

February 8, 2001

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

Dear Ms. Newcomer:

**SUBJECT: Monthly Water Treatment Plant Reports**  
**Reference: Suffolk County Minimum Monitoring Requirements for January 2001**

In accordance with the requirements of the BNL Potable Water System Sampling Plan and the 2001 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 Bacteriological and Operational Reports for January 2001.
- Attachment II: January 2001 Biweekly Water Quality Monitoring Data for BNL Potable Water Wells.
- Attachment III: 2000 Fourth Quarter Sr-90 Radiological 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 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.

February 8, 2001

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

Sincerely,

*L. Cunniff*  
L. Cunniff, CEP  
Division Manager



LEC/MA:rt

Attachments: As noted

cc:	M. Allocco	w/attachments
	W. Chaloupka	w/attachments
	J. Granzen	w/attachments
	R. Lee	w/attachments
	E. Murphy	w/attachments
	P. Ponturo	SCDHS, w/o attachments
	L. Ross	w/o attachments
	T. Sheridan	w/o attachments

EC61ER.01

**ATTACHMENT I**

**Brookhaven National Laboratory  
Potable Water Supply**

**Monthly Bacteriology and Operational  
Reports for January 2001**

# BROOKHAVEN NATIONAL LABORATORY

## WATER SYSTEMS OPERATION REPORT

Public Water Supply Protection

PROGRAM CODE 169    STATION 11515100    SUFFOLK COUNTY    REPORTING PERIOD :    **JANUARY 2000**

LOCATION: WATER TREATMENT PLANT

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 12117295
	Treated Water K Gals	Liquid Sodium Hypochlorite		Free Cl2 Residual mg/l	Lime Sodium Hydroxide	Totalizer	
		Gallons	Cl2 use per 24hrs				
1	0						
2	2,253	60+140/10	15	0.67	7.6	12119548	
3	824	195/10	5	1	7.6	12120372	
4	825	190/10	5	0.8	7.8	12121197	
5	832	190/10	0	0.8	8.7	12122029	
6	0						
7	0						
8	2,675	186/10	4	0.62	6.9	12124704	
9	946	182/10	4	0.63	7.2	12125650	
10	933	180/10	2	0.62	7.5	12126583	
11	920	178/10	2	0.84	7.3	12127503	
12	941	172/10	6	0.97	7.4	12128444	
13	0						
14	0						
15	2,563	162/10	10	0.66	7.5	12131007	
16	868	160/10	2	0.34	7.2	12131875	
17	947	152/10	8	0.75	7.4	12132822	
18	1,182	150/10	2	0.7	7.4	12134004	
19	1,363	147/10	3	0.67	7.5	12135367	
20	0						
21	0						
22	1,815	141/10	6	0.56	7.4	12137182	
23	1,328	135/10	6	0.71	7.4	12138510	
24	1,419	130/10	5	0.87	7.2	12139929	
25	1,022	125/10	5	0.71	7.5	12140951	
26	1,104	121/10	4	0.76	7.3	12142055	
27	0						
28	0						
29	2,909	108/10	13	0.8	7.6	12144964	
30	1,107	101/10	7	0.7	8	12146071	
31	1,421	95/10	6	0.8	8	12147492	
TOT	30,197		120				
AVG.	974.10		3.87	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? 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 Rora

Date: 2-01-01

Title: WATER SYSTEMS SUPERVISOR

Cert. #: 05650

# BROOKHAVEN NATIONAL LABORATORY

## WATER SYSTEMS OPERATION REPORT

Public Water Supply Protection

PROGRAM CODE 169    STATION 11515100    SUFFOLK COUNTY    REPORTING PERIOD :    **JANUARY 2000**

LOCATION: WELL NO. 4

Source: Ground Water

Did an emergency occur in any part of the water system?    yes \_\_\_ no   
 Does the system have a chlorination waiver?    yes \_\_\_ no

