



March 8, 2006

Ms. Kathleen Newcomer  
Suffolk County Department of Health Services  
Office of Water Resources  
Bureau of Drinking Water  
Suite 1C  
360 Yaphank Avenue  
Yaphank, New York 11980

Dear Ms. Kathleen Newcomer:

**Subject: Monthly Water Treatment Plant Reports**  
**Reference: Suffolk County Minimum Monitoring Requirements for February 2006**

In accordance with the requirements of the BNL Potable Water System Sampling Plan and the 2006 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 for February 2006.
- Attachment II: February 2006 Biweekly Water Quality Monitoring Data for the BNL Distribution System and Potable Water Wells.
- Attachment III: February 2006 Stage 1 Disinfectants & Disinfection Byproduct Rule Monitoring Data and Bacteriological Analyses for the BNL Distribution System.
- Attachment IV: 2006 First Quarter Radiological Analyses for the BNL Potable Water Wells.

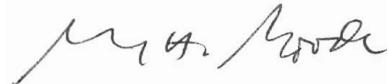
Collection and analysis of these samples is performed in accordance with the guidelines of the BNL Quality Assurance program, the SCDHS Community Water Supply Monitoring Requirements, and the BNL Potable Water System Sampling Plan. Plant Engineering Division personnel using standard operating procedures 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.

Should there be any questions regarding this report or the analytical or operational data contained herein, please call either J. Higbie at (631) 344-5919, R. Lee at (631) 344-3148, or W. Chaloupka at (631) 344-7136.

Sincerely,



George A. Goode  
Environmental & Waste Management Services  
Division Manager

GAG/JB:car

Attachments: As noted

cc:	L. Ambroszkiewicz, SCDHS	w/attachments
	W. Chaloupka	w/attachments
	J. Granzen	w/attachments
	G. Goode	w/o attachments
	J. Higbie	w/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.06

**ATTACHMENT I**

**Brookhaven National Laboratory**

**Potable Water Supply**

**Monthly Operational Data for February 2006**

**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: February

2006

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	
	Treated Water	Liquid Sodium Hypochlorite	Free Cl2	Lime	Totalizer
		Gallons	Cl2 use per 24hrs	Residual	Sodium
					268511
1	1,034	95	10	0.83	7.7
2	1,107	90	5	1.13	7.6
3	1,263	80	10	0.74	7.7
4	0				
5	0				
6	3,329	55	25	1.20	7.7
7	1,115	45	10	0.93	7.6
8	1,018	40	5	0.83	7.6
9	119	40	0	0.63	6.7
10	0	40	0	0.57	6.7
11	0				
12	0				
13	40	40	0	0.51	8.3
14	0	40	0	0.53	7.3
15	0	40+160	0	0.48	6.9
16	0	200	0	0.70	7.6
17	0	200	0	0.64	7.7
18	0				
19	0				
20	0	200	0	0.70	8.2
21	0	200	0	0.39	8.4
22	0	200	0	0.62	8.1
23	0	200	0	0.73	7.8
24	0	200	0	1.18	7.3
25	0				
26	0				
27	2,505	180	20	0.83	7.8
28	905	172	8	1.00	7.8
29	0				
30	0				
31	0				
TOT	12,435		93		
AVG.	444.11		3.32	No. Days:	28

Reported by:



Title: Water Systems Supervisor

Date: 3-6-06

Certification No. NY0031941

# BROOKHAVEN NATIONAL LABORATORY

## WATER SYSTEMS OPERATION REPORT

### PUBLIC WATER SUPPLY PROTECTION

PROGRAM CODE 169 STATION 11515100 SUFFOLK COUNTY REPORTING PERIOD: February 2006

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	
	Treated Water	Liquid Sodium Hypochlorite	Free Cl2 use per 24hrs	Residual mg/l	Totalizer Daily Totalizer
		Gallons	Cl2 use per 24hrs		
1	0	0	0	NR	NR 1648622
2	0	0	0	NR	NR 1648622
3	0	0	0	NR	NR 1648622
4	0				
5	0				
6	0	0	0	NR	NR 1648622
7	0	0	0	NR	NR 1648622
8	0	0	0	NR	NR 1648622
9	0	0	0	NR	NR 1648622
10	0	0	0	NR	NR 1648622
11	0				
12	0				
13	0	0	0	NR	NR 1648622
14	0	0	0	NR	NR 1648622
15	0	0	0	NR	NR 1648622
16	0	0	0	NR	NR 1648622
17	0	0	0	NR	NR 1648622
18	0				
19	0				
20	0	0	0	NR	NR 1648622
21	0	0	0	NR	NR 1648622
22	0	0	0	NR	NR 1648622
23	0	0	0	NR	NR 1648622
24	0	0	0	NR	NR 1648622
25	0				
26	0				
27	0	0	0	NR	NR 1648622
28	0	0	0	NR	NR 1648622
29	0				
30	0				
31	0				
TOT	0	0	No. Days:	28	
AVG.	0.00	0.00	No. Days:	28	

