



Managed by Brookhaven Science Associates  
for the U.S. Department of Energy

April 8, 2004

Ms. Kathleen Newcomer  
Suffolk County Department of Health Services  
Drinking Water Supply Section  
220 Rabro Drive East  
Hauppauge, New York 11788

Dear Ms. Kathleen Newcomer:

**Subject: Monthly Water Treatment Plant Reports**  
**Reference: Suffolk County Minimum Monitoring Requirements for March 2004**

In accordance with the requirements of the BNL Potable Water System Sampling Plan and the 2004 SCDHS Minimum Monitoring Requirements for the BNL Potable Water Supply, included please find the following attachments for your records:

- Attachment I: BNL Potable Water Monthly Operational Data and Bacteriological Analyses for March.
- Attachment II: February 2004 Biveekly and Semi-Annual Water Quality Monitoring Data for the BNL Distribution System and Potable Water Wells.
- Attachment III: 2003 1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane Analyses for the BNL Potable Water Wells.

All analytical results have been reviewed and have been found to be within New York State Department of Health Drinking Water Standards (NYSDOH DWS). Collection and analysis of these samples are performed in accordance with the guidelines of the BNL Quality Assurance program, the SCDHS Community Water Supply Monitoring Requirements, and the BNL Potable Water System Sampling Plan. Plant Engineering Division personnel using standard operating procedures collect routine monitoring samples; a contractor laboratory using standard methods of analysis performs the subsequent analyses. The Quality Assurance documentation is available from the Environmental and Waste Management Services Division and Plant Engineering Divisions. Based on this information, we believe the values contained in these reports are representative of the BNL potable water system.



REGISTERED TO  
ISO 14001: 1996



NSF's Registration Program  
is accredited by the American  
National Standards Institute  
Registrar Accreditation Board

After reviewing the 2003 Potable Water data it was discovered that the analytical laboratory inadvertently left out the analytical results for 1,2-dibromomethane and 1,2-dibromo-3-chloropropane when reporting SOC data for the July sampling of the BNL potable wells; therefore the analytical results are attached.

Should there be any questions regarding this report or the analytical or operational data contained herein, please call either M. Allocco at (631) 344-3166, R. Lee at (631) 344-3148, or W. Chaloupka at (631) 344-7136.

Sincerely,



George A. Goode  
Environmental & Waste Management Services  
Division Manager

GAG/MA:car

Attachments: As noted

cc:	M. Allocco	w/attachments
	L. Ambroszkiewicz, SCDHS	w/attachments
	W. Chaloupka	w/attachments
	J. Granzen	w/attachments
	G. Goode	w/o attachments
	R. Lee	w/attachments
	E. Murphy	w/attachments
	P. Ponturo, SCDHS	w/o attachments
	L. Ross	w/o attachments
	J. Tarpinian	w/o attachments

File: EC61ER.04

**ATTACHMENT I**

**Brookhaven National Laboratory**

**Potable Water Supply**

**Monthly Operational Data and Bacteriological Analyses for March 2004**

**for the BNL Potable Water System**

# BROOKHAVEN NATIONAL LABORATORY

## WATER SYSTEMS OPERATION REPORT

PUBLIC WATER SUPPLY PROTECTION

PROGRAM CODE 169	STATION 11515100	SUFFOLK COUNTY	REPORTING PERIOD: <b>MARCH 2004</b>
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LOCATION: **Water Treatment Facility**

Did an emergency occur in any part of the water system? YES \_\_\_\_\_ NO

Source: Ground Water

Does the system have a chlorination waiver? YES \_\_\_\_\_ NO

Day of month	CHLORINATION				pH		Totalizer Daily Totalizer 13111941
	Treated Water	Liquid Sodium Hypochlorite		Free Cl2 Residual	Lime Sodium Hydroxide		
	K Gals	Gallons	Cl2 use per 24hrs	mg/l			
1	0	200	0	1	7.3	13111941	
2	0	200	0	1	7.4	13111941	
3	0	200	0	1	7	13111941	
4	0	200	0	1.1	7.3	13111941	
5	0	200	0	1	7.2	13111941	
6	0						
7	0						
8	0	200	0	0.75	7.3	13111941	
9	0	200	0	1.2	7.9	13111941	
10	0	200	0	1.32	7.9	13111941	
11	0	200	0	1.08	7.8	13111941	
12	0	200	0	1.07	7.9	13111941	
13	0						
14	0						
15	0	200	0	0.68	7.9	13111941	
16	0	200	0	1	8.4	13111941	
17	0	200	0	1	8.6	13111941	
18	0	200	0	1	8.4	13111941	
19	0	200	0	0.5	7.2	13111941	
20	0						
21	0						
22	0	200	0	0.91	6.5	13111941	
23	0	200	0	0.91	6.4	13111941	
24	0	200	0	0.91	6.2	13111941	
25	0	200	0	0.87	6.5	13111941	
26	0	200	0	1.01	7.4	13111941	
27	0						
28	0						
29	0	190	0	0.97	6.4	13111941	
30	0	190	0	1.1	6.2	13111941	
31	0	20	0	1.1	6.3	13111941	
TOT	0		0				
AVG	0.00		0.00	No. Days:	31		

Population Served **3,500**

Number of routine samples 4

(Must collect a minimum of 5 routine samples the month following a repeat sample collection)

Number of actual routine samples 7

Does a M&AR violation exist? YES \_\_\_\_\_ NO

If yes, check reason's below.

\_\_\_\_ Actual number of samples fewer than required.

\_\_\_\_ Failure to analyze for E. Coli if there was a positive result for total coliform from routine, repeat of high turbidity sample.

\_\_\_\_ Failure to analyze repeat samples.

Does an MCL violation exist? YES \_\_\_\_\_ NO

If yes, check reason(s) below.

\_\_\_\_ Two or more positive total coliform samples for systems collecting 40 or more samples (routine, repeat or hiturb) per month.

