (0.354)	0.8	1	10/06/11 19:53	CUJ0045	CJ10508
Benzo(k)fluoranthene	ND (0.354)	0.9	1	10/06/11 19:53	CUJ0045	CJ10508
Chrysene	ND (0.178)	0.4	1	10/06/11 19:53	CUJ0045	CJ10508
Dibenzo(a,h)Anthracene	ND (0.178)	0.4	1	10/06/11 19:53	CUJ0045	CJ10508
Fluoranthene	ND (0.354)	20	1	10/06/11 19:53	CUJ0045	CJ10508
Fluorene	ND (0.354)	28	1	10/06/11 19:53	CUJ0045	CJ10508
Indeno(1,2,3-cd)Pyrene	ND (0.354)	0.9	1	10/06/11 19:53	CUJ0045	CJ10508
Naphthalene	ND (0.354)	54	1	10/06/11 19:53	CUJ0045	CJ10508
Phenanthrene	ND (0.354)	40	1	10/06/11 19:53	CUJ0045	CJ10508
Pyrene	ND (0.354)	13	1	10/06/11 19:53	CUJ0045	CJ10508

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	68 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	77 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	67 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	97 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-204 0ft-2ft  
 Date Sampled: 10/03/11 11:54  
 Percent Solids: 95

ESS Laboratory Work Order: 1110015  
 ESS Laboratory Sample ID: 1110015-04  
 Sample Matrix: Soil  
 Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Antimony	ND (5.1)	6010B	10	1	JP	10/06/11 20:16	2.06	100	CJ10517
Arsenic	15.7 (2.6)	6010B	7	1	JP	10/06/11 20:16	2.06	100	CJ10517
Beryllium	0.16 (0.11)	6010B	0.4	1	JP	10/06/11 20:16	2.06	100	CJ10517
Cadmium	ND (0.51)	6010B	39	1	JP	10/06/11 20:16	2.06	100	CJ10517
Chromium	1.2 (1.0)	6010B	1400	1	JP	10/06/11 20:16	2.06	100	CJ10517
Copper	11.9 (2.6)	6010B	3100	1	JP	10/06/11 20:16	2.06	100	CJ10517
Lead	28.9 (5.1)	6010B	150	1	JP	10/06/11 20:16	2.06	100	CJ10517
Mercury	ND (0.031)	7471A	23	1	KJK	10/11/11 13:32	0.67	40	CJ10518
Nickel	ND (2.6)	6010B	1000	1	JP	10/06/11 20:16	2.06	100	CJ10517
Selenium	ND (5.1)	6010B	390	1	JP	10/06/11 20:16	2.06	100	CJ10517
Silver	ND (0.50)	6010B	200	1	SVD	10/12/11 22:50	2.13	100	CJ11223
Thallium	ND (1.26)	7841	5.5	5	SVD	10/11/11 18:38	2.06	100	CJ10517
Zinc	13.3 (2.6)	6010B	6000	1	JP	10/06/11 20:16	2.06	100	CJ10517



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-204 0ft-2ft  
 Date Sampled: 10/03/11 11:54  
 Percent Solids: 95  
 Initial Volume: 14.8  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110015  
 ESS Laboratory Sample ID: 1110015-04  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: ML  
 Prepared: 10/5/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.355)	123	1	10/06/11 20:23	CUJ0045	CJ10508
Acenaphthene	ND (0.355)	43	1	10/06/11 20:23	CUJ0045	CJ10508
Acenaphthylene	ND (0.355)	23	1	10/06/11 20:23	CUJ0045	CJ10508
Anthracene	ND (0.355)	35	1	10/06/11 20:23	CUJ0045	CJ10508
Benzo(a)anthracene	ND (0.355)	0.9	1	10/06/11 20:23	CUJ0045	CJ10508
<b>Benzo(a)pyrene</b>	<b>0.190</b> (0.178)	0.4	1	10/06/11 20:23	CUJ0045	CJ10508
<b>Benzo(b)fluoranthene</b>	<b>0.398</b> (0.355)	0.9	1	10/06/11 20:23	CUJ0045	CJ10508
Benzo(g,h,i)perylene	ND (0.355)	0.8	1	10/06/11 20:23	CUJ0045	CJ10508
Benzo(k)fluoranthene	ND (0.355)	0.9	1	10/06/11 20:23	CUJ0045	CJ10508
<b>Chrysene</b>	<b>0.285</b> (0.178)	0.4	1	10/06/11 20:23	CUJ0045	CJ10508
Dibenzo(a,h)Anthracene	ND (0.178)	0.4	1	10/06/11 20:23	CUJ0045	CJ10508
<b>Fluoranthene</b>	<b>0.379</b> (0.355)	20	1	10/06/11 20:23	CUJ0045	CJ10508
Fluorene	ND (0.355)	28	1	10/06/11 20:23	CUJ0045	CJ10508
Indeno(1,2,3-cd)Pyrene	ND (0.355)	0.9	1	10/06/11 20:23	CUJ0045	CJ10508
Naphthalene	ND (0.355)	54	1	10/06/11 20:23	CUJ0045	CJ10508
Phenanthrene	ND (0.355)	40	1	10/06/11 20:23	CUJ0045	CJ10508
Pyrene	ND (0.355)	13	1	10/06/11 20:23	CUJ0045	CJ10508

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	73 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	81 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	68 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	100 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-301 0ft-2ft  
Date Sampled: 10/03/11 13:27  
Percent Solids: 95

ESS Laboratory Work Order: 1110015  
ESS Laboratory Sample ID: 1110015-05  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	6.9 (2.2)	6010B	7	1	JP	10/06/11 20:20	2.44	100	CJ10517
Beryllium	0.17 (0.09)	6010B	0.4	1	JP	10/06/11 20:20	2.44	100	CJ10517



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-302 0ft-2ft  
Date Sampled: 10/03/11 13:35  
Percent Solids: 95

ESS Laboratory Work Order: 1110015  
ESS Laboratory Sample ID: 1110015-06  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	5.8 (2.5)	6010B	7	1	JP	10/06/11 20:24	2.1	100	CJ10517
Beryllium	0.26 (0.11)	6010B	0.4	1	JP	10/06/11 20:24	2.1	100	CJ10517



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-303 0ft-2ft  
Date Sampled: 10/03/11 13:36  
Percent Solids: 94

ESS Laboratory Work Order: 1110015  
ESS Laboratory Sample ID: 1110015-07  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	7.4 (2.3)	6010B	7	1	JP	10/06/11 20:37	2.3	100	CJ10517
Beryllium	0.25 (0.10)	6010B	0.4	1	JP	10/06/11 20:37	2.3	100	CJ10517



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-401 0ft-2ft  
Date Sampled: 10/03/11 14:10  
Percent Solids: 89

ESS Laboratory Work Order: 1110015  
ESS Laboratory Sample ID: 1110015-08  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	3.2 (2.5)	6010B	7	1	JP	10/06/11 20:41	2.25	100	CJ10517
Beryllium	0.35 (0.10)	6010B	0.4	1	JP	10/06/11 20:41	2.25	100	CJ10517

*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-401 0ft-2ft  
 Date Sampled: 10/03/11 14:10  
 Percent Solids: 89  
 Initial Volume: 14.4  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110015  
 ESS Laboratory Sample ID: 1110015-08  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: ML  
 Prepared: 10/5/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.390)	123	1	10/06/11 20:53	CUJ0045	CJ10508
Acenaphthene	ND (0.390)	43	1	10/06/11 20:53	CUJ0045	CJ10508
Acenaphthylene	ND (0.390)	23	1	10/06/11 20:53	CUJ0045	CJ10508
Anthracene	ND (0.390)	35	1	10/06/11 20:53	CUJ0045	CJ10508
Benzo(a)anthracene	ND (0.390)	0.9	1	10/06/11 20:53	CUJ0045	CJ10508
Benzo(a)pyrene	ND (0.195)	0.4	1	10/06/11 20:53	CUJ0045	CJ10508
Benzo(b)fluoranthene	ND (0.390)	0.9	1	10/06/11 20:53	CUJ0045	CJ10508
Benzo(g,h,i)perylene	ND (0.390)	0.8	1	10/06/11 20:53	CUJ0045	CJ10508
Benzo(k)fluoranthene	ND (0.390)	0.9	1	10/06/11 20:53	CUJ0045	CJ10508
Chrysene	ND (0.195)	0.4	1	10/06/11 20:53	CUJ0045	CJ10508
Dibenzo(a,h)Anthracene	ND (0.195)	0.4	1	10/06/11 20:53	CUJ0045	CJ10508
Fluoranthene	ND (0.390)	20	1	10/06/11 20:53	CUJ0045	CJ10508
Fluorene	ND (0.390)	28	1	10/06/11 20:53	CUJ0045	CJ10508
Indeno(1,2,3-cd)Pyrene	ND (0.390)	0.9	1	10/06/11 20:53	CUJ0045	CJ10508
<b>Naphthalene</b>	<b>1.05</b> (0.390)	54	1	10/06/11 20:53	CUJ0045	CJ10508
Phenanthrene	ND (0.390)	40	1	10/06/11 20:53	CUJ0045	CJ10508
Pyrene	ND (0.390)	13	1	10/06/11 20:53	CUJ0045	CJ10508

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	47 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	240 %	SM	30-130
<i>Surrogate: Nitrobenzene-d5</i>	37 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	123 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-402 0ft-2ft  
Date Sampled: 10/03/11 14:07  
Percent Solids: 99

ESS Laboratory Work Order: 1110015  
ESS Laboratory Sample ID: 1110015-09  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	2.5 (2.1)	6010B	7	1	JP	10/06/11 20:45	2.35	100	CJ10517
Beryllium	0.27 (0.09)	6010B	0.4	1	JP	10/06/11 20:45	2.35	100	CJ10517

*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-402 0ft-2ft  
 Date Sampled: 10/03/11 14:07  
 Percent Solids: 99  
 Initial Volume: 14.6  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110015  
 ESS Laboratory Sample ID: 1110015-09  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: ML  
 Prepared: 10/5/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.346)	123	1	10/06/11 21:23	CUJ0045	CJ10508
Acenaphthene	ND (0.346)	43	1	10/06/11 21:23	CUJ0045	CJ10508
Acenaphthylene	ND (0.346)	23	1	10/06/11 21:23	CUJ0045	CJ10508
Anthracene	ND (0.346)	35	1	10/06/11 21:23	CUJ0045	CJ10508
Benzo(a)anthracene	ND (0.346)	0.9	1	10/06/11 21:23	CUJ0045	CJ10508
Benzo(a)pyrene	ND (0.173)	0.4	1	10/06/11 21:23	CUJ0045	CJ10508
Benzo(b)fluoranthene	ND (0.346)	0.9	1	10/06/11 21:23	CUJ0045	CJ10508
Benzo(g,h,i)perylene	ND (0.346)	0.8	1	10/06/11 21:23	CUJ0045	CJ10508
Benzo(k)fluoranthene	ND (0.346)	0.9	1	10/06/11 21:23	CUJ0045	CJ10508
Chrysene	ND (0.173)	0.4	1	10/06/11 21:23	CUJ0045	CJ10508
Dibenzo(a,h)Anthracene	ND (0.173)	0.4	1	10/06/11 21:23	CUJ0045	CJ10508
Fluoranthene	ND (0.346)	20	1	10/06/11 21:23	CUJ0045	CJ10508
Fluorene	ND (0.346)	28	1	10/06/11 21:23	CUJ0045	CJ10508
Indeno(1,2,3-cd)Pyrene	ND (0.346)	0.9	1	10/06/11 21:23	CUJ0045	CJ10508
Naphthalene	ND (0.346)	54	1	10/06/11 21:23	CUJ0045	CJ10508
Phenanthrene	ND (0.346)	40	1	10/06/11 21:23	CUJ0045	CJ10508
Pyrene	ND (0.346)	13	1	10/06/11 21:23	CUJ0045	CJ10508

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	68 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	76 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	63 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	101 %		30-130





*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-403 0ft-2ft  
Date Sampled: 10/03/11 14:20  
Percent Solids: 90

ESS Laboratory Work Order: 1110015  
ESS Laboratory Sample ID: 1110015-10  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	ND (4.5)	6010B	7	2	SVD	10/11/11 20:50	2.46	100	CJ10517
Beryllium	0.51 (0.19)	6010B	0.4	2	SVD	10/11/11 20:50	2.46	100	CJ10517

*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-403 0ft-2ft  
 Date Sampled: 10/03/11 14:20  
 Percent Solids: 90  
 Initial Volume: 14.5  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110015  
 ESS Laboratory Sample ID: 1110015-10  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: ML  
 Prepared: 10/5/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.383)	123	1	10/06/11 21:53	CUJ0045	CJ10508
Acenaphthene	ND (0.383)	43	1	10/06/11 21:53	CUJ0045	CJ10508
Acenaphthylene	ND (0.383)	23	1	10/06/11 21:53	CUJ0045	CJ10508
Anthracene	ND (0.383)	35	1	10/06/11 21:53	CUJ0045	CJ10508
Benzo(a)anthracene	ND (0.383)	0.9	1	10/06/11 21:53	CUJ0045	CJ10508
Benzo(a)pyrene	ND (0.192)	0.4	1	10/06/11 21:53	CUJ0045	CJ10508
Benzo(b)fluoranthene	ND (0.383)	0.9	1	10/06/11 21:53	CUJ0045	CJ10508
Benzo(g,h,i)perylene	ND (0.383)	0.8	1	10/06/11 21:53	CUJ0045	CJ10508
Benzo(k)fluoranthene	ND (0.383)	0.9	1	10/06/11 21:53	CUJ0045	CJ10508
Chrysene	ND (0.192)	0.4	1	10/06/11 21:53	CUJ0045	CJ10508
Dibenzo(a,h)Anthracene	ND (0.192)	0.4	1	10/06/11 21:53	CUJ0045	CJ10508
Fluoranthene	ND (0.383)	20	1	10/06/11 21:53	CUJ0045	CJ10508
Fluorene	ND (0.383)	28	1	10/06/11 21:53	CUJ0045	CJ10508
Indeno(1,2,3-cd)Pyrene	ND (0.383)	0.9	1	10/06/11 21:53	CUJ0045	CJ10508
Naphthalene	ND (0.383)	54	1	10/06/11 21:53	CUJ0045	CJ10508
Phenanthrene	ND (0.383)	40	1	10/06/11 21:53	CUJ0045	CJ10508
Pyrene	ND (0.383)	13	1	10/06/11 21:53	CUJ0045	CJ10508

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	76 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	80 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	66 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	107 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-404 0ft-2ft  
Date Sampled: 10/03/11 14:17  
Percent Solids: 93

ESS Laboratory Work Order: 1110015  
ESS Laboratory Sample ID: 1110015-11  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	ND (4.8)	6010B	7	2	SVD	10/11/11 21:19	2.22	100	CJ10517
Beryllium	0.46 (0.20)	6010B	0.4	2	SVD	10/11/11 21:19	2.22	100	CJ10517

*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-404 0ft-2ft  
 Date Sampled: 10/03/11 14:17  
 Percent Solids: 93  
 Initial Volume: 15.4  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110015  
 ESS Laboratory Sample ID: 1110015-11  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: ML  
 Prepared: 10/5/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.349)	123	1	10/06/11 22:24	CUJ0045	CJ10508
Acenaphthene	ND (0.349)	43	1	10/06/11 22:24	CUJ0045	CJ10508
Acenaphthylene	ND (0.349)	23	1	10/06/11 22:24	CUJ0045	CJ10508
Anthracene	ND (0.349)	35	1	10/06/11 22:24	CUJ0045	CJ10508
Benzo(a)anthracene	ND (0.349)	0.9	1	10/06/11 22:24	CUJ0045	CJ10508
Benzo(a)pyrene	ND (0.175)	0.4	1	10/06/11 22:24	CUJ0045	CJ10508
Benzo(b)fluoranthene	ND (0.349)	0.9	1	10/06/11 22:24	CUJ0045	CJ10508
Benzo(g,h,i)perylene	ND (0.349)	0.8	1	10/06/11 22:24	CUJ0045	CJ10508
Benzo(k)fluoranthene	ND (0.349)	0.9	1	10/06/11 22:24	CUJ0045	CJ10508
Chrysene	ND (0.175)	0.4	1	10/06/11 22:24	CUJ0045	CJ10508
Dibenzo(a,h)Anthracene	ND (0.175)	0.4	1	10/06/11 22:24	CUJ0045	CJ10508
Fluoranthene	ND (0.349)	20	1	10/06/11 22:24	CUJ0045	CJ10508
Fluorene	ND (0.349)	28	1	10/06/11 22:24	CUJ0045	CJ10508
Indeno(1,2,3-cd)Pyrene	ND (0.349)	0.9	1	10/06/11 22:24	CUJ0045	CJ10508
Naphthalene	ND (0.349)	54	1	10/06/11 22:24	CUJ0045	CJ10508
Phenanthrene	ND (0.349)	40	1	10/06/11 22:24	CUJ0045	CJ10508
Pyrene	ND (0.349)	13	1	10/06/11 22:24	CUJ0045	CJ10508

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	87 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	88 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	75 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	105 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-405 0ft-2ft  
Date Sampled: 10/03/11 14:27  
Percent Solids: 95

ESS Laboratory Work Order: 1110015  
ESS Laboratory Sample ID: 1110015-12  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	ND (2.3)	6010B	7	1	JP	10/07/11 18:23	2.27	100	CJ10517
Beryllium	0.39 (0.10)	6010B	0.4	1	JP	10/07/11 18:23	2.27	100	CJ10517



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-405 0ft-2ft  
 Date Sampled: 10/03/11 14:27  
 Percent Solids: 95  
 Initial Volume: 15.5  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110015  
 ESS Laboratory Sample ID: 1110015-12  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: ML  
 Prepared: 10/5/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.339)	123	1	10/06/11 22:54	CUJ0045	CJ10508
Acenaphthene	ND (0.339)	43	1	10/06/11 22:54	CUJ0045	CJ10508
Acenaphthylene	ND (0.339)	23	1	10/06/11 22:54	CUJ0045	CJ10508
Anthracene	ND (0.339)	35	1	10/06/11 22:54	CUJ0045	CJ10508
Benzo(a)anthracene	ND (0.339)	0.9	1	10/06/11 22:54	CUJ0045	CJ10508
Benzo(a)pyrene	ND (0.170)	0.4	1	10/06/11 22:54	CUJ0045	CJ10508
Benzo(b)fluoranthene	ND (0.339)	0.9	1	10/06/11 22:54	CUJ0045	CJ10508
Benzo(g,h,i)perylene	ND (0.339)	0.8	1	10/06/11 22:54	CUJ0045	CJ10508
Benzo(k)fluoranthene	ND (0.339)	0.9	1	10/06/11 22:54	CUJ0045	CJ10508
Chrysene	ND (0.170)	0.4	1	10/06/11 22:54	CUJ0045	CJ10508
Dibenzo(a,h)Anthracene	ND (0.170)	0.4	1	10/06/11 22:54	CUJ0045	CJ10508
Fluoranthene	ND (0.339)	20	1	10/06/11 22:54	CUJ0045	CJ10508
Fluorene	ND (0.339)	28	1	10/06/11 22:54	CUJ0045	CJ10508
Indeno(1,2,3-cd)Pyrene	ND (0.339)	0.9	1	10/06/11 22:54	CUJ0045	CJ10508
Naphthalene	ND (0.339)	54	1	10/06/11 22:54	CUJ0045	CJ10508
Phenanthrene	ND (0.339)	40	1	10/06/11 22:54	CUJ0045	CJ10508
Pyrene	ND (0.339)	13	1	10/06/11 22:54	CUJ0045	CJ10508

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	86 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	86 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	76 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	106 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-406 0ft-2ft  
Date Sampled: 10/03/11 14:39  
Percent Solids: 96

ESS Laboratory Work Order: 1110015  
ESS Laboratory Sample ID: 1110015-13  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	8.0 (2.4)	6010B	7	1	JP	10/07/11 18:27	2.2	100	CJ10517
Beryllium	0.32 (0.10)	6010B	0.4	1	JP	10/07/11 18:27	2.2	100	CJ10517

