Environmental Services Division

BROOKHAVEN
NATIONAL LABORATORY

June 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 May 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 May 2001.
Attachment II:	May 2001 Biweekly Water Quality Monitoring Data for BNL Potable Water Wells and BNL Distribution System.
Attachment III:	2001 Second Quarter Radiological Report 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, 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 Bacteriological and Operational
Reports for May 2001

BROOKHAVEN NATIONAL LABORATORY

WATER SYSTEMS OPERATION REPORT

PUBLIC WATER SUPPLY PROTECTION

PROGRAM CODE 169	STATION 11515100	SUFFOLK COUNTY	REPORTING PERIOD: MAY 2001

LOCATION: Water Treatment Facility

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

Source: Ground Water

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

Day of month	Treated Water	Liquid Sodium Hypochlorite Gallons	Cl2 use	Free Cl2 Residual	pH Lime Sodium	Totalizer Daily Totalizer
	K Gals	100/10	per 24hrs	mg/l	Hydroxide	12262972
1	1,428	100/10	10	0.65	7.5	12264400
2	1,300	90+95/10	10	0.65	7.6	12265700
3	1,402	165/10	20	0.65	7.5	12267102
4	1,405	155/10	10	0.5	7.5	12268507
5	0					
6	0					
7	753	151/10	4	0.8	7.8	12269260
8	840	148/10	3	0.8	7.8	12270100
9	875	140/10	8	0.7	7.8	12270975
10	975	133/10	7	0.7	7.8	12271950
11	1,103	125/10	8	0.8	7.9	12273053
12	0					
13	0					
14	4,358	99/10	26	0.8	8	12277411
15	1,035	90/10	9	0.7	8.1	12278446
16	1,106	80/10	10	0.7	7.8	12279552
17	923	72/10	8	0.7	7.9	12280475
18	1,072	60/10	12	0.5	7.8	12281547
19	0					
20	0					
21	3,037	29+151	31	0.7	7.8	12284584
22	1,268	170	10	0.6	7.9	12285852
23	1,344	160	10	0.6	7.9	12287196
24	1,445	148	12	0.7	8	12288641
25	1,447	135	13	0.6	8	12290088
26	0					
27	0					
28	4,237	105	30	0.6	7.9	12294325
29	1,424	92	13	0.7	8	12295749
30	1,429	80+120	12	0.61	8	12297178
31	1,458	188	12	0.7	8.1	12298636
TOT	35,664		288			
AVG.	1150.45		9.29	No. Days:	31	

Population Served   3,500

Number of routine samples   4

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

Number of actual routine samples   7

Does a M&AR violation exist? YES ___ NO X

If yes, check reason's below.

_____ Actual number of samples fewer than required.

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

_____ Failure to analyze repeat samples.

Does an MCL violation exist? YES ___ NO X

If yes, check reason(s) below.

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

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

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

Reported by: _____

Title: Water Systems Supervisor

Date: 6-5-01

Certification No. NY0031941

BROOKHAVEN NATIONAL LABORATORY

WATER SYSTEMS OPERATION REPORT

PUBLIC WATER SUPPLY PROTECTION

PROGRAM CODE 169	STATION 11515100	SUFFOLK COUNTY	REPORTING PERIOD: MAY	2001

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	Treated Water	Liquid Sodium Hypochlorite Gallons	Cl2 use per 24hrs	Free Cl2 Residual	Lime / Sodium	Totalizer Daily Totalizer
month	K Gals	130	per 24hrs	mg/l	Hydroxide	- 1479844
1	0	130	0	0	0	1479844
2	0	130	0	0	0	1479844
3	0	130	0	0	0	1479844
4	0	130	0	0	0	1479844
5	0					
6	0					
7	0	130	0	NR	NR	1479844
8	0	130	0	NR	NR	1479844
9	0	130	0	NR	NR	1479844
10	0	130	0	NR	NR	1479844
11	0	130	0	NR	NR	1479844
12	0					
13	0					
14	0	130	0	NR	NR	1479844
15	0	130	0	NR	NR	1479844
16	0	130	0	NR	NR	1479844
17	0	130	0	NR	NR	1479844
18	0	130	0	NR	NR	1479844
19	0					
20	0					
21	0	130	0	NR	NR	1479844
22	0	130	0	NR	NR	1479844
23	0	130	0	NR	NR	1479844
24	0	130	0	NR	NR	1479844
25	0	130	0	NR	NR	1479844
26	0					
27	0					
28	0	130	0	NR	NR	1479844
29	0	130	0	NR	NR	1479844
30	0	130	0	NR	NR	1479844
31	0	130	0	NR	NR	1479844
TOT	0		0			
AVG.	0.00		0.00	No. Days:	31	