\_\_\_\_ Positive E. Coli result followed by a positive total coliform repeat sample.

\_\_\_\_ Positive total coliform result followed by a positive E. Coli repeat sample.

Reported by: *SC Koss*

Date: 4-2-04

Title: **Water Systems Supervisor**

Certification No. NY0031941

# BROOKHAVEN NATIONAL LABORATORY

## WATER SYSTEMS OPERATION REPORT

PUBLIC WATER SUPPLY PROTECTION

PROGRAM CODE 169	STATION 11515100	SUFFOLK COUNTY	REPORTING PERIOD: MARCH 2004
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LOCATION: WELL NO. 4

Did an emergency occur in any part of the water system? YES  NO

Source: Ground Water

Does the system have a chlorination waiver? YES  NO

Day of month	CHLORINATION				pH		Totalizer Daily Totalizer 1648337
	Treated Water K Gals	Liquid Sodium Hypochlorite		Free Cl2 Residual mg/l	Lime Sodium Hydroxide		
		Gallons	Cl2 use per 24hrs				
1	0	120	0	NR	NR	1648337	
2	0	120	0	NR	NR	1648337	
3	0	120	0	NR	NR	1648337	
4	0	120	0	NR	NR	1648337	
5	0	120	0	NR	NR	1648337	
6	0						
7	0						
8	0	120	0	NR	NR	1648337	
9	0	120	0	NR	NR	1648337	
10	1	120	0	NR	NR	1648338	
11	0	120	0	NR	NR	1648338	
12	0	120	0	NR	NR	1648338	
13	0						
14	0						
15	0	120	0	NR	NR	1648338	
16	0	120	0	NR	NR	1648338	
17	0	120	0	NR	NR	1648338	
18	0	120	0	NR	NR	1648338	
19	0	120	0	NR	NR	1648338	
20	0						
21	0						
22	0	120	0	NR	NR	1648338	
23	0	120	0	NR	NR	1648338	
24	0	120	0	NR	NR	1648338	
25	0	120	0	NR	NR	1648338	
26	0	120	0	NR	NR	1648338	
27	0						
28	0						
29	0	120	0	NR	NR	1648338	
30	0	120	0	NR	NR	1648338	
31	0	120	0	NR	NR	1648338	
TOT	1		0				
AVG.	0.03		0.00	No. Days:	31		

Population Served 3,500

Number of routine samples 4  
 (Must collect a minimum of 5 routine samples the month following a repeat sample collection)

Number of actual routine samples 7

Does a M&AR violation exist? YES  NO

If yes, check reason's below.

Actual number of samples fewer than required.

Failure to analyze for E. Coli if there was a positive result for total coliform from routine, repeat or high turbidity sample.

Failure to analyze repeat samples.

Does an MCL violation exist? YES  NO

If yes, check reason(s) below.

Two or more positive total coliform samples for systems collecting 40 or more samples (routine, repeat or hiturb) per month.

Positive E. Coli result followed by a positive total coliform repeat sample.

Positive total coliform result followed by a positive E. Coli repeat sample.

Reported by: JL Ross

Date: 4-2-04

Title: Water Systems Supervisor

Certification No. NY0031941

# BROOKHAVEN NATIONAL LABORATORY

## WATER SYSTEMS OPERATION REPORT

PUBLIC WATER SUPPLY PROTECTION

PROGRAM CODE 169	STATION 11515100	SUFFOLK COUNTY	REPORTING PERIOD: MARCH 2004
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LOCATION: WELL NO. 6

Did an emergency occur in any part of the water system? YES  NO

Source: Ground Water Does the system have a chlorination waiver? YES  NO

Day of month	CHLORINATION				pH		Totalizer Daily Totalizer
	Treated Water K Gals	Liquid Sodium Hypochlorite		Free Cl <sub>2</sub> Residual mg/l	Lime Sodium Hydroxide	Totalizer	
		Gallons	Cl <sub>2</sub> use per 24hrs				
1	0	81	0	NR	NR	435553	
2	0	81	0	NR	NR	435553	
3	0	81	0	NR	NR	435553	
4	0	81	0	NR	NR	435553	
5	0	81	0	NR	NR	435553	
6	0						
7	0						
8	61	81	0	NR	NR	435614	
9	0	81	0	NR	NR	435614	
10	1	81	0	NR	NR	435615	
11	0	81	0	NR	NR	435615	
12	0	81	0	NR	NR	435615	
13	0						
14	0						
15	0	81	0	NR	NR	435615	
16	0	81	0	NR	NR	435615	
17	0	81	0	NR	NR	435615	
18	0	81	0	NR	NR	435615	
19	0	81	0	NR	NR	435615	
20	0						
21	0						
22	0	81	0	NR	NR	435615	
23	0	81	0	NR	NR	435615	
24	0	81	0	NR	NR	435615	
25	0	81	0	NR	NR	435615	
26	0	81	0	NR	NR	435615	
27	0						
28	0						
29	0	81	0	NR	NR	435615	
30	0	81	0	NR	NR	435615	
31	0	81	0	NR	NR	435615	
TOT	62		0				
AVG	2.03		0.03	No. Days:	31		

Population Served 3,500

Number of routine samples 4

(Must collect a minimum of 5 routine samples the month following a repeat sample collection)

Number of actual routine samples 7

Does a M&AR violation exist? YES  NO

If yes, check reason's below.

Actual number of samples fewer than required.

Failure to analyze for E. Coli if there was a positive result for total coliform from routine, repeat or high turbidity sample.

Failure to analyze repeat samples.

Does an MCL violation exist? YES  NO

If yes, check reason(s) below.

Two or more positive total coliform samples for systems collecting 40 or more samples (routine, repeat or hiturb) per month.

Positive E. Coli result followed by a positive total coliform repeat sample.

Positive total coliform result followed by a positive E. Coli repeat sample.

