

BROOKHAVEN
NATIONAL LABORATORY

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

www.bnl.gov

January 9, 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 December 2000

In accordance with the requirements of the BNL Potable Water System Sampling Plan and the 2000 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 Reports for December 2000.
- Attachment II: December 2000 Biweekly Water Quality Monitoring Data for BNL Potable Water Wells.
- Attachment III: 2000 Monthly Bacteriological Reports for the BNL Potable Water Distribution System and 2000 Final Bacteriological Reports for the BNL Potable Wells.
- Attachment IV: 2000 Fourth Quarter Principal Organic Compound Analyses for Potable Water Well No. 10
- Attachment V: 2000 Fourth Quarter 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

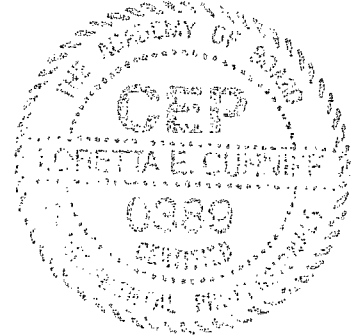
operating procedures collect routine monitoring samples; a contractor laboratory using standard methods of analysis performs the subsequent analyses. The Quality Assurance documentation is available from the Environmental Services Division and Plant Engineering Divisions. Based on this information, we believe the values contained in these reports are representative of the BNL potable water system.

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,

Lori 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 Operational
Reports for December 2000**

BROOKHAVEN NATIONAL LABORATORY

WATER SYSTEMS OPERATION REPORT

Public Water Supply Protection

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

LOCATION: WATER TREATMENT PLANT

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 Cl2 Residual	Lime Sodium Hydroxide		
	K Gals	108+92/72	Cl2 use per 24hrs	mg/l		12091426
1	832	192/72	8	0.84	7.6	12092258
2	0					
3	0					
4	2,138	180/72	12	0.51	7.5	12094396
5	819	171/72	9	0.58	7.3	12095215
6	780	169/71+14	3	0.85	7.4	12095995
7	822	162/85	6	0.49	7.4	12096817
8	1,022	160/85	2	0.58	7.4	12097639
9	0					
10	0					
11	2,393	147/85	13	0.45	7.4	12100232
12	866	143/85	4	0.75	7.5	12101098
13	905	140/85	3	0.2	7.5	12102003
14	896	132/85	8	0.8	8.4	12102899
15	967	128/85	4	0.33	8.2	12103866
16	0					
17	0					
18	3,085	110/85	18	0.23	7.6	12106951
19	937	105/85	5	0.55	7.6	12107888
20	889	99/85	6	0.74	7.7	12108777
21	927	125/50	9	0.3	7.6	12109704
22	952	120/50	5	0.42	7.7	12110656
23	740	110/50	10	0.2	7.6	12111396
24	0					
25	0					
26	2,580	92/50	18	0.8	7.7	12113976
27	932	82/50	10	0.8	7.9	12114908
28	886	80/50	2	0.8	8.1	12115794
29	877	77/50	3	0.8	7.9	12116671
30	624	75/50	2	0.73	7.7	12117295
31	0					
T	25,869		160			
3.	834.48		5.16	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: NO Bell

Date: 1-2-01

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 : DECEMBER 2000

LOCATION: WELL NO. 4

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

Does the system have a chlorination waiver? yes no

Source: Ground Water

Month	CHLORINATION				pH		Daily Totalizer
	Treated Water	Liquid Sodium Hypochlorite		Free Cl ₂ Residual	Lime Sodium Hydroxide	Totalizer	
		K Gals	Gallons	Cl ₂ use per 24hrs	mg/l		
1	239	73+97	6	0.03	5.9	1446421	
2	0						
3	0						
4	627	152	18	0.37	5.9	1447048	
5	148	150	2	0.03	5.9	1447196	
6	220	143	7	0.19	5.9	1447416	
7	319	132	11	0.01	5.9	1447735	
8	290	125	7	0.01	5.9	1448025	
9	0						
10	0						
11	693	105	20	1	6	1448718	
12	310	98	7	0.01	6	1449028	
13	254	90+110	8	0.28	6	1449282	
14	329	194	6	0.24	6	1449611	
15	336	181	13	0.25	6	1449947	
16	0						
17	0						
18	856	159	22	0.2	6	1450803	
19	313	150	9	0.15	6	1451116	
20	285	140	10	0.18	5.9	1451401	
21	291	132	8	0	6	1451692	
22	473	120	12	0.02	6	1452165	
23	343	110	10	0	6	1452508	
24	0						
25	0						
26	1,232	75	35	0	6	1453740	
27	351	65+85	10	0.2	6	1454091	
28	246	140	10	0.4	6	1454337	
29	288	130	10	0.3	6	1454625	
30	165	120	10	NR	NR	1454790	
31	0						
TOT	8,608		251				
AVG.	277.68		8.10	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: [Signature]