Day of month	CHLORINATION			pH		Totalizer Daily Totalizer
	Treated Water	Liquid Sodium Hypochlorite Gallons	Free Cl <sub>2</sub> Residual per 24hrs	Lime Residual mg/l	Sodium Hydroxide	
1	0	120				1454790
2	692	100/100	20	0.02	5.9	1455482
3	239	195	5	0.07	5.8	1455721
4	241	182	13	0.07	5.7	1455962
5	225	179	3	0.06	5.7	1456187
6	0					
7	0					
8	853	150	29	0.02	5.9	1457040
9	243	140	10	0.03	5.7	1457283
10	269	132+25	8	0.12	5.6	1457552
11	281	145	12	0.08	5.7	1457833
12	263	138	7	0.21	5.6	1458096
13	0					
14	0					
15	778	110	28	0.11	5.9	1458874
16	259	102	8	0.08	6	1459133
17	318	91	11	0.07	5.9	1459451
18	402	80+70	11	0.02	5.9	1459853
19	438	142	8	1.4	5.9	1460291
20	0					
21	0					
22	523	131	11	0.02	5.9	1460814
23	490	121	10	0.28	6	1461304
24	488	111+64	10	0.08	6	1461792
25	318	168	7	1.1	5.9	1462110
26	345	160	8	0.03	5.8	1462455
27	0					
28	0					
29	847	139	21	0.5	5.9	1463302
30	304	130	9	0.4	5.9	1463606
31	494	121	9	0.4	5.9	1464100
TOT	9,310		258			
AVG.	300.32		8.32	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? 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: Lo Ross

Date: 2-01-01

Title: WATER SYSTEMS SUPERVISOR

Cert. #: 05650

# BROOKHAVEN NATIONAL LABORATORY

## WATER SYSTEMS OPERATION REPORT

Public Water Supply Protection

PROGRAM CODE 169    STATION 11515100    SUFFOLK COUNTY,    REPORTING PERIOD :    **JANUARY 2000**

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 89077
	Treated Water	Liquid Sodium Hypochlorite		Free Cl <sub>2</sub> Residual	Lime Sodium	Totalizer	
	K Gals	Gallons	Cl <sub>2</sub> use per 24hrs	mg/l	Hydroxide		
1	0						
2	973	73/17	17	0.02	5.9		90050
3	345	88	2	0.07	5.8		90395
4	252	82	6	0.07	5.7		90647
5	265	80	2	0.06	5.7		90912
6	0						
7	0						
8	429	70	10	0.02	5.9		91341
9	271	70	0	0.03	5.7		91612
10	356	65+85	5	0.12	5.6		91968
11	228	150	0	0.08	5.7		92196
12	322	145	5	0.21	5.6		92518
13	0						
14	0						
15	911	133	12	0.11	5.9		93429
16	316	130	3	0.08	6		93745
17	351	125	5	0.07	5.9		94096
18	215	124	1	0.02	5.9		94311
19	306	120	4	1.4	5.9		94617
20	0						
21	0						
22	337	115	5	0.02	5.9		94954
23	379	112	3	0.28	6		95333
24	211	111	1	0.08	6		95544
25	311	105	6	1.1	5.9		95855
26	316	100	5	0.03	5.8		96171
27	0						
28	0						
29	870	91	9	0.5	5.9		97041
30	273	90	1	0.4	5.9		97314
31	312	85	5	0.4	5.9		97626
TOT	8,549		107				0
AVG.	275.77		3.45	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? 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. L. Rose

Date: 2-01-01

Title: WATER SYSTEMS SUPERVISOR

Cert. #: 05650

# BROOKHAVEN NATIONAL LABORATORY

## WATER SYSTEMS OPERATION REPORT

Public Water Supply Protection

PROGRAM CODE 169    STATION 11515100    SUFFOLK COUNTY    REPORTING PERIOD :    **JANUARY 2000**

LOCATION: WELL NO. 7

Source: Ground Water

Did an emergency occur in any part of the water system?    yes \_\_\_\_\_ no   
 Does the system have a chlorination waiver?    yes \_\_\_\_\_ no

Day of month	CHLORINATION				pH	
	Treated Water	Liquid Sodium Hypochlorite		Free Cl <sub>2</sub> Residual	Lime Sodium Hydroxide	Totalizer
	K Gals	Gallons	Cl <sub>2</sub> use per 24hrs	mg/l		Daily Totalizer
1	0					
2	1,739	119/81	19	0.02	5.9	336377
3	626	190	10	0.07	5.8	337003
4	709	178	12	0.07	5.7	337712
5	718	161	17	0.06	5.7	338430
6	0					
7	0					
8	2,254	115	46	0.02	5.9	340684
9	838	99	16	0.03	5.7	341522
10	821	82+70	17	0.12	5.6	342343
11	816	138	14	0.08	5.7	343159
12	751	122	16	0.21	5.6	343910
13	0					
14	0					
15	2,070	80	42	0.11	5.9	345980
16	691	70	10	0.08	6	346671
17	873	51+79	19	0.07	5.9	347544
18	1,089	111+89	29	0.02	5.9	348633
19	1,230	177	30	1.4	5.9	349871
20	0					
21	0					
22	1,625	142	35	0.02	5.9	351496
23	1,213	122	20	0.28	6	352709
24	1,383	96+104	26	0.8	6	354092
25	836	182	18	1.1	5.9	354928
26	931	163	19	0.03	5.8	355859
27	0					
28	0					
29	2,655	120	43	0.5	5.9	358514
30	1,000	100	20	0.4	5.9	359514
31	1,334	75	25	0.4	5.9	360848
TOT	26,210		503			0
AVG.	845.48		16.23	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? 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: Lo Ross

