Environmental and Waste Management Services

BROOKHAVEN
NATIONAL LABORATORY

120 E. Fifth Ave., Bldg. 860
P. O. Box 5000
Upton, NY 11973-5000
Phone 631 344-4549
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goode@bnl.gov

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 Biweekly 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.

NSF
REGISTERED TO
ISO 14001: 1996

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: MARCH 2004

LOCATION: **Water Treatment Facility**

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

Source: Ground Water

Does the system have a chlorination waiver? YES ____ NO X

	CHLORINATION				pH	
	Treated	Liquid Sodium Hypochlorite		Free Cl2	Lime	Totalizer
Day of	Water	Gallons	Cl2 use	Residual	Sodium	Daily Totalizer
month	K Gals	200	per 24hrs	mg/l	Hydroxide	13111941
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	199	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 X

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 X

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

BROOKHAVEN NATIONAL LABORATORY

WATER SYSTEMS OPERATION REPORT

PUBLIC WATER SUPPLY PROTECTION

PROGRAM CODE 169	STATION 11515100	SUFFOLK COUNTY	REPORTING PERIOD: MARCH 2004

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 ✓

	CHLORINATION				pH	
	Treated	Liquid Sodium Hypochlorite		Free Cl2	Lime	Totalizer
Day of	Water	Gallons	Cl2 use	Residual	Sodium	Daily Totalizer
month	K Gals	120	per 24hrs	mg/l	Hydroxide	1648337
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 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

BROOKHAVEN NATIONAL LABORATORY

WATER SYSTEMS OPERATION REPORT

PUBLIC WATER SUPPLY PROTECTION

PROGRAM CODE 169	STATION 11515100	SUFFOLK COUNTY	REPORTING PERIOD: MARCH 2004

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 ✓

	CHLORINATION				pH	
	Treated	Liquid Sodium Hypochlorite		Free Cl2	Lime	Totalizer
Day of	Water	Gallons	Cl2 use	Residual	Sodium	Daily Totalizer
month	K Gals	81	per 24hrs	mg/l	Hydroxide	435553
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	2.00		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 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: [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

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 ✓

	CHLORINATION				pH	
	Treated	Liquid Sodium Hypochlorite		Free Cl2	Lime	Totalizer
Day of	Water	Gallons	Cl2 use	Residual	Sodium	Daily Totalizer
month	K Gals	90	per 24hrs	mg/l	Hydroxide	1374011
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 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**

BROOKHAVEN NATIONAL LABORATORY

WATER SYSTEMS OPERATION REPORT

PUBLIC WATER SUPPLY PROTECTION

PROGRAM CODE 169	STATION 11515100	SUFFOLK COUNTY	REPORTING PERIOD: MARCH 2004

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 ✓

	CHLORINATION				pH	
	Treated	Liquid Sodium Hypochlorite		Free Cl2	Lime	Totalizer
Day of	Water	Gallons	Cl2 use	Residual	Sodium	Daily Totalizer
month	K Gals	38	per 24hrs	mg/l	Hydroxide	769079
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	38	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	38	0	NR	NR	769327
13	0					
14	0					
15	0	38	0	NR	NR	769327
16	0	38	0	NR	NR	769327
17	0	38	0	NR	NR	769327
18	0	38	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: [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

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 ✓

	CHLORINATION				pH	
	Treated	Liquid Sodium Hypochlorite		Free Cl2	Lime	Totalizer
Day of	Water	Gallons	Cl2 use	Residual	Sodium	Daily Totalizer
month	K Gals	135	per 24hrs	mg/l	Hydroxide	519442
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+108	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	547490
31	1,386	60	15	0.9	6.5	548876
TOT	29,434		393			
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: [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

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 ✓

	CHLORINATION				pH	
	Treated	Liquid Sodium Hypochlorite		Free Cl2	Lime	Totalizer
Day of	Water	Gallons	Cl2 use	Residual	Sodium	Daily Totalizer
month	K Gals	65	per 24hrs	mg/l	Hydroxide	668676
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	673008
5	1,373	108	12	NR	NR	674381
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	0	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		6.99	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
Collected 3/5/2004 8:32:00 AM
Received 3/5/2004 3:00:00 PM
Collected By CLIENT
Copy : **Original**
CC