Population Served   3,500

Number of routine samples   4

(Must collect a minimum of 5 routine samples the month following

a repeat sample collection)

Number of actual routine samples   7

Does a M&AR violation exist?   YES ____   NO ✓

If yes, check reason's below.

_____ Actual number of samples fewer than required.

_____ Failure to analyze for E. Coli if there was a positive result for

total coliform from routine, repeat of high turbidity sample.

_____ Failure to analyze repeat samples.

Does an MCL violation exist?   YES ____   NO ✗

If yes, check reason(s) below.

_____ Two or more positive total coliform samples for systems collecting 40

or more samples (routine, repeat or hiturb) per month.

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

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

Reported by: _Sorcer_

Date: 6-5-01

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: MAY	2001

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	Treated Water K Gals 180	Liquid Sodium Hypochlorite Gallons	Cl2 use per 24hrs	Free Cl2 Residual mg/l	pH Lime Sodium Hydroxide	Totalizer Daily Totalizer 142275
1	597	175	5	0.95	6	142872
2	658	170	5	0.66	6.1	143530
3	625	165+35	5	0.03	6	144155
4	691	190	10	0.03	6	144846
5	0					
6	0					
7	249	190	0	0.2	5.9	145095
8	515	187	3	0.2	6	145610
9	358	180	7	0.1	6	145968
10	486	180	0	0.2	6	146454
11	548	175	5	0.2	6	147002
12	0					
13	0					
14	1,710	153	22	0.2	6	148712
15	468	147	6	0.1	6	149180
16	590	138	9	0.1	6	149770
17	796	125+35	13	0.1	6	150566
18	698	148	12	0.1	6	151264
19	0					
20	0					
21	1,301	127	21	0.1	6	152565
22	598	119	8	0.3	6	153163
23	719	108	11	0.6	6	153882
24	592	98	10	0.4	6	154474
25	558	90	8	0.3	6	155032
26	0					
27	0					
28	1,696	65	25	0.04	6	156728
29	724	52	13	0.81	6.4	157452
30	659	48+100	4	0.02	6.1	158111
31	691	130	18	0.18	6.5	158802
TOT	16,527		220			
AVG.	533.13		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?   YES ____   NO ✓

If yes, check reason(s) below.