Date: 1-2-01

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 : **DECEMBER 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
	Treated Water	Liquid Sodium Hypochlorite Gallons	Free Cl2 Residual	Free Cl2 Residual	Lime Sodium	Totalizer	
	K Gals	Cl2 use per 24hrs	mg/l	Hydroxide	Daily Totalizer		
		109				80955	
1	251	104+86	5	0.03	5.9	81206	
2	0						
3	0						
4	838	180	10	0.37	5.9	82044	
5	299	175	5	0.03	5.9	82343	
6	249	173	2	0.19	5.9	82592	
7	266	170	3	0.01	5.9	82858	
8	298	165	5	0.01	5.9	83156	
9	0						
10	0						
11	712	155	10	1	6	83868	
12	163	152	3	0.01	6	84031	
13	233	150	2	0.28	6	84264	
14	311	148	2	0.24	6	84575	
15	63	145	3	0.25	6	84638	
16	0						
17	0						
18	12	144	1	0.2	6	84650	
19	0	143	1	0.15	6	84650	
20	36	142	1	0.18	5.9	84686	
21	0	142	0	0	6	84686	
22	596	138	4	0.02	6	85282	
23	553	130	8	0	6	85835	
24	0						
25	0						
26	1,972	110	20	0	6	87807	
27	367	105	5	0.2	6	88174	
28	360	99	6	0.4	6	88534	
29	302	92	7	0.3	6	88836	
30	241	90	2	NR	NR	89077	
31	0						
TOT	8,122		105				0
AVG	262.00		3.39	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? NO

If yes, check reason(s) below.

_____ Two or more positive total coliform samples for systems collecting 40 or more samples (routine, repeat or hilurb) 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: 1-2-01

Title: WATER SYSTEMS SUPERVISOR

Cert. #: 85650

BROOKHAVEN NATIONAL LABORATORY

WATER SYSTEMS OPERATION REPORT

Public Water Supply Protection

PROGRAM CODE 169	STATION 11515100	SUFFOLK COUNTY	REPORTING PERIOD :	DECEMBER 2000
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LOCATION: WELL NO. 7

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

Does the system have a chlorination waiver? yes no

Source: Ground Water

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				
1	705	114	8	0.03	5.9	316270	
2	0						
3	0						
4	1,640	86	28	0.37	5.9	317910	
5	715	78	8	0.03	5.9	318625	
6	595	70+130	8	0.19	5.9	319220	
7	771	190	10	0.01	5.9	319991	
8	791	180	10	0.01	5.9	320782	
9	0						
10	0						
11	2,127	150	30	1	6	322909	
12	721	141	9	0.01	6	323630	
13	769	131+10	10	0.28	6	324399	
14	873	132	9	0.24	6	325272	
15	956	125	7	0.25	6	326228	
16	0						
17	0						
18	2,969	117	8	0.2	6	329197	
19	868	115	2	0.15	6	330065	
20	824	113	2	0.18	5.9	330889	
21	865	115	8	0	6	331754	
22	135	115	0	0.02	6	331889	
23	0	119	0	0	6	331889	
24	0						
25	0						
26	0	118	0	0	6	331889	
27	904	100+55	18	0.2	6	332793	
28	643	140	15	0.4	6	333436	
29	702	125	15	0.3	6	334138	
30	500	110	15	NR	NR	334638	
31	0						
TOT	19,073		220			0	
AVG.	615.26		7.10	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: [Signature]