Reported by:



Title: Water Systems Supervisor

Date: 3-6-86

Certification No. NY0031941

# BROOKHAVEN NATIONAL LABORATORY

## WATER SYSTEMS OPERATION REPORT

### PUBLIC WATER SUPPLY PROTECTION

PROGRAM CODE 169	STATION 11515100	SUFFOLK COUNTY	REPORTING PERIOD: February	2006
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LOCATION: WELL NO. 6

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

Day of month	CHLORINATION			pH	
	Treated Water	Liquid Sodium Hypochlorite	Free Cl2 use per 24hrs	Lime	Totalizer
		Residual mg/l		Sodium Hydroxide	Daily Totalizer
1	347	123	12	0.48	6
2	237	116	8	0.41	6
3	194	110+40	6	0.48	6
4	0				
5	0				
6	1,216	114	36	0.47	6
7	428	102	12	0.20	6.1
8	349	90	12	0.33	6.1
9	0	90	0	NR	NR
10	0	90	0	NR	NR
11	0				
12	0				
13	0	90	0	NR	NR
14	0	90	0	NR	NR
15	0	90+60	0	NR	NR
16	0	150	0	NR	NR
17	0	150	0	NR	NR
18	0				
19	0				
20	0	150	0	NR	NR
21	0	150	0	NR	NR
22	0	150	0	NR	NR
23	0	150	0	NR	NR
24	82	150	0	0.00	6.1
25	0				
26	0				
27	815	134	16	0.18	6.1
28	279	129	5	0.25	6
29	0				
30	0				
31	0				
TOT	3,947		107		
AVG.	140.96		3.82	No. Days:	28

Reported by:

*Sc placed*

Date: *3-6-06*

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: February	2006
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LOCATION: WELL NO. 7

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

Day of month	CHLORINATION			pH	
	Treated Water	Liquid Sodium Hypochlorite	Free Cl2 use per 24hrs	Residual	Lime
		Gallons		mg/l	Sodium
1	996	120	18	0.48	6
2	1,214	102	18	0.41	6
3	1,151	80+70	22	0.48	6
4	0				
5	0				
6	3,102	108	42	0.47	6
7	1,105	90	18	0.20	6.1
8	966	75	15	0.33	6.1
9	0	75	0	NR	NR
10	0	75	0	NR	NR
11	0				
12	0				
13	0	75	0	NR	NR
14	0	75	0	NR	NR
15	0	75+75	0	NR	NR
16	0	150	0	NR	NR
17	0	150	0	NR	NR
18	0				
19	0				
20	0	150	0	NR	NR
21	0	150	0	NR	NR
22	0	150	0	NR	NR
23	0	150	0	NR	NR
24	138	150	0	0.00	6.1
25	0				
26	0				
27	2,462	111	39	0.18	6.1
28	722	99	12	0.25	6
29	0				
30	0				
31	0				
TOT	11,856		184		
AVG.	423.43		6.57	No. Days:	28

Reported by: Jd Kaez

Date: 3-6-06

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: Febury	2006
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LOCATION: WELL NO. 10

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

Day of month	CHLORINATION			pH		
	Treated Water	Liquid Sodium Hypochlorite	Free Cl <sub>2</sub> use per 24hrs	Residual	Lime	Totalizer
		Gallons	mg/l	Hydroxide	Sodium	Daily Totalizer
1	K Gals	0		NR	NR	771803
2		0	0	NR	NR	771803
3		0	0	NR	NR	771803
4		0				
5		0				
6		0	0	NR	NR	771803
7		0	0	NR	NR	771803
8		0	0	NR	NR	771803
9		0	0	NR	NR	771803
10		0	0	NR	NR	771803
11		0				
12		0				
13		0	0	NR	NR	771803
14		0	0	NR	NR	771803
15		0	0	NR	NR	771803
16		0	0	NR	NR	771803
17		0	0	NR	NR	771803
18		0				
19		0				
20		0	0	NR	NR	771803
21		0	0	NR	NR	771803
22		0	0	NR	NR	771803
23		0	0	NR	NR	771803
24		0	0	NR	NR	771803
25		0				
26		0				
27		0	0	NR	NR	771803
28		0	0	NR	NR	771803
29		0				
30		0				
31		0				
TOT		0	0			
AVG.	0.00		0.00	No. Days:	28	

Reported by:



Title: Water Systems Supervisor

Date: 3-6-06

Certification No. NY0031941

**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 or 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.

# BROOKHAVEN NATIONAL LABORATORY

## WATER SYSTEMS OPERATION REPORT

### PUBLIC WATER SUPPLY PROTECTION

PROGRAM CODE 169

STATION 11515100

SUFFOLK COUNTY

REPORTING PERIOD: February

2006

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	
	Treated Water	Liquid Sodium Hypochlorite	Free Cl2 use per 24hrs	Lime	Totalizer
	K Gals	Gallons	Residual mg/l	Sodium	Daily Totalizer
1	0	69	0	NR	NR
2	0	69	0	NR	NR
3	0	69	0	NR	NR
4	0				
5	0				
6	0	69	0	NR	NR
7	0	69	0	NR	NR
8	0	69	0	NR	NR
9	102	63	6	0.63	6.7
10	0	60	3	NR	NR
11	0				
12	0				
13	131	57	3	NR	NR
14	0	57	0	0.54	6.9
15	0	57	0	NR	NR
16	0	57	0	NR	NR
17	0	57	0	NR	NR
18	0				
19	0				
20	0	57	0	NR	NR
21	0	57	0	NR	NR
22	0	57	0	NR	NR
23	26	57	0	NR	NR
24	0	57	0	NR	NR
25	0				
26	0				
27	0	57	0	NR	NR
28	0	57	0	NR	NR
29	0				
30	0				
31	0				
TOT	259		12		
AVG.	9.25		0.43	No. Days:	28

Reported by:

*John Reever*

Title: Water Systems Supervisor

Date: 3-6-06Certification No. NY0031941

# BROOKHAVEN NATIONAL LABORATORY

## WATER SYSTEMS OPERATION REPORT

### PUBLIC WATER SUPPLY PROTECTION

PROGRAM CODE 169 STATION 11515100 SUFFOLK COUNTY REPORTING PERIOD: February 2006

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	
	Treated Water	Liquid Sodium Hypochlorite	Cl2 use per 24hrs	Free Cl2 Residual	Lime Sodium Hydroxide
		Gallons		mg/l	Daily Totalizer
1	0	63	0	NR	NR
2	0	63	0	NR	NR
3	0	63	0	NR	NR
4	0				
5	0				
6	0	63	0	NR	NR
7	0	63	0	NR	NR
8	17	150	0	NR	NR
9	942	144	6	NR	NR
10	918	135	9	NR	NR
11	0				
12	0				
13	2,893	114	21	NR	NR
14	905	108	6	0.17	7.3
15	1,200	99	9	7.00	0.05
16	1,156	90	9	NR	NR
17	1,042	81+69=150	9	0.83	7.7
18	0				
19	0				
20	2,219	132	18	0.80	8.7
21	2,090	114	28	1.00	8.6
22	868	108	6	0.97	7.6
23	1,044	100	8	0.70	7.5
24	955				801844
25	0				802799
26	212	78	22	NR	NR
27	0	78	0	NR	NR
28	0				
29	0				
30	0				
31	0				
TOT	16,461		151		
AVG.	587.89		5.39	No. Days:	28

Reported by:



Title: Water Systems Supervisor

Date: 3-6-06

Certification No. NY0031941

**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 turbid) 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.

2/28/2006  
Pump Data

MONTHLY GALLONAGE REPORT  
feb2006.xls

Date	Well 4	Well 6	Well 7	Well10	Well11	Well12	Daily Total
1	0	347	996	0	0	0	1,343
2	0	237	1,214	0	0	0	1,451
3	0	194	1,151	0	0	0	1,345
4	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0
6	0	1,216	3,102	0	0	0	4,318
7	0	428	1,105	0	0	0	1,533
8	0	349	966	0	0	17	1,332
9	0	0	0	0	102	942	1,044
10	0	0	0	0	0	918	918
11	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0
13	0	0	0	0	131	2,893	3,024
14	0	0	0	0	0	905	905
15	0	0	0	0	0	1,200	1,200
16	0	0	0	0	0	1,156	1,156
17	0	0	0	0	0	1,042	1,042
18	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0
20	0	0	0	0	0	2,219	2,219
21	0	0	0	0	0	2,090	2,090
22	0	0	0	0	0	868	868
23	0	0	0	0	26	1,044	1,070
24	0	82	138	0	0	955	1,175
25	0	0	0	0	0	0	0
26	0	0	0	0	0	212	212
27	0	815	2,462	0	0	0	3,277
28	0	279	722	0	0	0	1,001
29	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0
31	0	0	0	0	0	0	0
Total	0	3,947	11,856	0	259	16,461	32,523
		Totalizer This Month		Totalizer Last Month		Total(x1,000) Gallons	
	Well 4	1,648,622		1,648,622		0	
	Well 6	612,506		608,559		3,947	
	Well 7	1,922,070		1,910,214		11,856	
	Well 10	771,803		771,803		0	
	Well 11	722,540		722,281		259	
	Well 12	803,011		786,550		16,461	
AGS Water Supply Meter		571,810		564,522		7288.00	
Medical Reactor - Well 105						0.00	
Biology Building - Well 9		6,793,930		6,793,930		0.00	