*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-406 0ft-2ft  
 Date Sampled: 10/03/11 14:39  
 Percent Solids: 96  
 Initial Volume: 14.4  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110015  
 ESS Laboratory Sample ID: 1110015-13  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: ML  
 Prepared: 10/5/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.361)	123	1	10/06/11 23:24	CUJ0045	CJ10508
Acenaphthene	ND (0.361)	43	1	10/06/11 23:24	CUJ0045	CJ10508
Acenaphthylene	ND (0.361)	23	1	10/06/11 23:24	CUJ0045	CJ10508
Anthracene	ND (0.361)	35	1	10/06/11 23:24	CUJ0045	CJ10508
Benzo(a)anthracene	ND (0.361)	0.9	1	10/06/11 23:24	CUJ0045	CJ10508
<b>Benzo(a)pyrene</b>	<b>0.228</b> (0.181)	0.4	1	10/06/11 23:24	CUJ0045	CJ10508
<b>Benzo(b)fluoranthene</b>	<b>0.437</b> (0.361)	0.9	1	10/06/11 23:24	CUJ0045	CJ10508
Benzo(g,h,i)perylene	ND (0.361)	0.8	1	10/06/11 23:24	CUJ0045	CJ10508
Benzo(k)fluoranthene	ND (0.361)	0.9	1	10/06/11 23:24	CUJ0045	CJ10508
<b>Chrysene</b>	<b>0.356</b> (0.181)	0.4	1	10/06/11 23:24	CUJ0045	CJ10508
Dibenzo(a,h)Anthracene	ND (0.181)	0.4	1	10/06/11 23:24	CUJ0045	CJ10508
<b>Fluoranthene</b>	<b>0.491</b> (0.361)	20	1	10/06/11 23:24	CUJ0045	CJ10508
Fluorene	ND (0.361)	28	1	10/06/11 23:24	CUJ0045	CJ10508
Indeno(1,2,3-cd)Pyrene	ND (0.361)	0.9	1	10/06/11 23:24	CUJ0045	CJ10508
Naphthalene	ND (0.361)	54	1	10/06/11 23:24	CUJ0045	CJ10508
Phenanthrene	ND (0.361)	40	1	10/06/11 23:24	CUJ0045	CJ10508
<b>Pyrene</b>	<b>0.448</b> (0.361)	13	1	10/06/11 23:24	CUJ0045	CJ10508

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	75 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	79 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	65 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	91 %		30-130





*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-407 0ft-2ft  
Date Sampled: 10/03/11 14:48  
Percent Solids: 96

ESS Laboratory Work Order: 1110015  
ESS Laboratory Sample ID: 1110015-14  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	6.8 (2.2)	6010B	7	1	JP	10/07/11 18:31	2.42	100	CJ10517
Beryllium	0.35 (0.09)	6010B	0.4	1	JP	10/07/11 18:31	2.42	100	CJ10517



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-407 0ft-2ft  
 Date Sampled: 10/03/11 14:48  
 Percent Solids: 96  
 Initial Volume: 15.3  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110015  
 ESS Laboratory Sample ID: 1110015-14  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: ML  
 Prepared: 10/5/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.340)	123	1	10/06/11 23:54	CUJ0045	CJ10508
Acenaphthene	ND (0.340)	43	1	10/06/11 23:54	CUJ0045	CJ10508
Acenaphthylene	ND (0.340)	23	1	10/06/11 23:54	CUJ0045	CJ10508
Anthracene	ND (0.340)	35	1	10/06/11 23:54	CUJ0045	CJ10508
Benzo(a)anthracene	ND (0.340)	0.9	1	10/06/11 23:54	CUJ0045	CJ10508
Benzo(a)pyrene	ND (0.171)	0.4	1	10/06/11 23:54	CUJ0045	CJ10508
Benzo(b)fluoranthene	ND (0.340)	0.9	1	10/06/11 23:54	CUJ0045	CJ10508
Benzo(g,h,i)perylene	ND (0.340)	0.8	1	10/06/11 23:54	CUJ0045	CJ10508
Benzo(k)fluoranthene	ND (0.340)	0.9	1	10/06/11 23:54	CUJ0045	CJ10508
<b>Chrysene</b>	<b>0.183</b> (0.171)	0.4	1	10/06/11 23:54	CUJ0045	CJ10508
Dibenzo(a,h)Anthracene	ND (0.171)	0.4	1	10/06/11 23:54	CUJ0045	CJ10508
Fluoranthene	ND (0.340)	20	1	10/06/11 23:54	CUJ0045	CJ10508
Fluorene	ND (0.340)	28	1	10/06/11 23:54	CUJ0045	CJ10508
Indeno(1,2,3-cd)Pyrene	ND (0.340)	0.9	1	10/06/11 23:54	CUJ0045	CJ10508
Naphthalene	ND (0.340)	54	1	10/06/11 23:54	CUJ0045	CJ10508
Phenanthrene	ND (0.340)	40	1	10/06/11 23:54	CUJ0045	CJ10508
Pyrene	ND (0.340)	13	1	10/06/11 23:54	CUJ0045	CJ10508

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	80 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	81 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	69 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	98 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-408 0ft-2ft  
Date Sampled: 10/03/11 14:48  
Percent Solids: 96

ESS Laboratory Work Order: 1110015  
ESS Laboratory Sample ID: 1110015-15  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	2.9 (2.0)	6010B	7	1	JP	10/07/11 18:35	2.54	100	CJ10517
Beryllium	0.40 (0.09)	6010B	0.4	1	JP	10/07/11 18:35	2.54	100	CJ10517

*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-408 0ft-2ft  
 Date Sampled: 10/03/11 14:48  
 Percent Solids: 96  
 Initial Volume: 15.3  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110015  
 ESS Laboratory Sample ID: 1110015-15  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: ML  
 Prepared: 10/5/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.340)	123	1	10/07/11 0:24	CUJ0045	CJ10508
Acenaphthene	ND (0.340)	43	1	10/07/11 0:24	CUJ0045	CJ10508
Acenaphthylene	ND (0.340)	23	1	10/07/11 0:24	CUJ0045	CJ10508
Anthracene	ND (0.340)	35	1	10/07/11 0:24	CUJ0045	CJ10508
Benzo(a)anthracene	ND (0.340)	0.9	1	10/07/11 0:24	CUJ0045	CJ10508
Benzo(a)pyrene	ND (0.171)	0.4	1	10/07/11 0:24	CUJ0045	CJ10508
Benzo(b)fluoranthene	ND (0.340)	0.9	1	10/07/11 0:24	CUJ0045	CJ10508
Benzo(g,h,i)perylene	ND (0.340)	0.8	1	10/07/11 0:24	CUJ0045	CJ10508
Benzo(k)fluoranthene	ND (0.340)	0.9	1	10/07/11 0:24	CUJ0045	CJ10508
Chrysene	ND (0.171)	0.4	1	10/07/11 0:24	CUJ0045	CJ10508
Dibenzo(a,h)Anthracene	ND (0.171)	0.4	1	10/07/11 0:24	CUJ0045	CJ10508
Fluoranthene	ND (0.340)	20	1	10/07/11 0:24	CUJ0045	CJ10508
Fluorene	ND (0.340)	28	1	10/07/11 0:24	CUJ0045	CJ10508
Indeno(1,2,3-cd)Pyrene	ND (0.340)	0.9	1	10/07/11 0:24	CUJ0045	CJ10508
Naphthalene	ND (0.340)	54	1	10/07/11 0:24	CUJ0045	CJ10508
Phenanthrene	ND (0.340)	40	1	10/07/11 0:24	CUJ0045	CJ10508
Pyrene	ND (0.340)	13	1	10/07/11 0:24	CUJ0045	CJ10508

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	77 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	80 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	67 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	100 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-409 0ft-2ft  
 Date Sampled: 10/03/11 14:55  
 Percent Solids: 95

ESS Laboratory Work Order: 1110015  
 ESS Laboratory Sample ID: 1110015-16  
 Sample Matrix: Soil  
 Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	2.8 (2.4)	6010B	7	1	JP	10/06/11 21:37	2.18	100	CJ10517
Beryllium	0.22 (0.10)	6010B	0.4	1	JP	10/06/11 21:37	2.18	100	CJ10517



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-409 0ft-2ft  
 Date Sampled: 10/03/11 14:55  
 Percent Solids: 95  
 Initial Volume: 14.4  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110015  
 ESS Laboratory Sample ID: 1110015-16  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: ML  
 Prepared: 10/5/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.365)	123	1	10/07/11 0:54	CUJ0045	CJ10508
Acenaphthene	ND (0.365)	43	1	10/07/11 0:54	CUJ0045	CJ10508
Acenaphthylene	ND (0.365)	23	1	10/07/11 0:54	CUJ0045	CJ10508
Anthracene	ND (0.365)	35	1	10/07/11 0:54	CUJ0045	CJ10508
Benzo(a)anthracene	ND (0.365)	0.9	1	10/07/11 0:54	CUJ0045	CJ10508
Benzo(a)pyrene	ND (0.183)	0.4	1	10/07/11 0:54	CUJ0045	CJ10508
Benzo(b)fluoranthene	ND (0.365)	0.9	1	10/07/11 0:54	CUJ0045	CJ10508
Benzo(g,h,i)perylene	ND (0.365)	0.8	1	10/07/11 0:54	CUJ0045	CJ10508
Benzo(k)fluoranthene	ND (0.365)	0.9	1	10/07/11 0:54	CUJ0045	CJ10508
Chrysene	ND (0.183)	0.4	1	10/07/11 0:54	CUJ0045	CJ10508
Dibenzo(a,h)Anthracene	ND (0.183)	0.4	1	10/07/11 0:54	CUJ0045	CJ10508
Fluoranthene	ND (0.365)	20	1	10/07/11 0:54	CUJ0045	CJ10508
Fluorene	ND (0.365)	28	1	10/07/11 0:54	CUJ0045	CJ10508
Indeno(1,2,3-cd)Pyrene	ND (0.365)	0.9	1	10/07/11 0:54	CUJ0045	CJ10508
Naphthalene	ND (0.365)	54	1	10/07/11 0:54	CUJ0045	CJ10508
Phenanthrene	ND (0.365)	40	1	10/07/11 0:54	CUJ0045	CJ10508
Pyrene	ND (0.365)	13	1	10/07/11 0:54	CUJ0045	CJ10508

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	81 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	85 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	74 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	102 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-410 0ft-2ft  
Date Sampled: 10/03/11 14:57  
Percent Solids: 95

ESS Laboratory Work Order: 1110015  
ESS Laboratory Sample ID: 1110015-17  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	ND (2.3)	6010B	7	1	JP	10/06/11 21:41	2.29	100	CJ10517
Beryllium	0.29 (0.10)	6010B	0.4	1	JP	10/06/11 21:41	2.29	100	CJ10517



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-410 0ft-2ft  
 Date Sampled: 10/03/11 14:57  
 Percent Solids: 95  
 Initial Volume: 14.5  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110015  
 ESS Laboratory Sample ID: 1110015-17  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: ML  
 Prepared: 10/5/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.363)	123	1	10/07/11 1:24	CUJ0045	CJ10508
Acenaphthene	ND (0.363)	43	1	10/07/11 1:24	CUJ0045	CJ10508
Acenaphthylene	ND (0.363)	23	1	10/07/11 1:24	CUJ0045	CJ10508
Anthracene	ND (0.363)	35	1	10/07/11 1:24	CUJ0045	CJ10508
Benzo(a)anthracene	ND (0.363)	0.9	1	10/07/11 1:24	CUJ0045	CJ10508
Benzo(a)pyrene	ND (0.182)	0.4	1	10/07/11 1:24	CUJ0045	CJ10508
Benzo(b)fluoranthene	ND (0.363)	0.9	1	10/07/11 1:24	CUJ0045	CJ10508
Benzo(g,h,i)perylene	ND (0.363)	0.8	1	10/07/11 1:24	CUJ0045	CJ10508
Benzo(k)fluoranthene	ND (0.363)	0.9	1	10/07/11 1:24	CUJ0045	CJ10508
Chrysene	ND (0.182)	0.4	1	10/07/11 1:24	CUJ0045	CJ10508
Dibenzo(a,h)Anthracene	ND (0.182)	0.4	1	10/07/11 1:24	CUJ0045	CJ10508
Fluoranthene	ND (0.363)	20	1	10/07/11 1:24	CUJ0045	CJ10508
Fluorene	ND (0.363)	28	1	10/07/11 1:24	CUJ0045	CJ10508
Indeno(1,2,3-cd)Pyrene	ND (0.363)	0.9	1	10/07/11 1:24	CUJ0045	CJ10508
Naphthalene	ND (0.363)	54	1	10/07/11 1:24	CUJ0045	CJ10508
Phenanthrene	ND (0.363)	40	1	10/07/11 1:24	CUJ0045	CJ10508
Pyrene	ND (0.363)	13	1	10/07/11 1:24	CUJ0045	CJ10508

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: 1,2-Dichlorobenzene-d4	79 %		30-130
Surrogate: 2-Fluorobiphenyl	79 %		30-130
Surrogate: Nitrobenzene-d5	70 %		30-130
Surrogate: p-Terphenyl-d14	103 %		30-130





*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-411 0ft-2ft  
Date Sampled: 10/03/11 15:03  
Percent Solids: 94

ESS Laboratory Work Order: 1110015  
ESS Laboratory Sample ID: 1110015-18  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	ND (2.2)	6010B	7	1	JP	10/06/11 21:45	2.44	100	CJ10517
Beryllium	0.31 (0.09)	6010B	0.4	1	JP	10/06/11 21:45	2.44	100	CJ10517



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-411 0ft-2ft  
 Date Sampled: 10/03/11 15:03  
 Percent Solids: 94  
 Initial Volume: 14.3  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110015  
 ESS Laboratory Sample ID: 1110015-18  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/5/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.372)	123	1	10/06/11 11:23	CUJ0031	CJ10508
Acenaphthene	ND (0.372)	43	1	10/06/11 11:23	CUJ0031	CJ10508
Acenaphthylene	ND (0.372)	23	1	10/06/11 11:23	CUJ0031	CJ10508
Anthracene	ND (0.372)	35	1	10/06/11 11:23	CUJ0031	CJ10508
Benzo(a)anthracene	ND (0.372)	0.9	1	10/06/11 11:23	CUJ0031	CJ10508
Benzo(a)pyrene	ND (0.186)	0.4	1	10/06/11 11:23	CUJ0031	CJ10508
Benzo(b)fluoranthene	ND (0.372)	0.9	1	10/06/11 11:23	CUJ0031	CJ10508
Benzo(g,h,i)perylene	ND (0.372)	0.8	1	10/06/11 11:23	CUJ0031	CJ10508
Benzo(k)fluoranthene	ND (0.372)	0.9	1	10/06/11 11:23	CUJ0031	CJ10508
Chrysene	ND (0.186)	0.4	1	10/06/11 11:23	CUJ0031	CJ10508
Dibenzo(a,h)Anthracene	ND (0.186)	0.4	1	10/06/11 11:23	CUJ0031	CJ10508
Fluoranthene	ND (0.372)	20	1	10/06/11 11:23	CUJ0031	CJ10508
Fluorene	ND (0.372)	28	1	10/06/11 11:23	CUJ0031	CJ10508
Indeno(1,2,3-cd)Pyrene	ND (0.372)	0.9	1	10/06/11 11:23	CUJ0031	CJ10508
Naphthalene	ND (0.372)	54	1	10/06/11 11:23	CUJ0031	CJ10508
Phenanthrene	ND (0.372)	40	1	10/06/11 11:23	CUJ0031	CJ10508
Pyrene	ND (0.372)	13	1	10/06/11 11:23	CUJ0031	CJ10508

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	75 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	88 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	77 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	99 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-412 0ft-2ft  
Date Sampled: 10/03/11 15:10  
Percent Solids: 95

ESS Laboratory Work Order: 1110015  
ESS Laboratory Sample ID: 1110015-19  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	ND (2.6)	6010B	7	1	JP	10/06/11 21:49	2.03	100	CJ10517
Beryllium	0.28 (0.11)	6010B	0.4	1	JP	10/06/11 21:49	2.03	100	CJ10517



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-412 0ft-2ft  
 Date Sampled: 10/03/11 15:10  
 Percent Solids: 95  
 Initial Volume: 14.4  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110015  
 ESS Laboratory Sample ID: 1110015-19  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: ML  
 Prepared: 10/5/11 18:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.365)	123	1	10/07/11 1:54	CUJ0045	CJ10514
Acenaphthene	ND (0.365)	43	1	10/07/11 1:54	CUJ0045	CJ10514
Acenaphthylene	ND (0.365)	23	1	10/07/11 1:54	CUJ0045	CJ10514
Anthracene	ND (0.365)	35	1	10/07/11 1:54	CUJ0045	CJ10514
Benzo(a)anthracene	ND (0.365)	0.9	1	10/07/11 1:54	CUJ0045	CJ10514
Benzo(a)pyrene	ND (0.183)	0.4	1	10/07/11 1:54	CUJ0045	CJ10514
Benzo(b)fluoranthene	ND (0.365)	0.9	1	10/07/11 1:54	CUJ0045	CJ10514
Benzo(g,h,i)perylene	ND (0.365)	0.8	1	10/07/11 1:54	CUJ0045	CJ10514
Benzo(k)fluoranthene	ND (0.365)	0.9	1	10/07/11 1:54	CUJ0045	CJ10514
Chrysene	ND (0.183)	0.4	1	10/07/11 1:54	CUJ0045	CJ10514
Dibenzo(a,h)Anthracene	ND (0.183)	0.4	1	10/07/11 1:54	CUJ0045	CJ10514
Fluoranthene	ND (0.365)	20	1	10/07/11 1:54	CUJ0045	CJ10514
Fluorene	ND (0.365)	28	1	10/07/11 1:54	CUJ0045	CJ10514
Indeno(1,2,3-cd)Pyrene	ND (0.365)	0.9	1	10/07/11 1:54	CUJ0045	CJ10514
Naphthalene	ND (0.365)	54	1	10/07/11 1:54	CUJ0045	CJ10514
Phenanthrene	ND (0.365)	40	1	10/07/11 1:54	CUJ0045	CJ10514
Pyrene	ND (0.365)	13	1	10/07/11 1:54	CUJ0045	CJ10514

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: 1,2-Dichlorobenzene-d4	88 %		30-130
Surrogate: 2-Fluorobiphenyl	88 %		30-130
Surrogate: Nitrobenzene-d5	73 %		30-130
Surrogate: p-Terphenyl-d14	107 %		30-130

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110015

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
<b>3050B/6000/7000 Total Metals</b>										
<b>Batch CJ10517 - 3050B</b>										
<b>Blank</b>										
Antimony	ND	5.0	mg/kg wet							
Arsenic	ND	2.5	mg/kg wet							
Beryllium	ND	0.10	mg/kg wet							
Cadmium	ND	0.50	mg/kg wet							
Chromium	ND	1.0	mg/kg wet							
Copper	ND	2.5	mg/kg wet							
Lead	ND	5.0	mg/kg wet							
Nickel	ND	2.5	mg/kg wet							
Selenium	ND	5.0	mg/kg wet							
Thallium	ND	0.25	mg/kg wet							
Zinc	ND	2.5	mg/kg wet							
<b>LCS</b>										
Arsenic	89.6	8.8	mg/kg wet	109.0		82	80-120			
Beryllium	74.2	0.37	mg/kg wet	88.20		84	80-120			
Cadmium	64.2	1.76	mg/kg wet	80.20		80	80-120			
Chromium	97.7	3.5	mg/kg wet	117.0		83	80-120			
Copper	97.7	8.8	mg/kg wet	117.0		83	80-120			
Lead	66.6	17.6	mg/kg wet	76.20		87	80-120			
Nickel	58.2	8.8	mg/kg wet	71.20		82	80-120			
Selenium	99.2	17.6	mg/kg wet	127.0		78	80-120			B-
Thallium	264	43.4	mg/kg wet	266.0		99	80-120			
<b>LCS Dup</b>										
Arsenic	90.8	8.8	mg/kg wet	109.0		83	80-120	1	20	
Beryllium	74.2	0.37	mg/kg wet	88.20		84	80-120	0.04	20	
Cadmium	65.3	1.76	mg/kg wet	80.20		81	80-120	2	20	
Chromium	97.7	3.5	mg/kg wet	117.0		84	80-120	0.09	20	
Copper	98.2	8.8	mg/kg wet	117.0		84	80-120	0.5	20	
Lead	64.2	17.6	mg/kg wet	76.20		84	80-120	4	20	
Nickel	58.1	8.8	mg/kg wet	71.20		82	80-120	0.2	20	
Selenium	106	17.6	mg/kg wet	127.0		84	80-120	7	20	
Thallium	251	43.4	mg/kg wet	266.0		94	80-120	5	20	
<b>Duplicate Source: 1110015-10</b>										
Arsenic	1.15	4.1	mg/kg dry		1.52			28	35	
Beryllium	0.530	0.17	mg/kg dry		0.511			4	35	
<b>Duplicate Source: 1110015-19</b>										
Arsenic	0.555	2.2	mg/kg dry		0.457			19	35	
Beryllium	0.298	0.09	mg/kg dry		0.283			5	35	
<b>Matrix Spike Source: 1110015-10</b>										
Arsenic	19.8	5.2	mg/kg dry	25.84	1.52	71	75-125			M-
Beryllium	2.61	0.22	mg/kg dry	2.584	0.511	81	75-125			
<b>Matrix Spike Source: 1110015-19</b>										
Arsenic	17.2	2.4	mg/kg dry	24.14	0.457	69	75-125			M-
Beryllium	2.18	0.10	mg/kg dry	2.414	0.283	79	75-125			



CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110015

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
---------	--------	-----	-------	-------------	---------------	------	-------------	-----	-----------	-----------

3050B/6000/7000 Total Metals

**Batch CJ10518 - 7471A**

<b>Blank</b>										
Mercury	ND	0.033	mg/kg wet							
<b>LCS</b>										
Mercury	9.67	0.811	mg/kg wet	8.610		112	80-120			
<b>LCS Dup</b>										
Mercury	10.2	0.750	mg/kg wet	8.610		118	80-120	5	20	
<b>Duplicate Source: 1110015-04</b>										
Mercury	ND	0.031	mg/kg dry		0.0096			200	35	
<b>Matrix Spike Source: 1110015-04</b>										
Mercury	0.211	0.032	mg/kg dry	0.1914	0.0096	105	75-125			

**Batch CJ11223 - 3050B**

<b>Blank</b>										
Silver	ND	0.50	mg/kg wet							
<b>LCS</b>										
Silver	39.5	1.97	mg/kg wet	41.10		96	80-120			
<b>LCS Dup</b>										
Silver	40.6	1.83	mg/kg wet	41.10		99	80-120	3	20	

8270C Polynuclear Aromatic Hydrocarbons

**Batch CJ10508 - 3546**

<b>Blank</b>										
2-Methylnaphthalene	ND	0.333	mg/kg wet							
Acenaphthene	ND	0.333	mg/kg wet							
Acenaphthylene	ND	0.333	mg/kg wet							
Anthracene	ND	0.333	mg/kg wet							
Benzo(a)anthracene	ND	0.333	mg/kg wet							
Benzo(a)pyrene	ND	0.167	mg/kg wet							
Benzo(b)fluoranthene	ND	0.333	mg/kg wet							
Benzo(g,h,i)perylene	ND	0.333	mg/kg wet							
Benzo(k)fluoranthene	ND	0.333	mg/kg wet							
Chrysene	ND	0.167	mg/kg wet							
Dibenzo(a,h)Anthracene	ND	0.167	mg/kg wet							
Fluoranthene	ND	0.333	mg/kg wet							
Fluorene	ND	0.333	mg/kg wet							
Indeno(1,2,3-cd)Pyrene	ND	0.333	mg/kg wet							
Naphthalene	ND	0.333	mg/kg wet							
Phenanthrene	ND	0.333	mg/kg wet							
Pyrene	ND	0.333	mg/kg wet							
Surrogate: 1,2-Dichlorobenzene-d4	2.87		mg/kg wet	3.333		86	30-130			
Surrogate: 2-Fluorobiphenyl	3.09		mg/kg wet	3.333		93	30-130			
Surrogate: Nitrobenzene-d5	2.68		mg/kg wet	3.333		80	30-130			
Surrogate: p-Terphenyl-d14	3.32		mg/kg wet	3.333		100	30-130			
<b>LCS</b>										



CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110015

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
---------	--------	-----	-------	-------------	---------------	------	-------------	-----	-----------	-----------

8270C Polynuclear Aromatic Hydrocarbons

**Batch CJ10508 - 3546**

2-Methylnaphthalene	2.59	0.333	mg/kg wet	3.333		78	40-140			
Acenaphthene	2.44	0.333	mg/kg wet	3.333		73	40-140			
Acenaphthylene	2.72	0.333	mg/kg wet	3.333		82	40-140			
Anthracene	2.67	0.333	mg/kg wet	3.333		80	40-140			
Benzo(a)anthracene	2.72	0.333	mg/kg wet	3.333		82	40-140			
Benzo(a)pyrene	2.75	0.167	mg/kg wet	3.333		82	40-140			
Benzo(b)fluoranthene	2.79	0.333	mg/kg wet	3.333		84	40-140			
Benzo(g,h,i)perylene	2.84	0.333	mg/kg wet	3.333		85	40-140			
Benzo(k)fluoranthene	2.89	0.333	mg/kg wet	3.333		87	40-140			
Chrysene	2.68	0.167	mg/kg wet	3.333		80	40-140			
Dibenzo(a,h)Anthracene	2.94	0.167	mg/kg wet	3.333		88	40-140			
Fluoranthene	2.80	0.333	mg/kg wet	3.333		84	40-140			
Fluorene	2.45	0.333	mg/kg wet	3.333		74	40-140			
Indeno(1,2,3-cd)Pyrene	2.88	0.333	mg/kg wet	3.333		86	40-140			
Naphthalene	2.51	0.333	mg/kg wet	3.333		75	40-140			
Phenanthrene	2.67	0.333	mg/kg wet	3.333		80	40-140			
Pyrene	2.73	0.333	mg/kg wet	3.333		82	40-140			
Surrogate: 1,2-Dichlorobenzene-d4	2.57		mg/kg wet	3.333		77	30-130			
Surrogate: 2-Fluorobiphenyl	2.97		mg/kg wet	3.333		89	30-130			
Surrogate: Nitrobenzene-d5	2.55		mg/kg wet	3.333		77	30-130			
Surrogate: p-Terphenyl-d14	3.04		mg/kg wet	3.333		91	30-130			

**LCS Dup**

2-Methylnaphthalene	2.72	0.333	mg/kg wet	3.333		82	40-140	5	30	
Acenaphthene	2.51	0.333	mg/kg wet	3.333		75	40-140	3	30	
Acenaphthylene	2.76	0.333	mg/kg wet	3.333		83	40-140	1	30	
Anthracene	2.75	0.333	mg/kg wet	3.333		83	40-140	3	30	
Benzo(a)anthracene	2.81	0.333	mg/kg wet	3.333		84	40-140	3	30	
Benzo(a)pyrene	2.80	0.167	mg/kg wet	3.333		84	40-140	2	30	
Benzo(b)fluoranthene	3.00	0.333	mg/kg wet	3.333		90	40-140	7	30	
Benzo(g,h,i)perylene	2.96	0.333	mg/kg wet	3.333		89	40-140	4	30	
Benzo(k)fluoranthene	2.82	0.333	mg/kg wet	3.333		85	40-140	2	30	
Chrysene	2.72	0.167	mg/kg wet	3.333		81	40-140	1	30	
Dibenzo(a,h)Anthracene	3.05	0.167	mg/kg wet	3.333		91	40-140	3	30	
Fluoranthene	2.89	0.333	mg/kg wet	3.333		87	40-140	3	30	
Fluorene	2.55	0.333	mg/kg wet	3.333		76	40-140	4	30	
Indeno(1,2,3-cd)Pyrene	3.00	0.333	mg/kg wet	3.333		90	40-140	4	30	
Naphthalene	2.56	0.333	mg/kg wet	3.333		77	40-140	2	30	
Phenanthrene	2.68	0.333	mg/kg wet	3.333		80	40-140	0.4	30	
Pyrene	2.72	0.333	mg/kg wet	3.333		82	40-140	0.4	30	
Surrogate: 1,2-Dichlorobenzene-d4	2.85		mg/kg wet	3.333		85	30-130			
Surrogate: 2-Fluorobiphenyl	2.98		mg/kg wet	3.333		89	30-130			
Surrogate: Nitrobenzene-d5	2.62		mg/kg wet	3.333		79	30-130			
Surrogate: p-Terphenyl-d14	3.22		mg/kg wet	3.333		97	30-130			

**Matrix Spike Source: 1110015-18**

2-Methylnaphthalene	2.37	0.364	mg/kg dry	3.643	ND	65	40-140			
---------------------	------	-------	-----------	-------	----	----	--------	--	--	--

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110015

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
---------	--------	-----	-------	-------------	---------------	------	-------------	-----	-----------	-----------

8270C Polynuclear Aromatic Hydrocarbons

**Batch CJ10508 - 3546**

Acenaphthene	2.20	0.364	mg/kg dry	3.643	ND	60	40-140			
Acenaphthylene	2.42	0.364	mg/kg dry	3.643	ND	66	40-140			
Anthracene	2.50	0.364	mg/kg dry	3.643	ND	69	40-140			
Benzo(a)anthracene	2.38	0.364	mg/kg dry	3.643	ND	65	40-140			
Benzo(a)pyrene	2.37	0.183	mg/kg dry	3.643	ND	65	40-140			
Benzo(b)fluoranthene	2.65	0.364	mg/kg dry	3.643	ND	73	40-140			
Benzo(g,h,i)perylene	2.38	0.364	mg/kg dry	3.643	ND	65	40-140			
Benzo(k)fluoranthene	2.15	0.364	mg/kg dry	3.643	ND	59	40-140			
Chrysene	2.35	0.183	mg/kg dry	3.643	ND	64	40-140			
Dibenzo(a,h)Anthracene	2.50	0.183	mg/kg dry	3.643	ND	69	40-140			
Fluoranthene	2.68	0.364	mg/kg dry	3.643	ND	73	40-140			
Fluorene	2.37	0.364	mg/kg dry	3.643	ND	65	40-140			
Indeno(1,2,3-cd)Pyrene	2.47	0.364	mg/kg dry	3.643	ND	68	40-140			
Naphthalene	2.18	0.364	mg/kg dry	3.643	ND	60	40-140			
Phenanthrene	2.61	0.364	mg/kg dry	3.643	ND	72	40-140			
Pyrene	2.42	0.364	mg/kg dry	3.643	ND	66	40-140			
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	2.38		mg/kg dry	3.643		65	30-130			
<i>Surrogate: 2-Fluorobiphenyl</i>	2.48		mg/kg dry	3.643		68	30-130			
<i>Surrogate: Nitrobenzene-d5</i>	2.54		mg/kg dry	3.643		70	30-130			
<i>Surrogate: p-Terphenyl-d14</i>	2.71		mg/kg dry	3.643		74	30-130			

**Matrix Spike Dup Source: 1110015-18**

2-Methylnaphthalene	2.85	0.366	mg/kg dry	3.668	ND	78	40-140	18	30	
Acenaphthene	2.70	0.366	mg/kg dry	3.668	ND	74	40-140	20	30	
Acenaphthylene	2.97	0.366	mg/kg dry	3.668	ND	81	40-140	20	30	
Anthracene	3.01	0.366	mg/kg dry	3.668	ND	82	40-140	19	30	
Benzo(a)anthracene	2.98	0.366	mg/kg dry	3.668	ND	81	40-140	22	30	
Benzo(a)pyrene	2.94	0.184	mg/kg dry	3.668	ND	80	40-140	22	30	
Benzo(b)fluoranthene	3.27	0.366	mg/kg dry	3.668	ND	89	40-140	21	30	
Benzo(g,h,i)perylene	3.19	0.366	mg/kg dry	3.668	ND	87	40-140	29	30	
Benzo(k)fluoranthene	2.63	0.366	mg/kg dry	3.668	ND	72	40-140	20	30	
Chrysene	2.94	0.184	mg/kg dry	3.668	ND	80	40-140	22	30	
Dibenzo(a,h)Anthracene	3.26	0.184	mg/kg dry	3.668	ND	89	40-140	26	30	
Fluoranthene	3.12	0.366	mg/kg dry	3.668	ND	85	40-140	15	30	
Fluorene	2.78	0.366	mg/kg dry	3.668	ND	76	40-140	16	30	
Indeno(1,2,3-cd)Pyrene	3.21	0.366	mg/kg dry	3.668	ND	88	40-140	26	30	
Naphthalene	2.71	0.366	mg/kg dry	3.668	ND	74	40-140	22	30	
Phenanthrene	2.99	0.366	mg/kg dry	3.668	ND	82	40-140	14	30	
Pyrene	3.02	0.366	mg/kg dry	3.668	ND	82	40-140	22	30	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	2.70		mg/kg dry	3.668		74	30-130			
<i>Surrogate: 2-Fluorobiphenyl</i>	3.23		mg/kg dry	3.668		88	30-130			
<i>Surrogate: Nitrobenzene-d5</i>	2.74		mg/kg dry	3.668		75	30-130			
<i>Surrogate: p-Terphenyl-d14</i>	3.49		mg/kg dry	3.668		95	30-130			





*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110015

**Notes and Definitions**

- U Analyte included in the analysis, but not detected
- SM Surrogate recovery(ies) outside of criteria due to matrix (UCM/coelution/matrix is present) (SM).
- M- Matrix Spike recovery is below lower control limit (M-).
- IM Internal Standard(s) outside of criteria due to matrix (UCM/coelution is present) (IM).
- D Diluted.
- B- Blank Spike recovery is below lower control limit (B-).
- ND Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- MDL Method Detection Limit
- MRL Method Reporting Limit
- LOD Limit of Detection
- LOQ Limit of Quantitation
- DL Detection Limit
- I/V Initial Volume
- F/V Final Volume
- § Subcontracted analysis; see attached report
- 1 Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
- 2 Range result excludes concentrations of target analytes eluting in that range.
- 3 Range result excludes the concentration of the C9-C10 aromatic range.
- Avg Results reported as a mathematical average.
- NR No Recovery
- [CALC] Calculated Analyte



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110015

**ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS**

**ENVIRONMENTAL**

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)  
A2LA Accredited: Testing Cert# 2864.01  
<http://www.a2la.org/scopepdf/2864-01.pdf>

Rhode Island Potable and Non Potable Water: LAI00179  
<http://www.health.ri.gov/labs/waterlabs-instate.php>

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750  
[http://www.ct.gov/dph/lib/dph/environmental\\_health/environmental\\_laboratories/pdf/out\\_state.pdf](http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/out_state.pdf)

Maine Potable and Non Potable Water: RI0002  
[http://www.maine.gov/dep/blwq/topic/vessel/lab\\_list.pdf](http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf)

Massachusetts Potable and Non Potable Water: M-RI002  
<http://public.dep.state.ma.us/labcert/labcert.aspx>

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424  
<http://www4.egov.nh.gov/des/nhelap/namesearch.asp>

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313  
<http://www.wadsworth.org/labcert/elap/comm.html>

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301  
[http://www.mde.state.md.us/assets/document/WSP\\_labs-2009apr20.pdf](http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf)

**CHEMISTRY**

A2LA Accredited: Testing Cert # 2864.01  
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)  
<http://www.A2LA.org/dirsearchnew/newsearch.cfm>

CPSC ID# 1141  
Lead Paint, Lead in Children's Metals Jewelry  
<http://www.cpsc.gov/cgi-bin/labapplist.aspx>

**Sample and Cooler Receipt Checklist**

Client: Vanasse Hangen Brustlin, Inc.  
Client Project ID: \_\_\_\_\_  
Shipped/Delivered Via: Client

ESS Project ID: 11100015  
Date Project Due: 10/10/11  
Days For Project: 5 Day

**Items to be checked upon receipt:**

1. Air Bill Manifest Present?

\* No

Air No.:

2. Were Custody Seals Present?

No

3. Were Custody Seals Intact?

N/A

4. Is Radiation count < 100 CPM?

Yes

5. Is a cooler present?

Yes

Cooler Temp: 4.5

Iced With: Ice

6. Was COC included with samples?

Yes

7. Was COC signed and dated by client?

Yes

8. Does the COC match the sample

Yes

9. Is COC complete and correct?

Yes

10. Are the samples properly preserved?

Yes

11. Proper sample containers used?

Yes

12. Any air bubbles in the VOA vials?

N/A

13. Holding times exceeded?

No

14. Sufficient sample volumes?

Yes

15. Any Subcontracting needed?

No

16. Are ESS labels on correct containers?

Yes  No

17. Were samples received intact?

Yes  No

ESS Sample IDs: \_\_\_\_\_

Sub Lab: \_\_\_\_\_

Analysis: \_\_\_\_\_

TAT: \_\_\_\_\_

18. Was there need to call project manager to discuss status? If yes, please explain.

Who was called?: \_\_\_\_\_

By whom? \_\_\_\_\_

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	4 oz Soil Jar	1	NP
2	Yes	4 oz Soil Jar	1	NP
3	Yes	4 oz Soil Jar	1	NP
4	Yes	4 oz Soil Jar	1	NP
5	Yes	4 oz Soil Jar	1	NP
6	Yes	4 oz Soil Jar	1	NP
7	Yes	4 oz Soil Jar	1	NP
8	Yes	4 oz Soil Jar	1	NP
9	Yes	4 oz Soil Jar	1	NP
10	Yes	4 oz Soil Jar	1	NP
11	Yes	4 oz Soil Jar	1	NP
12	Yes	4 oz Soil Jar	1	NP
13	Yes	4 oz Soil Jar	1	NP
14	Yes	4 oz Soil Jar	1	NP
15	Yes	4 oz Soil Jar	1	NP
16	Yes	4 oz Soil Jar	1	NP
17	Yes	4 oz Soil Jar	1	NP
18	Yes	4 oz Soil Jar	1	NP
19	Yes	4 oz Soil Jar	1	NP

Completed By: MK

Date/Time: 10/3/11

Reviewed By: 88

Date/Time: 10/3/11

# ESS Laboratory

Division of Thielsch Engineering, Inc.  
 185 Frances Avenue, Cranston, RI 02910-2211  
 Tel. (401) 461-7181 Fax (401) 461-4486  
 www.esslaboratory.com

# CHAIN OF CUSTODY

Page 5 of 6  
 1 of 2  
 ESS LAB PROJECT ID 103111

Turn Time 1 Standard Other \_\_\_\_\_  
 If faster than 5 days, prior approval by laboratory is required # \_\_\_\_\_  
 State where samples were collected from:  
 MA RI CT NH NJ NY ME Other \_\_\_\_\_  
 Is this project for any of the following: USACE Other NA  
 MA-MCP Navy

Reporting Limits  
 Electronic Deliverable Yes ✓ No \_\_\_\_\_  
 Format: Excel \_\_\_\_\_ Access \_\_\_\_\_ PDF \_\_\_\_\_ Other \_\_\_\_\_

Co. Name VHB  
 Contact Person Joshua Klement  
 City Providence State RI Zip 02903  
 Telephone # \_\_\_\_\_ Fax # \_\_\_\_\_  
 Project Name (20 Char. or less) Trestle Trail  
 Address 10 Dorrance St, Suite 400  
 PO# \_\_\_\_\_ Email Address \_\_\_\_\_

ESS LAB Sample #	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Pres Code	Number of Containers	Type of Containers	Write Required Analysis
01	10-3-11	11:50	X		S	SB-201 0-2-	1	1	AG	Total Beryllium
02		11:40				SB-202 0-2-				Total Arsenic
03		12:00				SB-203 0-2-				PAHS
04		11:54				SB-204 0-2-				PAHS Metals
05		13:27				SB-301 0-2-				
06		13:35				SB-302 0-2-				
07		13:36				SB-303 0-2-				
08		14:10				SB-401 0-2-				
09		14:07				SB-402 0-2-				
10		14:20				SB-403 0-2-				

Container Type: P-Poly G-Glass S-Sterile V-VOA Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters  
 Cooler Present  Yes  No Internal Use Only  
 Seals Intact  Yes  No NA:  Pickup  Technicians \_\_\_\_\_  
 Cooler Temp: 4.5 ice  
 Preservation Code 1-NP, 2-HCl, 3-H<sub>2</sub>SO<sub>4</sub>, 4-HNO<sub>3</sub>, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-\_\_\_\_\_  
 Sampled by: SGK/CM  
 Comments: \_\_\_\_\_  
 Relinquished by: (Signature) Joshua Klement Date/Time 10/3/11 16:28  
 Received by: (Signature) \_\_\_\_\_ Date/Time \_\_\_\_\_  
 Relinquished by: (Signature) \_\_\_\_\_ Date/Time \_\_\_\_\_  
 Received by: (Signature) \_\_\_\_\_ Date/Time \_\_\_\_\_

# ESS Laboratory

Division of Thielsch Engineering, Inc.  
 185 Frances Avenue, Cranston, RI 02910-2211  
 Tel. (401) 461-7181 Fax (401) 461-4486  
 www.esslaboratory.com

# CHAIN OF CUSTODY

Page 6 of 6  
 2 of 2  
 10/31/11

Turn Time: 1 Standard Other \_\_\_\_\_  
 If faster than 5 days, prior approval by laboratory is required # \_\_\_\_\_  
 State where samples were collected from:  
 MA RI CT NH NJ NY ME Other \_\_\_\_\_  
 Is this project for any of the following: USACE Other NA  
 MA-MCP Navy

Reporting Limits: \_\_\_\_\_  
 Electronic Deliverable: RIDEM RDEK 110015  
 Format: Excel \_\_\_ Access \_\_\_ PDF \_\_\_ Other \_\_\_  
 Yes \_\_\_ No \_\_\_

Co. Name	Project #	Project Name (20 Char. or less)	Address	City	State	Zip	PO#	ESS LAB Sample #	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Res Code	Type of Containers	Number of Containers	Type of Containers	Write Required Analysis
VHB	7201611	Trestle Trail																	
Contact Person	Joshua Klement 10 Dorrence St, Suite 400																		
City	Providence RI																		
Telephone #	401-272-8100																		
ESS LAB Sample #	11	10-3-11	14:17	X	S	SB-404	0-2-		1-1-6										PAHs
	12		14:27			SB-405	0-2-												Total Arsenic
	13		14:39			SB-406	0-2-												Total Beryllium
	14		14:48			SB-407	0-2-												
	15		14:48			SB-408	0-2-												
	16		14:55			SB-409	0-2-												
	17		14:57			SB-410	0-2-												
	18		15:03			SB-411	0-2-												
	19	X	15:10	X	X	SB-412	0-2-												

Container Type: P-Poly G-Glass S-Sterile V-VOA Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present: Yes X No \_\_\_ Internal Use Only

Seals Intact: Yes \_\_\_ No NA [ ] Pickup

Cooler Temp: 9.5 ice [ ] Technicians \_\_\_

Preservation Code: 1-NP, 2-HCl, 3-H<sub>2</sub>SO<sub>4</sub>, 4-HNO<sub>3</sub>, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-\_\_\_

Sampled by: SGK/CM

Comments: \_\_\_\_\_

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
<u>Joshua Klement</u>	<u>10-3-11 16:28</u>	<u>Maverick</u>	<u>10/31/11 16:28</u>



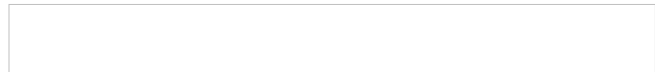
*CERTIFICATE OF ANALYSIS*

Josh Klement  
 Vanasse Hangen Brustlin, Inc.  
 10 Dorrance Street, Suite 400  
 Providence, RI 02903

**RE: Trestle Trail (72016.1)**  
**ESS Laboratory Work Order Number: 1110025**

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard  
 Laboratory Director



**Analytical Summary**

The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC and A2LA, except where noted within this project narrative.



