Environmental Services Division

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

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November 9, 2000

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 October 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 Bacteriological and Operational Reports for October 2000.
Attachment II:	October 2000 Biweekly Water Quality Monitoring Data for BNL Potable Water Wells.
Attachment III:	Resubmittal of 2000 Semi-Annual Inorganic Analyses for the BNL Potable Water Distribution System and Potable Water Wells.

The Semi-Annual Inorganic Analyses for the BNL Potable Water Distribution System and Potable Water Wells are being resubmitted to your office due to an omission in the initial submission included with the September Monthly Water Treatment Plant Report. The initial results submitted to us by the analytical laboratory did not include silver concentrations, although the laboratory had performed the analyses. The results for silver concentration in the BNL potable water distribution system and potable water wells are accurately reported in Attachment III to this report. 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,

E. A. Zimmerman, CEP, REM, CEA, CESM
Division Manager

EAZ/MA:rt
Attachments: As noted

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

EC61ER.00

ATTACHMENT I

Brookhaven National Laboratory
Potable Water Supply

Monthly Bacteriological and Operational
Reports for October 2000

BROOKHAVEN NATIONAL LABORATORY

WATER SYSTEMS OPERATION REPORT

Public Water Supply Protection

PROGRAM CODE 169	STATION 11515100	SUFFOLK COUNTY	REPORTING PERIOD : OCTOBRT 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 ✓

	CHLORINATION				pH	
Day of month	Treated Water K Gals	Liquid Sodium Hypochlorite Gallons 150/172	Cl2 use per 24hrs	Free Cl2 Residual mg/l	Lime Sodium Hydroxide	Totalizer Daily Totalizer 12031559
1	0					
2	2,789	150/149	23	0.85	7.5	12034348
3	1,060	150/150	0	0.83	7.5	12035408
4	1,172	140/150	10	0.4	7.6	12036580
5	1,111	132/150	8	0.6	7.8	12037691
6	1,118	122/150	10	0.6	7.8	12038809
7	0					
8	0					
9	2,872	100/150	22	0.9	7.7	12041681
10	1,131	91/150	9	0.66	7.8	12042812
11	1,153	83/150	8	0.7	7.6	12043965
12	1,121	74/150	9	0.8	7.7	12045086
13	1,051	69+111/150	5	0.7	7.7	12046137
14	0					
15	0					
16	3,316	146	34	0.6	7.8	12049453
17	884	137	9	0.6	7.9	12050337
18	1,045	129	8	0.6	7.9	12051382
19	1,060	120	9	0.69	7.8	12052442
20	1,122	110	10	63	7.5	12053564
21	0					
22	0					
23	3,019	90	20	0.67	7.7	12056583
24	1,461	80	10	0.75	7.6	12058044
25	1,453	70+35	10	0.64	7.4	12059497
26	1,005	102	3	0.63	7.6	12060502
27	1,003	95+105/148	7	0.51	7.6	12061505
28	0					
29	0					
30	2,973	181/148	19	0.89	7.5	12064478
31	1,045	177/148	4	0.63	7.4	12065523
TOT	33,964		247			3
AVG.	1095.61		7.97	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 11-1-00

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 : OCTOBER 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: Treated Water K Gals	Liquid Sodium Hypochlorite: Gallons	Liquid Sodium Hypochlorite: Cl2 use per 24hrs	Free Cl2 Residual mg/l	pH: __ Lime __ Sodium Hydroxide	Totalizer: Daily Totalizer
						1425883
1	0					
2	1,041	165	25	0.43	6	1426924
3	413	155	10	0.44	6	1427337
4	388	148	7	0.47	6	1427725
5	371	140	8	0.1	6.2	1428096
6	392	130+70	10	0.2	6.2	1428488
7	0					
8	0					
9	978	175	25	0.18	6.1	1429466
10	354	168	7	0.1	6.1	1429820
11	358	158	10	0.63	6.1	1430178
12	475	145	13	0.1	6.1	1430653
13	295	140	5	0.02	6	1430948
14	0					
15	0					
16	1,196	110	30	0.4	6.1	1432144
17	325	105	5	0.4	6.1	1432469
18	422	92	13	0.4	6.1	1432891
19	389	81	11	0.55	6.2	1433280
20	430	73+72	8	0.57	6.1	1433710
21	0					
22	0					
23	902	124	21	0.1	6	1434612
24	488	111	13	0.02	5.9	1435100
25	564	99	12	0.22	5.9	1435664
26	344	90	9	0.76	6	1436008
27	439	81+61	9	0.03	6	1436447
28	0					
29	0					
30	1,008	120	22	0.98	6	1437455
31	337	110	10	0.39	6	1437792
TOT	11,909		283			
AVG	384.16		9.13	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: T.O. Ross