**ATTACHMENT II**

**Brookhaven National Laboratory**

**Potable Water Supply**

**February 2006 Biweekly 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  
February 2006**

Sample Location	Sample Date	pH (SU)	Temperature (Degrees F)	Conductivity ( $\mu\text{mhos}$ )	Alkalinity (mg/L)	Calcium (mg/L)
WTP	2/2/06	7.6	53	150	ANR	ANR
WTP	2/7/06	7.6	55	151	ANR	ANR
WTP	2/9/06	7.6	56	145	ANR	ANR
WTP	2/14/06	7.3	53	199	ANR	ANR
WTP	2/16/06	7.6	53	213	ANR	ANR
WTP	2/21/06	8.4	52	215	ANR	ANR
WTP	2/23/06	7.8	51	202	ANR	ANR
WTP	2/28/06	7.7	52	143	ANR	ANR
Well 12	2/21/06	8.6	56	221	ANR	ANR
Well 12	2/23/06	7.0	56	187	ANR	ANR

**ANR-** Analysis Not Required

**NR-** Not Reported

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

**ATTACHMENT III**

**Brookhaven National Laboratory**

**Potable Water Supply**

**February 2006 Stage 1 Disinfectants & Disinfection Byproduct Rule**

**Monitoring Data and Bacteriological Analyses for the BNL Distribution System**

**Attachment III****February 2006 Stage 1 Disinfectants & Disinfection Byproduct Rule Monitoring Data**  
**Table II - Maximum Residual Disinfectant Level (MRDL) Compliance**

Location	Total Residual Chlorine (mg/L)											
	Mar. 05	Apr. 05	May 05	June 05	July 05	Aug. 05	Sept. 05	Oct. 05	Nov. 05	Dec. 05	Jan. 06	Feb. 06
Bldg. 49 Water Tower	0.9	0.7	0.9	0.9	0.7	0.9	0.5	0.7	0.9	0.9	1.0	0.8
Bldg. 640 Water Tower	0.9	0.8	0.9	1.5	0.5	0.8	0.7	1.2	0.4	0.4	0.9	0.7
Bldg. 363 Apt. Laundry	0.9	0.7	0.7	0.7	0.6	0.5	0.3	0.6	1.0	0.3	0.5	0.5
Bldg. 1005 RHIC	1.1	0.7	1.0	1.2	0.5	0.8	0.7	0.5	0.6	0.7	0.8	0.7
Bldg. 930 LINAC	1.0	NS	0.8	NS	0.8	NS	0.8	NS	0.8	NS	0.9	NS
Bldg. 725 NSLS	NS	1	NS	1.3	NS	0.8	NS	0.8	NS	0.4	NS	0.8
Bldg. 490 Outpatient Clinic	0.5	NS	1.0	NS	0.5	NS	0.6	NS	0.5	NS	0.7	NS
Bldg. 490 Block 11	0.4	NS	0.3	NS	0.5	NS	0.3	NS	0.9	NS	0.5	NS
Bldg. 490 Block 1 ACF	NS	0.3	NS	0.6	NS	0.7	NS	0.5	NS	0.8	NS	0.6
Bldg. 490 Block 4 MRC	NS	0.8	NS	1.1	NS	0.7	NS	1.0	NS	0.4	NS	0.5
<b>Monthly Average</b>	0.8	0.7	0.8	1.0	0.6	0.7	0.6	0.8	0.7	0.6	0.8	0.7

NA - Not Applicable

NS- Not Scheduled for sampling

**Running Annual Average (mg/L)    0.7    (Total Residual Chlorine)**  
**MRDL (mg/L)    4.0**

# 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 : Bob Lee

Federal ID : 5111891 Client ID. : 21964-001

Collected : 2/3/2006 10:50:00 AM Point No: 094-273

Received : 2/3/2006 3:00:00 PM Location: B-49 Water Tower

Collected By CLIENT

Copy : Original

CC

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

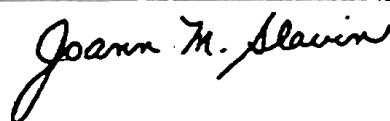
Parameter(s)	Results	Qualifier	D.F.	Units	Limit	Method Number	Analyzed
Total Coliform	Negative		1		Negative	M9223	02/04/2006 12:00 PM
E_Coliform	Absent		1		Absent	M9223	02/04/2006 12:00 PM
Total Residual Chlorine	0.8		1	mg/L		M4500-CI G	02/03/2006

Result(s) reported meet(s) Regulatory Limit(s).  
Result(s) flagged with \* Exceed Regulatory Limit(s). Limit noted.  
D.F. = Dilution Factor

Date Reported : 2/15/2006

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Laboratory Manager



BNLMI72 All

# 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 : Bob Lee

Federal ID : 5111891

Collected : 2/3/2006 8:45:00 AM Point No: 076-408

Received : 2/3/2006 3:00:00 PM Location: B-640 Water Tower

Collected By CLIENT

Copy : Original

CC

Lab No. : 0602117-002

Sample Information...