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110025

**SAMPLE RECEIPT**

The following samples were received on October 04, 2011 for the analyses specified on the enclosed Chain of Custody Record.

<b>Lab Number</b>	<b>SampleName</b>	<b>Matrix</b>	<b>Analysis</b>
1110025-01	SB-501 0ft-2ft	Soil	6010B, 8270C
1110025-02	SB-502 0ft-2ft	Soil	6010B, 8270C
1110025-03	SB-503 0ft-2ft	Soil	6010B, 8270C
1110025-04	SB-504 0ft-2ft	Soil	6010B, 8270C
1110025-05	SB-506 0ft-2ft	Soil	6010B, 8270C
1110025-06	SB-507 0ft-2ft	Soil	6010B, 8270C
1110025-07	SB-508 0ft-2ft	Soil	6010B, 8270C
1110025-08	SB-509 0ft-2ft	Soil	6010B, 8270C



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110025

**PROJECT NARRATIVE**

**3050B/6000/7000 Total Metals**

CJ10619-MS1 [Due to high target values, matrix spike compound\(s\) is masked \(MT\).](#)  
Arsenic (59% @ 75-125%)

**8270C Polynuclear Aromatic Hydrocarbons**

CJ10514-MSD1 [Internal Standard\(s\) outside of criteria \(I\).](#)  
Acenaphthene-d10 (49% @ 50-200%)

**No other observations noted.**

**End of Project Narrative.**

**DATA USABILITY LINKS**

[Definitions of Quality Control Parameters](#)

[Semivolatile Organics Internal Standard Information](#)

[Semivolatile Organics Surrogate Information](#)

[Volatile Organics Internal Standard Information](#)

[Volatile Organics Surrogate Information](#)

[EPH and VPH Alkane Lists](#)





*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-501 0ft-2ft  
Date Sampled: 10/04/11 10:29  
Percent Solids: 90

ESS Laboratory Work Order: 1110025  
ESS Laboratory Sample ID: 1110025-01  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	2.5 (2.4)	6010B	7	1	JP	10/07/11 0:19	2.34	100	CJ10619



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-501 0ft-2ft  
 Date Sampled: 10/04/11 10:29  
 Percent Solids: 90  
 Initial Volume: 15.3  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110025  
 ESS Laboratory Sample ID: 1110025-01  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: ML  
 Prepared: 10/5/11 18:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.363)	123	1	10/07/11 2:24	CUJ0045	CJ10514
Acenaphthene	ND (0.363)	43	1	10/07/11 2:24	CUJ0045	CJ10514
Acenaphthylene	ND (0.363)	23	1	10/07/11 2:24	CUJ0045	CJ10514
Anthracene	ND (0.363)	35	1	10/07/11 2:24	CUJ0045	CJ10514
Benzo(a)anthracene	ND (0.363)	0.9	1	10/07/11 2:24	CUJ0045	CJ10514
Benzo(a)pyrene	ND (0.182)	0.4	1	10/07/11 2:24	CUJ0045	CJ10514
Benzo(b)fluoranthene	ND (0.363)	0.9	1	10/07/11 2:24	CUJ0045	CJ10514
Benzo(g,h,i)perylene	ND (0.363)	0.8	1	10/07/11 2:24	CUJ0045	CJ10514
Benzo(k)fluoranthene	ND (0.363)	0.9	1	10/07/11 2:24	CUJ0045	CJ10514
Chrysene	ND (0.182)	0.4	1	10/07/11 2:24	CUJ0045	CJ10514
Dibenzo(a,h)Anthracene	ND (0.182)	0.4	1	10/07/11 2:24	CUJ0045	CJ10514
Fluoranthene	ND (0.363)	20	1	10/07/11 2:24	CUJ0045	CJ10514
Fluorene	ND (0.363)	28	1	10/07/11 2:24	CUJ0045	CJ10514
Indeno(1,2,3-cd)Pyrene	ND (0.363)	0.9	1	10/07/11 2:24	CUJ0045	CJ10514
Naphthalene	ND (0.363)	54	1	10/07/11 2:24	CUJ0045	CJ10514
Phenanthrene	ND (0.363)	40	1	10/07/11 2:24	CUJ0045	CJ10514
Pyrene	ND (0.363)	13	1	10/07/11 2:24	CUJ0045	CJ10514

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: 1,2-Dichlorobenzene-d4	81 %		30-130
Surrogate: 2-Fluorobiphenyl	86 %		30-130
Surrogate: Nitrobenzene-d5	73 %		30-130
Surrogate: p-Terphenyl-d14	103 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-502 0ft-2ft  
Date Sampled: 10/04/11 10:37  
Percent Solids: 92

ESS Laboratory Work Order: 1110025  
ESS Laboratory Sample ID: 1110025-02  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	ND (2.5)	6010B	7	1	JP	10/07/11 0:23	2.13	100	CJ10619



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-502 0ft-2ft  
Date Sampled: 10/04/11 10:37  
Percent Solids: 92  
Initial Volume: 14.5  
Final Volume: 0.5  
Extraction Method: 3546

ESS Laboratory Work Order: 1110025  
ESS Laboratory Sample ID: 1110025-02  
Sample Matrix: Soil  
Units: mg/kg dry  
Analyst: IBM  
Prepared: 10/5/11 18:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.374)	123	1	10/07/11 15:41	CUJ0041	CJ10514
Acenaphthene	ND (0.374)	43	1	10/07/11 15:41	CUJ0041	CJ10514
Acenaphthylene	ND (0.374)	23	1	10/07/11 15:41	CUJ0041	CJ10514
Anthracene	ND (0.374)	35	1	10/07/11 15:41	CUJ0041	CJ10514
Benzo(a)anthracene	ND (0.374)	0.9	1	10/07/11 15:41	CUJ0041	CJ10514
Benzo(a)pyrene	ND (0.188)	0.4	1	10/07/11 15:41	CUJ0041	CJ10514
Benzo(b)fluoranthene	ND (0.374)	0.9	1	10/07/11 15:41	CUJ0041	CJ10514
Benzo(g,h,i)perylene	ND (0.374)	0.8	1	10/07/11 15:41	CUJ0041	CJ10514
Benzo(k)fluoranthene	ND (0.374)	0.9	1	10/07/11 15:41	CUJ0041	CJ10514
Chrysene	ND (0.188)	0.4	1	10/07/11 15:41	CUJ0041	CJ10514
Dibenzo(a,h)Anthracene	ND (0.188)	0.4	1	10/07/11 15:41	CUJ0041	CJ10514
Fluoranthene	ND (0.374)	20	1	10/07/11 15:41	CUJ0041	CJ10514
Fluorene	ND (0.374)	28	1	10/07/11 15:41	CUJ0041	CJ10514
Indeno(1,2,3-cd)Pyrene	ND (0.374)	0.9	1	10/07/11 15:41	CUJ0041	CJ10514
Naphthalene	ND (0.374)	54	1	10/07/11 15:41	CUJ0041	CJ10514
Phenanthrene	ND (0.374)	40	1	10/07/11 15:41	CUJ0041	CJ10514
Pyrene	ND (0.374)	13	1	10/07/11 15:41	CUJ0041	CJ10514

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	80 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	84 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	72 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	102 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-503 0ft-2ft  
Date Sampled: 10/04/11 10:45  
Percent Solids: 91

ESS Laboratory Work Order: 1110025  
ESS Laboratory Sample ID: 1110025-03  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	ND (2.7)	6010B	7	1	JP	10/07/11 18:51	2.04	100	CJ10619



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-503 0ft-2ft  
 Date Sampled: 10/04/11 10:45  
 Percent Solids: 91  
 Initial Volume: 14.3  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110025  
 ESS Laboratory Sample ID: 1110025-03  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/5/11 18:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.384)	123	1	10/07/11 16:11	CUJ0041	CJ10514
Acenaphthene	ND (0.384)	43	1	10/07/11 16:11	CUJ0041	CJ10514
Acenaphthylene	ND (0.384)	23	1	10/07/11 16:11	CUJ0041	CJ10514
Anthracene	ND (0.384)	35	1	10/07/11 16:11	CUJ0041	CJ10514
Benzo(a)anthracene	ND (0.384)	0.9	1	10/07/11 16:11	CUJ0041	CJ10514
Benzo(a)pyrene	ND (0.192)	0.4	1	10/07/11 16:11	CUJ0041	CJ10514
Benzo(b)fluoranthene	ND (0.384)	0.9	1	10/07/11 16:11	CUJ0041	CJ10514
Benzo(g,h,i)perylene	ND (0.384)	0.8	1	10/07/11 16:11	CUJ0041	CJ10514
Benzo(k)fluoranthene	ND (0.384)	0.9	1	10/07/11 16:11	CUJ0041	CJ10514
Chrysene	ND (0.192)	0.4	1	10/07/11 16:11	CUJ0041	CJ10514
Dibenzo(a,h)Anthracene	ND (0.192)	0.4	1	10/07/11 16:11	CUJ0041	CJ10514
Fluoranthene	ND (0.384)	20	1	10/07/11 16:11	CUJ0041	CJ10514
Fluorene	ND (0.384)	28	1	10/07/11 16:11	CUJ0041	CJ10514
Indeno(1,2,3-cd)Pyrene	ND (0.384)	0.9	1	10/07/11 16:11	CUJ0041	CJ10514
Naphthalene	ND (0.384)	54	1	10/07/11 16:11	CUJ0041	CJ10514
Phenanthrene	ND (0.384)	40	1	10/07/11 16:11	CUJ0041	CJ10514
Pyrene	ND (0.384)	13	1	10/07/11 16:11	CUJ0041	CJ10514

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: 1,2-Dichlorobenzene-d4	71 %		30-130
Surrogate: 2-Fluorobiphenyl	75 %		30-130
Surrogate: Nitrobenzene-d5	67 %		30-130
Surrogate: p-Terphenyl-d14	94 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-504 0ft-2ft  
Date Sampled: 10/04/11 10:55  
Percent Solids: 93

ESS Laboratory Work Order: 1110025  
ESS Laboratory Sample ID: 1110025-04  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	5.6 (2.3)	6010B	7	1	JP	10/07/11 0:32	2.35	100	CJ10619



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-504 0ft-2ft  
 Date Sampled: 10/04/11 10:55  
 Percent Solids: 93  
 Initial Volume: 14.6  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110025  
 ESS Laboratory Sample ID: 1110025-04  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/5/11 18:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.368)	123	1	10/07/11 16:42	CUJ0041	CJ10514
Acenaphthene	ND (0.368)	43	1	10/07/11 16:42	CUJ0041	CJ10514
Acenaphthylene	ND (0.368)	23	1	10/07/11 16:42	CUJ0041	CJ10514
Anthracene	ND (0.368)	35	1	10/07/11 16:42	CUJ0041	CJ10514
Benzo(a)anthracene	ND (0.368)	0.9	1	10/07/11 16:42	CUJ0041	CJ10514
Benzo(a)pyrene	ND (0.184)	0.4	1	10/07/11 16:42	CUJ0041	CJ10514
Benzo(b)fluoranthene	ND (0.368)	0.9	1	10/07/11 16:42	CUJ0041	CJ10514
Benzo(g,h,i)perylene	ND (0.368)	0.8	1	10/07/11 16:42	CUJ0041	CJ10514
Benzo(k)fluoranthene	ND (0.368)	0.9	1	10/07/11 16:42	CUJ0041	CJ10514
<b>Chrysene</b>	<b>0.209</b> (0.184)	0.4	1	10/07/11 16:42	CUJ0041	CJ10514
Dibenzo(a,h)Anthracene	ND (0.184)	0.4	1	10/07/11 16:42	CUJ0041	CJ10514
Fluoranthene	ND (0.368)	20	1	10/07/11 16:42	CUJ0041	CJ10514
Fluorene	ND (0.368)	28	1	10/07/11 16:42	CUJ0041	CJ10514
Indeno(1,2,3-cd)Pyrene	ND (0.368)	0.9	1	10/07/11 16:42	CUJ0041	CJ10514
Naphthalene	ND (0.368)	54	1	10/07/11 16:42	CUJ0041	CJ10514
Phenanthrene	ND (0.368)	40	1	10/07/11 16:42	CUJ0041	CJ10514
Pyrene	ND (0.368)	13	1	10/07/11 16:42	CUJ0041	CJ10514

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	81 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	85 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	75 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	97 %		30-130





*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-506 0ft-2ft  
Date Sampled: 10/04/11 11:09  
Percent Solids: 93

ESS Laboratory Work Order: 1110025  
ESS Laboratory Sample ID: 1110025-05  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	8.6 (2.4)	6010B	7	1	JP	10/07/11 0:36	2.21	100	CJ10619



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-506 0ft-2ft  
 Date Sampled: 10/04/11 11:09  
 Percent Solids: 93  
 Initial Volume: 14.7  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110025  
 ESS Laboratory Sample ID: 1110025-05  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/5/11 18:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.365)	123	1	10/07/11 17:12	CUJ0041	CJ10514
Acenaphthene	ND (0.365)	43	1	10/07/11 17:12	CUJ0041	CJ10514
Acenaphthylene	ND (0.365)	23	1	10/07/11 17:12	CUJ0041	CJ10514
Anthracene	ND (0.365)	35	1	10/07/11 17:12	CUJ0041	CJ10514
Benzo(a)anthracene	ND (0.365)	0.9	1	10/07/11 17:12	CUJ0041	CJ10514
<b>Benzo(a)pyrene</b>	<b>0.344</b> (0.183)	0.4	1	10/07/11 17:12	CUJ0041	CJ10514
<b>Benzo(b)fluoranthene</b>	<b>0.857</b> (0.365)	0.9	1	10/07/11 17:12	CUJ0041	CJ10514
Benzo(g,h,i)perylene	ND (0.365)	0.8	1	10/07/11 17:12	CUJ0041	CJ10514
Benzo(k)fluoranthene	ND (0.365)	0.9	1	10/07/11 17:12	CUJ0041	CJ10514
<b>Chrysene</b>	<b>0.567</b> (0.183)	0.4	1	10/07/11 17:12	CUJ0041	CJ10514
Dibenzo(a,h)Anthracene	ND (0.183)	0.4	1	10/07/11 17:12	CUJ0041	CJ10514
<b>Fluoranthene</b>	<b>0.745</b> (0.365)	20	1	10/07/11 17:12	CUJ0041	CJ10514
Fluorene	ND (0.365)	28	1	10/07/11 17:12	CUJ0041	CJ10514
Indeno(1,2,3-cd)Pyrene	ND (0.365)	0.9	1	10/07/11 17:12	CUJ0041	CJ10514
Naphthalene	ND (0.365)	54	1	10/07/11 17:12	CUJ0041	CJ10514
Phenanthrene	ND (0.365)	40	1	10/07/11 17:12	CUJ0041	CJ10514
<b>Pyrene</b>	<b>0.633</b> (0.365)	13	1	10/07/11 17:12	CUJ0041	CJ10514

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	71 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	78 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	65 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	98 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-507 0ft-2ft  
Date Sampled: 10/04/11 11:15  
Percent Solids: 94

ESS Laboratory Work Order: 1110025  
ESS Laboratory Sample ID: 1110025-06  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	3.6 (2.4)	6010B	7	1	JP	10/07/11 0:48	2.22	100	CJ10619



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-507 0ft-2ft  
 Date Sampled: 10/04/11 11:15  
 Percent Solids: 94  
 Initial Volume: 14.8  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110025  
 ESS Laboratory Sample ID: 1110025-06  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/5/11 18:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.359)	123	1	10/07/11 17:42	CUJ0041	CJ10514
Acenaphthene	ND (0.359)	43	1	10/07/11 17:42	CUJ0041	CJ10514
Acenaphthylene	ND (0.359)	23	1	10/07/11 17:42	CUJ0041	CJ10514
Anthracene	ND (0.359)	35	1	10/07/11 17:42	CUJ0041	CJ10514
Benzo(a)anthracene	ND (0.359)	0.9	1	10/07/11 17:42	CUJ0041	CJ10514
Benzo(a)pyrene	ND (0.180)	0.4	1	10/07/11 17:42	CUJ0041	CJ10514
Benzo(b)fluoranthene	ND (0.359)	0.9	1	10/07/11 17:42	CUJ0041	CJ10514
Benzo(g,h,i)perylene	ND (0.359)	0.8	1	10/07/11 17:42	CUJ0041	CJ10514
Benzo(k)fluoranthene	ND (0.359)	0.9	1	10/07/11 17:42	CUJ0041	CJ10514
Chrysene	ND (0.180)	0.4	1	10/07/11 17:42	CUJ0041	CJ10514
Dibenzo(a,h)Anthracene	ND (0.180)	0.4	1	10/07/11 17:42	CUJ0041	CJ10514
Fluoranthene	ND (0.359)	20	1	10/07/11 17:42	CUJ0041	CJ10514
Fluorene	ND (0.359)	28	1	10/07/11 17:42	CUJ0041	CJ10514
Indeno(1,2,3-cd)Pyrene	ND (0.359)	0.9	1	10/07/11 17:42	CUJ0041	CJ10514
Naphthalene	ND (0.359)	54	1	10/07/11 17:42	CUJ0041	CJ10514
Phenanthrene	ND (0.359)	40	1	10/07/11 17:42	CUJ0041	CJ10514
Pyrene	ND (0.359)	13	1	10/07/11 17:42	CUJ0041	CJ10514

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	82 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	84 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	75 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	100 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-508 0ft-2ft  
Date Sampled: 10/04/11 11:27  
Percent Solids: 93

ESS Laboratory Work Order: 1110025  
ESS Laboratory Sample ID: 1110025-07  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	4.6 (2.6)	6010B	7	1	JP	10/07/11 18:55	2.07	100	CJ10619