Reported by: JC Pass

Date: 4-2-04

Title: Water Systems Supervisor

Certification No NY0031941

# BROOKHAVEN NATIONAL LABORATORY

## WATER SYSTEMS OPERATION REPORT

PUBLIC WATER SUPPLY PROTECTION

PROGRAM CODE 169	STATION 11515100	SUFFOLK COUNTY	REPORTING PERIOD: MARCH 2004
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LOCATION: WELL NO. 7

Did an emergency occur in any part of the water system? YES  NO

Source: Ground Water

Does the system have a chlorination waiver? YES  NO

Day of month	CHLORINATION				pH		Daily Totalizer
	Treated Water	Liquid Sodium Hypochlorite		Free Cl <sub>2</sub> Residual	Lime Sodium Hydroxide	Totalizer	
		K Gals	Gallons				
1	0	90	0	NR	NR	1374011	
2	0	90	0	NR	NR	1374011	
3	0	90	0	NR	NR	1374011	
4	0	90	0	NR	NR	1374011	
5	0	90	0	NR	NR	1374011	
6	0						
7	0						
8	127	90	0	NR	NR	1374138	
9	0	90	0	NR	NR	1374138	
10	1	90	0	NR	NR	1374139	
11	0	90	0	NR	NR	1374139	
12	0	90	0	NR	NR	1374139	
13	0						
14	0						
15	0	90	0	NR	NR	1374139	
16	0	90	0	NR	NR	1374139	
17	0	90	0	NR	NR	1374139	
18	0	90	0	NR	NR	1374139	
19	0	90	0	NR	NR	1374139	
20	0						
21	0						
22	0	90	0	NR	NR	1374139	
23	0	90	0	NR	NR	1374139	
24	0	90	0	NR	NR	1374139	
25	0	90	0	NR	NR	1374139	
26	0	90	0	NR	NR	1374139	
27	0						
28	0						
29	0	90	0	NR	NR	1374139	
30	0	90	0	NR	NR	1374139	
31	0	90	0	NR	NR	1374139	
TOT	128		0				
AVG.	4.13		0.00	No. Days:	31		

Population Served 3,500

Number of routine samples 4  
 (Must collect a minimum of 5 routine samples the month following a repeat sample collection)

Number of actual routine samples 7

Does a M&AR violation exist? YES  NO

If yes, check reason's below.

Actual number of samples fewer than required.

Failure to analyze for E. Coli if there was a positive result for total coliform from routine, repeat or high turbidity sample.

Failure to analyze repeat samples.

Does an MCL violation exist? YES  NO

If yes, check reason(s) below.

Two or more positive total coliform samples for systems collecting 40 or more samples (routine, repeat or turb) per month.

Positive E. Coli result followed by a positive total coliform repeat sample.

Positive total coliform result followed by a positive E. Coli repeat sample.

Reported by: *S. A. [Signature]*

Date: 4-2-04

Title: Water Systems Supervisor

Certification No. NY0031941

# BROOKHAVEN NATIONAL LABORATORY

## WATER SYSTEMS OPERATION REPORT

PUBLIC WATER SUPPLY PROTECTION

PROGRAM CODE 169	STATION 11515100	SUFFOLK COUNTY	REPORTING PERIOD: MARCH 2004
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LOCATION: WELL NO. 10

Did an emergency occur in any part of the water system? YES  NO

Source: Ground Water

Does the system have a chlorination waiver? YES  NO

Day of month	CHLORINATION				pH		Totalizer Daily Totalizer 769079
	Treated Water K Gals	Liquid Sodium Hypochlorite		Free Cl2 Residual mg/l	Lime Sodium Hydroxide	Totalizer	
		Gallons	Cl2 use per 24hrs				
1	0	38	0	NR	NR	769079	
2	0	38	0	NR	NR	769079	
3	0	38	0	NR	NR	769079	
4	0	38	0	NR	NR	769079	
5	0	35	0	NR	NR	769079	
6	0						
7	0						
8	248	38	0	NR	NR	769327	
9	0	38	0	NR	NR	769327	
10	0	38	0	NR	NR	769327	
11	0	38	0	NR	NR	769327	
12	0	35	0	NR	NR	769327	
13	0						
14	0						
15	0	38	0	NR	NR	769327	
16	0	38	0	NR	NR	769327	
17	0	36	0	NR	NR	769327	
18	0	35	0	NR	NR	769327	
19	0	38	0	NR	NR	769327	
20	0						
21	0						
22	0	38	0	NR	NR	769327	
23	0	38	0	NR	NR	769327	
24	0	38	0	NR	NR	769327	
25	0	38	0	NR	NR	769327	
26	0	38	0	NR	NR	769327	
27	0						
28	0						
29	0	38	0	NR	NR	769327	
30	0	38	0	NR	NR	769327	
31	0	38	0	NR	NR	769327	
TOT	248		0				
AVG.	8.00		0.00	No. Days:	31		

Population Served 3,500

Number of routine samples 4

(Must collect a minimum of 5 routine samples the month following a repeat sample collection)

Number of actual routine samples 7

Does a M&AR violation exist? YES  NO

If yes, check reason's below.

Actual number of samples fewer than required.

Failure to analyze for E. Coli if there was a positive result for total coliform from routine, repeat of high turbidity sample.

Failure to analyze repeat samples.

Does an MCL violation exist? YES  NO

If yes, check reason(s) below.

Two or more positive total coliform samples for systems collecting 40 or more samples (routine, repeat or hiturb) per month.

Positive E. Coli result followed by a positive total coliform repeat sample.

Positive total coliform result followed by a positive E. Coli repeat sample.