Date: 1-2-01

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 : DECEMBER 2000

LOCATION: WELL NO. 10

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

Source: Ground Water Does the system have a chlorination waiver? yes ___ no

Day of month	CHLORINATION				pH		Totalizer Daily Totalizer
	Treated Water K Gals	Liquid Sodium Hypochlorite		Free Cl ₂ Residual	Lime Sodium Hydroxide	763962	
		Gallons	Cl ₂ use per 24hrs	mg/l			
1	0	59	0	NR	NR	763962	
2	0						
3	0						
4	0	59	0	NR	NR	763962	
5	0	59	0	NR	NR	763962	
6	0	59	0	NR	NR	763962	
7	6	59	0	NR	NR	763968	
8	0	59	0	NR	NR	763968	
9	0						
10	0						
11	5	59	0	NR	NR	763973	
12	46	59	1	NR	NR	764019	
13	4	59	0	NR	NR	764023	
14	0	59	0	NR	NR	764023	
15	0	59	0	NR	NR	764023	
16	0						
17	0						
18	0	59	0	NR	NR	764023	
19	0	59	0	NR	NR	764023	
20	0	59	0	NR	NR	764023	
21	0	59	0	NR	NR	764023	
22	0	59	0	NR	NR	764023	
23	0	59	0	NR	NR	764023	
24	0						
25	0						
26	0	59	0	NR	NR	764023	
27	0	59	0	NR	NR	764023	
28	0	59	0	NR	NR	764023	
29	0	59	0	NR	NR	764023	
30	0	59	0	NR	NR	764023	
31	0						
TOT	61		1			0	
AVG.	1.97		0.03	No. Days:	31		

Population Served 3,500

Number of routine samples 4

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

Number of actual routine samples 7

Does a M&AR violation exist? yes ___ No

If yes, check reason's below.

___ Actual number of samples fewer than required.

___ Failure to analyze for E. Coli if there was a positive result for total coliform from routine, repeat 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. Ross

Date: 1-2-01

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 : DECEMBER 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 ✓

Month	CHLORINATION					pH	Totalizer	
	Treated Water	Liquid Sodium Hypochlorite		Free Cl ₂	Lime Sodium Hydroxide			Daily Totalizer
		K Gals	Gallons	Cl ₂ use per 24hrs				
1	0	42	2	0.3	8	327993		
2	0							
3	0							
4	0	42	0	0.25	8	327993		
5	4	42	0	0.19	8.1	327997		
6	26	42	0	NR	NR	328023		
7	6	42	0	0.14	8	328029		
8	3	42	0	NR	NR	328032		
9	0							
10	0							
11	2	42	0	NR	NR	328034		
12	26	42	0	0.22	6.8	328060		
13	21	42	0	0.25	7.4	328081		
14	3	42	0	0.27	7.5	328084		
15	10	42	0	0.31	8.3	328094		
16	0							
17	0							
18	250	42	0	NR	NR	328344		
19	385	42	0	NR	NR	328729		
20	103	42	0	NR	NR	328832		
21	226	42	0	NR	NR	329058		
22	246	42	0	NR	NR	329304		
23	208	42	0	NR	NR	329512		
24	0							
25	0							
26	671	42	0	NR	NR	330183		
27	88	42	0	NR	NR	330271		
28	0	42	0	NR	NR	330271		
29	0	42	0	NR	NR	330271		
30	0	42	0	NR	NR	330271		
31	0							
TOTAL	2,278		2					
AVG.	73.48		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: SC Rose