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

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

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

Reported by: _J. Q. Rose_

Title: Water Systems Supervisor

Date: 6-5-01

Certification No. NY0031941

BROOKHAVEN NATIONAL LABORATORY

WATER SYSTEMS OPERATION REPORT

PUBLIC WATER SUPPLY PROTECTION

PROGRAM CODE 169	STATION 11515100	SUFFOLK COUNTY	REPORTING PERIOD: MAY	2001

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	Treated Water K Gals	Liquid Sodium Hypochlorite Gallons 122	Cl2 use per 24hrs	Free Cl2 Residual mg/l	pH — Lime — Sodium Hydroxide	Totalizer Daily Totalizer 462406
1	1,270	100	22	0.95	6	463676
2	1,129	82	18	0.66	6.1	464805
3	1,212	60+140	22	0.03	6.1	466017
4	1,127	181	19	0.03	6	467144
5	0					
6	0					
7	748	170	11	0.2	5.9	467892
8	812	170	0	0.2	6	468704
9	745	160	10	0.1	6	469449
10	863	140	15	0.2	6	470312
11	905	135	5	0.2	6	471217
12	0					
13	0					
14	3,889	99	36	0.2	6	475106
15	901	90	9	0.1	6	476007
16	1,053	82	8	0.1	6	477060
17	623	80+120	2	0.1	6	477683
18	1,141	186	14	0.1	6	478824
19	0					
20	0					
21	2,685	168	18	0.1	6	481509
22	1,044	159	9	0.3	6	482553
23	1,257	148	11	06	6	483810
24	1,344	139	9	0.4	6	485154
25	1,298	128	11	0.3	6	486452
26	0					
27	0					
28	3,786	105	23	0.04	6	490238
29	1,203	95	10	0.81	6.4	491441
30	1,137	88+82	7	0.02	6.1	492578
31	1,204	149	13	0.18	6.5	493782
TOT	31,376		302			
AVG.	1012.13		9.74	No. Days:	31	

Population Served 3,500

Number of routine samples _4_

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

Number of actual routine samples _7_

Does a M&AR violation exist? YES ___ NO ✓

If yes, check reason's below.

_____ Actual number of samples fewer than required.

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

_____ Failure to analyze repeat samples.

Does an MCL violation exist? YES ___ NO ✓

If yes, check reason(s) below.

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

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

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

Reported by: _(signature)_

Title: Water Systems Supervisor

Date: 6-5-01

Certification No. NY0031941

BROOKHAVEN NATIONAL LABORATORY

WATER SYSTEMS OPERATION REPORT

PUBLIC WATER SUPPLY PROTECTION

PROGRAM CODE 169	STATION 11515100	SUFFOLK COUNTY	REPORTING PERIOD: MAY	2001

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	Treated Water K Gals	Liquid Sodium Hypochlorite Gallons 58	Cl2 use per 24hrs	Free Cl2 Residual mg/l	pH Lime / Sodium Hydroxide	Totalizer Daily Totalizer 764045
1	0	58	0	NR	NR	764045
2	0	58	0	NR	NR	764045
3	0	58	0	NR	NR	764045
4	0	58	0	NR	NR	764045
5	0					
6	0					
7	0	58	NR	NR	NR	764045
8	0	58	NR	NR	NR	764045
9	0	58	NR	NR	NR	764045
10	0	58	NR	NR	NR	764045
11	0	58	NR	NR	NR	764045
12	0					
13	0					
14	0	58	0	NR	NR	764045
15	0	58	0	NR	NR	764045
16	0	58	0	NR	NR	764045
17	0	58	0	NR	NR	764045
18	0	58	0	NR	NR	764045
19	0					
20	0					
21	0	58	0	NR	NR	764045
22	0	58	0	NR	NR	764045
23	0	58	0	NR	NR	764045
24	0	58	0	NR	NR	764045
25	0	58	0	NR	NR	764045
26	0					
27	0					
28	0	58	0	NR	NR	764045
29	0	58	0	NR	NR	764045
30	0	58	0	NR	NR	764045
31	0	58	0	NR	NR	764045
TOT	0		0			
AVG.	0.00		0.00	No. Days:	31	

Population Served   3,500

Number of routine samples   4

(Must collect a minimum of 5 routine samples the month following

a repeat sample collection)

Number of actual routine samples   7

Does a M&AR violation exist?   YES ___   NO ✓

If yes, check reason's below.

_____ Actual number of samples fewer than required.

_____ Failure to analyze for E. Coli if there was a positive result for

total coliform from routine, repeat of high turbidity sample.

_____ Failure to analyze repeat samples.

Does an MCL violation exist?   YES ___   NO ✓

If yes, check reason(s) below.

_____ Two or more positive total coliform samples for systems collecting 40

or more samples (routine, repeat or hiturb) per month.