Reported by: *Sd Non*

Date: 4-2-04

Title: Water Systems Supervisor

Certification No. NY0031941



# BROOKHAVEN NATIONAL LABORATORY

## WATER SYSTEMS OPERATION REPORT

PUBLIC WATER SUPPLY PROTECTION

PROGRAM CODE 169	STATION 11515100	SUFFOLK COUNTY	REPORTING PERIOD: MARCH 2004
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LOCATION: WELL NO. 11

Did an emergency occur in any part of the water system? YES  NO

Source: Ground Water Does the system have a chlorination waiver? YES  NO

Day of month	CHLORINATION				pH		Totalizer Daily Totalizer
	Treated Water K Gals	Liquid Sodium Hypochlorite		Free Cl2 Residual mg/l	Lime Sodium Hydroxide	Totalizer	
		Gallons	Cl2 use per 24hrs				
1	0	135	0	NR	NR	519442	
2	286	129	6	NR	NR	519728	
3	506	123	6	NR	NR	520234	
4	0	123	0	NR	NR	520234	
5	5	123	0	NR	NR	520239	
6	0						
7	0						
8	62	123	0	NR	NR	520301	
9	0	120*18	3	0.21	7.1	520301	
10	6	141	0	NR	NR	520307	
11	964	129	12	1	7.8	521271	
12	1,535	111*39	18	1.1	7.8	522806	
13	0						
14	0						
15	3,996	102	48	1	8.1	526802	
16	1,562	84	18	1	8.2	528364	
17	1,307	69	15	1	8.6	529671	
18	1,375	54	15	1.1	7.9	531046	
19	1,559	42*109	12	NR	NR	532605	
20	0						
21	0						
22	4,373	96	54	0.8	6.1	536978	
23	1,382	75	21	NR	NR	538360	
24	1,558	60	15	NR	NR	539918	
25	1,344	40*110	20	NR	NR	541262	
26	193	150	0	NR	NR	541455	
27	0						
28	0						
29	4,464	93	57	0.8	6.7	545919	
30	1,571	75	18	0.8	6.4	547480	
31	1,386	60	15	0.9	6.5	548876	
TOT	29,434		353				
AVG.	949.48		11.39	No. Days:	31		

Population Served 3,500

Number of routine samples 4  
 (Must collect a minimum of 5 routine samples the month following a repeat sample collection)

Number of actual routine samples 7

Does a M&AR violation exist? YES  NO

If yes, check reason's below.

\_\_\_ Actual number of samples fewer than required.

\_\_\_ Failure to analyze for E. Coli if there was a positive result for total coliform from routine, repeat of high turbidity sample.

\_\_\_ Failure to analyze repeat samples.

Does an MCL violation exist? YES  NO

If yes, check reason(s) below.

\_\_\_ Two or more positive total coliform samples for systems collecting 40 or more samples (routine, repeat or hiturb) per month.

\_\_\_ Positive E. Coli result followed by a positive total coliform repeat sample.

\_\_\_ Positive total coliform result followed by a positive E. Coli repeat sample.

Reported by: *J. A. Par*

Date: 4-2-04

Title: Water Systems Supervisor

Certification No. NY0031941

# BROOKHAVEN NATIONAL LABORATORY

## WATER SYSTEMS OPERATION REPORT

PUBLIC WATER SUPPLY PROTECTION

PROGRAM CODE 169	STATION 11515100	SUFFOLK COUNTY	REPORTING PERIOD: MARCH 2004
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LOCATION: WELL NO. 12

Did an emergency occur in any part of the water system? YES  NO

Source: Ground Water Does the system have a chlorination waiver? YES  NO

Day of month	CHLORINATION				pH		Totalizer Daily Totalizer 668676
	Treated Water K Gals	Liquid Sodium Hypochlorite		Free Cl2 Residual mg/l	Lime Sodium Hydroxide	Totalizer	
		Gallons	Cl2 use per 24hrs				
1	0	65	0	0.9	7.7	668676	
2	1,478	50	15	0.83	7.9	670154	
3	1,440	45+87	5	0.92	7.8	671594	
4	1,414	120	12	1.5	7.4	673038	
5	1,373	108	12	NR	NR	674331	
6	0						
7	0						
8	3,978	63	47	1	7.7	678359	
9	1,449	42+108	66	1.2	7.7	679808	
10	1,329	126	24	1.1	7.9	681137	
11	469	120	6	NR	NR	681606	
12	0	120+30	0	NR	NR	681606	
13	0						
14	0						
15	0	150	0	NR	NR	681606	
16	0	150	0	NR	NR	681606	
17	4	150	0	NR	NR	681610	
18	0	150	0	1	8.4	681610	
19	7	150	0	NR	NR	681617	
20	0						
21	0						
22	148	150	0	NR	NR	681765	
23	4	147	3	NR	NR	681769	
24	0	147	0	NR	NR	681769	
25	0	147	0	NR	NR	681769	
26	1,336	125	22	NR	NR	683105	
27	0						
28	0						
29	20	123	2	NR	NR	683125	
30	0	123	0	NR	NR	683125	
31	0	123	0	NR	NR	683125	
TOT	14,449		214				
AVG.	466.10		6.90	No. Days	31		

Population Served 3,500

Number of routine samples 4  
 (Must collect a minimum of 5 routine samples the month following a repeat sample collection)

Number of actual routine samples 7

Does a M&AR violation exist? YES  NO

If yes, check reason's below.

Actual number of samples fewer than required.

Failure to analyze for E. Coli if there was a positive result for total coliform from routine, repeat of high turbidity sample.

Failure to analyze repeat samples.

Does an MCL violation exist? YES  NO

If yes, check reason(s) below.

Two or more positive total coliform samples for systems collecting 40 or more samples (routine, repeat or hiturb) per month.

Positive E. Coli result followed by a positive total coliform repeat sample.

Positive total coliform result followed by a positive E. Coli repeat sample.