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-508 0ft-2ft  
 Date Sampled: 10/04/11 11:27  
 Percent Solids: 93  
 Initial Volume: 15.4  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110025  
 ESS Laboratory Sample ID: 1110025-07  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/5/11 18:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.349)	123	1	10/07/11 18:12	CUJ0041	CJ10514
Acenaphthene	ND (0.349)	43	1	10/07/11 18:12	CUJ0041	CJ10514
Acenaphthylene	ND (0.349)	23	1	10/07/11 18:12	CUJ0041	CJ10514
Anthracene	ND (0.349)	35	1	10/07/11 18:12	CUJ0041	CJ10514
Benzo(a)anthracene	ND (0.349)	0.9	1	10/07/11 18:12	CUJ0041	CJ10514
<b>Benzo(a)pyrene</b>	<b>0.213</b> (0.175)	0.4	1	10/07/11 18:12	CUJ0041	CJ10514
<b>Benzo(b)fluoranthene</b>	<b>0.550</b> (0.349)	0.9	1	10/07/11 18:12	CUJ0041	CJ10514
Benzo(g,h,i)perylene	ND (0.349)	0.8	1	10/07/11 18:12	CUJ0041	CJ10514
Benzo(k)fluoranthene	ND (0.349)	0.9	1	10/07/11 18:12	CUJ0041	CJ10514
<b>Chrysene</b>	<b>0.294</b> (0.175)	0.4	1	10/07/11 18:12	CUJ0041	CJ10514
Dibenzo(a,h)Anthracene	ND (0.175)	0.4	1	10/07/11 18:12	CUJ0041	CJ10514
Fluoranthene	ND (0.349)	20	1	10/07/11 18:12	CUJ0041	CJ10514
Fluorene	ND (0.349)	28	1	10/07/11 18:12	CUJ0041	CJ10514
Indeno(1,2,3-cd)Pyrene	ND (0.349)	0.9	1	10/07/11 18:12	CUJ0041	CJ10514
Naphthalene	ND (0.349)	54	1	10/07/11 18:12	CUJ0041	CJ10514
Phenanthrene	ND (0.349)	40	1	10/07/11 18:12	CUJ0041	CJ10514
Pyrene	ND (0.349)	13	1	10/07/11 18:12	CUJ0041	CJ10514

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	73 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	82 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	71 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	96 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-509 0ft-2ft  
Date Sampled: 10/04/11 11:35  
Percent Solids: 92

ESS Laboratory Work Order: 1110025  
ESS Laboratory Sample ID: 1110025-08  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	14.4 (2.6)	6010B	7	1	JP	10/07/11 0:56	2.12	100	CJ10619



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-509 0ft-2ft  
 Date Sampled: 10/04/11 11:35  
 Percent Solids: 92  
 Initial Volume: 15.8  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110025  
 ESS Laboratory Sample ID: 1110025-08  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/5/11 18:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.344)	123	1	10/07/11 18:42	CUJ0041	CJ10514
Acenaphthene	ND (0.344)	43	1	10/07/11 18:42	CUJ0041	CJ10514
Acenaphthylene	ND (0.344)	23	1	10/07/11 18:42	CUJ0041	CJ10514
Anthracene	ND (0.344)	35	1	10/07/11 18:42	CUJ0041	CJ10514
Benzo(a)anthracene	ND (0.344)	0.9	1	10/07/11 18:42	CUJ0041	CJ10514
Benzo(a)pyrene	ND (0.172)	0.4	1	10/07/11 18:42	CUJ0041	CJ10514
Benzo(b)fluoranthene	ND (0.344)	0.9	1	10/07/11 18:42	CUJ0041	CJ10514
Benzo(g,h,i)perylene	ND (0.344)	0.8	1	10/07/11 18:42	CUJ0041	CJ10514
Benzo(k)fluoranthene	ND (0.344)	0.9	1	10/07/11 18:42	CUJ0041	CJ10514
Chrysene	ND (0.172)	0.4	1	10/07/11 18:42	CUJ0041	CJ10514
Dibenzo(a,h)Anthracene	ND (0.172)	0.4	1	10/07/11 18:42	CUJ0041	CJ10514
Fluoranthene	ND (0.344)	20	1	10/07/11 18:42	CUJ0041	CJ10514
Fluorene	ND (0.344)	28	1	10/07/11 18:42	CUJ0041	CJ10514
Indeno(1,2,3-cd)Pyrene	ND (0.344)	0.9	1	10/07/11 18:42	CUJ0041	CJ10514
Naphthalene	ND (0.344)	54	1	10/07/11 18:42	CUJ0041	CJ10514
Phenanthrene	ND (0.344)	40	1	10/07/11 18:42	CUJ0041	CJ10514
Pyrene	ND (0.344)	13	1	10/07/11 18:42	CUJ0041	CJ10514

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	75 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	82 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	72 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	97 %		30-130





CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110025

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
---------	--------	-----	-------	-------------	---------------	------	-------------	-----	-----------	-----------

3050B/6000/7000 Total Metals

**Batch CJ10619 - 3050B**

**Blank**

Arsenic	ND	2.5	mg/kg wet							
---------	----	-----	-----------	--	--	--	--	--	--	--

**LCS**

Arsenic	93.5	9.4	mg/kg wet	109.0		86	80-120			
---------	------	-----	-----------	-------	--	----	--------	--	--	--

**LCS Dup**

Arsenic	97.3	9.1	mg/kg wet	109.0		89	80-120	4	20	
---------	------	-----	-----------	-------	--	----	--------	---	----	--

**Duplicate Source: 1110025-08**

Arsenic	11.7	2.5	mg/kg dry		14.4			21	35	
---------	------	-----	-----------	--	------	--	--	----	----	--

**Matrix Spike Source: 1110025-08**

Arsenic	28.6	2.4	mg/kg dry	24.15	14.4	59	75-125			MT
---------	------	-----	-----------	-------	------	----	--------	--	--	----

8270C Polynuclear Aromatic Hydrocarbons

**Batch CJ10514 - 3546**

**Matrix Spike Source: 1110025-08**

2-Methylnaphthalene	2.70	0.369	mg/kg dry	3.697	ND	73	40-140			
Acenaphthene	2.56	0.369	mg/kg dry	3.697	ND	69	40-140			
Acenaphthylene	2.86	0.369	mg/kg dry	3.697	ND	77	40-140			
Anthracene	2.80	0.369	mg/kg dry	3.697	ND	76	40-140			
Benzo(a)anthracene	2.79	0.369	mg/kg dry	3.697	0.070	74	40-140			
Benzo(a)pyrene	2.81	0.185	mg/kg dry	3.697	0.086	74	40-140			
Benzo(b)fluoranthene	3.12	0.369	mg/kg dry	3.697	0.197	79	40-140			
Benzo(g,h,i)perylene	2.97	0.369	mg/kg dry	3.697	ND	80	40-140			
Benzo(k)fluoranthene	2.87	0.369	mg/kg dry	3.697	ND	78	40-140			
Chrysene	2.76	0.185	mg/kg dry	3.697	0.138	71	40-140			
Dibenzo(a,h)Anthracene	3.00	0.185	mg/kg dry	3.697	ND	81	40-140			
Fluoranthene	3.10	0.369	mg/kg dry	3.697	0.172	79	40-140			
Fluorene	2.72	0.369	mg/kg dry	3.697	ND	74	40-140			
Indeno(1,2,3-cd)Pyrene	3.01	0.369	mg/kg dry	3.697	ND	81	40-140			
Naphthalene	2.53	0.369	mg/kg dry	3.697	ND	68	40-140			
Phenanthrene	2.77	0.369	mg/kg dry	3.697	ND	75	40-140			
Pyrene	2.88	0.369	mg/kg dry	3.697	0.151	74	40-140			
Surrogate: 1,2-Dichlorobenzene-d4	2.61		mg/kg dry	3.697		71	30-130			
Surrogate: 2-Fluorobiphenyl	2.94		mg/kg dry	3.697		79	30-130			
Surrogate: Nitrobenzene-d5	2.86		mg/kg dry	3.697		77	30-130			
Surrogate: p-Terphenyl-d14	3.19		mg/kg dry	3.697		86	30-130			

**Matrix Spike Dup Source: 1110025-08**

2-Methylnaphthalene	2.74	0.364	mg/kg dry	3.648	ND	75	40-140	1	30	
Acenaphthene	2.80	0.364	mg/kg dry	3.648	ND	77	40-140	9	30	
Acenaphthylene	3.08	0.364	mg/kg dry	3.648	ND	84	40-140	7	30	
Anthracene	3.16	0.364	mg/kg dry	3.648	ND	87	40-140	12	30	
Benzo(a)anthracene	3.07	0.364	mg/kg dry	3.648	0.070	82	40-140	9	30	
Benzo(a)pyrene	3.05	0.183	mg/kg dry	3.648	0.086	81	40-140	8	30	
Benzo(b)fluoranthene	3.11	0.364	mg/kg dry	3.648	0.197	80	40-140	0.5	30	
Benzo(g,h,i)perylene	3.25	0.364	mg/kg dry	3.648	ND	89	40-140	9	30	

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110025

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
---------	--------	-----	-------	-------------	---------------	------	-------------	-----	-----------	-----------

8270C Polynuclear Aromatic Hydrocarbons

**Batch CJ10514 - 3546**

Benzo(k)fluoranthene	3.40	0.364	mg/kg dry	3.648	ND	93	40-140	17	30	
Chrysene	3.09	0.183	mg/kg dry	3.648	0.138	81	40-140	11	30	
Dibenzo(a,h)Anthracene	3.25	0.183	mg/kg dry	3.648	ND	89	40-140	8	30	
Fluoranthene	3.55	0.364	mg/kg dry	3.648	0.172	92	40-140	13	30	
Fluorene	3.04	0.364	mg/kg dry	3.648	ND	83	40-140	11	30	
Indeno(1,2,3-cd)Pyrene	3.24	0.364	mg/kg dry	3.648	ND	89	40-140	7	30	
Naphthalene	2.52	0.364	mg/kg dry	3.648	ND	69	40-140	0.2	30	
Phenanthrene	3.19	0.364	mg/kg dry	3.648	ND	88	40-140	14	30	
Pyrene	3.22	0.364	mg/kg dry	3.648	0.151	84	40-140	11	30	
Surrogate: 1,2-Dichlorobenzene-d4	2.71		mg/kg dry	3.648		74	30-130			
Surrogate: 2-Fluorobiphenyl	3.04		mg/kg dry	3.648		83	30-130			
Surrogate: Nitrobenzene-d5	2.91		mg/kg dry	3.648		80	30-130			
Surrogate: p-Terphenyl-d14	3.57		mg/kg dry	3.648		98	30-130			



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110025

**Notes and Definitions**

- U Analyte included in the analysis, but not detected
- MT Due to high target values, matrix spike compound(s) is masked (MT).
- I Internal Standard(s) outside of criteria (I).
- ND Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- MDL Method Detection Limit
- MRL Method Reporting Limit
- LOD Limit of Detection
- LOQ Limit of Quantitation
- DL Detection Limit
- I/V Initial Volume
- F/V Final Volume
- § Subcontracted analysis; see attached report
- 1 Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
- 2 Range result excludes concentrations of target analytes eluting in that range.
- 3 Range result excludes the concentration of the C9-C10 aromatic range.
- Avg Results reported as a mathematical average.
- NR No Recovery
- [CALC] Calculated Analyte



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110025

**ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS**

**ENVIRONMENTAL**

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)  
A2LA Accredited: Testing Cert# 2864.01  
<http://www.a2la.org/scopepdf/2864-01.pdf>

Rhode Island Potable and Non Potable Water: LAI00179  
<http://www.health.ri.gov/labs/waterlabs-instate.php>

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750  
[http://www.ct.gov/dph/lib/dph/environmental\\_health/environmental\\_laboratories/pdf/out\\_state.pdf](http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/out_state.pdf)

Maine Potable and Non Potable Water: RI0002  
[http://www.maine.gov/dep/blwq/topic/vessel/lab\\_list.pdf](http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf)

Massachusetts Potable and Non Potable Water: M-RI002  
<http://public.dep.state.ma.us/labcert/labcert.aspx>

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424  
<http://www4.egov.nh.gov/des/nhelap/namesearch.asp>

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313  
<http://www.wadsworth.org/labcert/elap/comm.html>

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301  
[http://www.mde.state.md.us/assets/document/WSP\\_labs-2009apr20.pdf](http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf)

**CHEMISTRY**

A2LA Accredited: Testing Cert # 2864.01  
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)  
<http://www.A2LA.org/dirsearchnew/newsearch.cfm>

CPSC ID# 1141  
Lead Paint, Lead in Children's Metals Jewelry  
<http://www.cpsc.gov/cgi-bin/labapplist.aspx>

**Sample and Cooler Receipt Checklist**

Client: Vanasse Hangen Brustlin, Inc.  
Client Project ID: \_\_\_\_\_  
Shipped/Delivered Via: Client

ESS Project ID: 11100025  
Date Project Due: 10/11/11  
Days For Project: 5 Day

**Items to be checked upon receipt:**

1. Air Bill Manifest Present?

\* No

10. Are the samples properly preserved?

Yes

Air No.:

11. Proper sample containers used?

Yes

2. Were Custody Seals Present?

No

12. Any air bubbles in the VOA vials?

N/A

3. Were Custody Seals Intact?

N/A

13. Holding times exceeded?

No

4. Is Radiation count < 100 CPM?

Yes

14. Sufficient sample volumes?

Yes

5. Is a cooler present?

Yes

15. Any Subcontracting needed?

No

Cooler Temp: 5.1

16. Are ESS labels on correct containers?  Yes  No

Iced With: Ice

17. Were samples received intact?  Yes  No

6. Was COC included with samples?

Yes

ESS Sample IDs: \_\_\_\_\_

7. Was COC signed and dated by client?

Yes

Sub Lab: \_\_\_\_\_

8. Does the COC match the sample

Yes

Analysis: \_\_\_\_\_

9. Is COC complete and correct?

Yes

TAT: \_\_\_\_\_

18. Was there need to call project manager to discuss status? If yes, please explain.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Who was called?: \_\_\_\_\_

By whom? \_\_\_\_\_

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	4 oz Soil Jar	1	NP
2	Yes	4 oz Soil Jar	1	NP
3	Yes	4 oz Soil Jar	1	NP
4	Yes	4 oz Soil Jar	1	NP
5	Yes	4 oz Soil Jar	1	NP
6	Yes	4 oz Soil Jar	1	NP
7	Yes	4 oz Soil Jar	1	NP
8	Yes	4 oz Soil Jar	1	NP

Completed By: MK Date/Time: 10/4/11

Reviewed By: [Signature] Date/Time: 10/4/11

# ESS Laboratory

Division of Thielsch Engineering, Inc.  
 185 Frances Avenue, Cranston, RI 02910-2211  
 Tel. (401) 461-7181 Fax (401) 461-4486  
 www.esslaboratory.com

# CHAIN OF CUSTODY

Turn Time  Standard Other \_\_\_\_\_  
 If faster than 5 days, prior approval by laboratory is required # \_\_\_\_\_  
 State where samples were collected from:  
 MA  RI  NH  NJ  NY  ME  Other \_\_\_\_\_  
 Is this project for any of the following: USACE Other  Navy Other  MA-MCP Other \_\_\_\_\_

Reporting Limits  
 RIDEM RDEC  
 Electronic Deliverable Yes  No \_\_\_\_\_  
 Format: Excel \_\_\_\_\_ Access \_\_\_\_\_ PDF \_\_\_\_\_ Other \_\_\_\_\_  
 ESS LAB PROJECT ID  
 110025

Co. Name  
 UHB  
 Project Name (20 Char. or less)  
 72016.1  
 Project Name (20 Char. or less)  
 Trestle Trail  
 Contact Person  
 Joshua Klement  
 Address  
 10 Dorrance St, Suite 400  
 State  
 RI  
 Zip  
 02903  
 Telephone #  
 401-272-8100  
 Fax #  
 Email Address  
 JKlement@UHB.com  
 C-MASSED@UHB.COM

ESS LAB Sample #	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Pres Code	Type of Containers	Number of Containers	Type of Containers	Write Required Analysis
01	10-4-11	10:29	X		S	SB-501 0-2-	1	G	1		
02		10:37				SB-502 0-2-					
03		10:45				SB-503 0-2-					
04		10:55				SB-504 0-2-					
05		11:02				SB-505 0-2-					
06		11:09				SB-506 0-2-					
07		11:27				SB-507 0-2-					
08		11:35			X	SB-509 0-2-					

Container Type: P-Poly  Glass  S-Sterile  V-VOA  Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters  
 Cooler Present Yes  No  Internal Use Only  
 Seals Intact Yes  No  NA:  Pickup   
 Cooler Temp: 5.1 in ice  
 Preservation Code 1- NP, 2- HCl, 3- H<sub>2</sub>SO<sub>4</sub>, 4- HNO<sub>3</sub>, 5- NaOH, 6- MeOH, 7- Asorbic Acid, 8- ZnAct, 9-  
 Sampled by: JGK  
 Comments:  
 Relinquished by (Signature) Joshua Klement Date/Time 10/4/11 10:03  
 Relinquished by (Signature) Joshua Klement Date/Time 10/4/11 10:03  
 Received by (Signature) \_\_\_\_\_ Date/Time \_\_\_\_\_  
 Received by (Signature) \_\_\_\_\_ Date/Time \_\_\_\_\_



*CERTIFICATE OF ANALYSIS*

Josh Klement  
 Vanasse Hangen Brustlin, Inc.  
 10 Dorrance Street, Suite 400  
 Providence, RI 02903

**RE: Trestle Trail (72016.1)**  
**ESS Laboratory Work Order Number: 1110046**

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard  
 Laboratory Director



**Analytical Summary**

The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC and A2LA, except where noted within this project narrative.



## CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.

Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110046

## SAMPLE RECEIPT

The following samples were received on October 05, 2011 for the analyses specified on the enclosed Chain of Custody Record.

Lab Number	SampleName	Matrix	Analysis
1110046-01	SB-601 0ft-2ft	Soil	6010B
1110046-02	SB-602 0ft-2ft	Soil	6010B
1110046-03	SB-603 0ft-2ft	Soil	6010B
1110046-04	SB-604 0ft-2ft	Soil	6010B
1110046-05	SB-701 0ft-2ft	Soil	6010B, 7471A, 7841, 8270C
1110046-06	SB-702 0ft-2ft	Soil	6010B, 7471A, 7841, 8270C
1110046-07	SB-703 0ft-2ft	Soil	6010B, 7471A, 7841, 8270C
1110046-08	SB-704 0ft-2ft	Soil	6010B, 7471A, 7841, 8270C



CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110046

PROJECT NARRATIVE

**3050B/6000/7000 Total Metals**

CJ10621-DUP1 Relative percent difference for duplicate is outside of criteria (D+).

Arsenic (68%)

CJ10621-MS1 Matrix Spike recovery is below lower control limit (M-).

Antimony (65% @ 75-125%), Selenium (68% @ 75-125%)

**8270C Polynuclear Aromatic Hydrocarbons**

1110046-05 Surrogate recovery(ies) above upper control limit (S+).

p-Terphenyl-d14 (139% @ 30-130%)

1110046-06 Surrogate recovery(ies) above upper control limit (S+).

p-Terphenyl-d14 (149% @ 30-130%)

1110046-07 Internal Standard(s) outside of criteria. Sample was reanalyzed to confirm (IC).

Perylene-d12 (45% @ 50-200%)

1110046-07 Surrogate recovery(ies) above upper control limit (S+).

p-Terphenyl-d14 (158% @ 30-130%)

1110046-08 Internal Standard(s) outside of criteria. Sample was reanalyzed to confirm (IC).

Perylene-d12 (44% @ 50-200%)

1110046-08 Surrogate recovery(ies) above upper control limit (S+).

p-Terphenyl-d14 (165% @ 30-130%)

No other observations noted.

End of Project Narrative.