Date: 2-01-01

Title: WATER SYSTEM SUPERVISOR

Cert. #: 05650

# BROOKHAVEN NATIONAL LABORATORY

## WATER SYSTEMS OPERATION REPORT

Public Water Supply Protection

PROGRAM CODE 169    STATION 11515100    SUFFOLK COUNTY    REPORTING PERIOD :    **JANUARY 2000**

LOCATION: WELL NO. 10

Source: Ground Water

Did an emergency occur in any part of the water system?    yes \_\_\_\_\_ no ✓  
 Does the system have a chlorination waiver?    yes \_\_\_\_\_ no ✓

Day of month	CHLORINATION				pH		Totalizer Daily Totalizer 764023
	Treated Water	Liquid Sodium Hypochlorite		Free Cl <sub>2</sub> Residual	Lime Sodium	Hydroxide	
	K Gals	Gallons	Cl <sub>2</sub> use per 24hrs	mg/l			
1	0						
2	0	59	0	NR	NR		764023
3	0	59	0	NR	NR		764023
4	0	59	0	NR	NR		764023
5	13	59	0	NR	NR		764036
6	0						
7	0						
8	0	59	0	NR	NR		764036
9	0	59	0	NR	NR		764036
10	0	59	0	NR	NR		764036
11	0	59	0	NR	NR		764036
12	0	59	0	NR	NR		764036
13	0						
14	0						
15	0	59	0	NR	NR		764036
16	0	59	0	NR	NR		764036
17	0	59	0	NR	NR		764036
18	0	59	0	NR	NR		764036
19	0	59	0	NR	NR		764036
20	0						
21	0						
22	0	59	0	NR	NR		764036
23	0	59	0	NR	NR		764036
24	0	59	0	NR	NR		764036
25	0	59	0	NR	NR		764036
26	0	59	0	NR	NR		764036
27	0						
28	0						
29	0	59	0	NR	NR		764036
30	0	59	0	NR	NR		764036
31	0	59	0	NR	NR		764036
TOT	13		0				0
AVG.	0.42		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? 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: Joe Potts

Date: 2-01-01

Title: WATER SYSTEMS SUPERVISOR

Cert. #: 05650



# BROOKHAVEN NATIONAL LABORATORY

## WATER SYSTEMS OPERATION REPORT

Public Water Supply Protection

PROGRAM CODE 169    STATION 11515100    SUFFOLK COUNTY    REPORTING PERIOD :    **JANUARY 2000**

LOCATION: WELL NO. 11

Source: Ground Water

Did an emergency occur in any part of the water system?    yes \_\_\_\_\_ no ✓  
 Does the system have a chlorination waiver?    yes \_\_\_\_\_ no ✓

Day of month	CHLORINATION				pH		Totalizer Daily Totalizer
	Treated Water	Liquid Sodium Hypochlorite		Free Cl2 Residual mg/l	Lime Sodium Hydroxide	Totalizer	
		Gallons	Cl2 use per 24hrs				
	K Gals	42				330271	
1	0						
2	2	41	1	0.38	7.9	330273	
3	2	41	0	0.42	7.8	330275	
4	0	41	0	0.43	7.8	330275	
5	0	41	0	0.42	8	330275	
6	0						
7	0						
8	0	41	0	0.3	7.9	330275	
9	0	41	0	0.43	7.9	330275	
10	4	41	0	0.41	7.9	330279	
11	125	41	0	0.63	8	330404	
12	0	41	0	0.49	8	330404	
13	0						
14	0						
15	197	41	0	NR	NR	330601	
16	9	41	0	0.4	8	330610	
17	0	41	0	0.41	7.4	330610	
18	0	41	0	0.28	7.5	330610	
19	0	41	0	0.5	7.5	330610	
20	0						
21	0						
22	0	41	0	NR	NR	330610	
23	0	41	0	NR	NR	330610	
24	0	41	0	NR	NR	330610	
25	0	41	0	NR	NR	330610	
26	0	41	0	NR	NR	330610	
27	0						
28	0						
29	0	41	0	0.2	7	330610	
30	0	40	1	0.45	7.5	330610	
31	0	40	0	NR	NR	330610	
TOT	339		2				
AVG.	10.94		0.06	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? 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: JO ROES