Type : Potable Water

Origin: Distribution

Client ID. : 21964-002

Parameter(s)	Results	Qualifier	D.F.	Limit	Method Number	Analyzed
Total Coliform	Negative	1		Negative	M9223	02/04/2006 12:00 PM
E_Coliform	Absent	1		Absent	M9223	02/04/2006 12:00 PM
Total Residual Chlorine	0.7	1	mg/L	.	M4500-Cl G	02/03/2006

Result(s) reported meet(s) Regulatory Limit(s).  
Result(s) flagged with \* Exceed Regulatory Limit(s). Limit noted.  
D.F. = Dilution Factor

Date Reported : 2/15/2006

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Laboratory Manager

BN M172 A12

# 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 : Bob Lee

Federal ID : 5111891

Collected : 2/3/2006 8:30:00 AM Point No: 109-19

Received : 2/3/2006 3:00:00 PM Location: B-363 Apt.Laundry

Collected By CLIENT

Copy : Original

CC

Lab No. : 0602117-004

Sample Information...

Type : Potable Water

Origin: Distribution

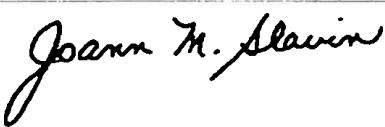
Client ID. : 21964-004

Parameter(s)	Results	Qualifier	D.F.	Units	Limit	Method Number	Analyzed
Total Coliform	Negative		1		Negative	M9223	02/04/2006 12:00 PM
E_Coliform	Absent		1		Absent	M9223	02/04/2006 12:00 PM
Total Residual Chlorine	0.5		1	mg/L		M4500-Cl G	02/03/2006

Result(s) reported meet(s) Regulatory Limit(s).  
Result(s) flagged with \* Exceed Regulatory Limit(s). Limit noted.  
D.F. = Dilution Factor

Date Reported : 2/15/2006

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Laboratory Manager

BNL M172 A14

# 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 : Bob Lee

Federal ID : 5111891

Collected : 2/3/2006 9:00:00 AM Point No: 045-12

Received : 2/3/2006 3:00:00 PM Location: B-1005 RHIC

Collected By CLIENT

Copy : Original

CC

Lab No. : 0602117-003

Sample Information...

Type : Potable Water

Origin: Distribution

Client ID. : 21964-003

Parameter(s)	Results	Qualifier	D.F.	Units	Limit	Method Number	Analyzed
Total Coliform	Negative		1		Negative	M9223	02/04/2006 12:00 PM
E_Coliform	Absent		1		Absent	M9223	02/04/2006 12:00 PM
Total Residual Chlorine	0.7		1	mg/L		M4500-CI G	02/03/2006

Result(s) reported meet(s) Regulatory Limit(s).  
Result(s) flagged with \* Exceed Regulatory Limit(s). Limit noted  
D.F. = Dilution Factor

Date Reported : 2/15/2006

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Joann M. Slavin  
Laboratory Manager

BNLMI72 A13

# 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 : Bob Lee

Federal ID : 5111891

Collected : 2/3/2006 9:15:00 AM Point No: 075-602

Received : 2/3/2006 3:00:00 PM Location: B-725 NSLS

Collected By CLIENT

Copy : Original

CC

Lab No. : 0602117-005

Sample Information...

Type : Potable Water

Origin: Distribution

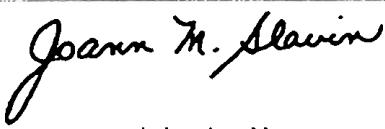
Client ID. : 21964-005

Parameter(s)	Results	Qualifier	D.F.	Units	Limit	Method Number	Analyzed
Total Coliform	Negative		1		Negative	M9223	02/04/2006 12:00 PM
E_Coliform	Absent		1		Absent	M9223	02/04/2006 12:00 PM
Total Residual Chlorine	0.8		1	mg/L		M4500-CI G	02/03/2006

Result(s) reported meet(s) Regulatory Limit(s).  
Result(s) flagged with \* Exceed Regulatory Limit(s). Limit noted.  
D.F. = Dilution Factor

Date Reported : 2/15/2006

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Laboratory Manager

BNLMI172 A15

# 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 : Bob Lee

Federal ID : 5111891

Collected : 2/3/2006 10:30:00 AM Point No: 084-69

Received : 2/3/2006 3:00:00 PM Location: B-490 Block 1 ACF

Collected By CLIENT

Copy : Original

CC

Lab No. : 0602117-006

Sample Information...