Point No 094-273
Location: B-49 Water Tower

Client ID. : 17807-001

Parameter(s)	Results	Units	Limit	Method Number	Analyzed
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-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

Joann M. Slavin
Laboratory Manager

BNLM146 A19

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

Parameter(s)	Results	Units	Limit	Method Number	Analyzed
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-Cl G	03/05/2004

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

Joann M. Slavin
Laboratory Manager

Date Reported : 4/2/2004

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

Parameter(s)	Results	Units	Limit	Method Number	Analyzed
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-Cl G	03/05/2004

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

Joann M. Slavin
Laboratory Manager

Date Reported : 4/2/2004

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
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

Client ID. : 17807-004

Parameter(s)	Results	Units	Limit	Method Number	Analyzed
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.

Joann M. Slavin
Laboratory Manager

Date Reported : 4/2/2004

BNLM146 A22

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. : 0403269-005

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

Parameter(s)	Results	Units	Limit	Method Number	Analyzed
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-Cl G	03/05/2004

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

Joann M. Slavin
Laboratory Manager

Date Reported : 4/2/2004

BNLM146 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
CC

Parameter(s)	Results	Units	Limit	Method Number	Analyzed
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-Cl G	03/05/2004

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

Joann M. Slavin
Laboratory Manager

Date Reported : 4/2/2004

BNLM146 A24

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
Collected 3/5/2004 1:15:00 PM
Received 3/5/2004 3:00:00 PM
Collected By CLIENT
Copy : Original
CC

Point No 084-67
Location: B-490 Block 11

Client ID. : 17807-007

Parameter(s)	Results	Units	Limit	Method Number	Analyzed
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-Cl G	03/05/2004

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

Joann M. Slavin
Laboratory Manager

Date Reported : 4/2/2004

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
Collected 3/5/2004 10:45:00 AM
Received 3/5/2004 3:00:00 PM
Collected By CLIENT
Copy : Original
CC

Client ID. : 17807-008
Point No 045-12
Location: B-1005 RHIC – Duplicate

Parameter(s)	Results	Units	Limit	Method Number	Analyzed
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.

Joann M. Slavin
Laboratory Manager

Date Reported : 4/2/2004

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
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
CC

Client ID. : 17807-009

Parameter(s)	Results	Units	Limit	Method Number	Analyzed
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.

Joann M. Slavin
Laboratory Manager

Date Reported : 4/2/2004

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
CC

Parameter(s)	Results	Units	Limit	Method Number	Analyzed
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.

Joann M. Slavin
Laboratory Manager

Date Reported : 4/2/2004

BNLM146 A28

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. : 0403271-003

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

Federal ID 5111891
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
CC

Client ID. : 17807-011

Parameter(s)	Results	Units	Limit	Method Number	Analyzed
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.

Joann M. Slavin
Laboratory Manager

Date Reported : 4/2/2004

BNLM146 A29

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
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
CC

Client ID. : 17807-012

Parameter(s)	Results	Units	Limit	Method Number	Analyzed
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.

Joann M. Slavin
Laboratory Manager

Date Reported : 4/2/2004

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

Lab No. : 0403271-005

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

Federal ID 5111891
Client ID. : 17807-013
Collected 3/5/2004 8:40:00 AM Point No 056-19
Received 3/5/2004 3:00:00 PM Location: Well #11 Raw
Collected By CLIENT
Copy : Original
CC

Parameter(s)	Results	Units	Limit	Method Number	Analyzed
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

Joann M. Slavin
Laboratory Manager

BNLM146 A31

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
CC

Parameter(s)	Results	Units	Limit	Method Number	Analyzed
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.

Joann M. Slavin
Laboratory Manager

Date Reported : 4/2/2004

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

Form 1

CLIENT SAMPLE NO.

16841-011/012

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 (µl) Dilution Factor: 1.00

Injection Volume: 1 (µl)

CONCENTRATION UNITS:

CAS NO.	COMPOUND (ug/L or ug/Kg)	µg/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

Form 1

CLIENT SAMPLE NO.

16841-008/009/010

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: 0307357-001A

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 (µl) Dilution Factor: 1.00

Injection Volume: 1 (µl)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) µg/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 4, 6, and 7