Date: 1-2-01

Title: WATER SYSTEMS SUPERVISOR

Cert. #: 05050

BROOKHAVEN NATIONAL LABORATORY

WATER SYSTEMS OPERATION REPORT

Public Water Supply Protection

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

LOCATION: WELL NO. 12

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

Source: Ground Water

Does the system have a chlorination waiver? yes _____ no

Day of month	CHLORINATION				pH		Totalizer Daily Totalizer
	Treated Water	Liquid Sodium Hypochlorite		Free Cl2 Residual	Lime Sodium Hydroxide	Totalizer	
		Gallons	Cl2 use per 24hrs				
1	0	170	0	0.3	8	275572	
2	0						
3	0						
4	0	170	0	0.26	8.1	275572	
5	4	170	0	0.2	8	275576	
6	5	170	0	NR	NR	275581	
7	7	170	0	0.27	8	275588	
8	4	170	0	NR	NR	275592	
9	0						
10	0						
11	1	170	0	NR	NR	275593	
12	2	170	0	0.25	7.1	275596	
13	1	170	0	0.22	7.3	275596	
14	0	170	0	0.26	7.5	275596	
15	3	170	0	0.35	7.8	275599	
16	0						
17	0						
18	0	170	0	NR	NR	275599	
19	4	170	0	NR	NR	275603	
20	7	168	2	0.45	7.4	275610	
21	4	168	0	0.6	7.8	275614	
22	6	168	0	0.79	8	275620	
23	0	168	0	NR	NR	275620	
24	0						
25	0						
26	0	168	0	NR	NR	275620	
27	1	168	0	NR	NR	275621	
28	0	168	0	NR	NR	275621	
29	2	168	0	0.3	7	275623	
30	270	165	3	NR	NR	275893	
31	0						
TOT	321		5				
AVG.	10.35		0.16	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 HORN

Date: 1-2-01

Title: WATER SYSTEMS SUPERVISOR

Cert. #: 05050

12/30/00
Pump Data

MONTHLY GALLONAGE REPORT
Dec2000

Date	Well 4	Well 6	Well 7	Well10	Well11	Well12	Daily Total
1	239	251	705	0	0	0	1,195
2	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0
4	627	838	1,640	0	0	0	3,105
5	148	299	715	0	4	4	1,170
6	220	249	595	0	26	5	1,095
7	319	266	771	6	6	7	1,375
8	290	298	791	0	3	4	1,386
9	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0
11	693	712	2,127	5	2	1	3,540
12	310	163	721	46	26	2	1,268
13	254	233	769	4	21	1	1,282
14	329	311	873	0	3	0	1,516
15	336	63	956	0	10	3	1,368
16	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0
18	856	12	2,969	0	250	0	4,087
19	313	0	868	0	385	4	1,570
20	285	36	824	0	103	7	1,255
21	291	0	865	0	226	4	1,386
22	473	596	135	0	246	6	1,456
23	343	553	0	0	208	0	1,104
24	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0
26	1,232	1,972	0	0	671	0	3,875
27	351	367	904	0	88	1	1,711
28	246	360	643	0	0	0	1,249
29	288	302	702	0	0	2	1,294
30	165	241	500	0	0	270	1,176
31	0	0	0	0	0	0	0
Total	8,608	8,122	19,073	61	2,278	321	38,463
		Totalizer		Totalizer		Total(x1,000)	
		This Month		Last Month		Gallons	
	Well 4	1,454,790		1,446,182		8,608	
	Well 6	89,077		80,955		8,122	
	Well 7	334,638		315,565		19,073	
	Well 10	764,023		763,962		61	
	Well 11	330,271		327,993		2,278	
	Well 12	275,893		275,572		321	
AGS Water Supply Meter		181,613		181,610		3.00	
Medical Reactor - Well 105		90,901,200		88,298,020		2603.18	
Biology Building - Well 9		5,777,270		5,770,110		7.16	

ATTACHMENT II

**Brookhaven National Laboratory
Potable Water Supply**

**December 2000 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
December 2000

Sample Location	Sample Date	pH (SU)	Temperature (Degrees F)	Conductivity (μ mhos)	Alkalinity (mg/L)	Calcium (mg/L)
WTP	12/5/00	7.3	55	132	NR	NR
WTP	12/7/00	7.4	55	139	NR	NR
WTP	12/12/00	7.5	55	126	NR	NR
WTP	12/14/00	8.2	53	155	NR	NR
WTP	12/19/00	7.6	53	148	NR	NR
WTP	12/21/00	7.6	51	143	NR	NR
WTP	12/26/00	7.8	52	126	NR	NR
WTP	12/28/00	8.1	52	151	NR	NR
Well 11	12/5/00	8.1	54	144	NR	NR
Well 11	12/7/00	8.1	54	150	NR	NR
Well 11	12/12/00	6.8	55	176	NR	NR
Well 11	12/14/00	7.5	55	144	NR	NR
Well 11	12/19/00	7.7	56	150	NR	NR
Well 11	12/26/00	7.6	54	135	NR	NR
Well 11	12/5/00	8.0	54	118	NR	NR
Well 12	12/7/00	8.0	54	122	NR	NR
Well 12	12/12/00	7.1	55	139	NR	NR
Well 12	12/14/00	7.5	55	139	NR	NR
Well 12	12/19/00	7.5	56	141	NR	NR
Well 12	12/21/00	7.8	56	140	NR	NR
Well 12	12/26/00	7.7	52	121	NR	NR
Well 12	12/28/00	7.6	54	150	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 Monthly Bacteriological Reports for
the BNL Potable Water Distribution System and
2000 Final Bacteriological Reports
or the BNL Potable Water Wells**

