

N00102.AR.001907  
NSY PORTSMOUTH  
5090.3a

LETTER REGARDING LABORATORY RESULTS FOR BUILDING 7 NSY PORTSMOUTH ME  
6/10/1997  
NAVFAC NORTHERN



DEPARTMENT OF THE NAVY

NORTHERN DIVISION  
NAVAL FACILITIES ENGINEERING COMMAND  
10 INDUSTRIAL HIGHWAY  
MAIL STOP, #82  
LESTER, PA 19113-2090

IN REPLY REFER TO

5090  
Code 1823/FE

JUN 10 1997

Ms. Meghan Cassidy  
U.S. Environmental Protection Agency, Region I  
JFK Federal Building HBT  
Boston, MA 02203-2211

Mr. Iver McLeod  
Maine Department of Environmental Protection  
State House Station 17  
Augusta, ME 04333-0017

Subj: LABORATORY RESULTS FOR BUILDING 7; INSTALLATION RESTORATION  
PROGRAM, PORTSMOUTH NAVAL SHIPYARD, KITTERY, ME

Dear Ms. Cassidy/Mr. McLeod:

Enclosed are the laboratory results for the samples taken at Building 7. As discussed at our May 28, 1997 meeting, the Navy recommends no further study of Building 7 based on the "growth" being biological in origin.

If additional information is required, please contact Ms. Marty Raymond at 207-438-2536 or myself at 610-595-0567, x159.

Sincerely,

FREDERICK J. EVANS, P.E.  
Remedial Project Manager  
By direction of the  
Commanding Officer

Copy to:

PNS (Code 106.3R, M. Raymond) w/encl

COMSUBGRU TWO (R. Jones) w/o encl

PNS (Code 100PAO) w/o encl

Brown and Root Environmental (L. Klink, B. Horne) w/o encl



# Brown & Root Environmental

A Division of Halliburton NUS Corporation

Foster Plaza VII  
661 Andersen Drive  
Pittsburgh, PA 15220-2745

(412) 921-7090  
FAX: (412) 921-4040

C-49-05-7-210

May 20, 1997

Fred Evans, Remedial Project Manager  
Northern Division  
Naval Facilities Engineering Command  
10 Industrial Highway, Mail Stop No. 82  
Lester, PA 19113

Reference: Contract No. N62472-90-D-1298 (CLEAN)  
Contract Task Order No. 232

Subject: Portsmouth Naval Shipyard (PNS), Kittery, Maine  
Building 7 Sampling Results

Dear Mr. Evans:

Please find attached for your records the results from the recent Building 7 sampling activity performed at the Portsmouth Naval Shipyard. A copy has also been sent directly to Marty Raymond (PNS).

The samples were collected on April 9, 1997 and were analyzed for biological material by Northeast Laboratory and analyzed for TAL Metals by Katahdin Analytical. The results of the biological analyses indicated that the samples were typical of marine microorganisms expected in North Atlantic tidal zones. The crystalline make-up was consistent with a calcium salt, such as carbonate.

A review of the metals results indicated that all of the metals were below the on-shore Media Protection Standards (MPS) for soils in a future industrial land use scenario. Using a residential land use scenario, all of the metals were below respective MPSs, except for Lead. Lead was detected at a concentration of 728 mg/kg. The MPS for lead in a future residential land use scenario is 500 mg/kg and may be revised to 400 mg/kg in the future.

If you require any additional information please feel free to call me at 412-921-8723.

Sincerely,

Mark L. Mengel  
Project Manager

MLM/dt  
Attachment

c: R. Boucher - NAVFAC NORTHDIV (w/o attachment)  
M. Raymond - PNS  
J. Trepanowski - B&RE King of Prussia  
D. Hutson - B&RE Pittsburgh (w/o attachment)  
File 6515, CTO 232



May 9, 1997

Mr. Mark Perry  
Halliburton NUS/ c/o Brown & Root Environmental  
661 Andersen Dr., Foster Plaza 7  
Pittsburgh, Pa. 15220

REC'D MAY 15 1997

RE: Katahdin Lab Number: WN0845  
Project ID: PNS Bldg. 7 Basement Wall  
Project Manager: Ms. Lil Pepin  
Sample Receipt Date: April 10, 1997

Dear Mr. Perry:

Please find enclosed the following information:

- \* Report of Analysis
- \* Confirmation
- \* Chain of Custody

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact the project manager listed above. This cover letter is an integral part of the ROA.