Date: 2-01-01

Title: WATER SYSTEMS SUPERVISOR

Cert. # 05650

# BROOKHAVEN NATIONAL LABORATORY

## WATER SYSTEMS OPERATION REPORT

Public Water Supply Protection

PROGRAM CODE 169

STATION 11515100

SUFFOLK COUNTY

REPORTING PERIOD :

JANUARY 2000

LOCATION: WELL NO. 12

Source: Ground Water

Did an emergency occur in any part of the water system? yes  no

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		
		Gallons	Cl2 use per 24hrs		Sodium Hydroxide	Totalizer	
1	0	165					275893
2	0	162	3	0.58	7.5		275893
3	5	162	0	0.94	7.7		275898
4	8	162	0	0.31	7.4		275906
5	1	162	0	0.92	7.9		275907
6	0						
7	0						
8	0	162	0	8.1	7.8		275907
9	4	162	0	0.89	7.8		275911
10	4	162	0	0.87	7.8		275915
11	0	162	0	0.89	7.8		275915
12	3	162	0	0.88	7.8		275918
13	0						
14	0						
15	0	162	0	0.7	7.6		275918
16	4	162	0	0.73	7.9		275922
17	5	162	0	0.73	7.5		275927
18	1	161	1	0.86	7.4		275928
19	14	161	0	1.1	7.3		275942
20	0						
21	0						
22	2,347	142	19	0.65	7		278289
23	2	142	0	0.66	7		278291
24	1	142	0	0.96	7.3		278292
25	363	140	2	0.6	7.8		278655
26	84	140	0	NR	NR		278739
27	0						
28	0						
29	7	138	2	0.3	6.6		278746
30	17	138	0	0.95	6.8		278763
31	15	137	1	0.9	6.9		278778
TOT	2,885		28				
AVG.	93.06		0.90	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? 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. P. [Signature]

Date: 2-01-01

Title: WATER SYSTEMS SUPERVISOR

Cert. #: 05650

**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. : 0101060-001A

Sample Information...

Type : Potable Water

Origin: Dist.

Federal ID : 5111891

Client ID. : 7829-001

Collected : 1/4/01 6:05:00 AM

Point No: 1

Received : 1/4/01 2:00:00 PM

Location: B-49 WATER TOWER

Collected By RL99

Copies To : CLIENT

<u>Parameter(s)</u>	<u>Results</u>	<u>Units</u>	<u>Limit</u>	<u>Method Number</u>	<u>Analyzed</u>
Total Coliform	Negative		Negative	M9223	1/4/01 5:05:00 PM
E_Coliform	Absent		Absent	M9223	1/4/01 5:05:00 PM

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

# 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. : 0101060-002A

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

Federal ID : 5111891

Client ID. : 7839-002

Collected : 1/4/01 6:20:00 AM

Point No: 2

Received : 1/4/01 2:00:00 PM

Location: B-640 WATER TOWER

Collected By RL99

Copies To : CLIENT

<u>Parameter(s)</u>	<u>Results</u>	<u>Units</u>	<u>Limit</u>	<u>Method Number</u>	<u>Analyzed</u>
Total Coliform	Negative		Negative	M9223	1/4/01 5:05:00 PM
E_Coliform	Absent		Absent	M9223	1/4/01 5:05:00 PM

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

# 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. : 0101060-003A

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

Federal ID : 5111891

Client ID. : 7839-003

Collected : 1/4/01 6:55:00 AM

Point No: 3

Received : 1/4/01 2:00:00 PM

Location: B-1005 RHIC

Collected By RL99

Copies To : CLIENT

<u>Parameter(s)</u>	<u>Results</u>	<u>Units</u>	<u>Limit</u>	<u>Method Number</u>	<u>Analyzed</u>
Total Coliform	Negative		Negative	M9223	1/4/01 5:05:00 PM
E_Coliform	Absent		Absent	M9223	1/4/01 5:05:00 PM