DATA USABILITY LINKS

[Definitions of Quality Control Parameters](#)

[Semivolatile Organics Internal Standard Information](#)

[Semivolatile Organics Surrogate Information](#)

[Volatile Organics Internal Standard Information](#)

[Volatile Organics Surrogate Information](#)

[EPH and VPH Alkane Lists](#)



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-601 0ft-2ft  
Date Sampled: 10/05/11 09:12  
Percent Solids: 89

ESS Laboratory Work Order: 1110046  
ESS Laboratory Sample ID: 1110046-01  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Beryllium	0.66 (0.10)	6010B	0.4	1	JP	10/08/11 2:35	2.46	100	CJ10621



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-602 0ft-2ft  
Date Sampled: 10/05/11 09:21  
Percent Solids: 87

ESS Laboratory Work Order: 1110046  
ESS Laboratory Sample ID: 1110046-02  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Beryllium	0.52 (0.10)	6010B	0.4	1	JP	10/08/11 2:39	2.4	100	CJ10621



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-603 0ft-2ft  
Date Sampled: 10/05/11 09:28  
Percent Solids: 89

ESS Laboratory Work Order: 1110046  
ESS Laboratory Sample ID: 1110046-03  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Beryllium	0.75 (0.55)	6010B	0.4	5	SVD	10/12/11 19:16	2.16	100	CJ10621



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SB-604 0ft-2ft  
Date Sampled: 10/05/11 09:54  
Percent Solids: 87

ESS Laboratory Work Order: 1110046  
ESS Laboratory Sample ID: 1110046-04  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Beryllium	0.28 (0.09)	6010B	0.4	1	JP	10/08/11 2:47	2.82	100	CJ10621



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-701 0ft-2ft  
 Date Sampled: 10/05/11 11:12  
 Percent Solids: 86

ESS Laboratory Work Order: 1110046  
 ESS Laboratory Sample ID: 1110046-05  
 Sample Matrix: Soil  
 Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Antimony	ND (5.1)	6010B	10	1	JP	10/08/11 2:51	2.26	100	CJ10621
Arsenic	57.9 (2.6)	6010B	7	1	JP	10/08/11 2:51	2.26	100	CJ10621
Beryllium	0.43 (0.11)	6010B	0.4	1	JP	10/08/11 2:51	2.26	100	CJ10621
Cadmium	0.65 (0.52)	6010B	39	1	JP	10/08/11 2:51	2.26	100	CJ10621
Chromium	2.1 (1.0)	6010B	1400	1	JP	10/08/11 2:51	2.26	100	CJ10621
Copper	19.2 (2.6)	6010B	3100	1	JP	10/08/11 2:51	2.26	100	CJ10621
Lead	29.3 (5.1)	6010B	150	1	JP	10/08/11 2:51	2.26	100	CJ10621
Mercury	ND (0.038)	7471A	23	1	KJK	10/11/11 14:29	0.6	40	CJ10518
Nickel	ND (2.6)	6010B	1000	1	JP	10/08/11 2:51	2.26	100	CJ10621
Selenium	ND (5.1)	6010B	390	1	JP	10/08/11 2:51	2.26	100	CJ10621
Silver	ND (0.52)	6010B	200	1	JP	10/08/11 2:51	2.26	100	CJ10621
Thallium	ND (1.27)	7841	5.5	5	SVD	10/11/11 20:12	2.26	100	CJ10621
Zinc	30.9 (2.6)	6010B	6000	1	JP	10/08/11 2:51	2.26	100	CJ10621

*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-701 0ft-2ft  
 Date Sampled: 10/05/11 11:12  
 Percent Solids: 86  
 Initial Volume: 15  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110046  
 ESS Laboratory Sample ID: 1110046-05  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/6/11 18:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.387)	123	1	10/08/11 22:45	CUJ0048	CJ10514
Acenaphthene	ND (0.387)	43	1	10/08/11 22:45	CUJ0048	CJ10514
<b>Acenaphthylene</b>	<b>0.603</b> (0.387)	23	1	10/08/11 22:45	CUJ0048	CJ10514
Anthracene	ND (0.387)	35	1	10/08/11 22:45	CUJ0048	CJ10514
<b>Benzo(a)anthracene</b>	<b>2.93</b> (0.387)	0.9	1	10/08/11 22:45	CUJ0048	CJ10514
<b>Benzo(a)pyrene</b>	<b>2.64</b> (0.194)	0.4	1	10/08/11 22:45	CUJ0048	CJ10514
<b>Benzo(b)fluoranthene</b>	<b>5.39</b> (0.387)	0.9	1	10/08/11 22:45	CUJ0048	CJ10514
<b>Benzo(g,h,i)perylene</b>	<b>1.21</b> (0.387)	0.8	1	10/08/11 22:45	CUJ0048	CJ10514
<b>Benzo(k)fluoranthene</b>	<b>1.97</b> (0.387)	0.9	1	10/08/11 22:45	CUJ0048	CJ10514
<b>Chrysene</b>	<b>3.52</b> (0.194)	0.4	1	10/08/11 22:45	CUJ0048	CJ10514
<b>Dibenzo(a,h)Anthracene</b>	<b>0.634</b> (0.194)	0.4	1	10/08/11 22:45	CUJ0048	CJ10514
<b>Fluoranthene</b>	<b>6.47</b> (0.387)	20	1	10/08/11 22:45	CUJ0048	CJ10514
Fluorene	ND (0.387)	28	1	10/08/11 22:45	CUJ0048	CJ10514
<b>Indeno(1,2,3-cd)Pyrene</b>	<b>1.36</b> (0.387)	0.9	1	10/08/11 22:45	CUJ0048	CJ10514
Naphthalene	ND (0.387)	54	1	10/08/11 22:45	CUJ0048	CJ10514
<b>Phenanthrene</b>	<b>2.27</b> (0.387)	40	1	10/08/11 22:45	CUJ0048	CJ10514
<b>Pyrene</b>	<b>7.19</b> (0.387)	13	1	10/08/11 22:45	CUJ0048	CJ10514

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	79 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	85 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	73 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	139 %	S+	30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-702 0ft-2ft  
 Date Sampled: 10/05/11 11:20  
 Percent Solids: 92

ESS Laboratory Work Order: 1110046  
 ESS Laboratory Sample ID: 1110046-06  
 Sample Matrix: Soil  
 Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Antimony	ND (5.1)	6010B	10	1	JP	10/08/11 2:55	2.15	100	CJ10621
Arsenic	<b>8.9</b> (2.5)	6010B	7	1	JP	10/08/11 2:55	2.15	100	CJ10621
Beryllium	<b>0.28</b> (0.11)	6010B	0.4	1	JP	10/08/11 2:55	2.15	100	CJ10621
Cadmium	ND (0.51)	6010B	39	1	JP	10/08/11 2:55	2.15	100	CJ10621
Chromium	<b>1.7</b> (1.0)	6010B	1400	1	JP	10/08/11 2:55	2.15	100	CJ10621
Copper	<b>3.9</b> (2.5)	6010B	3100	1	JP	10/08/11 2:55	2.15	100	CJ10621
Lead	<b>8.5</b> (5.1)	6010B	150	1	JP	10/08/11 2:55	2.15	100	CJ10621
Mercury	ND (0.033)	7471A	23	1	KJK	10/11/11 14:31	0.65	40	CJ10518
Nickel	ND (2.5)	6010B	1000	1	JP	10/08/11 2:55	2.15	100	CJ10621
Selenium	ND (5.1)	6010B	390	1	JP	10/08/11 2:55	2.15	100	CJ10621
Silver	ND (0.51)	6010B	200	1	JP	10/08/11 2:55	2.15	100	CJ10621
Thallium	ND (1.25)	7841	5.5	5	SVD	10/11/11 20:18	2.15	100	CJ10621
Zinc	<b>17.7</b> (2.5)	6010B	6000	1	JP	10/08/11 2:55	2.15	100	CJ10621



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-702 0ft-2ft  
 Date Sampled: 10/05/11 11:20  
 Percent Solids: 92  
 Initial Volume: 15.4  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110046  
 ESS Laboratory Sample ID: 1110046-06  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/6/11 18:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.353)	123	1	10/08/11 23:15	CUJ0048	CJ10514
Acenaphthene	ND (0.353)	43	1	10/08/11 23:15	CUJ0048	CJ10514
Acenaphthylene	ND (0.353)	23	1	10/08/11 23:15	CUJ0048	CJ10514
Anthracene	ND (0.353)	35	1	10/08/11 23:15	CUJ0048	CJ10514
Benzo(a)anthracene	ND (0.353)	0.9	1	10/08/11 23:15	CUJ0048	CJ10514
<b>Benzo(a)pyrene</b>	<b>0.259</b> (0.177)	0.4	1	10/08/11 23:15	CUJ0048	CJ10514
<b>Benzo(b)fluoranthene</b>	<b>0.514</b> (0.353)	0.9	1	10/08/11 23:15	CUJ0048	CJ10514
Benzo(g,h,i)perylene	ND (0.353)	0.8	1	10/08/11 23:15	CUJ0048	CJ10514
Benzo(k)fluoranthene	ND (0.353)	0.9	1	10/08/11 23:15	CUJ0048	CJ10514
<b>Chrysene</b>	<b>0.344</b> (0.177)	0.4	1	10/08/11 23:15	CUJ0048	CJ10514
Dibenzo(a,h)Anthracene	ND (0.177)	0.4	1	10/08/11 23:15	CUJ0048	CJ10514
<b>Fluoranthene</b>	<b>0.609</b> (0.353)	20	1	10/08/11 23:15	CUJ0048	CJ10514
Fluorene	ND (0.353)	28	1	10/08/11 23:15	CUJ0048	CJ10514
Indeno(1,2,3-cd)Pyrene	ND (0.353)	0.9	1	10/08/11 23:15	CUJ0048	CJ10514
Naphthalene	ND (0.353)	54	1	10/08/11 23:15	CUJ0048	CJ10514
Phenanthrene	ND (0.353)	40	1	10/08/11 23:15	CUJ0048	CJ10514
<b>Pyrene</b>	<b>0.748</b> (0.353)	13	1	10/08/11 23:15	CUJ0048	CJ10514

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	79 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	85 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	69 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	149 %	S+	30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-703 0ft-2ft  
 Date Sampled: 10/05/11 11:41  
 Percent Solids: 93

ESS Laboratory Work Order: 1110046  
 ESS Laboratory Sample ID: 1110046-07  
 Sample Matrix: Soil  
 Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Antimony	ND (5.1)	6010B	10	1	JP	10/08/11 2:59	2.11	100	CJ10621
Arsenic	ND (2.5)	6010B	7	1	JP	10/08/11 2:59	2.11	100	CJ10621
<b>Beryllium</b>	<b>0.27</b> (0.11)	6010B	0.4	1	JP	10/08/11 2:59	2.11	100	CJ10621
Cadmium	ND (0.51)	6010B	39	1	JP	10/08/11 2:59	2.11	100	CJ10621
Chromium	ND (1.0)	6010B	1400	1	JP	10/08/11 2:59	2.11	100	CJ10621
Copper	ND (2.5)	6010B	3100	1	JP	10/08/11 2:59	2.11	100	CJ10621
<b>Lead</b>	<b>11.8</b> (5.1)	6010B	150	1	JP	10/08/11 2:59	2.11	100	CJ10621
Mercury	ND (0.031)	7471A	23	1	KJK	10/11/11 14:34	0.68	40	CJ10518
Nickel	ND (2.5)	6010B	1000	1	JP	10/08/11 2:59	2.11	100	CJ10621
Selenium	ND (5.1)	6010B	390	1	JP	10/08/11 2:59	2.11	100	CJ10621
Silver	ND (0.51)	6010B	200	1	JP	10/08/11 2:59	2.11	100	CJ10621
Thallium	ND (1.26)	7841	5.5	5	SVD	10/11/11 20:35	2.11	100	CJ10621
<b>Zinc</b>	<b>17.9</b> (2.5)	6010B	6000	1	JP	10/08/11 2:59	2.11	100	CJ10621



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-703 0ft-2ft  
 Date Sampled: 10/05/11 11:41  
 Percent Solids: 93  
 Initial Volume: 15.7  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110046  
 ESS Laboratory Sample ID: 1110046-07  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/6/11 18:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.342)	123	1	10/08/11 23:45	CUJ0048	CJ10514
Acenaphthene	ND (0.342)	43	1	10/08/11 23:45	CUJ0048	CJ10514
Acenaphthylene	ND (0.342)	23	1	10/08/11 23:45	CUJ0048	CJ10514
Anthracene	ND (0.342)	35	1	10/08/11 23:45	CUJ0048	CJ10514
Benzo(a)anthracene	ND (0.342)	0.9	1	10/08/11 23:45	CUJ0048	CJ10514
Benzo(a)pyrene	ND (0.172)	0.4	1	10/08/11 23:45	CUJ0048	CJ10514
Benzo(b)fluoranthene	ND (0.342)	0.9	1	10/08/11 23:45	CUJ0048	CJ10514
Benzo(g,h,i)perylene	ND (0.342)	0.8	1	10/08/11 23:45	CUJ0048	CJ10514
Benzo(k)fluoranthene	ND (0.342)	0.9	1	10/08/11 23:45	CUJ0048	CJ10514
Chrysene	ND (0.172)	0.4	1	10/08/11 23:45	CUJ0048	CJ10514
Dibenzo(a,h)Anthracene	ND (0.172)	0.4	1	10/08/11 23:45	CUJ0048	CJ10514
Fluoranthene	ND (0.342)	20	1	10/08/11 23:45	CUJ0048	CJ10514
Fluorene	ND (0.342)	28	1	10/08/11 23:45	CUJ0048	CJ10514
Indeno(1,2,3-cd)Pyrene	ND (0.342)	0.9	1	10/08/11 23:45	CUJ0048	CJ10514
Naphthalene	ND (0.342)	54	1	10/08/11 23:45	CUJ0048	CJ10514
Phenanthrene	ND (0.342)	40	1	10/08/11 23:45	CUJ0048	CJ10514
Pyrene	ND (0.342)	13	1	10/08/11 23:45	CUJ0048	CJ10514

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	74 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	81 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	64 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	158 %	S+	30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-704 0ft-2ft  
 Date Sampled: 10/05/11 11:34  
 Percent Solids: 92

ESS Laboratory Work Order: 1110046  
 ESS Laboratory Sample ID: 1110046-08  
 Sample Matrix: Soil  
 Units: mg/kg dry

**3050B/6000/7000 Total Metals**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Antimony	ND (5.2)	6010B	10	1	JP	10/08/11 3:03	2.09	100	CJ10621
Arsenic	17.6 (2.6)	6010B	7	1	JP	10/08/11 3:03	2.09	100	CJ10621
Beryllium	0.24 (0.11)	6010B	0.4	1	JP	10/08/11 3:03	2.09	100	CJ10621
Cadmium	ND (0.52)	6010B	39	1	JP	10/08/11 3:03	2.09	100	CJ10621
Chromium	1.6 (1.0)	6010B	1400	1	JP	10/08/11 3:03	2.09	100	CJ10621
Copper	4.3 (2.6)	6010B	3100	1	JP	10/08/11 3:03	2.09	100	CJ10621
Lead	9.4 (5.2)	6010B	150	1	JP	10/08/11 3:03	2.09	100	CJ10621
Mercury	ND (0.034)	7471A	23	1	KJK	10/11/11 14:37	0.63	40	CJ10518
Nickel	ND (2.6)	6010B	1000	1	JP	10/08/11 3:03	2.09	100	CJ10621
Selenium	ND (5.2)	6010B	390	1	JP	10/08/11 3:03	2.09	100	CJ10621
Silver	ND (0.52)	6010B	200	1	JP	10/08/11 3:03	2.09	100	CJ10621
Thallium	ND (1.29)	7841	5.5	5	SVD	10/11/11 20:41	2.09	100	CJ10621
Zinc	15.6 (2.6)	6010B	6000	1	JP	10/08/11 3:03	2.09	100	CJ10621

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SB-704 0ft-2ft  
 Date Sampled: 10/05/11 11:34  
 Percent Solids: 92  
 Initial Volume: 15.7  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1110046  
 ESS Laboratory Sample ID: 1110046-08  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 10/6/11 18:00

**8270C Polynuclear Aromatic Hydrocarbons**

RI - RES DEC

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.346)	123	1	10/09/11 0:15	CUJ0048	CJ10514
Acenaphthene	ND (0.346)	43	1	10/09/11 0:15	CUJ0048	CJ10514
Acenaphthylene	ND (0.346)	23	1	10/09/11 0:15	CUJ0048	CJ10514
Anthracene	ND (0.346)	35	1	10/09/11 0:15	CUJ0048	CJ10514
<b>Benzo(a)anthracene</b>	<b>0.893</b> (0.346)	0.9	1	10/09/11 0:15	CUJ0048	CJ10514
<b>Benzo(a)pyrene</b>	<b>0.819</b> (0.173)	0.4	1	10/09/11 0:15	CUJ0048	CJ10514
<b>Benzo(b)fluoranthene</b>	<b>1.71</b> (0.346)	0.9	1	10/09/11 0:15	CUJ0048	CJ10514
<b>Benzo(g,h,i)perylene</b>	<b>0.368</b> (0.346)	0.8	1	10/09/11 0:15	CUJ0048	CJ10514
<b>Benzo(k)fluoranthene</b>	<b>0.603</b> (0.346)	0.9	1	10/09/11 0:15	CUJ0048	CJ10514
<b>Chrysene</b>	<b>1.09</b> (0.173)	0.4	1	10/09/11 0:15	CUJ0048	CJ10514
<b>Dibenzo(a,h)Anthracene</b>	<b>0.230</b> (0.173)	0.4	1	10/09/11 0:15	CUJ0048	CJ10514
<b>Fluoranthene</b>	<b>1.47</b> (0.346)	20	1	10/09/11 0:15	CUJ0048	CJ10514
Fluorene	ND (0.346)	28	1	10/09/11 0:15	CUJ0048	CJ10514
<b>Indeno(1,2,3-cd)Pyrene</b>	<b>0.376</b> (0.346)	0.9	1	10/09/11 0:15	CUJ0048	CJ10514
Naphthalene	ND (0.346)	54	1	10/09/11 0:15	CUJ0048	CJ10514
Phenanthrene	ND (0.346)	40	1	10/09/11 0:15	CUJ0048	CJ10514
<b>Pyrene</b>	<b>2.12</b> (0.346)	13	1	10/09/11 0:15	CUJ0048	CJ10514

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: 1,2-Dichlorobenzene-d4	69 %		30-130
Surrogate: 2-Fluorobiphenyl	81 %		30-130
Surrogate: Nitrobenzene-d5	61 %		30-130
Surrogate: p-Terphenyl-d14	165 %	S+	30-130



CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110046

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
<b>3050B/6000/7000 Total Metals</b>										
<b>Batch CJ10518 - 7471A</b>										
<b>Blank</b>										
Mercury	ND	0.033	mg/kg wet							
<b>LCS</b>										
Mercury	9.67	0.811	mg/kg wet	8.610		112	80-120			
<b>LCS Dup</b>										
Mercury	10.2	0.750	mg/kg wet	8.610		118	80-120	5	20	
<b>Batch CJ10621 - 3050B</b>										
<b>Blank</b>										
Antimony	ND	5.0	mg/kg wet							
Arsenic	ND	2.5	mg/kg wet							
Beryllium	ND	0.10	mg/kg wet							
Cadmium	ND	0.50	mg/kg wet							
Chromium	ND	1.0	mg/kg wet							
Copper	ND	2.5	mg/kg wet							
Lead	ND	5.0	mg/kg wet							
Nickel	ND	2.5	mg/kg wet							
Selenium	ND	5.0	mg/kg wet							
Silver	ND	0.50	mg/kg wet							
Thallium	ND	0.25	mg/kg wet							
Zinc	ND	2.5	mg/kg wet							
<b>LCS</b>										
Antimony	123	18.9	mg/kg wet	106.0		116	9-192			
Arsenic	98.5	9.4	mg/kg wet	109.0		90	80-120			
Beryllium	80.3	0.40	mg/kg wet	88.20		91	80-120			
Cadmium	70.3	1.90	mg/kg wet	80.20		88	80-120			
Chromium	112	3.8	mg/kg wet	117.0		95	80-120			
Copper	110	9.4	mg/kg wet	117.0		94	80-120			
Lead	67.5	18.9	mg/kg wet	76.20		89	80-120			
Nickel	64.0	9.4	mg/kg wet	71.20		90	80-120			
Selenium	104	18.9	mg/kg wet	127.0		82	80-120			
Silver	38.5	1.90	mg/kg wet	41.10		94	80-120			
Thallium	286	46.7	mg/kg wet	266.0		107	80-120			
Zinc	236	9.4	mg/kg wet	280.0		84	80-120			
<b>LCS Dup</b>										
Antimony	128	17.6	mg/kg wet	106.0		121	9-192	4	20	
Arsenic	93.3	8.8	mg/kg wet	109.0		86	80-120	5	20	
Beryllium	78.0	0.37	mg/kg wet	88.20		88	80-120	3	20	
Cadmium	68.7	1.76	mg/kg wet	80.20		86	80-120	2	20	
Chromium	109	3.5	mg/kg wet	117.0		93	80-120	3	20	
Copper	109	8.8	mg/kg wet	117.0		93	80-120	0.7	20	
Lead	66.7	17.6	mg/kg wet	76.20		88	80-120	1	20	
Nickel	63.1	8.8	mg/kg wet	71.20		89	80-120	1	20	
Selenium	107	17.6	mg/kg wet	127.0		84	80-120	3	20	
Silver	38.6	1.76	mg/kg wet	41.10		94	80-120	0.3	20	



CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110046

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
---------	--------	-----	-------	-------------	---------------	------	-------------	-----	-----------	-----------

3050B/6000/7000 Total Metals

**Batch CJ10621 - 3050B**

Thallium	270	43.4	mg/kg wet	266.0		102	80-120	6	20	
Zinc	233	8.8	mg/kg wet	280.0		83	80-120	1	20	

**Duplicate Source: 1110046-08**

Antimony	1.03	4.6	mg/kg dry		1.16			12	35	
Arsenic	35.9	2.3	mg/kg dry		17.6			68	35	D+
Beryllium	0.299	0.10	mg/kg dry		0.237			23	35	
Cadmium	0.318	0.46	mg/kg dry		0.136			80	35	
Chromium	1.99	0.9	mg/kg dry		1.58			23	35	
Copper	4.98	2.3	mg/kg dry		4.35			14	35	
Lead	9.68	4.6	mg/kg dry		9.35			3	35	
Nickel	0.911	2.3	mg/kg dry		0.818			11	35	
Selenium	ND	4.6	mg/kg dry		ND				35	
Silver	ND	0.46	mg/kg dry		ND				35	
Thallium	ND	1.14	mg/kg dry		ND				35	
Zinc	16.5	2.3	mg/kg dry		15.6			6	35	

**Matrix Spike Source: 1110046-08**

Antimony	18.0	5.2	mg/kg dry	25.76	1.16	65	75-125			M-
Arsenic	44.0	2.6	mg/kg dry	25.76	17.6	102	75-125			
Beryllium	2.35	0.11	mg/kg dry	2.576	0.237	82	75-125			
Cadmium	10.3	0.52	mg/kg dry	12.88	0.136	79	75-125			
Chromium	22.8	1.0	mg/kg dry	25.76	1.58	83	75-125			
Copper	29.1	2.6	mg/kg dry	25.76	4.35	96	75-125			
Lead	31.0	5.2	mg/kg dry	25.76	9.35	84	75-125			
Nickel	21.8	2.6	mg/kg dry	25.76	0.818	82	75-125			
Selenium	35.1	5.2	mg/kg dry	51.51	ND	68	75-125			M-
Silver	10.3	0.52	mg/kg dry	12.88	ND	80	75-125			
Thallium	23.0	5.10	mg/kg dry	25.76	ND	89	75-125			
Zinc	37.3	2.6	mg/kg dry	25.76	15.6	84	75-125			

8270C Polynuclear Aromatic Hydrocarbons



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110046

**Notes and Definitions**

- U Analyte included in the analysis, but not detected
- S+ Surrogate recovery(ies) above upper control limit (S+).
- M- Matrix Spike recovery is below lower control limit (M-).
- IC Internal Standard(s) outside of criteria. Sample was reanalyzed to confirm (IC).
- D+ Relative percent difference for duplicate is outside of criteria (D+).
- D Diluted.
- ND Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- MDL Method Detection Limit
- MRL Method Reporting Limit
- LOD Limit of Detection
- LOQ Limit of Quantitation
- DL Detection Limit
- I/V Initial Volume
- F/V Final Volume
- § Subcontracted analysis; see attached report
- 1 Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
- 2 Range result excludes concentrations of target analytes eluting in that range.
- 3 Range result excludes the concentration of the C9-C10 aromatic range.
- Avg Results reported as a mathematical average.
- NR No Recovery
- [CALC] Calculated Analyte





*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1110046

**ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS**

**ENVIRONMENTAL**

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)  
A2LA Accredited: Testing Cert# 2864.01  
<http://www.a2la.org/scopepdf/2864-01.pdf>

Rhode Island Potable and Non Potable Water: LAI00179  
<http://www.health.ri.gov/labs/waterlabs-instate.php>

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750  
[http://www.ct.gov/dph/lib/dph/environmental\\_health/environmental\\_laboratories/pdf/out\\_state.pdf](http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/out_state.pdf)

Maine Potable and Non Potable Water: RI0002  
[http://www.maine.gov/dep/blwq/topic/vessel/lab\\_list.pdf](http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf)

Massachusetts Potable and Non Potable Water: M-RI002  
<http://public.dep.state.ma.us/labcert/labcert.aspx>

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424  
<http://www4.egov.nh.gov/des/nhelap/namesearch.asp>

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313  
<http://www.wadsworth.org/labcert/elap/comm.html>

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301  
[http://www.mde.state.md.us/assets/document/WSP\\_labs-2009apr20.pdf](http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf)

**CHEMISTRY**

A2LA Accredited: Testing Cert # 2864.01  
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)  
<http://www.A2LA.org/dirsearchnew/newsearch.cfm>

CPSC ID# 1141  
Lead Paint, Lead in Children's Metals Jewelry  
<http://www.cpsc.gov/cgi-bin/labapplist.aspx>

**Sample and Cooler Receipt Checklist**

Client: Vanasse Hangen Brustlin, Inc.  
Client Project ID: \_\_\_\_\_  
Shipped/Delivered Via: Client

ESS Project ID: 11100046  
Date Project Due: 10/12/11  
Days For Project: 5 Day

**Items to be checked upon receipt:**

- |   |                               |   |   |
|---|-------------------------------|---|---|
| 1. Air Bill Manifest Present?                 | <input type="checkbox"/> * No | 10. Are the samples properly preserved?   | <input type="checkbox"/> Yes  |
| Air No.:                                      |                               | 11. Proper sample containers used?        | <input type="checkbox"/> Yes  |
| 2. Were Custody Seals Present?                | <input type="checkbox"/> No   | 12. Any air bubbles in the VOA vials?     | <input type="checkbox"/> N/A  |
| 3. Were Custody Seals Intact?                 | <input type="checkbox"/> N/A  | 13. Holding times exceeded?               | <input type="checkbox"/> No   |
| 4. Is Radiation count < 100 CPM?              | <input type="checkbox"/> Yes  | 14. Sufficient sample volumes?            | <input type="checkbox"/> Yes  |
| 5. Is a cooler present?                       | <input type="checkbox"/> Yes  | 15. Any Subcontracting needed?            | <input type="checkbox"/> No   |
| <input type="text" value="Cooler Temp: 5.6"/> |                               | 16. Are ESS labels on correct containers? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <input type="text" value="Iced With: Ice"/>   |                               | 17. Were samples received intact?         | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 6. Was COC included with samples?             | <input type="checkbox"/> Yes  | ESS Sample IDs: _____                     |   |
| 7. Was COC signed and dated by client?        | <input type="checkbox"/> Yes  | Sub Lab: _____                            |   |
| 8. Does the COC match the sample              | <input type="checkbox"/> Yes  | Analysis: _____                           |   |
| 9. Is COC complete and correct?               | <input type="checkbox"/> Yes  | TAT: _____                                |   |
18. Was there need to call project manager to discuss status? If yes, please explain.  
\_\_\_\_\_  
\_\_\_\_\_

Who was called?: \_\_\_\_\_ By whom? \_\_\_\_\_

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	4 oz Soil Jar	1	NP
2	Yes	4 oz Soil Jar	1	NP
3	Yes	4 oz Soil Jar	1	NP
4	Yes	4 oz Soil Jar	1	NP
5	Yes	4 oz Soil Jar	1	NP
6	Yes	4 oz Soil Jar	1	NP
7	Yes	4 oz Soil Jar	1	NP
8	Yes	4 oz Soil Jar	1	NP

Completed By: CEP Date/Time: 10/5/11  
Reviewed By: ED Date/Time: 10/5/11

# ESS Laboratory

Division of Thielsch Engineering, Inc.  
 185 Frances Avenue, Cranston, RI 02910-2211  
 Tel. (401) 461-7181 Fax (401) 461-4486  
 www.esslaboratory.com

# CHAIN OF CUSTODY

Page 1 of 1

Turn Time:  Standard  Other \_\_\_\_\_  
 If faster than 5 days, prior approval by laboratory is required # \_\_\_\_\_  
 State where samples were collected from: MA  RI  CT  NH  NJ  NY  ME  Other \_\_\_\_\_  
 Is this project for any of the following: USACE  Other  VA  Navy  MA-MCP

Reporting Limits: **RIDEEM RDEC**  
 Electronic Deliverable: Yes  No   
 Format: Excel  Access  PDF  Other \_\_\_\_\_  
 ESS LAB PROJECT ID: **10046**

Co. Name	Project #	Project Name (20 Char. or less)	Number of Containers	Type of Containers	Write Required Analysis						
VHB	72016.1	Nestle Trail	1	6							
ESS LAB Sample #	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Pres Code	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
01	10-5-11	09:12	X		S	SB-601 0-2-	1				
02		09:21				SB-602 0-2-					
03		09:28				SB-603 0-2-					
04		09:54				SB-604 0-2-					
05		11:12				SB-701 0-2-					
06		11:20				SB-702 0-2-					
07		11:41				SB-703 0-2-					
08		11:34				SB-704 0-2-					

Container Type: P-Poly  G-Glass  S-Sterile  V-VOA  Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present: Yes  No  Internal Use Only: Yes  No  No NA:  [ ] Pickup  [ ] Technicians

Seals Intact: Yes  No  No NA:

Cooler Temp: 5.6 100

Preservation Code: 1- NP, 2- HCl, 3- H<sub>2</sub>SO<sub>4</sub>, 4- HNO<sub>3</sub>, 5- NaOH, 6- MeOH, 7- Asorbic Acid, 8- ZnAct, 9- \_\_\_\_\_

Sampled by: **TGK**

Comments: \_\_\_\_\_

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
<i>[Signature]</i>	10/5/11 13:04	<i>[Signature]</i>	
<i>[Signature]</i>	10/5/11 13:10	<i>[Signature]</i>	

\*By circling MA-MCP client acknowledges samples were collected in accordance with MADEP CAM VII A  
 Please fax all changes to Chain of Custody in writing.  
 1 (White) Lab Copy 2 (Yellow) Client Receipt



*CERTIFICATE OF ANALYSIS*

Josh Klement  
Vanasse Hangen Brustlin, Inc.  
10 Dorrance Street, Suite 400  
Providence, RI 02903

**RE: Trestle Trail (72016.1)**  
**ESS Laboratory Work Order Number: 1112220**

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard  
Laboratory Director

**REVIEWED**

**By SMorrell at 4:40 pm, Dec 19, 2011**

**Analytical Summary**

The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC and A2LA, except where noted within this project narrative.



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1112220

**SAMPLE RECEIPT**

The following samples were received on December 12, 2011 for the analyses specified on the enclosed Chain of Custody Record.

<b>Lab Number</b>	<b>SampleName</b>	<b>Matrix</b>	<b>Analysis</b>
1112220-01	SS-210 0ft-2ft	Soil	6010B, 8270C
1112220-02	SS-211 0ft-2ft	Soil	6010B, 8270C
1112220-03	SS-212 0ft-2ft	Soil	6010B, 8270C
1112220-04	SS-213 0ft-2ft	Soil	6010B, 8270C
1112220-05	SS-510 0ft-2ft	Soil	6010B
1112220-06	SS-511 0ft-2ft	Soil	6010B
1112220-07	SS-512 0ft-2ft	Soil	6010B
1112220-08	SS-513 0ft-2ft	Soil	6010B



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1112220

**PROJECT NARRATIVE**

**8270C Polynuclear Aromatic Hydrocarbons**

CUL0120-CCV1 [Calibration required quadratic regression \(O\).](#)

Dibenzo(a,h)Anthracene (95% @ 70-130%), Indeno(1,2,3-cd)Pyrene (97% @ 70-130%)

**No other observations noted.**

**End of Project Narrative.**

**DATA USABILITY LINKS**

[Definitions of Quality Control Parameters](#)

[Semivolatile Organics Internal Standard Information](#)

[Semivolatile Organics Surrogate Information](#)

[Volatile Organics Internal Standard Information](#)

[Volatile Organics Surrogate Information](#)

[EPH and VPH Alkane Lists](#)



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SS-210 0ft-2ft  
Date Sampled: 12/12/11 08:45  
Percent Solids: 90

ESS Laboratory Work Order: 1112220  
ESS Laboratory Sample ID: 1112220-01  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

RI - RES DEC

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	9.0 (2.2)	6010B	7	1	SVD	12/16/11 23:03	2.49	100	CL11624



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SS-210 0ft-2ft  
Date Sampled: 12/12/11 08:45  
Percent Solids: 90  
Initial Volume: 15.51  
Final Volume: 0.5  
Extraction Method: 3546

ESS Laboratory Work Order: 1112220  
ESS Laboratory Sample ID: 1112220-01  
Sample Matrix: Soil  
Units: mg/kg dry  
Analyst: IBM  
Prepared: 12/15/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.358)	123	1	12/16/11 5:08	CUL0120	CL11516
Acenaphthene	ND (0.358)	43	1	12/16/11 5:08	CUL0120	CL11516
Acenaphthylene	ND (0.358)	23	1	12/16/11 5:08	CUL0120	CL11516
Anthracene	ND (0.358)	35	1	12/16/11 5:08	CUL0120	CL11516
<b>Benzo(a)anthracene</b>	<b>0.490</b> (0.358)	0.9	1	12/16/11 5:08	CUL0120	CL11516
<b>Benzo(a)pyrene</b>	<b>0.441</b> (0.179)	0.4	1	12/16/11 5:08	CUL0120	CL11516
<b>Benzo(b)fluoranthene</b>	<b>0.823</b> (0.358)	0.9	1	12/16/11 5:08	CUL0120	CL11516
<b>Benzo(g,h,i)perylene</b>	<b>0.370</b> (0.358)	0.8	1	12/16/11 5:08	CUL0120	CL11516
<b>Benzo(k)fluoranthene</b>	<b>0.383</b> (0.358)	0.9	1	12/16/11 5:08	CUL0120	CL11516
<b>Chrysene</b>	<b>0.719</b> (0.179)	0.4	1	12/16/11 5:08	CUL0120	CL11516
Dibenzo(a,h)Anthracene	ND (0.179)	0.4	1	12/16/11 5:08	CUL0120	CL11516
<b>Fluoranthene</b>	<b>0.930</b> (0.358)	20	1	12/16/11 5:08	CUL0120	CL11516
Fluorene	ND (0.358)	28	1	12/16/11 5:08	CUL0120	CL11516
<b>Indeno(1,2,3-cd)Pyrene</b>	<b>0.458</b> (0.358)	0.9	1	12/16/11 5:08	CUL0120	CL11516
Naphthalene	ND (0.358)	54	1	12/16/11 5:08	CUL0120	CL11516
Phenanthrene	ND (0.358)	40	1	12/16/11 5:08	CUL0120	CL11516
<b>Pyrene</b>	<b>0.918</b> (0.358)	13	1	12/16/11 5:08	CUL0120	CL11516

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	57 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	63 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	61 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	90 %		30-130





*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SS-211 0ft-2ft  
Date Sampled: 12/12/11 08:45  
Percent Solids: 89

ESS Laboratory Work Order: 1112220  
ESS Laboratory Sample ID: 1112220-02  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

RI - RES DEC

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	5.6 (2.6)	6010B	7	1	SVD	12/16/11 23:07	2.12	100	CL11624



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SS-211 0ft-2ft  
Date Sampled: 12/12/11 08:45  
Percent Solids: 89  
Initial Volume: 14.39  
Final Volume: 0.5  
Extraction Method: 3546

ESS Laboratory Work Order: 1112220  
ESS Laboratory Sample ID: 1112220-02  
Sample Matrix: Soil  
Units: mg/kg dry  
Analyst: IBM  
Prepared: 12/15/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.390)	123	1	12/16/11 5:41	CUL0120	CL11516
Acenaphthene	ND (0.390)	43	1	12/16/11 5:41	CUL0120	CL11516
Acenaphthylene	ND (0.390)	23	1	12/16/11 5:41	CUL0120	CL11516
Anthracene	ND (0.390)	35	1	12/16/11 5:41	CUL0120	CL11516
Benzo(a)anthracene	ND (0.390)	0.9	1	12/16/11 5:41	CUL0120	CL11516
Benzo(a)pyrene	ND (0.196)	0.4	1	12/16/11 5:41	CUL0120	CL11516
Benzo(b)fluoranthene	ND (0.390)	0.9	1	12/16/11 5:41	CUL0120	CL11516
Benzo(g,h,i)perylene	ND (0.390)	0.8	1	12/16/11 5:41	CUL0120	CL11516
Benzo(k)fluoranthene	ND (0.390)	0.9	1	12/16/11 5:41	CUL0120	CL11516
<b>Chrysene</b>	<b>0.208</b> (0.196)	0.4	1	12/16/11 5:41	CUL0120	CL11516
Dibenzo(a,h)Anthracene	ND (0.196)	0.4	1	12/16/11 5:41	CUL0120	CL11516
Fluoranthene	ND (0.390)	20	1	12/16/11 5:41	CUL0120	CL11516
Fluorene	ND (0.390)	28	1	12/16/11 5:41	CUL0120	CL11516
Indeno(1,2,3-cd)Pyrene	ND (0.390)	0.9	1	12/16/11 5:41	CUL0120	CL11516
Naphthalene	ND (0.390)	54	1	12/16/11 5:41	CUL0120	CL11516
Phenanthrene	ND (0.390)	40	1	12/16/11 5:41	CUL0120	CL11516
Pyrene	ND (0.390)	13	1	12/16/11 5:41	CUL0120	CL11516

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	70 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	73 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	72 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	95 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SS-212 0ft-2ft  
Date Sampled: 12/12/11 08:54  
Percent Solids: 89

ESS Laboratory Work Order: 1112220  
ESS Laboratory Sample ID: 1112220-03  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

RI - RES DEC

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	3.2 (2.7)	6010B	7	1	SVD	12/16/11 23:11	2.05	100	CL11624



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
 Client Project ID: Trestle Trail  
 Client Sample ID: SS-212 0ft-2ft  
 Date Sampled: 12/12/11 08:54  
 Percent Solids: 89  
 Initial Volume: 14.64  
 Final Volume: 0.5  
 Extraction Method: 3546

ESS Laboratory Work Order: 1112220  
 ESS Laboratory Sample ID: 1112220-03  
 Sample Matrix: Soil  
 Units: mg/kg dry  
 Analyst: IBM  
 Prepared: 12/15/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.383)	123	1	12/16/11 6:15	CUL0120	CL11516
Acenaphthene	ND (0.383)	43	1	12/16/11 6:15	CUL0120	CL11516
Acenaphthylene	ND (0.383)	23	1	12/16/11 6:15	CUL0120	CL11516
Anthracene	ND (0.383)	35	1	12/16/11 6:15	CUL0120	CL11516
Benzo(a)anthracene	ND (0.383)	0.9	1	12/16/11 6:15	CUL0120	CL11516
Benzo(a)pyrene	ND (0.192)	0.4	1	12/16/11 6:15	CUL0120	CL11516
Benzo(b)fluoranthene	ND (0.383)	0.9	1	12/16/11 6:15	CUL0120	CL11516
Benzo(g,h,i)perylene	ND (0.383)	0.8	1	12/16/11 6:15	CUL0120	CL11516
Benzo(k)fluoranthene	ND (0.383)	0.9	1	12/16/11 6:15	CUL0120	CL11516
Chrysene	ND (0.192)	0.4	1	12/16/11 6:15	CUL0120	CL11516
Dibenzo(a,h)Anthracene	ND (0.192)	0.4	1	12/16/11 6:15	CUL0120	CL11516
Fluoranthene	ND (0.383)	20	1	12/16/11 6:15	CUL0120	CL11516
Fluorene	ND (0.383)	28	1	12/16/11 6:15	CUL0120	CL11516
Indeno(1,2,3-cd)Pyrene	ND (0.383)	0.9	1	12/16/11 6:15	CUL0120	CL11516
Naphthalene	ND (0.383)	54	1	12/16/11 6:15	CUL0120	CL11516
Phenanthrene	ND (0.383)	40	1	12/16/11 6:15	CUL0120	CL11516
Pyrene	ND (0.383)	13	1	12/16/11 6:15	CUL0120	CL11516

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	70 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	72 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	73 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	93 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SS-213 0ft-2ft  
Date Sampled: 12/12/11 08:55  
Percent Solids: 85

ESS Laboratory Work Order: 1112220  
ESS Laboratory Sample ID: 1112220-04  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

RI - RES DEC

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	3.1 (2.7)	6010B	7	1	SVD	12/16/11 23:15	2.2	100	CL11624



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SS-213 0ft-2ft  
Date Sampled: 12/12/11 08:55  
Percent Solids: 85  
Initial Volume: 14.14  
Final Volume: 0.5  
Extraction Method: 3546