We appreciate your continued use of our laboratory and look forward to working with you in the future. The following signature indicates technical review and acceptance of the data.

Sincerely,

KATAHDIN ANALYTICAL SERVICES

Doroah J. Madrau  
Authorized Signature

5.12.97

0000001



CLIENT: MARK PERRY  
 HALLIBURTON NOS, C/O BROWN & ROOT ENVIRONMENTAL  
 661 ANDERSEN DRIVE, FOSTER PLAZA 7  
 PITTSBURGH, PA 15220

Lab Number : WN-0845-1  
 Report Date: 05/12/97  
 PO No. : N62472-90-D-1298  
 Project : PNS BUILDING 7 BASEMENT WALL

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX		SAMPLED BY		SAMPLED DATE RECEIVED		
7-01	Solid		K. ONEILL		04/09/97	04/10/97	
PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED BY	NOTES
Aluminum, Total	17600.	mg/kgdrywt	1.0	10.	6010/200.7	04/18/97 EM	1
Antimony, Total	<3.	mg/kgdrywt	1.0	0.8	6010/200.7	04/18/97 EM	1
Arsenic, Total	21.	mg/kgdrywt	1.0	0.8	6010/200.7	04/18/97 EM	1
Barium, Total	120.	mg/kgdrywt	1.0	0.50	6010/200.7	04/18/97 EM	1
Beryllium, Total	<1.6	mg/kgdrywt	1.0	0.50	6010/200.7	04/18/97 EM	1
Cadmium, Total	<3.29	mg/kgdrywt	1.0	1.00	6010/200.7	04/18/97 EM	1
Calcium, Total	6680.	mg/kgdrywt	1.0	5.0	6010/200.7	04/18/97 EM	1
Chromium, Total	59.3	mg/kgdrywt	1.0	1.50	6010/200.7	04/18/97 EM	1
Cobalt, Total	<9.88	mg/kgdrywt	1.0	3.00	6010/200.7	04/18/97 EM	1
Copper, Total	92.5	mg/kgdrywt	1.0	2.50	6010/200.7	04/18/97 EM	1
Iron, Total	26500.	mg/kgdrywt	1.0	2.	6010/200.7	04/18/97 EM	1
Lead, Total	728.	mg/kgdrywt	1.0	0.5	6010/200.7	04/18/97 EM	1
Magnesium, Total	7640.	mg/kgdrywt	1.0	5.0	6010/200.7	04/18/97 EM	1
Manganese, Total	185.	mg/kgdrywt	1.0	0.50	6010/200.7	04/18/97 EM	1
Mercury, Total	0.928	µg/gdrywt	1.0	0.0400	7471	05/05/97 PC	2

\* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.

- (1) Sample Preparation on 04/17/97 by PLC using 3050
- (2) Sample Preparation on 05/02/97 by PLC using 7471

05/12/97

LJO/kdwtjg(dw)  
 ND17ICS1

0000002



CLIENT: MARK PERRY  
 HALLIBURTON NUS, C/O BROWN & ROOT ENVIRONMENTAL  
 661 ANDERSEN DRIVE, FOSTER PLAZA 7  
 PITTSBURGH, PA 15220

Lab Number : WN-0845-1  
 Report Date: 05/12/97  
 PO No. : N62472-90-D-1298  
 Project : PNS BUILDING 7 BASEMENT WALL

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY		SAMPLED DATE RECEIVED	
7-01	Solid	K. ONEILL		04/09/97	04/10/97

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Nickel, Total	32.7	mg/kgdrywt	1.0	4.00	6010/200.7	04/18/97	EM	1
Potassium, Total	4380.	mg/kgdrywt	1.0	100.	6010/200.7	04/24/97	EM	1
Selenium, Total	<3.3	mg/kgdrywt	1.0	1.0	6010/200.7	04/18/97	EM	1
Silver, Total	<4.9	mg/kgdrywt	1.0	1.5	6010/200.7	04/18/97	EM	1
Sodium, Total	30000.	mg/kgdrywt	1.0	10.	6010/200.7	04/24/97	EM	1
Thallium, Total	<4.9	mg/kgdrywt	1.0	1.5	6010/200.7	04/18/97	EM	1
Vanadium, Total	58.3	mg/kgdrywt	1.0	2.50	6010/200.7	04/18/97	EM	1
Zinc, Total	207.	mg/kgdrywt	1.0	2.50	6010/200.7	04/18/97	EM	1

\* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.  
 (1) Sample Preparation on 04/17/97 by PLC using 3050

05/12/97  
 LJO/kdwtjg (dw)  
 ND17ICS1

000003



CLIENT: MARK PERRY  
 HALLIBURTON NUS, C/O BROWN & ROOT ENVIRONMENTAL  
 661 ANDERSEN DRIVE, FOSTER PLAZA 7  
 PITTSBURGH, PA 15220

Lab Number : WN-0845-1  
 Report Date: 05/12/97  
 PO No. : N62472-90-D-1298  
 Project : PMS BUILDING 7 BASEMENT WALL

REPORT OF ANALYTICAL RESULTS

Page 3 of 3

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY		SAMPLED DATE RECEIVED			
7-01	Solid	K. ONEILL		04/09/97	04/10/97		
PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED BY	NOTES
Solids-Total Residue (TS)	21.	wt %	1.0	0.10	CLP SOW 788	04/11/97 JF	1

\* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.  
 (1) Sample Preparation on 04/10/97 by JF

05/12/97

LJO/ejnejn/tjg (dw)

0000004

KATAHDIN ANALYTICAL SERVICES, INCORPORATED  
New England-ME Laboratory (207) 874-2400  
CONFIRMATION

Page 1

ORDER NO WN-0845

Project Manager: Lil Pepin

REPORT TO: MARK PERRY

ORDER DATE: 04/10/97

HALLIBURTON NUS, C/O BROWN & ROOT ENVIRONMENTAL  
661 ANDERSEN DRIVE, FOSTER PLAZA 7  
PITTSBURGH, PA 15220

PHONE: 412/921-7217

FAX: 412/921-4040

DUE: 09 MAY

INVOICE:

DANIEL BRACCIA  
HALLIBURTON NUS CORPORATION  
993 OLD EAGLE SCHOOL RD, SUITE 415  
WAYNE, PA 19087-1710

PHONE: 610/971-0900

PO: N62472-90-D-1298

REQ: CTO 232

PROJECT: PNS BUILDING 7 BASEMENT  
WALL

SAMPLED BY: K. ONEILL

DELIVERED BY: KATAHDIN

DISPOSE: AFTER 09 JUN

ITEM	LOG NUMBER	SAMPLE DESCRIPTION	SAMPLED DATE/TIME	RECEIVED	MATRIX	
1	WN0845-1	7-01	09 APR 0825	10 APR	SL	
DETERMINATION			METHOD	QTY	PRICE	AMOUNT
Target Analyte List Metals, Total				1	200.00	200.00
Solids-Total Residue (TS)			CLP/CIP SO	1	0.00	0.00
TOTALS				1	200.00	200.00

ORDER NOTE: QC-I  
PNS-BUILDING 7 BASEMENT WALL  
SDG:PNSB7 BEGIN/END  
NO DD

INVOICE: With Report

TOTAL ORDER AMOUNT \$200.00

This is NOT an Invoice

LP/SM/WEST.LP(dw)

04-17 Please contact KATAHDIN ANALYTICAL SERVICES promptly if you have any questi

000005



**BROWN + ROOT ENV**  
**Halliburton NUS**  
 CORPORATION

**ANALYTICAL SERVICE**  
**Packing List/Chain-of-Custody**

WNU845

Case No.                     