LABORATORY RESULTSBROOKHAVEN NATIONAL LAB.-BNLM
70 BELL AVE.
UPTON, NY 11973
Federal ID : 5111891Received : 07-DEC-2000 15:00
Collected By : JK99
Sample Type : Potable Water
Proj. Number : 7837

Copies To : SCHD

Lab Number	Collected	Location	Units Method Limits	<u>T.COLI. BACT.</u> NONE SAM9223 NEGATIVE	<u>E.COLI.</u> NONE SAM9223 ABSENT	<u>CHLORINE RESIDUAL</u> mg/L SAM4500-C1G N/A
20001207-182 ROUTINE DISTRIBUTION	07-DEC-2000 11:14	7837-001 B-48 WATER TOWER		NEGATIVE 07-DEC-2000 17:00	ABSENT 07-DEC-2000 17:00	0.37 07-DEC-2000
20001207-183 ROUTINE DISTRIBUTION	07-DEC-2000 12:30	7837-002 B-640 WATER TOWER		NEGATIVE 07-DEC-2000 17:00	ABSENT 07-DEC-2000 17:00	0.25 07-DEC-2000
20001207-184 ROUTINE DISTRIBUTION	07-DEC-2000 08:30	7837-003 B-1005-RHIC		NEGATIVE 07-DEC-2000 17:00	ABSENT 07-DEC-2000 17:00	0.35 07-DEC-2000
20001207-185 ROUTINE DISTRIBUTION	07-DEC-2000 13:20	7837-004 B-363 APARTMENT LAUNDRY		NEGATIVE 07-DEC-2000 17:00	ABSENT 07-DEC-2000 17:00	0.15 07-DEC-2000
20001207-186 ROUTINE DISTRIBUTION	07-DEC-2000 13:40	7837-005 B-725-NSLS		NEGATIVE 07-DEC-2000 17:00	ABSENT 07-DEC-2000 17:00	0.25 07-DEC-2000
20001207-187 ROUTINE DISTRIBUTION	07-DEC-2000 13:30	7837-006 B-490-BLOCK-1AFC		NEGATIVE 07-DEC-2000 17:00	ABSENT 07-DEC-2000 17:00	0.20 07-DEC-2000
20001207-188 ROUTINE DISTRIBUTION	07-DEC-2000 13:35	7837-007 B-490-BLOCK 4-MRC		NEGATIVE 07-DEC-2000 17:00	ABSENT 07-DEC-2000 17:00	0.30 07-DEC-2000

Date Issued : 12/11/2000

ORIGINAL
Report for client information only*Joann M. Slavin*
Laboratory Director

F2M LABS, INC.

575 Broad Hollow Road, Melville, NY 11747-5076
(631)694-3040 . FAX:(631)420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

BROOKHAVEN NATIONAL LAB.-BNLM
70 BELL AVE,
UPTON, NY 11973
Federal ID : 5111891

Received : 07-DEC-2000 15:00
Collected By : JK99
Sample Type : Potable Water
Proj. Number : 7837