Type : Potable Water

Origin: Distribution

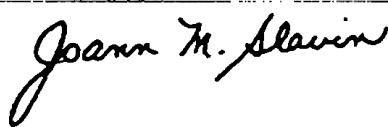
Client ID. : 21964-006

Parameter(s)	Results	Qualifier	D.F.	Units	Limit	Method Number	Analyzed
Total Coliform	Negative		1		Negative	M9223	02/04/2006 12:00 PM
E_Coliform	Absent		1		Absent	M9223	02/04/2006 12:00 PM
Total Residual Chlorine	0.6		1	mg/L		M4500-CI G	02/03/2006

Result(s) reported meet(s) Regulatory Limit(s).  
Result(s) flagged with \* Exceed Regulatory Limit(s). Limit noted.  
D.F. = Dilution Factor

Date Reported : 2/15/2006

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Laboratory Manager

BNLMI72 A16

# 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 : Bob Lee

Federal ID : 5111891

Collected : 2/3/2006 10:15:00 AM Point No: 084-68

Received : 2/3/2006 3:00:00 PM Location: B-490 Block 4 MRC

Collected By CLIENT

Copy : Original

CC

Lab No. : 0602117-007

Sample Information...

Type : Potable Water

Origin: Distribution

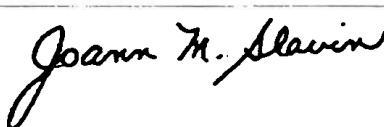
Client ID. : 21964-007

Parameter(s)	Results	Qualifier	D.F.	Units	Limit	Method Number	Analyzed
Total Coliform	Negative		1		Negative	M9223	02/04/2006 12:00 PM
E_Coliform	Absent		1		Absent	M9223	02/04/2006 12:00 PM
Total Residual Chlorine	0.5		1	mg/L		M4500-CI G	02/03/2006

Result(s) reported meet(s) Regulatory Limit(s).  
Result(s) flagged with \* Exceed Regulatory Limit(s). Limit noted.  
D.F. = Dilution Factor

Date Reported : 2/15/2006

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Laboratory Manager

BNLMI172 A17

# H2M LABS, INC.

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

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

Federal ID : 5111891

Collected : 2/3/2006 8:45:00 AM Point No: 076-408

Received : 2/3/2006 3:00:00 PM Location: B-640 Water Tower

Collected By CLIENT

Copy : Original

CC

## LABORATORY RESULTS

Lab No. : 0602117-008

Sample Information...

Type : Potable Water

Origin: Distribution

Client ID. : 21964-008

Duplicate

Parameter(s)	Results	Qualifier	D.F.	Units	Limit	Method Number	Analyzed
Total Coliform	Negative		1		Negative	M9223	02/04/2006 12:00 PM
E_Coliform	Absent		1		Absent	M9223	02/04/2006 12:00 PM
Total Residual Chlorine	0.7		1	mg/L		M4500-Cl G	02/03/2006

Result(s) reported meet(s) Regulatory Limit(s).  
Result(s) flagged with \* Exceed Regulatory  
D.F. = Dilution Factor

Date Reported : 2/15/2006

of 8

*Joann M. Slavin*

Laboratory Manager

BNLM172 A18

**ATTACHMENT IV**

**Brookhaven National Laboratory**

**Potable Water Supply**

**2006 First Quarter Radiological Analyses**

**for the BNL Potable Water Wells**

## **ATTACHMENT IV**

**Table 3**  
**Summary of 2006 First Quarter Radiological Analyses for the**  
**BNL Potable Water Wells**

<b>Well ID</b>	<b>Sample Date</b>	<b>Gross Alpha (pCi/L)</b>	<b>Gross Beta (pCi/L)</b>	<b>Tritium (pCi/L)</b>	<b>Sr-90 (pCi/L)</b>
Well # 6	1/18/06	< 1.2	< 1.8	< 340	< 0.69
Well #7	1/18/06	< 1.1	1.9	< 350	< 0.69
Well #7 (Duplicate)	1/18/06	<1.6	<2.1	< 350	< 1.1
Well # 11	1/18/06	< 1.1	1.89	< 340	< 0.68
Well # 12	1/18/06	< 1.7	< 1.7	< 340	< 0.76

## Brookhaven National Labs

Client Sample ID: 22192-003

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F6A190150-003  
 Work Order: HVXEG  
 Matrix: WATER