Reported by: [Signature]

Date: 4-2-04

Title: Water Systems Supervisor

Certification No. NY0031941

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747  
(631) 694-3040. FAX: (631) 420-8436 NYSDOH ID# 10478

## LABORATORY RESULTS

Brookhaven National Lab.-BNLM  
70 Bell Ave.  
Upton, NY 11973  
Attn To : S. Scarpitta

Lab No. : 0403269-001

Sample Information...  
Type : Potable Water  
Origin: Distribution

Federal ID 5111891

Client ID. : 17807-001

Collected 3/5/2004 8:32:00 AM Point No 094-273  
Received 3/5/2004 3:00:00 PM Location: B-49 Water Tower

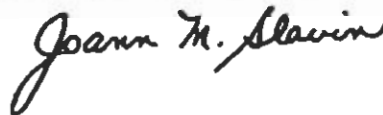
Collected By CLIENT

Copy : Original

CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Units</u>	<u>Limit</u>	<u>Method Number</u>	<u>Analyzed</u>
Total Coliform	Negative	P/A	Negative	M9223	03/06/2004 12:00 PM
E_Coliform	Absent	P/A	Absent	M9223	03/06/2004 12:00 PM
Total Residual Chlorine	1.1	mg/L		M4500-CI G	03/05/2004

Result(s) reported meet(s) Regulatory Limit(s).  
Result(s) flagged with \* Exceed Regulatory Limit(s). Limit noted.



Date Reported : 4/2/2004

Laboratory Manager

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747  
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID# 10478

## LABORATORY RESULTS

Brookhaven National Lab.-BNLM  
70 Bell Ave.  
Upton, NY 11973  
Attn To : S. Scarpitta

Lab No. : 0403269-002

Sample Information...  
Type : Potable Water  
Origin: Distribution

Federal ID 5111891

Client ID. : 17807-002

Collected 3/5/2004 11:20:00 AM Point No 076-408

Received 3/5/2004 3:00:00 PM Location: B-640 Water Tower

Collected By CLIENT

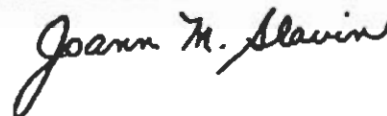
Copy : Original

CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Units</u>	<u>Limit</u>	<u>Method Number</u>	<u>Analyzed</u>
Total Coliform	Negative	P/A	Negative	M9223	03/06/2004 12:00 PM
E_Coliform	Absent	P/A	Absent	M9223	03/06/2004 12:00 PM
Total Residual Chlorine	1.1	mg/L		M4500-CI G	03/05/2004

Result(s) reported meet(s) Regulatory Limit(s).  
Result(s) flagged with \* Exceed Regulatory Limit(s). Limit noted.

Date Reported : 4/2/2004



Laboratory Manager

BNLM146 A20

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747  
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID# 10478

## LABORATORY RESULTS

Brookhaven National Lab.-BNLM  
70 Bell Ave.  
Upton, NY 11973  
Attn To : S. Scarpitta

Lab No. : 0403269-003

Sample Information...  
Type : Potable Water  
Origin: Distribution

Federal ID 5111891

Client ID. : 17807-003

Collected 3/5/2004 11:10:00 AM Point No 109-19  
Received 3/5/2004 3:00:00 PM Location: B-363 Apt.Laundry

Collected By CLIENT

Copy : Original

CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Units</u>	<u>Limit</u>	<u>Method Number</u>	<u>Analyzed</u>
Total Coliform	Negative	P/A	Negative	M9223	03/06/2004 12:00 PM
E_Coliform	Absent	P/A	Absent	M9223	03/06/2004 12:00 PM
Total Residual Chlorine	0.9	mg/L		M4500-CI G	03/05/2004

Result(s) reported meet(s) Regulatory Limit(s).  
Result(s) flagged with ★ Exceed Regulatory Limit(s). Limit noted.

Date Reported : 4/2/2004

*Joann M. Slavin*

Laboratory Manager

BNLM146 A21

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747  
(631) 694-3040, FAX: (631) 420-8436 NYSDOH ID# 10478

## LABORATORY RESULTS

Brookhaven National Lab.-BNLM  
70 Bell Ave.  
Upton, NY 11973  
Attn To : S. Scarpitta

Lab No. : 0403269-004

Sample Information...  
Type : Potable Water  
Origin: Distribution

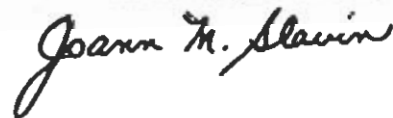
Federal ID 5111891

Client ID. : 17807-004

Collected 3/5/2004 10:45:00 AM Point No 045-12  
Received 3/5/2004 3:00:00 PM Location: B-1005 RHIC  
Collected By CLIENT  
Copy : Original  
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Units</u>	<u>Limit</u>	<u>Method Number</u>	<u>Analyzed</u>
Total Coliform	Negative	P/A	Negative	M9223	03/06/2004 12:00 PM
E_Coliform	Absent	P/A	Absent	M9223	03/06/2004 12:00 PM
Total Residual Chlorine	0.5	mg/L		M4500-Cl G	03/05/2004

Result(s) reported meet(s) Regulatory Limit(s).  
Result(s) flagged with \* Exceed Regulatory Limit(s). Limit noted.



Date Reported : 4/2/2004

Laboratory Manager

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747  
(631) 694-3040. FAX: (631) 420-8436 NYSDOHID# 10478

## LABORATORY RESULTS

Brookhaven National Lab.-BNLM  
70 Bell Ave.  
Upton, NY 11973  
Attn To : S. Scarpitta

Lab No. : 0403269-005

Sample Information...  
Type : Potable Water  
Origin: Distribution

Federal ID 5111891

Client ID. : 17807-005

Collected 3/5/2004 11:00:00 AM Point No 054-187

Received 3/5/2004 3:00:00 PM Location: B-930 LINAC

Collected By CLIENT

Copy : Original

CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Units</u>	<u>Limit</u>	<u>Method Number</u>	<u>Analyzed</u>
Total Coliform	Negative	P/A	Negative	M9223	03/06/2004 12:00 PM
E_Coliform	Absent	P/A	Absent	M9223	03/06/2004 12:00 PM
Total Residual Chlorine	1.1	mg/L		M4500-CI G	03/05/2004

Result(s) reported meet(s) Regulatory Limit(s).  
Result(s) flagged with \* Exceed Regulatory Limit(s). Limit noted.