Copies To : SCHD

Lab Number	Collected	Location	Units Method Limits	T.COLI BACT.	E.COLI	CHLORINE RESIDUAL
20001207-189 ROUTINE DISTRIBUTION	07-DEC-2000 12:30	7837-008 DUPLICATE	NONE SM#9223 NEGATIVE	NEGATIVE 07-DEC-2000 17:00	NONE SM#9223 ABSENT	mg/L SM#4500-C1G N/A D.25 07-DEC-2000
20001207-190 ROUTINE RAW WELL	07-DEC-2000 08:00	7837-009 WTF-PACKED TOWER-648		NEGATIVE 07-DEC-2000 17:00	ABSENT 07-DEC-2000 17:00	
20001207-191 ROUTINE RAW WELL	07-DEC-2000 06:30	7837-010 WELL-10 GAC FILTER-654		NEGATIVE 07-DEC-2000 17:00	ABSENT 07-DEC-2000 17:00	
20001207-192 ROUTINE RAW WELL	07-DEC-2000 06:45	7837-011 WELL-11 GAC FILTER-655		NEGATIVE 07-DEC-2000 17:00	ABSENT 07-DEC-2000 17:00	
20001207-193 ROUTINE RAW WELL	07-DEC-2000 07:00	7837-012 WELL-12 GAC FILTER-657		NEGATIVE 07-DEC-2000 17:00	ABSENT 07-DEC-2000 17:00	
20001207-194 ROUTINE RAW WELL	07-DEC-2000 07:00	7837-013 DUPLICATE		NEGATIVE 07-DEC-2000 17:00	ABSENT 07-DEC-2000 17:00	
20001207-195 ROUTINE DISTRIBUTION	07-DEC-2000	7837-014 BLDG. 624		NEGATIVE 07-DEC-2000 17:00	ABSENT 07-DEC-2000 17:00	0.7 07-DEC-2000

Result(s) reported meet(s) NEW YORK STATE/USEPA limits for Potable Water.

Date Issued : 12/11/2000

ORIGINAL
Report for client information only

Joanna M. Alvarin
Laboratory Director

ATTACHMENT IV

**Brookhaven National Laboratory
Potable Water Supply**

**2000 Fourth Quarter Principal Organic Compound Analyses for
Potable Water Well No. 10**

BROOKHAVEN NATIONAL LAB.-BNLM
70 BELL AVE.
UPTON, NY 11973

Lab No. : 20001208-152

Sample Information...

Attn To : S. SCARPITTA/T. ROSS
Federal ID : 5111891
Collected : 08-DEC-2000 14:30
Received : 08-DEC-2000 15:05
Collected By : JK99
Project No : 7838
Copies To : SCHD

Location: 7838-001
WELL #10

Type : Potable Water
ROUTINE
Origin: RAW WELL

VOLATILE ORGANICS (METHOD 502.2) - ug/L

Run Number : 167
Date Analyzed : 15-DEC-2000

<u>Parameter(s)</u>	<u>Results</u>	<u>Limit</u>	<u>Parameter(s)</u>	<u>Results</u>	<u>Limit</u>
DICHLORODIFLUOROMETHANE	<0.5	5.0	1,2,3-TRICHLOROPROPANE	<0.5	5.0
CHLOROMETHANE	<0.5	5.0	2-CHLOROTOLUENE	<0.5	5.0
VINYL CHLORIDE	<0.5	2.0	4-CHLOROTOLUENE	<0.5	5.0
BROMOMETHANE	<0.5	5.0	M-DICHLOROBENZENE	<0.5	5.0
CHLOROETHANE	<0.5	5.0	P-DICHLOROBENZENE	<0.5	5.0
FLUOROTRICHLOROMETHANE	<0.5	6.0	O-DICHLOROBENZENE	<0.5	5.0
1,1-DICHLOROETHENE	<0.5	5.0	1,2,4-TRICHLOROBENZENE	<0.5	5.0
METHYLENE CHLORIDE	<0.5	5.0	HEXACHLOROBUTADIENE	<0.5	5.0
TRANS-1,2-DICHLOROETHENE	<0.5	5.0	1,2,3-TRICHLOROBENZENE	<0.5	5.0
1,1-DICHLOROETHANE	<0.5	5.0	BENZENE	<0.5	5.0
CIS-1,2-DICHLOROETHENE	<0.5	5.0	TOLUENE	<0.5	5.0
2,2-DICHLOROPROPANE	<0.5	5.0	ETHYLBENZENE	<0.5	5.0
BROMOCHLOROMETHANE	<0.5	5.0	1,3-XYLENE	<0.5	5.0
CHLOROFORM	<0.5	50	1,4-XYLENE	<0.5	5.0
1,1,1-TRICHLOROETHANE	<0.5	5.0	1,2-XYLENE	<0.5	5.0
CARBON TETRACHLORIDE	<0.5	5.0	STYRENE	<0.5	5.0
1,1-DICHLOROPROPENE	<0.5	5.0	ISOPROPYLBENZENE(CUMENE)	<0.5	5.0
1,2-DICHLOROETHANE	<0.5	5.0	N-PROPYLBENZENE	<0.5	5.0
TRICHLOROETHENE	<0.5	5.0	1,3,5-TRIMETHYLBENZENE	<0.5	5.0
1,2-DICHLOROPROPANE	<0.5	5.0	TERT-BUTYLBENZENE	<0.5	5.0
DIBROMOMETHANE	<0.5	5.0	1,2,4-TRIMETHYLBENZENE	<0.5	5.0
BROMODICHLOROMETHANE	<0.5	50	SEC-BUTYLBENZENE	<0.5	5.0
TRANS-1,3-DICHLOROPROPENE	<0.5	5.0	P-ISOPROPYLTOLUENE	<0.5	5.0
CIS-1,3-DICHLOROPROPENE	<0.5	5.0	N-BUTYLBENZENE	<0.5	5.0
1,1,2-TRICHLOROETHANE	<0.5	5.0	METHYL TERT. BUTYL ETHER	<0.5	50
TETRACHLOROETHENE	<0.5	5.0			
1,3-DICHLOROPROPANE	<0.5	5.0			
CHLORODIBROMOMETHANE	<0.5	50			
CHLOROBENZENE	<0.5	5.0			
1,1,1,2-TETRACHLOROETHANE	<0.5	5.0			
BROMOFORM	<0.5	50			
BROMOBENZENE	<0.5	5.0			
1,1,2,2-TETRACHLOROETHANE	<0.5	5.0			