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

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

Reported by: _____   Date: 6-5-01

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: MAY	2001

LOCATION: WELL NO. 11

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

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

		CHLORINATION			pH		
	Treated	Liquid Sodium Hypochlorite		Free Cl2	Lime	Totalizer	
Day of	Water	Gallons	Cl2 use	Residual	Sodium	Daily Totalizer	
month	K Gals	190	per 24hrs	mg/l	Hydroxide	335101	
1	0	190	0	0.59	6.7	335101	Number of routine samples 4
2	0	190	0	0.57	6.7	335101	(Must collect a minimum of 5 routine samples the month following
3	0	190	0	0.63	6.5	335101	a repeat sample collection)
4	0	190	0	NR	NR	335101	
5	0						Number of actual routine samples 7
6	0						
7	2,901	155	35	1.8	7.2	338002	Does a M&AR violation exist? YES _____ NO ✓
8	0	153	2	0.7	7.4	338002	
9	4	153	0	NR	NR	338006	
10	5	152	1	0.4	6.8	338011	If yes, check reason's below.
11	369	152	0	NR	NR	338380	
12	0						_____ Actual number of samples fewer than required.
13	0						
14	2,556	130	22	1	6.5	340936	_____ Failure to analyze for E. Coli if there was a positive result for
15	118	128	2	1	6.3	341054	total coliform from routine, repeat of high turbidity sample.
16	5	128	0	0.1	6.5	341059	
17	2	128	0	0.5	6.6	341061	_____ Failure to analyze repeat samples.
18	3	128	0	0.4	6.6	341064	
19	0						Does an MCL violation exist? YES _____ NO ✓
20	0						
21	62	128	0	NR	NR	341126	If yes, check reason(s) below.
22	0	128	0	0.6	7	341126	
23	7	128	0	NR	NR	341133	_____ Two or more positive total coliform samples for systems collecting 40
24	214	125	3	0.3	7.3	341347	or more samples (routine, repeat or hiturb) per month.
25	7	124	1	0.5	7.4	341354	
26	0						_____ Positive E. Coli result followed by a positive total coliform repeat sample.
27	0						
28	132	122	2	0.65	7.4	341486	_____ Positive total coliform result followed by a positive E. Coli repeat sample.
29	183	122	0	NR	NR	341669	
30	224	122	0	NR	NR	341893	
31	164	122	0	0.4	7.8	342057	
TOT	6,956		68				
AVG.	224.39		2.19	No. Days:	31		

Population Served   3,500

Reported by: _J C Ross_

Date: 6-5-01

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: MAY	2001

LOCATION: WELL NO. 12

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

Source: Ground Water

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

		CHLORINATION		Free Cl2	pH		
	Treated	Liquid Sodium Hypochlorite			__ Lime	Totalizer	
Day of	Water	Gallons	Cl2 use	Residual	__ Sodium	Daily Totalizer	
month	K Gals	141	per 24hrs	mg/l	Hydroxide	294093	
1	276	138	3	0.59	7	294369	
2	2	138	0	0.77	7.3	294371	
3	218	135	3	0.52	7.6	294589	
4	51	133	2	0.56	7	294640	
5	0						
6	0						
7	144	132	1	1	7.4	294784	
8	0	132	0	0.7	7.5	294784	
9	5	132	0	0.4	7.2	294789	
10	3	132	0	0.4	7.1	294792	
11	1	132	0	NR	NR	294793	
12	0						
13	0						
14	0	132	0	0.9	7.1	294793	
15	6	131	1	0.7	7	294799	
16	1	131	0	0.5	7	294800	
17	1	131	0	0.4	7	294801	
18	2	131	0	0.4	7	294803	
19	0						
20	0						
21	0	131	0	0.4	7.2	294803	
22	11	131	0	0.4	7.3	294814	
23	12	131	0	NR	NR	294826	
24	0	131	0	0.5	7.1	294826	
25	9	131	0	0.5	7.2	294835	
26	0						
27	0						
28	3	131	0	0.5	7.6	294838	
29	0	131	0	NR	NR	294838	
30	0	131	0	NR	NR	294838	
31	0	131	0	0.5	7.8	294838	
TOT	745		10				
AVG.	24.03		0.32	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   1

Does a M&AR violation exist?   YES ____   NO ✓

If yes, check reason's below.