Date Reported : 4/2/2004

*Joann M. Slavin*

Laboratory Manager

BNLMI46 A23

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747  
(631) 694-3040. FAX: (631) 420-8436 NYSDOH ID# 10478

## LABORATORY RESULTS

Brookhaven National Lab.-BNLM  
70 Bell Ave.  
Upton, NY 11973  
Attn To : S. Scarpitta

Lab No. : 0403269-006

Sample Information...  
Type : Potable Water  
Origin: Distribution

Federal ID 5111891

Client ID. : 17807-006

Collected 3/5/2004 1:00:00 PM

Point No 084-70

Received 3/5/2004 3:00:00 PM

Location: B-490 Outpatient Clinic

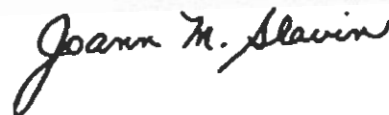
Collected By CLIENT

Copy : Original

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<u>Parameter(s)</u>	<u>Results</u>	<u>Units</u>	<u>Limit</u>	<u>Method Number</u>	<u>Analyzed</u>
Total Coliform	Negative	P/A	Negative	M9223	03/06/2004 12:00 PM
E_Coliform	Absent	P/A	Absent	M9223	03/06/2004 12:00 PM
Total Residual Chlorine	1.0	mg/L		M4500-CI G	03/05/2004

Result(s) reported meet(s) Regulatory Limit(s).  
Result(s) flagged with ★ Exceed Regulatory Limit(s). Limit noted.



Date Reported : 4/2/2004

Laboratory Manager



# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747  
(631) 694-3040. FAX: (631) 420-8436 NYSDOH ID# 10478

## LABORATORY RESULTS

Brookhaven National Lab.-BNLM  
70 Bell Ave.  
Upton, NY 11973  
Attn To : S. Scarpitta

Lab No. : 0403269-007

Sample Information...  
Type : Potable Water  
Origin: Distribution

Federal ID 5111891

Client ID. : 17807-007

Collected 3/5/2004 1:15:00 PM Point No 084-67  
Received 3/5/2004 3:00:00 PM Location: B-490 Block 11

Collected By CLIENT

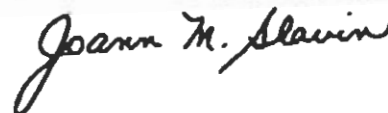
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<u>Parameter(s)</u>	<u>Results</u>	<u>Units</u>	<u>Limit</u>	<u>Method Number</u>	<u>Analyzed</u>
Total Coliform	Negative	P/A	Negative	M9223	03/06/2004 12:00 PM
E_Coliform	Absent	P/A	Absent	M9223	03/06/2004 12:00 PM
Total Residual Chlorine	1.0	mg/L		M4500-CI G	03/05/2004

Result(s) reported meet(s) Regulatory Limit(s).  
Result(s) flagged with \* Exceed Regulatory Limit(s). Limit noted.

Date Reported : 4/2/2004



Laboratory Manager

BNLM146 A25

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747  
(631) 694-3040. FAX: (631) 420-8436 NYSDOH ID# 10478

## LABORATORY RESULTS

Brookhaven National Lab.-BNLM  
70 Bell Ave.  
Upton, NY 11973  
Attn To : S. Scarpitta

Lab No. : 0403269-008

Sample Information...  
Type : Potable Water  
Origin: Distribution

Federal ID 5111891

Client ID. : 17807-008

Collected 3/5/2004 10:45:00 AM Point No 045-12

Received 3/5/2004 3:00:00 PM Location: B-1005 RHIC - Duplicate

Collected By CLIENT

Copy : Original

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<u>Parameter(s)</u>	<u>Results</u>	<u>Units</u>	<u>Limit</u>	<u>Method Number</u>	<u>Analyzed</u>
Total Coliform	Negative	P/A	Negative	M9223	03/06/2004 12:00 PM
E_Coliform	Absent	P/A	Absent	M9223	03/06/2004 12:00 PM
Total Residual Chlorine	0.5	mg/L		M4500-CI G	03/05/2004

Result(s) reported meet(s) Regulatory Limit(s).  
Result(s) flagged with \* Exceed Regulatory Limit(s). Limit noted.

Date Reported : 4/2/2004

*Joanna M. Slavin*

Laboratory Manager

BNLM146 A26

**ATTACHMENT II**

**Brookhaven National Laboratory**

**Potable Water Supply**

**March 2004 Biweekly and Semi-Annual Water Quality Monitoring Data  
for the BNL Distribution System and Potable Water Wells**

**Attachment II**  
**Table 1 - Summary of Water Quality Analyses**  
**for the BNL Potable Water System**  
**March 2004**

Sample Location	Sample Date	pH (SU)	Temperature (Degrees F)	Conductivity (µmhos)	Alkalinity (mg/L)	Calcium (mg/L)
Well #11	3/2/04	7.9	55	212	ANR	ANR
Well #11	3/4/04	NR	NR	NR	ANR	ANR
Well #11	3/9/04	7.1	55	191	ANR	ANR
Well #11	3/11/04	7.8	55	191	ANR	ANR
Well #11	3/16/04	8.2	55	198	ANR	ANR
Well #11	3/18/04	7.9	55	186	ANR	ANR
Well #11	3/23/04	NR	NR	NR	ANR	ANR
Well #11	3/25/04	NR	NR	NR	ANR	ANR
Well #11	3/30/04	NR	NR	NR	ANR	ANR
Well #12	3/2/04	NR	NR	NR	ANR	ANR
Well #12	3/4/04	7.4	56	210	ANR	ANR
Well #12	3/9/04	7.7	56	256	ANR	ANR
Well #12	3/11/04	NR	NR	NR	ANR	ANR
Well #12	3/16/04	8.0	56	251	ANR	ANR
Well #12	3/18/04	8.4	56	192	ANR	ANR
Well #12	3/23/04	NR	NR	NR	ANR	ANR
Well #12	3/25/04	7.5	56	231	ANR	ANR
Well #12	3/30/04	NR	NR	NR	ANR	ANR
Well #4	3/5/04	5.9	55	146	11.6	5.48
Well #6	3/5/04	6.1	54	116	7.6	3.86
Well #7	3/5/04	6.0	57	148	12.2	5.47
Well #10	3/5/04	6.9	57	74.7	20.3	5.09
Well #11	3/5/04	6.0	57	132	17.3	6.30
Well #12	3/5/04	6.6	57	108	21.4	7.10