Date Collected: 01/18/06 0900  
 Date Received: 01/19/06 0845

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	pCi/L	MDC	Prep Date	Analysis Date
<b>Gamma Cs-137 &amp; Hits by EPA 901.1 MOD</b>							
Americium 241	-21	U	10	25	15	01/20/06	01/27/06
Beryllium 7	6	U	41	60	74	01/20/06	01/27/06
Cesium 134	-7.0	U	6.2	5.0	9.5	01/20/06	01/27/06
Cesium 137	5.4	U	5.9	12.0	12	01/20/06	01/27/06
Cobalt 57	-12	U	26	5	42	01/20/06	01/27/06
Cobalt 60	-1.3	U	6.4	22.0	12	01/20/06	01/27/06
Europium 152	-3	U	14	84	24	01/20/06	01/27/06
Europium 154	14	U	49	57	95	01/20/06	01/27/06
Europium 155	-2	U	11	359	19	01/20/06	01/27/06
Manganese 54	5.0	U	4.9	6.0	10	01/20/06	01/27/06
Sodium 22	-2.4	U	5.9	7.0	10	01/20/06	01/27/06
Zinc 65	-0.6	U	12	15	22	01/20/06	01/27/06
<b>Gross Alpha/Beta EPA 900</b>							
Gross Alpha	0.91	U	0.79	2.00	1.2	01/31/06	02/03/06
Gross Beta	0.8	U	1.1	4.0	1.8	01/31/06	02/03/06
<b>TRITIUM (Distill) by EPA 906.0 MOD</b>							
Tritium	-50	U	270	500	340	01/25/06	01/27/06
<b>SR-90 BY GFPC EPA-905 MOD</b>							
Strontium 90	-0.61	U	0.39	0.80	0.69	01/30/06	02/08/06

Well # 6

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

U Result is less than the sample detection limit.

STL St. Louis

## Brookhaven National Labs

Client Sample ID: 22192-004

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F6A190150-004  
 Work Order: HVXEK  
 Matrix: WATER

Date Collected: 01/18/06 0910  
 Date Received: 01/19/06 0845

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
<b>Gamma Cs-137 &amp; Hits by EPA 901.1 MOD</b>							
Americium 241	-3.3	U	7.7	25.0	13	01/20/06	01/27/06
Beryllium 7	-14	U	35	60	61	01/20/06	01/27/06
Cesium 134	-5.5	U	5.2	5.0	8.0	01/20/06	01/27/06
Cesium 137	-3.5	U	5.4	12.0	8.8	01/20/06	01/27/06
Cobalt 57	-5	U	24	5	41	01/20/06	01/27/06
Cobalt 60	2.0	U	4.2	22.0	9.7	01/20/06	01/27/06
Europium 152	5	U	13	84	24	01/20/06	01/27/06
Europium 154	48	U	44	57	96	01/20/06	01/27/06
Europium 155	4	U	11	359	20	01/20/06	01/27/06
Manganese 54	0.5	U	4.7	6.0	9.1	01/20/06	01/27/06
Sodium 22	0.7	U	4.8	7.0	10	01/20/06	01/27/06
Zinc 65	-2	U	10	15	19	01/20/06	01/27/06
<b>Gross Alpha/Beta EPA 900</b>							
Gross Alpha	0.58	U	0.67	2.00	1.1	01/31/06	02/03/06
Gross Beta	1.9	J	1.1	4.0	1.7	01/31/06	02/03/06
<b>TRITIUM (Distill) by EPA 906.0 MOD</b>							
Tritium	0.6	U	20	500	350	01/25/06	01/27/06
<b>SR-90 BY GFPC EPA-905 MOD</b>							
Strontium 90	-0.16	U	0.40	0.80	0.69	01/30/06	02/08/06

Well # 7

## NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

## Brookhaven National Labs

Client Sample ID: 22192-005

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F6A190150-005  
 Work Order: HVXEP  
 Matrix: WATER

Date Collected: 01/18/06 0000  
 Date Received: 01/19/06 0845

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	pCi/L	MDC	Prep Date	Analysis Date
<b>Gamma Cs-137 &amp; Hits by EPA 901.1 MOD</b>							
Americium 241	2.8	U	8.1	25.0	14	01/20/06	01/27/06
Beryllium 7	1	U	36	60	66	01/20/06	01/27/06
Cesium 134	-3.3	U	5.4	5.0	9.0	01/20/06	01/27/06
Cesium 137	-1.6	U	4.8	12.0	8.7	01/20/06	01/27/06
Cobalt 57	-14	U	22	5	37	01/20/06	01/27/06
Cobalt 60	6.5	U	6.7	22.0	15	01/20/06	01/27/06
Europium 152	-5	U	14	84	23	01/20/06	01/27/06
Europium 154	-16	U	46	57	81	01/20/06	01/27/06
Europium 155	14	U	11	359	21	01/20/06	01/27/06
Manganese 54	-4.9	U	4.6	6.0	6.8	01/20/06	01/27/06
Sodium 22	-4.8	U	5.1	7.0	7.4	01/20/06	01/27/06
Zinc 65	-6	U	11	15	20	01/20/06	01/27/06
<b>Gross Alpha/Beta EPA 900</b>							
Gross Alpha	-0.30	U	0.81	2.00	1.6	01/31/06	02/03/06
Gross Beta	0.5	U	1.2	4.0	2.1	01/31/06	02/03/06
<b>TRITIUM (Distill) by EPA 906.0 MOD</b>							
Tritium	7	U	79	500	350	01/25/06	01/27/06
<b>SR-90 BY GFPC EPA-905 MOD</b>							
Strontium 90	-1.16	U	0.60	0.80	1.1	01/30/06	02/08/06