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

# 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. : 0101060-004A

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

Federal ID : 5111891

Client ID. : 7339-004

Collected : 1/4/01 7:20:00 AM

Point No: 4

Received : 1/4/01 2:00:00 PM

Location: B-363 APT.LAUNDRY

Collected By RL99

Copies To : CLIENT

<u>Parameter(s)</u>	<u>Results</u>	<u>Units</u>	<u>Limit</u>	<u>Method Number</u>	<u>Analyzed</u>
Total Coliform	Negative		Negative	M9223	1/4/01 5:05:00 PM
E_Coliform	Absent		Absent	M9223	1/4/01 5:05:00 PM

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

# 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. : 0101060-005A

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

Federal ID : 5111891  
Collected : 1/4/01 7:10:00 AM  
Received : 1/4/01 2:00:00 PM  
Collected By RL99  
Copies To : CLIENT

Client ID. : 7839-005

Point No: 5  
Location: B-930 LINAC

<u>Parameter(s)</u>	<u>Results</u>	<u>Units</u>	<u>Limit</u>	<u>Method Number</u>	<u>Analyzed</u>
Total Coliform	Negative		Negative	M9223	1/4/01 5:05:00 PM
E_Coliform	Absent		Absent	M9223	1/4/01 5:05:00 PM

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

# 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. : 0101060-006A

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

Federal ID : 5111891

Client ID : 7839-006

Collected : 1/4/01 8:45:00 AM

Point No: 6

Received : 1/4/01 2:00:00 PM

Location: B-490 OUTPATIENT CLINIC

Collected By RL99

Copies To : CLIENT

<u>Parameter(s)</u>	<u>Results</u>	<u>Units</u>	<u>Limit</u>	<u>Method Number</u>	<u>Analyzed</u>
Total Coliform	Negative		Negative	M9223	1/4/01 5:05:00 PM
E_Coliform	Absent		Absent	M9223	1/4/01 5:05:00 PM

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



# 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. : 0101060-007A

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

Federal ID : 5111891

Client ID. : 7839-007

Collected : 1/4/01 9:00:00 AM

Point No: 7

Received : 1/4/01 2:00:00 PM

Location: B-490 BLOCK 11

Collected By RL99

Copies To : CLIENT

<u>Parameter(s)</u>	<u>Results</u>	<u>Units</u>	<u>Limit</u>	<u>Method Number</u>	<u>Analyzed</u>
Total Coliform	Negative		Negative	M9223	1/4/01 5:05:00 PM
E_Coliform	Absent		Absent	M9223	1/4/01 5:05:00 PM

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

MONTHLY GALLONAGE REPORT  
Jan2001

1/31/01  
Pump Data

Date	Well 4	Well 6	Well 7	Well 10	Well 11	Well 12	Daily Total
1	0	0	0	0	0	0	0
2	692	973	1,739	0	2	0	3,406
3	239	345	626	0	2	5	1,217
4	241	252	709	0	0	8	1,210
5	225	265	718	13	0	1	1,222
6	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0
8	853	429	2,254	0	0	0	3,536
9	243	271	838	0	0	4	1,356
10	269	356	821	0	4	4	1,454
11	281	228	816	0	125	0	1,450
12	263	322	751	0	0	3	1,339
13	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0
15	778	911	2,070	0	197	0	3,956
16	259	316	691	0	9	4	1,279
17	318	351	873	0	0	5	1,547
18	402	215	1,089	0	0	1	1,707
19	438	306	1,238	0	0	14	1,996
20	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0
22	523	337	1,625	0	0	2,347	4,832
23	490	379	1,213	0	0	2	2,084
24	488	211	1,383	0	0	1	2,083
25	318	311	836	0	0	363	1,828
26	345	316	931	0	0	84	1,676
27	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0
29	847	870	2,655	0	0	7	4,379
30	304	273	1,000	0	0	17	1,594
31	494	312	1,334	0	0	15	2,155
Total	9,310	8,549	26,210	13	339	2,885	47,306
			Totalizer		Totalizer		Total(x1,000)
			This Month		Last Month		Gallons
		Well 4	1,464,100		1,454,790		9,310
		Well 6	97,626		89,077		8,549
		Well 7	360,848		334,638		26,210
		Well 10	764,036		764,023		13
		Well 11	330,610		330,271		339
		Well 12	278,778		275,893		2,885
			187,187		181,613		5574.00
		AGS Water Supply Meter					
			91,049,977		90,901,200		148.78
		Medical Reactor - Well 105					
			5,891,860		5,777,270		114.59
		Biology Building - Well 9					