_____ Actual number of samples fewer than required.

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

_____ Failure to analyze repeat samples.

Does an MCL violation exist?   YES ____   NO ✓

If yes, check reason(s) below.

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

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

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

Reported by: _____

Date: 6-5-01

Title: Water Systems Supervisor

Certification No. NY0031941

Date	Well 4	Well 6	Well 7	Well10	Well11	Well12	Daily Total
1	0	597	1,270	0	0	276	2,143
2	0	658	1,129	0	0	2	1,789
3	0	625	1,212	0	0	218	2,055
4	0	691	1,127	0	0	51	1,869
5	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0
7	0	249	748	0	2,901	144	4,042
8	0	515	812	0	0	0	1,327
9	0	358	745	0	4	5	1,112
10	0	486	863	0	5	3	1,357
11	0	548	905	0	369	1	1,823
12	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0
14	0	1,710	3,889	0	2,556	0	8,155
15	0	468	901	0	118	6	1,493
16	0	590	1,053	0	5	1	1,649
17	0	796	623	0	2	1	1,422
18	0	698	1,141	0	3	2	1,844
19	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0
21	0	1,301	2,685	0	62	0	4,048
22	0	598	1,044	0	0	11	1,653
23	0	719	1,257	0	7	12	1,995
24	0	592	1,344	0	214	0	2,150
25	0	558	1,298	0	7	9	1,872
26	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0
28	0	1,696	3,786	0	132	3	5,617
29	0	724	1,203	0	183	0	2,110
30	0	659	1,137	0	224	0	2,020
31	0	691	1,204	0	164	0	2,059
Total	0	16,527	31,376	0	6,956	745	55,604

	Totalizer This Month	Totalizer Last Month	Total(x1,000) Gallons
Well 4	1,479,844	1,479,844	0
Well 6	158,802	142,275	16,527
Well 7	493,782	462,406	31,376
Well 10	764,045	764,045	0
Well 11	342,057	335,101	6,956
Well 12	294,838	294,093	745
AGS Water Supply Meter	245,234	233,426	11808.00
Medical Reactor - Well 105	91,673,320	91,498,830	174.49
Biology Building - Well 9	6,080,640	6,000,170	80.47

CELL #	#1	#2	#3	#4	#5	#6	#7	#8	TOTAL B'WASH
DATE									
1	OOS	0	0	0	0	0	1	0	1
2	OOS	0	0	0	0	0	0	1	1
3	OOS	0	0	0	0	0	0	0	0
4	OOS	0	0	0	0	0	0	0	0
5									0
6									0
7	OOS	0	0	0	0	0	0	0	0
8	OOS	0	1	1	0	1	0	0	3
9	OOS	0	0	0	0	0	0	0	0
10	OOS	0	0	0	0	0	0	0	0
11	OOS	0	0	0	1	0	0	0	1
12									0
13									0
14	OOS	0	0	0	0	0	0	0	0
15	OOS	0	0	0	0	0	0	0	0
16	OOS	1	0	0	0	0	1	1	3
17	OOS	0	1	1	1	1	0	0	4
18	OOS	0	0	0	0	0	0	0	0
19									0
20									0
21	OOS	0	0	0	0	0	1	0	1
22	OOS	0	0	0	0	0	0	0	0
23	OOS	0	1	1	0	1	1	1	5
24	OOS	0	0	0	0	0	0	0	0
25	OOS	0	0	0	0	0	0	0	0
26									0
27									0
28	OOS	0	0	0	1	0	0	0	1
29	OOS	1	0	0	0	0	0	0	1
30	OOS	0	0	0	0	0	0	0	0
31	OOS	0	0	0	0	0	0	0	0
TOTAL	0	2	3	3	3	3	4	3	21

TOTAL BACKWASHES	21	
Gallons per Backwash	40,000	
Total Backwash Gallons	840	(x1000Gallons)