Well #7 (Duplicate)

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

U Result is less than the sample detection limit.

## Brookhaven National Labs

Client Sample ID: 22192-002

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F6A190150-002

Date Collected: 01/18/06 0920

Work Order: HVXEA

Date Received: 01/19/06 0845

Matrix: WATER

Parameter	Result	Qual	Total Uncert. (2 g+/-)	pCi/L	MDC	Prep Date	Analysis Date
<b>Gamma Cs-137 &amp; Hits by EPA 901.1 MOD</b>							
Americium 241	7.2	U	7.8	25.0	14	01/20/06	01/27/06
Beryllium 7	4	U	37	60	70	01/20/06	01/27/06
Cesium 134	-1.7	U	5.1	5.0	8.9	01/20/06	01/27/06
Cesium 137	-0.9	U	5.4	12.0	9.9	01/20/06	01/27/06
Cobalt 57	-12	U	24	5	39	01/20/06	01/27/06
Cobalt 60	3.6	U	4.2	22.0	10	01/20/06	01/27/06
Europium 152	-4	U	14	84	24	01/20/06	01/27/06
Europium 154	-0.4	U	47	57	88	01/20/06	01/27/06
Europium 155	-7	U	11	359	18	01/20/06	01/27/06
Manganese 54	2.8	U	6.1	6.0	12	01/20/06	01/27/06
Sodium 22	2.9	U	5.9	7.0	12	01/20/06	01/27/06
Zinc 65	-4	U	12	15	22	01/20/06	01/27/06
<b>Gross Alpha/Beta EPA 900</b>							
Gross Alpha	-0.16	U	0.51	2.00	1.1	01/31/06	02/03/06
Gross Beta	1.89	J	0.92	4.00	1.3	01/31/06	02/03/06
<b>TRITIUM (Distill) by EPA 906.0 MOD</b>							
Tritium	80	U	180	500	340	01/25/06	01/27/06
<b>SR-90 BY GFPC EPA-905 MOD</b>							
Strontium 90	-0.24	U	0.39	0.80	0.68	01/30/06	02/08/06

Well #11

## NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

## Brookhaven National Labs

Client Sample ID: 22192-001

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F6A190150-001  
 Work Order: HVXDO  
 Matrix: WATER

Date Collected: 01/18/06 0930  
 Date Received: 01/19/06 0845

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	pCi/L	MDC	Prep Date	Analysis Date
<b>Gamma Cs-137 &amp; Hits by EPA 901.1 MOD</b>							
Americium 241	-3.1	U	7.8	25.0	14	01/20/06	01/27/06
Beryllium 7	-5	U	38	60	68	01/20/06	01/27/06
Cesium 134	-2.2	U	5.2	5.0	9.0	01/20/06	01/27/06
Cesium 137	1.5	U	4.5	12.0	8.8	01/20/06	01/27/06
Cobalt 57	2	U	26	5	45	01/20/06	01/27/06
Cobalt 60	1.2	U	5.5	22.0	11	01/20/06	01/27/06
Europium 152	6	U	12	84	23	01/20/06	01/27/06
Europium 154	-9	U	43	57	79	01/20/06	01/27/06
Europium 155	3	U	10	359	18	01/20/06	01/27/06
Manganese 54	0.9	U	5.4	6.0	10	01/20/06	01/27/06
Sodium 22	-5.3	U	5.7	7.0	8.7	01/20/06	01/27/06
Zinc 65	1	U	12	15	24	01/20/06	01/27/06
<b>Gross Alpha/Beta EPA 900</b>							
Gross Alpha	0.03	U	0.93	2.00	1.7	01/31/06	02/03/06
Gross Beta	0.9	U	1.0	4.0	1.7	01/31/06	02/03/06
<b>TRITIUM (Distill) by EPA 906.0 MOD</b>							
Tritium	300	U	210	500	340	01/25/06	01/27/06
<b>SR-90 BY GFPC EPA-905 MOD</b>							
Strontium 90	-0.33	U	0.44	0.80	0.76	01/30/06	02/08/06

Well #12

## NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

U Result is less than the sample detection limit.