**ATTACHMENT II**

**Brookhaven National Laboratory  
Potable Water Supply**

**January 2001 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**  
**January 2001**

Sample Location	Sample Date	pH (SU)	Temperature (Degrees F)	Conductivity (µmhos)	Alkalinity (mg/L)	Calcium (mg/L)
WTP	01/02/01	7.6	53	148	NR	NR
WTP	01/04/01	7.8	52	148	NR	NR
WTP	01/09/01	7.2	52	144	NR	NR
WTP	01/11/01	7.3	52	147	NR	NR
WTP	01/16/01	7.2	53	199	NR	NR
WTP	01/18/01	7.4	53	136	NR	NR
WTP	01/23/01	7.4	51	139	NR	NR
WTP	01/25/01	7.5	54	130	NR	NR
WTP	01/30/01	8.0	52	147	NR	NR
Well 11	01/02/01	7.9	55	163	NR	NR
Well 11	01/04/01	7.8	55	157	NR	NR
Well 11	01/09/01	7.9	52	136	NR	NR
Well 11	01/11/01	8.0	55	151	NR	NR
Well 11	01/16/01	8.0	54	142	NR	NR
Well 11	01/18/01	7.5	55	175	NR	NR
Well 11	01/23/01	6.9	54	137	NR	NR
Well 11	01/25/01	6.6	54	163	NR	NR
Well 11	01/30/01	7.5	55	174	NR	NR
Well 12	01/02/01	7.5	55	147	NR	NR
Well 12	01/04/01	7.4	55	146	NR	NR
Well 12	01/09/01	7.8	54	112	NR	NR
Well 12	01/11/01	7.8	54	117	NR	NR
Well 12	01/16/01	7.9	54	117	NR	NR
Well 12	01/18/01	7.4	55	139	NR	NR
Well 12	01/23/01	7.0	56	144	NR	NR
Well 12	01/25/01	7.8	55	139	NR	NR
Well 12	01/30/01	6.8	56	161	NR	NR

NR - Analysis Not Required or Not Reported

WTP - Water Treatment Plant

**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**

**2000 Fourth Quarter Sr-90 Radiological Analyses  
for the BNL Potable Water Wells**

**ATTACHMENT III**  
**Table 2**  
**Brookhaven National Laboratory**  
**Potable Water Supply**

**2000 Fourth Quarter Sr-90 Radiological Analyses for  
the BNL Potable Water Wells**

<b>Summary of Sr-90 Radiological Results for the BNL Potable Water Wells 2000 Fourth Quarter Monitoring Results</b>	
<b>Well ID</b>	<b>Sr-90 pCi/L</b>
Well # 4	< 0.740
Well # 4 (duplicate)	< 0.800
Well # 6	< 0.582
Well # 7	< 0.684
Well # 11	< 0.700
Well # 12	< 0.611

33016

7534

ASL Prefix No. 20101816



BROOKHAVEN NATIONAL LABORATORY

Page 1 of 1

Carrier/VWaybill #

Requires EDD

①

SAMPLING CHAIN OF CUSTODY

Analysis Requested By		Sampling Contractor		Analytical Laboratory	
Name: D Paquette		Name: ESD Field Sampling		Name: GEL	
Life No: 14314 Ext: 7046		Contact:		Address: 2040 Savage Rd	
Acct. No: 07084 Dept: ES		Phone:		City: Charleston SC Zip:	
Email Reports To:		Email/Fax:		Contact:	
1 D Paquette		Sampler: L Lettieri		Phone:	
2				Email/Fax:	
Project Name:		Project Manager:		Field Engineer:	
Potable Wells		R. Laga Hella			

Comments:

Analytical Laboratory									
Alpha/Beta	Tritium	Gamma	Strontium	Sr-90	Sr-90				
			X						
			X						
			X						
			X						
			X						

Sample Information							Additional Sample Information					
UID	TRF	Site ID	Depth	Date	Time	Matrix	Location Description	Conc./Vol/Units	Conc. Unit	# of Tests	Preservative	
001	E	083-400	147	10/18/00	1330	w	Well #4 Ground water	4l	P	1	HNO3	
002	E	80-1	-	10/18/00	1330	w	Well #4 - Duplicate	4l	P	1	HNO3	
003	E	093-400	150	10/18/00	1340	w	Well #6	4l	P	1	HNO3	
004	E	092-400	150	10/18/00	1348	w	Well #7	4l	P	1	HNO3	
005	E	095-400	142	10/18/00	1400	w	Well #11	4l	P	1	HNO3	
006	E	056-401	137	10/18/00	1407	w	Well #12	4l	P	1	HNO3	
As per L. Lettieri												