ESS Laboratory Work Order: 1112220  
ESS Laboratory Sample ID: 1112220-04  
Sample Matrix: Soil  
Units: mg/kg dry  
Analyst: IBM  
Prepared: 12/15/11 13:00

**8270C Polynuclear Aromatic Hydrocarbons**

**RI - RES DEC**

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
2-Methylnaphthalene	ND (0.416)	123	1	12/16/11 6:48	CUL0120	CL11516
Acenaphthene	ND (0.416)	43	1	12/16/11 6:48	CUL0120	CL11516
Acenaphthylene	ND (0.416)	23	1	12/16/11 6:48	CUL0120	CL11516
Anthracene	ND (0.416)	35	1	12/16/11 6:48	CUL0120	CL11516
Benzo(a)anthracene	ND (0.416)	0.9	1	12/16/11 6:48	CUL0120	CL11516
Benzo(a)pyrene	ND (0.208)	0.4	1	12/16/11 6:48	CUL0120	CL11516
Benzo(b)fluoranthene	ND (0.416)	0.9	1	12/16/11 6:48	CUL0120	CL11516
Benzo(g,h,i)perylene	ND (0.416)	0.8	1	12/16/11 6:48	CUL0120	CL11516
Benzo(k)fluoranthene	ND (0.416)	0.9	1	12/16/11 6:48	CUL0120	CL11516
Chrysene	ND (0.208)	0.4	1	12/16/11 6:48	CUL0120	CL11516
Dibenzo(a,h)Anthracene	ND (0.208)	0.4	1	12/16/11 6:48	CUL0120	CL11516
Fluoranthene	ND (0.416)	20	1	12/16/11 6:48	CUL0120	CL11516
Fluorene	ND (0.416)	28	1	12/16/11 6:48	CUL0120	CL11516
Indeno(1,2,3-cd)Pyrene	ND (0.416)	0.9	1	12/16/11 6:48	CUL0120	CL11516
Naphthalene	ND (0.416)	54	1	12/16/11 6:48	CUL0120	CL11516
Phenanthrene	ND (0.416)	40	1	12/16/11 6:48	CUL0120	CL11516
Pyrene	ND (0.416)	13	1	12/16/11 6:48	CUL0120	CL11516

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	61 %		30-130
<i>Surrogate: 2-Fluorobiphenyl</i>	63 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	64 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	92 %		30-130



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SS-510 0ft-2ft  
Date Sampled: 12/12/11 12:26  
Percent Solids: 95

ESS Laboratory Work Order: 1112220  
ESS Laboratory Sample ID: 1112220-05  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

RI - RES DEC

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	16.3 (2.4)	6010B	7	1	SVD	12/16/11 23:19	2.23	100	CL11624



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SS-511 0ft-2ft  
Date Sampled: 12/12/11 12:25  
Percent Solids: 94

ESS Laboratory Work Order: 1112220  
ESS Laboratory Sample ID: 1112220-06  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

RI - RES DEC

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	7.4 (2.3)	6010B	7	1	SVD	12/16/11 23:31	2.31	100	CL11624





*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SS-512 0ft-2ft  
Date Sampled: 12/12/11 12:34  
Percent Solids: 95

ESS Laboratory Work Order: 1112220  
ESS Laboratory Sample ID: 1112220-07  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

RI - RES DEC

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	ND (2.4)	6010B	7	1	SVD	12/16/11 23:35	2.15	100	CL11624



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail  
Client Sample ID: SS-513 0ft-2ft  
Date Sampled: 12/12/11 12:33  
Percent Solids: 92

ESS Laboratory Work Order: 1112220  
ESS Laboratory Sample ID: 1112220-08  
Sample Matrix: Soil  
Units: mg/kg dry

**3050B/6000/7000 Total Metals**

RI - RES DEC

<u>Analyte</u>	<u>Results (MRL)</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Arsenic	5.1 (2.6)	6010B	7	1	SVD	12/16/11 23:39	2.11	100	CL11624



CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1112220

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
---------	--------	-----	-------	-------------	---------------	------	-------------	-----	-----------	-----------

3050B/6000/7000 Total Metals

**Batch CL11624 - 3050B**

<b>Blank</b>										
Arsenic	ND	2.5	mg/kg wet							
<b>LCS</b>										
Arsenic	111	9.6	mg/kg wet	124.0		89	80-120			
<b>LCS Dup</b>										
Arsenic	112	9.6	mg/kg wet	124.0		90	80-120	0.7	20	
<b>Duplicate Source: 1112220-08</b>										
Arsenic	5.37	2.5	mg/kg dry		5.08			6	35	
<b>Matrix Spike Source: 1112220-08</b>										
Arsenic	24.3	2.6	mg/kg dry	25.76	5.08	75	75-125			

8270C Polynuclear Aromatic Hydrocarbons

**Batch CL11516 - 3546**

<b>Blank</b>										
2-Methylnaphthalene	ND	0.333	mg/kg wet							
Acenaphthene	ND	0.333	mg/kg wet							
Acenaphthylene	ND	0.333	mg/kg wet							
Anthracene	ND	0.333	mg/kg wet							
Benzo(a)anthracene	ND	0.333	mg/kg wet							
Benzo(a)pyrene	ND	0.167	mg/kg wet							
Benzo(b)fluoranthene	ND	0.333	mg/kg wet							
Benzo(g,h,i)perylene	ND	0.333	mg/kg wet							
Benzo(k)fluoranthene	ND	0.333	mg/kg wet							
Chrysene	ND	0.167	mg/kg wet							
Dibenzo(a,h)Anthracene	ND	0.167	mg/kg wet							
Fluoranthene	ND	0.333	mg/kg wet							
Fluorene	ND	0.333	mg/kg wet							
Indeno(1,2,3-cd)Pyrene	ND	0.333	mg/kg wet							
Naphthalene	ND	0.333	mg/kg wet							
Phenanthrene	ND	0.333	mg/kg wet							
Pyrene	ND	0.333	mg/kg wet							
Surrogate: 1,2-Dichlorobenzene-d4	2.28		mg/kg wet	3.333		68	30-130			
Surrogate: 2-Fluorobiphenyl	2.64		mg/kg wet	3.333		79	30-130			
Surrogate: Nitrobenzene-d5	2.45		mg/kg wet	3.333		73	30-130			
Surrogate: p-Terphenyl-d14	4.11		mg/kg wet	3.333		123	30-130			

<b>LCS</b>										
2-Methylnaphthalene	2.59	0.333	mg/kg wet	3.333		78	40-140			
Acenaphthene	2.64	0.333	mg/kg wet	3.333		79	40-140			
Acenaphthylene	2.76	0.333	mg/kg wet	3.333		83	40-140			
Anthracene	3.01	0.333	mg/kg wet	3.333		90	40-140			
Benzo(a)anthracene	2.93	0.333	mg/kg wet	3.333		88	40-140			
Benzo(a)pyrene	2.78	0.167	mg/kg wet	3.333		84	40-140			
Benzo(b)fluoranthene	2.68	0.333	mg/kg wet	3.333		80	40-140			
Benzo(g,h,i)perylene	3.11	0.333	mg/kg wet	3.333		93	40-140			



CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1112220

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
---------	--------	-----	-------	-------------	---------------	------	-------------	-----	-----------	-----------

8270C Polynuclear Aromatic Hydrocarbons

**Batch CL11516 - 3546**

Benzo(k)fluoranthene	3.02	0.333	mg/kg wet	3.333		91	40-140			
Chrysene	2.86	0.167	mg/kg wet	3.333		86	40-140			
Dibenzo(a,h)Anthracene	2.79	0.167	mg/kg wet	3.333		84	40-140			
Fluoranthene	3.31	0.333	mg/kg wet	3.333		99	40-140			
Fluorene	2.87	0.333	mg/kg wet	3.333		86	40-140			
Indeno(1,2,3-cd)Pyrene	2.91	0.333	mg/kg wet	3.333		87	40-140			
Naphthalene	2.33	0.333	mg/kg wet	3.333		70	40-140			
Phenanthrene	2.85	0.333	mg/kg wet	3.333		85	40-140			
Pyrene	2.90	0.333	mg/kg wet	3.333		87	40-140			
Surrogate: 1,2-Dichlorobenzene-d4	2.38		mg/kg wet	3.333		71	30-130			
Surrogate: 2-Fluorobiphenyl	2.60		mg/kg wet	3.333		78	30-130			
Surrogate: Nitrobenzene-d5	2.29		mg/kg wet	3.333		69	30-130			
Surrogate: p-Terphenyl-d14	3.21		mg/kg wet	3.333		96	30-130			

**LCS Dup**

2-Methylnaphthalene	2.76	0.333	mg/kg wet	3.333		83	40-140	6	30	
Acenaphthene	2.68	0.333	mg/kg wet	3.333		80	40-140	2	30	
Acenaphthylene	2.81	0.333	mg/kg wet	3.333		84	40-140	2	30	
Anthracene	3.22	0.333	mg/kg wet	3.333		97	40-140	7	30	
Benzo(a)anthracene	3.10	0.333	mg/kg wet	3.333		93	40-140	5	30	
Benzo(a)pyrene	2.97	0.167	mg/kg wet	3.333		89	40-140	7	30	
Benzo(b)fluoranthene	2.95	0.333	mg/kg wet	3.333		89	40-140	10	30	
Benzo(g,h,i)perylene	3.42	0.333	mg/kg wet	3.333		103	40-140	10	30	
Benzo(k)fluoranthene	2.98	0.333	mg/kg wet	3.333		89	40-140	1	30	
Chrysene	3.06	0.167	mg/kg wet	3.333		92	40-140	7	30	
Dibenzo(a,h)Anthracene	3.05	0.167	mg/kg wet	3.333		91	40-140	9	30	
Fluoranthene	3.54	0.333	mg/kg wet	3.333		106	40-140	7	30	
Fluorene	2.94	0.333	mg/kg wet	3.333		88	40-140	3	30	
Indeno(1,2,3-cd)Pyrene	3.16	0.333	mg/kg wet	3.333		95	40-140	8	30	
Naphthalene	2.54	0.333	mg/kg wet	3.333		76	40-140	9	30	
Phenanthrene	3.05	0.333	mg/kg wet	3.333		91	40-140	7	30	
Pyrene	3.16	0.333	mg/kg wet	3.333		95	40-140	9	30	
Surrogate: 1,2-Dichlorobenzene-d4	2.48		mg/kg wet	3.333		74	30-130			
Surrogate: 2-Fluorobiphenyl	2.71		mg/kg wet	3.333		81	30-130			
Surrogate: Nitrobenzene-d5	2.52		mg/kg wet	3.333		76	30-130			
Surrogate: p-Terphenyl-d14	3.42		mg/kg wet	3.333		102	30-130			



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.

Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1112220

**Notes and Definitions**

- U Analyte included in the analysis, but not detected
- Q Calibration required quadratic regression (Q).
- ND Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- MDL Method Detection Limit
- MRL Method Reporting Limit
- LOD Limit of Detection
- LOQ Limit of Quantitation
- DL Detection Limit
- I/V Initial Volume
- F/V Final Volume
- § Subcontracted analysis; see attached report
- 1 Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
- 2 Range result excludes concentrations of target analytes eluting in that range.
- 3 Range result excludes the concentration of the C9-C10 aromatic range.
- Avg Results reported as a mathematical average.
- NR No Recovery
- [CALC] Calculated Analyte



*CERTIFICATE OF ANALYSIS*

Client Name: Vanasse Hangen Brustlin, Inc.  
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 1112220

**ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS**

**ENVIRONMENTAL**

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)

A2LA Accredited: Testing Cert# 2864.01  
<http://www.a2la.org/scopepdf/2864-01.pdf>

Rhode Island Potable and Non Potable Water: LAI00179  
<http://www.health.ri.gov/labs/waterlabs-instate.php>

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750  
[http://www.ct.gov/dph/lib/dph/environmental\\_health/environmental\\_laboratories/pdf/out\\_state.pdf](http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/out_state.pdf)

Maine Potable and Non Potable Water: RI0002  
[http://www.maine.gov/dep/blwq/topic/vessel/lab\\_list.pdf](http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf)

Massachusetts Potable and Non Potable Water: M-RI002  
<http://public.dep.state.ma.us/labcert/labcert.aspx>

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424  
<http://www4.egov.nh.gov/des/nhelap/namesearch.asp>

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313  
<http://www.wadsworth.org/labcert/elap/comm.html>

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301  
[http://www.mde.state.md.us/assets/document/WSP\\_labs-2009apr20.pdf](http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf)

**CHEMISTRY**

A2LA Accredited: Testing Cert # 2864.01  
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)  
<http://www.A2LA.org/dirsearchnew/newsearch.cfm>

CPSC ID# 1141  
Lead Paint, Lead in Children's Metals Jewelry  
<http://www.cpsc.gov/cgi-bin/labapplist.aspx>

**Sample and Cooler Receipt Checklist**

Client: V.H.B.  
Client Project ID: \_\_\_\_\_  
Shipped/Delivered Via: ESS Courier

ESS Project ID: 11120220  
Date Project Due: 12/20/11  
Days For Project: 5 Day

**Items to be checked upon receipt:**

1. Air Bill Manifest Present?  \* No

Air No.: \_\_\_\_\_

2. Were Custody Seals Present?  No

3. Were Custody Seals Intact?  N/A

4. Is Radiation count < 100 CPM?  Yes

5. Is a cooler present?  Yes

Cooler Temp: 2.5

Iced With: Icepacks

6. Was COC included with samples?  Yes

7. Was COC signed and dated by client?  Yes

8. Does the COC match the sample  Yes

9. Is COC complete and correct?  Yes

10. Are the samples properly preserved?  Yes

11. Proper sample containers used?  Yes

12. Any air bubbles in the VOA vials?  N/A

13. Holding times exceeded?  No

14. Sufficient sample volumes?  Yes

15. Any Subcontracting needed?  No

16. Are ESS labels on correct containers?  Yes  No

17. Were samples received intact?  Yes  No

ESS Sample IDs: \_\_\_\_\_

Sub Lab: \_\_\_\_\_

Analysis: \_\_\_\_\_

TAT: \_\_\_\_\_

18. Was there need to call project manager to discuss status? If yes, please explain.  
\_\_\_\_\_  
\_\_\_\_\_

Who was called?: \_\_\_\_\_

By whom? \_\_\_\_\_

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	4 oz Soil Jar	1	NP
2	Yes	4 oz Soil Jar	1	NP
3	Yes	4 oz Soil Jar	1	NP
4	Yes	4 oz Soil Jar	1	NP
5	Yes	4 oz Soil Jar	1	NP
6	Yes	4 oz Soil Jar	1	NP
7	Yes	4 oz Soil Jar	1	NP
8	Yes	4 oz Soil Jar	1	NP

Completed By: BC

Date/Time: 12/13/11

Reviewed By: \_\_\_\_\_

Date/Time: 12/22/11

**ESS Laboratory**  
 Division of Thielsch Engineering, Inc.  
 185 Frances Avenue, Cranston, RI 02910-2211  
 Tel. (401) 461-7181 Fax (401) 461-4486  
 www.esslaboratory.com

# CHAIN OF CUSTODY

Turn Time:  Standard  Other  
 If faster than 5 days, prior approval by laboratory is required # \_\_\_\_\_  
 State where samples were collected from: MA  RI  CT  NH  NJ  NY  ME  Other \_\_\_\_\_  
 Is this project for any of the following: USACE  Other  MA-MCP  Navy  Other  NA

Reporting Limits: RDEC  
 Electronic Deliverable: Yes  No   
 Format: Excel  Access  PDF  Other \_\_\_\_\_  
 ESS LAB PROJECT ID: 112220

Co. Name	Project #	Project Name (20 Char. or less)	Type of Containers	Number of Containers	Type of Containers	Write Required Analysis
VHB	7206.1	Trestle Trail				
Contact Person	Address					
Joshua Klement	10 Dorrance St. Suite 400					
City	State	Zip				
Providence	RI	02903				
Telephone #	Fax #					
401-277-8100						
ESS LAB Sample #	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)
01	12-12-11	08:45	X	S	S	SS-210 0-2
02		08:45				SS-211 0-2
03		08:54				SS-212 0-2
04		08:55				SS-213 0-2
05		09:04				SS-214 0-2
06		09:05				SS-215 0-2
07		09:12				SS-216 0-2
08	X	09:15	X	X	X	SS-217 0-2

Container Type: P-Poly G-Glass S-Sterile V-VOA Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters  
 Cooler Present:  Yes  No Internal Use Only:  Yes  No  
 Seals Intact:  Yes  No NA:   Pickup  
 Cooler Temp: 2.5  
 Preservation Code: 1- NP; 2- HCl; 3- H<sub>2</sub>SO<sub>4</sub>; 4- HNO<sub>3</sub>; 5- NaOH; 6- MeOH; 7- Asorbic Acid; 8- ZnAct; 9- \_\_\_\_\_  
 Sampled by: JGK / CM  
 Comments: \_\_\_\_\_

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
<i>Joshua Klement</i>	12-12-11 16:55	<i>John M... [Signature]</i>	



# CHAIN OF CUSTODY

Turn Time  Standard  Other \_\_\_\_\_  
 If faster than 5 days, prior approval by laboratory is required # \_\_\_\_\_  
 State where samples were collected from:  
 MA  RI  NH  NJ  NY  ME  Other \_\_\_\_\_  
 Is this project for any of the following: USACE  Other  NA  
 MA-MCP  Navy  USACE  Other  NA

Reporting Limits  
**RDEC**  
 Electronic Deliverable Yes  No   
 Format: Excel  Access  PDF  Other \_\_\_\_\_  
 ESS LAB PROJECT ID  
**112220**

Co. Name	Project #	Project Name (20 Char. or less)	ESS LAB Sample #	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Prep Code	Number of Containers	Type of Containers	Write Required Analysis
VHB	72016.1	Trestle Trail	0509	12-12-11	12:26	X		S	SS-510 0-2-	A	1	G	Total Arsenic
Joshua Klement		10 Dorrance St Suite 400	0610		12:25				SS-511 0-2-				
Providence, RI		Zip 02903	0711		12:34				SS-512 0-2-				
Telephone # 401-272-8100			0812		12:33				SS-513 0-2-				
					12:46				SS-514 0-2-				
					12:45				SS-515 0-2-				
					12:53				SS-516 0-2-				
				X	12:51	X		X	SS-517 0-2-	X	X	X	

Container Type: P-Poly G-Glass S-Sterile V-VOA Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters  
 Cooler Present Yes  No  Internal Use Only  
 Seals Intact Yes  No  NA:  Pickup   
 Cooler Temp: 3.50 [ ] Technicians \_\_\_\_\_

Preservation Code 1- NP, 2- HCl, 3- H<sub>2</sub>SO<sub>4</sub>, 4- HNO<sub>3</sub>, 5- NaOH, 6- MeOH, 7- Asorbic Acid, 8- ZnAc, 9- \_\_\_\_\_  
 Sampled by: SGK/CM  
 Comments: \_\_\_\_\_

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
<i>Shawn M. Zell</i>	12-12-11 16:55	<i>Shawn M. Zell</i>	12-12-11 16:55
_____	_____	_____	_____



---

# Certification Requirement



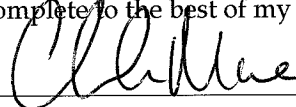
## Certifications (Rule 7.05)

As mandated by Section 7.05 of the Remediation Regulations, VHB submits the following statements of certification.

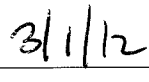
### *Certification of Preparer:*

I, Claude Masse, an employee of Vanasse Hangen Brustlin, Inc. and the preparer of this report, hereby certify that the information contained within this report is accurate to the best of my knowledge.

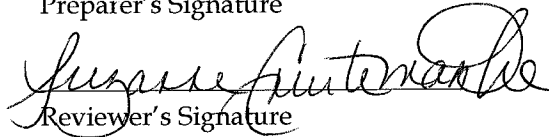
I, Suzanne Courtemanche, LSP, CHMM, an employee of Vanasse Hangen Brustlin, Inc. have reviewed this report and certify that it is accurate and complete to the best of my knowledge.



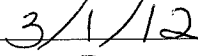
Preparer's Signature



Date



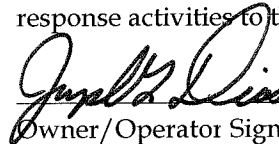
Reviewer's Signature



Date

### *Certification by Owner/Operator:*


I certify that the information contained in this report is a complete and accurate representation of the circumstances known about the release the subsequent response activities to the best of my knowledge.



Owner/Operator Signature



Date



Title

---

■

# Response to Comment Letter on Compact Disk