**ANR-** Analysis Not Required

**NR-** Not Reported

**Note:** Field parameters are only conducted for facilities that are in operation on the day of measurement.

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747  
(631) 694-3040. FAX: (631) 420-8436 NYSDOH ID# 10478

## LABORATORY RESULTS

Brookhaven National Lab.-BNLM  
70 Bell Ave.  
Upton, NY 11973  
Attn To : S. Scarpitta

Lab No. : 0403271-001

Sample Information...  
Type : Potable Water  
Origin: Raw Well

Federal ID 5111891

Client ID. : 17807-009

Collected 3/5/2004 9:02:00 AM Point No 083-20  
Received 3/5/2004 3:00:00 PM Location: Well #4 Raw

Collected By CLIENT

Copy : Original

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<u>Parameter(s)</u>	<u>Results</u>	<u>Units</u>	<u>Limit</u>	<u>Method Number</u>	<u>Analyzed</u>
Specific Conductance	146	µmhos/cm		E120.1	03/05/2004
PH (FIELD)	5.9	pH units		E150.1	03/05/2004
Temperature	13	°C		E170.1	03/05/2004
Calcium	5480	µg/L		E200.7	03/26/2004 1:20 PM
Alkalinity, Total (As CaCO3)	11.6	mg/L		M2320 B	03/12/2004 10:07 AM

Result(s) reported meet(s) Regulatory Limit(s).  
Result(s) flagged with \* Exceed Regulatory Limit(s). Limit noted.

Date Reported : 4/2/2004

*Joann M. Slavin*

Laboratory Manager

BNLM146 A27

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747  
(631) 694-3040 FAX: (631) 420-8436 NYSDOH ID# 10478

## LABORATORY RESULTS

Brookhaven National Lab.-BNLM  
70 Bell Ave.  
Upton, NY 11973  
Attn To : S. Scarpitta

Lab No. : 0403271-002

Sample Information...  
Type : Potable Water  
Origin: Raw Well

Federal ID 5111891

Client ID. : 17807-010

Collected 3/5/2004 9:15:00 AM Point No 093-07  
Received 3/5/2004 3:00:00 PM Location: Well #6 Raw  
Collected By CLIENT  
Copy : Original  
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<u>Parameter(s)</u>	<u>Results</u>	<u>Units</u>	<u>Limit</u>	<u>Method Number</u>	<u>Analyzed</u>
Specific Conductance	116	µmhos/cm		E120.1	03/05/2004
PH (FIELD)	6.1	pH units		E150.1	03/05/2004
Temperature	12	°C		E170.1	03/05/2004
Calcium	3860	µg/L		E200.7	03/26/2004 2:03 PM
Alkalinity, Total (As CaCO3)	7.6	mg/L		M2320 B	03/12/2004 10:10 AM

Result(s) reported meet(s) Regulatory Limit(s).  
Result(s) flagged with \* Exceed Regulatory Limit(s). Limit noted.

Date Reported : 4/2/2004

*Joann M. Slavin*

Laboratory Manager

BNLM146 A28

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747  
(631) 694-3040. FAX: (631) 420-8436 NYSDOHID# 10478

## LABORATORY RESULTS

Brookhaven National Lab.-BNLM  
70 Bell Ave.  
Upton, NY 11973  
Attn To : S. Scarpitta

Lab No. : 0403271-003

Sample Information...  
Type : Potable Water  
Origin: Raw Well

Federal ID 5111891

Client ID. : 17807-011

Collected 3/5/2004 10:15:00 AM Point No 092-03

Received 3/5/2004 3:00:00 PM Location: Well #7 Raw

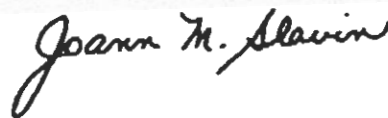
Collected By CLIENT

Copy : Original

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<u>Parameter(s)</u>	<u>Results</u>	<u>Units</u>	<u>Limit</u>	<u>Method Number</u>	<u>Analyzed</u>
Specific Conductance	148	µmhos/cm		E120.1	03/05/2004
PH (FIELD)	6.0	pH units		E150.1	03/05/2004
Temperature	14	°C		E170.1	03/05/2004
Calcium	5470	µg/L		E200.7	03/26/2004 2:11 PM
Alkalinity, Total (As CaCO3)	12.2	mg/L		M2320 B	03/12/2004 10:23 AM

Result(s) reported meet(s) Regulatory Limit(s).  
Result(s) flagged with \* Exceed Regulatory Limit(s). Limit noted.