1 Relinquished By/Date/Time Print L Lettieri 10/18/00 Signature <i>[Signature]</i> 1520	2 Relinquished By/Date/Time Print Signature	3 Relinquished By/Date/Time Print Signature
1 Received By/Date/Time Print Patricia Dover 10/20/00 Signature Patricia Dover 10/20/00	2 Received By/Date/Time Print Signature	3 Received By/Date/Time Print Signature

Contractor Lab Sample Disposal:  
 Return To Client     Return To Client  
 Archive For \_\_\_\_\_ Months

Turn-Around Time Required:  
 Rush (1 Day)     14 Days     30 Days  
 7 Days     Other ( )

## Certificate of Analysis

Company : Brookhaven National Laboratory  
 Address : Building 134C  
 Upton, NY 11973-5000

Report Date: January 9, 2001

Contact: Mr. Greg Flette  
 Project: Routine Analytical

Page 1 of 1

Client Sample ID:	083-400	Project:	BRKL00198
Sample ID:	33016001	Client ID:	BRKL002
Matrix:	Ground Water	COC:	7534
Collect Date:	18-OCT-00 13:30	Samp Recv.:	7534
Receive Date:	20-OCT-00 10:00	Client Desc.:	
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Rad Gas Flow</b>											
<i>GFPC, Sr90, liquid</i>											
Strontium-90	U	-0.151	+/-0.306	0.740	1.00	pCi/L	AAK	11/10/00	1046	51535	1

The following Analytical Methods were performed

Method	Description
1	EPA 905.0

Notes:

The Qualifiers in this report are defined as follows:

- DL Failed required detection limit.
- J Estimated value; the result was greater than the MDA but less than the required detection limit.
- JN Presumptive evidence of the analyte at an estimated quantity.
- R The data are unusable (radionuclide may or may not be present).
- U Undetected; sample result < MDA
- UI Uncertain identification for gamma spectroscopy.

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis at 843-556-8171 Ext. 4485.

Potable Well  
#4

Reviewed by \_\_\_\_\_



## Certificate of Analysis

Company : Brookhaven National Laboratory  
Address : Building 134C  
Upton, NY 11973-5000

Report Date: January 9, 2001

Contact: Mr. Greg Flette  
Project: Routine Analytical

Page 1 of 1

Client Sample ID: BD-1  
Sample ID: 33016002  
Matrix: Ground Water  
Collect Date: 18-OCT-00 13:30  
Receive Date: 20-OCT-00 10:00  
Collector: Client

Project: BRKL00198  
Client ID: BRKL002  
COC: 7534  
Samp Recv.: 7534  
Client Desc.:

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow											
GFPC, Sr90, liquid											
Strontium-90	U	-0.178	+/-0.332	0.800	1.00	pCi/L	AAK	11/10/00	1046	51535	1

### The following Analytical Methods were performed

Method	Description
1	EPA 905.0

#### Notes:

The Qualifiers in this report are defined as follows :

- DL Failed required detection limit.
- J Estimated value; the result was greater than the MDA but less than the required detection limit.
- JN Presumptive evidence of the analyte at an estimated quantity.
- R The data are unusable (radionuclide may or may not be present).
- U Undetected; sample result < MDA
- UI Uncertain identification for gamma spectroscopy.

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis at 843-556-8171 Ext. 4485.

Reviewed by \_\_\_\_\_

Potable Well #4

Duplicate

## Certificate of Analysis

Company: Brookhaven National Laboratory  
 Address: Building 134C  
 Upton, NY 11973-5000

Report Date: January 9, 2001

Contact: Mr. Greg Flette  
 Project: Routine Analytical

Page 1 of 1

Client Sample ID: 093-400  
 Sample ID: 33016003  
 Matrix: Ground Water  
 Collect Date: 18-OCT-00 13:40  
 Receive Date: 20-OCT-00 10:00  
 Collector: Client

Project: BRKL00198  
 Client ID: BRKL002  
 COC: 7534  
 Samp Recv.: 7534  
 Client Desc.:

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Rad Gas Flow</b>											
GFPC, Sr-90, liquid Strontium-90	U	0.455	+/-0.298	0.582	1.00	pCi/L	AAK	11/10/00	1046	51535	1

The following Analytical Methods were performed

Method	Description
1	EPA 905.0

Notes:

Potable Well #6

The Qualifiers in this report are defined as follows :

- DL Failed required detection limit.
- J Estimated value: the result was greater than the MDA but less than the required detection limit.
- JN Presumptive evidence of the analyte at an estimated quantity.
- R The data are unusable (radionuclide may or may not be present).
- U Undetected; sample result < MDA
- UI Uncertain identification for gamma spectroscopy.