Readings are recorded at 0800 Hours and Totalizers are reset

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

Lab No. : **0105108-001A**

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

Federal ID   : 5111891
Collected   :5/3/01 8:20:00 AM
Received   :5/3/01 3:35:00 PM
Collected By JK00
Copies To   : TONY ROSS

Client ID. : 7847-001

Point No: 1
Location: B-49 WATER TOWER

Parameter(s)	Results	Units	Limit	Method Number	Analyzed
Total Coliform	Negative		Negative	M9223	5/3/01 4:15:00 PM
E_Coliform	Absent		Absent	M9223	5/3/01 4:15:00 PM
Total Residual Chlorine	0.8	mg/L		M4500-Cl G	5/3/01

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

Joann M. Slavin

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040. FAX: (631) 420-8435 NYSDOHID#10478

LABORATORY RESULTS

BROOKHAVEN NATIONAL LAB.-BNLM
70 BELL AVE.
UPTON, NY 11973
Attn To :   BOB LEE

Lab No. : **0105108-002A**

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

Client ID. : 7847-002

Federal ID   : 5111891
Collected   : 5/3/01 8:40:00 AM   Point No: 2
Received   : 5/3/01 3:35:00 PM   Location: B-640 WATER TOWER
Collected By JK00
Copies To   : TONY ROSS

Parameter(s)	Results	Units	Limit	Method Number	Analyzed
Total Coliform	Negative		Negative	M9223	5/3/01 4:15:00 PM
E_Coliform	Absent		Absent	M9223	5/3/01 4:15:00 PM
Total Residual Chlorine	0.6	mg/L		M4500-Cl G	5/3/01

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

Joann M. Slavin

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

Lab No.   : 0105108-003A

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

Federal ID   : 5111891
Collected   :5/3/01 9:15:00 AM   Point No: 3
Received   :5/3/01 3:35:00 PM   Location: B-1005 RHIC
Collected By JK00
Copies To   : TONY ROSS

Client ID. : 7847-003

Parameter(s)	Results	Units	Limit	Method Number	Analyzed
Total Coliform	Negative		Negative	M9223	5/3/01 4:15:00 PM
E_Coliform	Absent		Absent	M9223	5/3/01 4:15:00 PM
Total Residual Chlorine	0.6	mg/L		M4500-Cl G	5/3/01

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

Joann M. Slavin

Page 2 of 6

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

Lab No. : **0105108-004A**

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

Federal ID   : 5111891
Collected   : 5/3/01 9:00:00 AM
Received   : 5/3/01 3:35:00 PM
Collected By JK00
Copies To   : TONY ROSS

Point No: 4
Location: B-363 APT.LAUNDRY

Client ID. : 7847-004

Parameter(s)	Results	Units	Limit	Method Number	Analyzed
Total Coliform	Negative		Negative	M9223	5/3/01 4:15:00 PM
E_Coliform	Absent		Absent	M9223	5/3/01 4:15:00 PM
Total Residual Chlorine	0.4	mg/L		M4500-Cl G	5/3/01

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

Joann M. Slavin

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

Lab No. : 0105108-005A

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

Federal ID   : 5111891
Collected   : 5/3/01 9:30:00 AM
Received   : 5/3/01 3:35:00 PM
Collected By JK00
Copies To   : TONY ROSS

Point No: 5
Location: B-930 LINAC

Client ID. : 7847-005

Parameter(s)	Results	Units	Limit	Method Number	Analyzed
Total Coliform	Negative		Negative	M9223	5/3/01 4:15:00 PM
E_Coliform	Absent		Absent	M9223	5/3/01 4:15:00 PM
Total Residual Chlorine	0.6	mg/L		M4500-Cl G	5/3/01

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

Joann M. Slavin

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

Lab No. : **0105108-006A**

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

Federal ID   : 5111891
Collected   : 5/3/01 10:00:00 AM
Received   : 5/3/01 3:35:00 PM
Collected By JK00
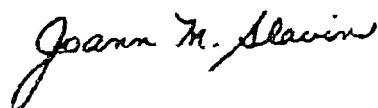Copies To   : TONY ROSS