Result(s) reported meet(s) NEW YORK STATE/USEPA limits for Potable Water

Date Issued : 12/19/2000

ORIGINAL

Report for client information only

Joann M. Slavina
 Laboratory Director

ATTACHMENT V

**Brookhaven National Laboratory
Potable Water Supply**

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

ATTACHMENT V
Table 2
Brookhaven National Laboratory
Potable Water Supply

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

Summary of Radiological Results for the BNL Potable Water Wells 2000 Fourth Quarter Monitoring Results			
Well ID	Gross Alpha pCi/L	Gross Beta pCi/L	Tritium pCi/L
Well # 4	1.13	13.1	< 289
Well # 4 (duplicate)	< 0.82	3.94	< 289
Well # 6	< 0.82	6.12	< 289
Well # 7	< 0.82	3.26	< 289
Well # 11	< 0.82	5.23	< 289
Well # 12	< 0.82	5.20	< 289

ASL C.O.C. No:

20101814

BROOKHAVEN NATIONAL LABORATORY

RADIOLOGICAL CONTROL DIVISION

ERD COC No.: 7533

Contractor Number

ANALYTICAL SERVICES LABORATORY

BLDG 490

UPTON, N.Y. 11973-5000

Ship to:

Pick Up by:

Attention:

Page 1 of 1

Chain of Custody Information

Bioassay samples will not be accepted if bottles are filled above the shoulder.

Project Name: potable wells

Requested by: D Paquette

Life Number: 14314 x7046

Account No.: 07089 Dept. Code: ES

E-Mail Reports to:

d paquette

b lee

SAMPLER: I Iettieri

SAMPLER: _____

SAMPLER: _____

Priority Authorization

Group Leader or Higher CALL

x3630, x2502 (Rad), x4860 (Non-Ra)

FILL OUT ONLY SHADED AREAS.

CANNOT ACCEPT SAMPLES WITH ACTIVITY >1mR/hr

ASL Number	Sample Description				Container		Analysis Requested***									
	Date	Time	Matrix		#	vol.	αβ	3H	γ	Sr90	MET	WQ	VOA	PCB	pH	
20101814-01	12/18/00	1329	w	083-400	Well #4			x	x	x						
20101814-02	12/18/00	1329	w	bcd-1	Well #4 - duplicate			x	x	x						
20101814-03	12/18/00	1337	w	093-400	Well #6			x	x	x						
20101814-04	12/18/00	1347	w	092-400	Well #7			x	x	x						
20101814-05	12/18/00	1358	w	093-400	Well #11			x	x	x						
20101814-06	12/18/00	1405	w	056-401	Well #12			x	x	x						
					As per Iettieri 1-9-01											

Must be one of the samplers

Transferred to :	I Iettieri	RA Brown		
Signed by:	I Iettieri	RA Brown		
Date/time	10/18/00 1430	10/18/00 1435		

***OTHER ANALYSIS NOT LISTED

COMMENTS