Project No./Activity <b>PORTSMOUTH NAVAL SY</b>			Laboratory <b>KATAHDIN</b>			Container Type <b>402 SAR</b>	Container Type	Container Type	Container Type
Sampler Signatures <b>Kevin O'Neill</b>			Date Shipped <b>4/9/96</b>	Carrier <b>FedEx</b>	Analysis <b>METALS</b>	Analysis	Analysis	Analysis	Analysis
			Airbill No. <b>DROP OFF</b>	No. of Coolers <b>4/1/97</b>					
Sample Number	Matrix	1997 Date/Time	Sample Location	Tag Number	QC	Preservative <b>ICE</b>	Preservative	Preservative	Preservative
1) <b>7-02</b>	<b>SD</b>	<b>4/9 0825</b>	<b>BUILDING 7</b>	<b>—</b>		<b>1</b>			
2)									
3)									
4)									
5)									
6)									
7)									
8)									
9)									
10)									
11)									
12)									

Relinquished By: (Signature) <b>Kevin O'Neill</b>	Date/Time <b>4/9/97 1030</b>	Received By: (Signature) <b>FedEx (TK)</b>	Relinquished By: (Signature) <b>Steph...</b>	Date/Time <b>4/9/97 1530</b>	Received By: (Signature) <b>David...</b>
Relinquished By: (Signature)	Date/Time <b>KTD 4/9/97</b>	Received for Laboratory By: <b>Steph...</b>	Date/Time <b>4/10/97 0805</b>	Remarks	

Shipment for Case Complete?  Yes  No

Nº 1235

**FINAL PAGE**

0000000000



**NORTHEAST  
LABORATORY**

Waterville, Maine 04903-0788  
Tel. (207) 873-7711  
1-800-244-8378  
FAX 207-873-7022

**FACSIMILE TRANSMITTAL COVER SHEET**

DATE: 4/24/97

TIME: 11 AM

TO: MARK PERRY

FAX #: 412/921-4040

BROWN & ROOT ENGR

# OF PAGES (INC COVER): 2

FROM: BILL COLBY

MESSAGE: RE: PORTSMOUTH NAVAL SHIPYARD, KITTERY ME  
CONTRACT N62472-90-D-1298  
TASK ORDER (CTO) No 0232

HERE IS FAX'D REPORT--WILL THERE BE A  
PO # ISSUED TO INVOICE THIS WORK?

**CONFIDENTIALITY STATEMENT**

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P.O. Box 788  
Waterville, Maine 04903-0788  
Tel: (207) 873-7711  
1-800-244-8378  
FAX 207-873-7022

**NORTHEAST  
LABORATORY**

Brown & Root Environmental  
661 Andersen Drive, Foster Plaza 7  
Pittsburgh, PA 15220  
Attn.: Mark Perry

NEL Sample #: 97-25261  
97-26259  
Date Received: 04/09/97  
Date Reported: 04/18/97

Sample Description: Three Swipes (1 Dup) of Wall of Bld 7, Portsmouth Naval Shipyard, Kittery, Maine

Swipe samples of 4 in<sup>2</sup> (approx) area of basement wall located at Building No 7 were obtained by a Brown & Root employee and shipped to Northeast Laboratory Services (NELS) on 9 April, 1997.

The two (2) areas of sampling were in an intertidal zone and described as "white slime-like with black organic layer (#7-01)" and "white with filaments (7-02)".

Swipes were examined by Nomarski interference contrast and brightfield microscopy.

Both samples exhibited an abundant and diverse population of marine phytoplankton (algae), fungi and bacteria. All microscopic fields contained numerous crystalline particles. No vascular aquatic plants or structures were noted.

Due to the mixed assemblage of organisms, as well as the symbiotic growth of fungi with lichenoid algae, an enumeration was ruled out. However we have ranked the microorganisms in predominating order as follows:

Sample ID 7-01

- Chaetoceros compressus (algae)
- Synedra delicatissus (diatom)
- Lyngbya munda (diatom)
- Cyanobacteria spp (bacteria)

Sample ID 7-02

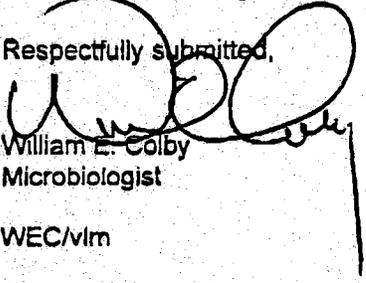
- Chaetoceros compressus (algae)
- Synedra delicatissus (diatom)
- Leiphloea pelvetiae (fungi)
- Cyanobacteria spp (bacteria)

Comment:

All samples exhibited typical growth of marine microorganism expected in North Atlantic tidal zones.

The numerous hexagonal-rhombohedral crystals would be consistent with a calcium salt, probably a carbonate.

Respectfully submitted,



William E. Colby  
Microbiologist

WEC/vlm