Client ID. : 7847-006

Point No: 6
Location: B-490 OUTPATIENT CLINIC

Parameter(s)	Results	Units	Limit	Method Number	Analyzed
Total Coliform	Negative		Negative	M9223	5/3/01 4:15:00 PM
E_Coliform	Absent		Absent	M9223	5/3/01 4:15:00 PM
Total Residual Chlorine	0.5	mg/L		M4500-Cl G	5/3/01

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

Joann M. Slavin

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

Lab No. : **0105108-007A**

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

Federal ID   : 5111891
Collected   : 5/3/01 10:15:00 AM
Received   : 5/3/01 3:35:00 PM
Collected By JK00
Copies To   : TONY ROSS

Client ID. : 7847-007

Point No: 7
Location: B-490 BLOCK 11

Parameter(s)	Results	Units	Limit	Method Number	Analyzed
Total Coliform	Negative		Negative	M9223	5/3/01 4:15:00 PM
E_Coliform	Absent		Absent	M9223	5/3/01 4:15:00 PM
Total Residual Chlorine	0.6	mg/L		M4500-Cl G	5/3/01

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

Joann M. Slavin

ATTACHMENT II

Brookhaven National Laboratory
Potable Water Supply

May 2001 Biweekly Water Quality Monitoring Data for
the BNL Potable Water Wells and
BNL Distribution System

Attachment II
Table 1
Summary of Water Quality Analyses
for the BNL Potable Water System
May 2001

Sample Location	Sample Date	pH (SU)	Temperature (Degrees F)	Conductivity (μmhos)	Alkalinity (mg/L)	Calcium (mg/L)
WTP	5/1/01	7.5	55	134	NR	NR
WTP	5/3/01	7.5	55	134	NR	NR
WTP	5/8/01	7.8	54	206	NR	NR
WTP	5/10/01	7.8	54	213	NR	NR
WTP	5/15/01	8.1	54	230.	NR	NR
WTP	5/17/01	7.9	54	159	NR	NR
WTP	5/22/01	7.9	54	134	NR	NR
WTP	5/24/01	8.0	54	138	NR	NR
WTP	5/29/01	8.0	54	125	NR	NR
WTP	5/31/01	8.1	55	133	NR	NR
Well 11	5/1/01	6.7	55	181	NR	NR
Well 11	5/3/01	6.5	55	192	NR	NR
Well 11	5/8/01	7.4	54	160	NR	NR
Well 11	5/10/01	6.8	56	252	NR	NR
Well 11	5/15/01	6.3	55	208	NR	NR
Well 11	5/17/01	6.6	55	161	NR	NR
Well 11	5/22/01	7.0	55	161	NR	NR
Well 11	5/24/01	7.3	55	161	NR	NR
Well 11	5/29/01	7.8	55	188	NR	NR
Well 11	5/31/01	7.8	56	186	NR	NR
Well 12	5/1/01	7.0	56	157	NR	NR
Well 12	5/3/01	7.6	56	137	NR	NR
Well 12	5/8/01	7.5	54	125	NR	NR
Well 12	5/10/01	7.1	56	157	NR	NR
Well 12	5/15/01	7.0	56	180	NR	NR
Well 12	5/17/01	7.0	56	159	NR	NR
Well 12	5/22/01	7.3	56	160	NR	NR
Well 12	5/24/01	7.1	56	184	NR	NR
Well 12	5/29/01	7.8	55	199	NR	NR
Well 12	5/31/01	7.8	56	201	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

2001 Second Quarter Radiological Report for
the BNL Potable Water Wells

ATTACHMENT III
Table 2

Brookhaven National Laboratory
2001 Second Quarter Radiological Results
BNL Potable Water Wells