Date Reported : 4/2/2004

Laboratory Manager

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747  
(631) 694-3040. FAX: (631) 420-8436 NYSDOH ID# 10478

## LABORATORY RESULTS

Brookhaven National Lab.-BNLM  
70 Bell Ave.  
Upton, NY 11973  
Attn To : S. Scarpitta

Lab No. : 0403271-004

Sample Information...  
Type : Potable Water  
Origin: Raw Well

Federal ID 5111891

Client ID. : 17807-012

Collected 3/5/2004 10:25:00 AM Point No 055-09  
Received 3/5/2004 3:00:00 PM Location: Well #10 Raw

Collected By CLIENT

Copy : Original

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<u>Parameter(s)</u>	<u>Results</u>	<u>Units</u>	<u>Limit</u>	<u>Method Number</u>	<u>Analyzed</u>
Specific Conductance	74.7	µmhos/cm		E120.1	03/05/2004
PH (FIELD)	6.9	pH units		E150.1	03/05/2004
Temperature	14	°C		E170.1	03/05/2004
Calcium	5090	µg/L		E200.7	03/26/2004 2:20 PM
Alkalinity, Total (As CaCO3)	20.3	mg/L		M2320 B	03/12/2004 10:28 AM

Result(s) reported meet(s) Regulatory Limit(s).  
Result(s) flagged with \* Exceed Regulatory Limit(s). Limit noted.

Date Reported : 4/2/2004

Page 4 of 6

*Joann M. Slavin*

Laboratory Manager

BNLM146 A30



# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747  
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID# 10478

## LABORATORY RESULTS

Brookhaven National Lab.-BNLM

70 Bell Ave.

Upton, NY 11973

Attn To : S. Scarpitta

Federal ID 5111891

Collected 3/5/2004 8:40:00 AM

Received 3/5/2004 3:00:00 PM

Collected By CLIENT

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Lab No. : 0403271-005

Sample Information...

Type : Potable Water

Origin: Raw Well

Client ID. : 17807-013

Point No 056-19

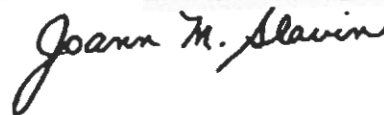
Location: Well #11 Raw

<u>Parameter(s)</u>	<u>Results</u>	<u>Units</u>	<u>Limit</u>	<u>Method Number</u>	<u>Analyzed</u>
Specific Conductance	132	µmhos/cm		E120.1	03/05/2004
PH (FIELD)	6.0	pH units		E150.1	03/05/2004
Temperature	14	°C		E170.1	03/05/2004
Calcium	6300	µg/L		E200.7	03/26/2004 2:28 PM
Alkalinity, Total (As CaCO3)	17.3	mg/L		M2320 B	03/12/2004 10:31 AM

Result(s) reported meet(s) Regulatory Limit(s).

Result(s) flagged with ★ Exceed Regulatory Limit(s). Limit noted.

Date Reported : 4/2/2004



Laboratory Manager

# H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747  
(631) 694-3040. FAX: (631) 420-8436 NYSDOH ID# 10478

## LABORATORY RESULTS

Brookhaven National Lab.-BNLM  
70 Bell Ave.  
Upton, NY 11973  
Attn To : S. Scarpitta

Lab No. : 0403271-006

Sample Information...

Type : Potable Water

Origin: Raw Well

Federal ID 5111891

Client ID. : 17807-014

Collected 3/5/2004 10:35:00 AM Point No 056-20

Received 3/5/2004 3:00:00 PM Location: Well #12 Raw

Collected By CLIENT

Copy : Original

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<u>Parameter(s)</u>	<u>Results</u>	<u>Units</u>	<u>Limit</u>	<u>Method Number</u>	<u>Analyzed</u>
Specific Conductance	108	µmhos/cm		E120.1	03/05/2004
PH (FIELD)	6.6	pH units		E150.1	03/05/2004
Temperature	14	°C		E170.1	03/05/2004
Calcium	7100	µg/L		E200.7	03/26/2004 2:37 PM
Alkalinity, Total (As CaCO3)	21.4	mg/L		M2320 B	03/12/2004 10:35 AM

Result(s) reported meet(s) Regulatory Limit(s).  
Result(s) flagged with \* Exceed Regulatory Limit(s). Limit noted.

Date Reported : 4/2/2004

Page 6 of 6

*Joann M. Slavin*

Laboratory Manager

BNLM146 A32

**ATTACHMENT III**

**Brookhaven National Laboratory**

**Potable Water Supply**

**2003 1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane Analyses**

**for the BNL Potable Water Wells**

16041-011/012

Lab Name: H2M LABS, INC. Contract: \_\_\_\_\_  
 Lab Code: 10478 Case No.: BNLM SAS No.: \_\_\_\_\_ SDG No.: BNLM137  
 Matrix: (soil/water) Potable Water Lab Sample ID: 0307357-002A  
 Sample wt/vol: 35 (g/mL) ML Lab File ID: B00370.RAW  
 Level: (low/med) LOW Date Received: 7/10/03  
 % Moisture: not dec. Date Extracted: 7/21/03  
 GC Column: R-35 ID: .53 (mm) Date Analyzed: 7/22/03  
 Extract Volume: 2000 ( $\mu$ l) Dilution Factor: 1.00  
 Injection Volume: 1 ( $\mu$ l)

## CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	$\mu$ g/L	Q
106-93-4	1,2-Dibromoethane		0.02	U
96-12-8	1,2-Dibromo-3-chloropropane		0.02	U

Composite of Wells 11+12

16841-008/009/010

Lab Name: H2MLABS, INC. Contract: \_\_\_\_\_  
 Lab Code: 10478 Case No.: BNLM SAS No.: \_\_\_\_\_ SDG No.: BNLM137  
 Matrix: (soil/water) Potable Water Lab Sample ID: 0307357-001A  
 Sample wt/vol: 35 (g/mL) ML Lab File ID: B00369.RAW  
 Level: (low/med) LOW Date Received: 7/10/03  
 % Moisture: not dec. Date Extracted: 7/21/03  
 GC Column: R-35 ID: .53 (mm) Date Analyzed: 7/22/03  
 Extract Volume: 2000 ( $\mu$ l) Dilution Factor: 1.00  
 Injection Volume: 1 ( $\mu$ l)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	$\mu$ g/L Q
106-93-4	1,2-Dibromoethane	0.02	U
96-12-8	1,2-Dibromo-3-chloropropane	0.02	U

Composite of Weeds 4, 6, and 7