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis at 843-556-8171 Ext. 4485.

Reviewed by \_\_\_\_\_

## Certificate of Analysis

Company: Brookhaven National Laboratory  
 Address: Building 134C  
 Upton, NY 11973-5000

Report Date: January 9, 2001

Contact: Mr. Greg Flette  
 Project: Routine Analytical

Page 1 of 1

Client Sample ID: 092-400  
 Sample ID: 33016004  
 Matrix: Ground Water  
 Collect Date: 18-OCT-00 13:48  
 Receive Date: 20-OCT-00 10:00  
 Collector: Client

Project: BRKL00198  
 Client ID: BRKL002  
 COC: 7534  
 Samp Recv.: 7534  
 Client Desc.:

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow											
GFPC, Sr-90, liquid											
Strontium-90	U	0.590	+/-0.345	0.684	1.00		AAK	11/10/00	1046	51535	1

The following Analytical Methods were performed

Method	Description
1	EPA 905.0

Notes:

The Qualifiers in this report are defined as follows:

- DL Failed required detection limit.
- J Estimated value; the result was greater than the MDA but less than the required detection limit.
- JN Presumptive evidence of the analyte at an estimated quantity.
- R The data are unusable (radionuclide may or may not be present).
- U Undetected; sample result < MDA
- UI Uncertain identification for gamma spectroscopy.

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis at 843-556-8171 Ext. 4485.

Potable Well #7

Reviewed by \_\_\_\_\_

## Certificate of Analysis

Company : Brookhaven National Laboratory  
 Address : Building 134C  
 Upton, NY 11973-5000

Report Date: January 9, 2001

Contact: Mr. Greg Flette  
 Project: Routine Analytical

Page 1 of 1

Client Sample ID: 093-400  
 Sample ID: 33016005  
 Matrix: Ground Water  
 Collect Date: 18-OCT-00 14:00  
 Receive Date: 20-OCT-00 10:00  
 Collector: Client

Project: BRKL00198  
 Client ID: BRKL002  
 COC: 7534  
 Samp Recv.: 7534  
 Client Desc.:

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow											
GFPC, Sr90, liquid Strontium-90	U	0.548	+/-0.352	0.700	1.00	pCi/L	AAK	11/10/00	1046	51535	1

The following Analytical Methods were performed

Method	Description
1	EPA 905.0

Notes:

The Qualifiers in this report are defined as follows :

- DL Failed required detection limit.
- J Estimated value: the result was greater than the MDA but less than the required detection limit.
- JN Presumptive evidence of the analyte at an estimated quantity.
- R The data are unusable (radionuclide may or may not be present).
- U Undetected; sample result < MDA
- UI Uncertain identification for gamma spectroscopy.

*potable Well #11*

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis at 843-556-8171 Ext. 4485.

Reviewed by \_\_\_\_\_

## Certificate of Analysis

Company : Brookhaven National Laboratory  
 Address : Building 134C  
 Upton, NY 11973-5000

Report Date: January 9, 2001

Contact: Mr. Greg Flette  
 Project: Routine Analytical

Page 1 of 1

Client Sample ID: 056-401  
 Sample ID: 33016006  
 Matrix: Ground Water  
 Collect Date: 18-OCT-00 14:07  
 Receive Date: 20-OCT-00 10:00  
 Collector: Client

Project: BRKL00198  
 Client ID: BRKL002  
 COC: 7534  
 Samp Recv.: 7534  
 Client Desc.:

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow											
GFPC, Sr90, liquid											
Strontium-90	U	-0.0646	±-0.257	0.611	1.00	pCi/L	AAK	11/10/00	1043	51535	1

The following Analytical Methods were performed

Method	Description
1	EPA 905.0

Notes:

The Qualifiers in this report are defined as follows :

- DL Failed required detection limit.
- J Estimated value; the result was greater than the MDA but less than the required detection limit.
- JN Presumptive evidence of the analyte at an estimated quantity.
- R The data are unusable (radionuclide may or may not be present).
- U Undetected; sample result < MDA
- UI Uncertain identification for gamma spectroscopy.

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis at 843-556-8171 Ext. 4485.

*Potable Well #12*

Reviewed by \_\_\_\_\_