Well ID	Gross Alpha pCi/L	Gross Beta pCi/L	Tritium pCi/L
Well #6	< 0.78	< 2.16	< 313
Well # 7	1.18	< 2.16	< 313
Well # 7 (Duplicate)	< 0.78	< 2.16	< 313
Well # 11	< 0.78	< 2.16	< 313
Well # 12	< 0.78	< 2.16	< 313

BROOKHAVEN NATIONAL LABORATORY

RADIOLOGICAL CONTROL DIVISION

ERD COC No.: 8745

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:	Wells

Requested by:	B. Lee		E-Mail Reports to:		SAMPLER:	C. Ogeka	Priority Authorization
Life Number: 20222	X3148		B. Lee		SAMPLER:		Group Leader or Higher CALL
Account No.: 07089	Dept. Code:. ES				SAMPLER:		x3630, x2502 (Rad), x4860 (Non-Rad)

FILL OUT ONLY SHADED AREAS.   CANNOT ACCEPT SAMPLES WITH ACTIVITY >1mR/hr

				Sample Description		Container		Analysis Requested***									
ASL Number	Date	Time	Matrix			#	vol.	$\alpha\beta$	3H	γ	Sr90	MET	WQ	VOA	PCB	pH	
21042605-01	4/26/01	1340	W	Well 7	092-400-10			x	x	x	x						
21042605-02	4/26/01		W	Blind Duplicate ~ Well #7				x	x	x	x						
21042605-03	4/26/01	1350	W	Well 6	093-400-10			x	x	x	x						
21042605-04	4/26/01	1400	W	Well 11	056-400-10			x	x	x	x						
21042605-05	4/26/01	1410	W	Well 12	056-401-10			x	x	x	x						

Must be one of the samplers

Transferred to :	C. Ogeka	RA Brown			
Signed by:	C. Ogeka	RA Brown			
Date/time	4/26/01	1435	4/26/01		

***OTHER ANALYSIS NOT LISTED	COMMENTS

BROOKHAVEN NATIONAL LABORATORY
RADIOLOGICAL CONTROL DIVISION
Analytical Services Laboratory

RADIOLOGICAL REPORT

Analyzed by: Robert R Gaschott

Reviewed by: RRG   05/21/01

SAMPLE I.D. NUMBER	ALPHA uCi/mL	ALPHA Error	BETA uCi/mL	BETA Error	TRITIUM uCi/mL	TRITIUM Error	MDL - uCi/mL Alpha	MDL - uCi/mL Beta	MDL - uCi/mL Tritium	
21042605-01	1.18E-09	5.56E-10	8.30E-10	1.30E-09	-1.84E-07	1.74E-07	7.82E-10	2.16E-09	3.13E-07	
21042605-02	3.93E-10	4.67E-10	1.30E-09	1.32E-09	-1.22E-07	1.82E-07	7.82E-10	2.16E-09	3.13E-07	
21042605-03	2.07E-10	4.44E-10	-2.86E-10	1.26E-09	-4.53E-08	1.86E-07	7.82E-10	2.16E-09	3.13E-07	
21042605-04	-6.54E-11	4.05E-10	1.76E-09	1.34E-09	3.05E-08	1.88E-07	7.82E-10	2.16E-09	3.13E-07	
21042605-05	-2.42E-10	3.78E-10	9.59E-10	1.31E-09	-4.26E-08	1.83E-07	7.82E-10	2.16E-09	3.13E-07	

C.O.C. Number
21042605

Brookhaven National Laboratory
Radiological Control Division
Analytical Services Laboratory

GAMMA RESULTS

Analyzed by: Robert R. Gaschott
Reviewed by: RRG

5/3/01

Sample I.D.	Nuclide Name	Activity uCi/mL	2-Sigma % Error
21042605-01	BI-214	2.11E-08	17.13
	PB-214	2.15E-08	16.33
21042605-02	BI-214	2.13E-08	17.51
	PB-214	2.09E-08	18.15
21042605-03	BI-214	1.83E-08	18.42
	PB-214	1.83E-08	21.32
21042605-04	PB-214	1.17E-08	28.71
21042605-05	K-40	4.72E-08	66.12