Date: 11-1-00

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 : OCTOBER 2000

LOCATION: WELL NO. 6

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 ✓

	CHLORINATION				pH	
	Treated	Liquid Sodium Hypochlorite		Free Cl2	__ Lime	Totalizer
Day of	Water	Gallons	Cl2 use	Residual	__ Sodium	Daily Totalizer
month	K Gals	196	per 24hrs	mg/l	Hydroxide	65426
1	0					
2	644	189	7	0.43	6	66070
3	122	187	2	0.42	6	66192
4	110	185	2	0.47	6	66302
5	181	182	3	0.1	6.2	66483
6	375	179+16	3	0.2	6.2	66858
7	0					
8	0					
9	523	190	5	0.18	6.1	67381
10	304	183	7	0.1	6.1	67685
11	260	180	3	0.63	6.1	67945
12	234	179	1	0.1	6.1	68179
13	201	175	4	2	6	68380
14	0					
15	0					
16	858	165	10	0.4	6.1	69238
17	111	165	0	0.4	6.1	69349
18	235	160	5	0.4	6.1	69584
19	260	155	5	0.55	6.2	69844
20	136	154	1	0.57	6.1	69980
21	0					
22	0					
23	819	141	13	0.1	6	70799
24	304	140	1	0.02	5.9	71103
25	105	139	1	0.22	5.9	71208
26	223	135	4	0.76	6	71431
27	234	132	3	0.03	6	71665
28	0					
29	0					
30	352	128	4	0.98	6	72017
31	236	124	4	0.39	6	72253
TOT	6,827		88			0
AVG	220.23		2.84	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: [illegible]

Title WATER SYSTEMS SUPERVISOR

Date: 11-1-00

Cert. #: 05650

BROOKHAVEN NATIONAL LABORATORY

WATER SYSTEMS OPERATION REPORT

Public Water Supply Protection

PROGRAM CODE 169	STATION 11515100	SUFFOLK COUNTY	REPORTING PERIOD : OCTOBER 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 ✓

	CHLORINATION				pH	
	Treated	Liquid Sodium Hypochlorite		Free Cl2	__ Lime	Totalizer
Day of	Water	Gallons	Cl2 use	Residual	__ Sodium	Daily Totalizer
month	K Gals	120	per 24hrs	mg/l	Hydroxide	267847
1	0					
2	2,404	100	20	0.43	6	270251
3	1,094	85/95	15	0.44	6	271345
4	1,156	160	20	0.47	6	272501
5	971	149	11	0.1	6.2	273472
6	932	140+60	9	0.2	6.2	274404
7	0					
8	0					
9	2,520	175	25	0.18	6.1	276924
10	1,005	163	12	0.1	6.1	277929
11	950	152	11	0.63	6.1	278879
12	1,047	142	10	0.1	6.1	279926
13	882	132	10	0.02	6	280808
14	0					
15	0					
16	2,923	101	31	0.4	6.1	283731
17	776	93	8	0.4	6.1	284507
18	949	82	11	0.4	6.1	285456
19	889	73	9	0.55	6.2	286345
20	977	60+65	13	0.57	6.1	287322
21	0					
22	0					
23	2,204	100	25	0.1	6	289526
24	1,291	84	16	0.02	5.9	290817
25	1,351	68	16	0.22	5.9	292168
26	848	60	8	0.76	6	293016
27	871	50+122	10	0.03	6	293887
28	0					
29	0					
30	2,440	142	30	0.98	6	296327
31	955	135	7	0.39	6	297282
TOT	29,435		327			0
AVG.	949.52		10.55	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.C. Rose Date: 11-1-00

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 : OCTOBER 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 ✓

	CHLORINATION				pH	
	Treated	Liquid Sodium Hypochlorite		Free Cl2	__ Lime	Totalizer
Day of	Water	Gallons	Cl2 use	Residual	__ Sodium	Daily Totalizer
month	K Gals	60	per 24hrs	mg/l	Hydroxide	763869
1	0					
2	0	60	0	NR	NR	763869
3	0	60	0	NR	NR	763869
4	0	60	0	NR	NR	763869
5	0	60	0	NR	NR	763869
6	0	60	0	NR	NR	763869
7	0					
8	0					
9	0	60	0	NR	NR	763869
10	0	60	0	NR	NR	763869
11	0	60	0	NR	NR	763869
12	0	60	0	NR	NR	763869
13	82	59	1	NR	NR	763951
14	0					
15	0					
16	5	59	0	0.03	7.5	763956
17	0	59	0	NR	NR	763956
18	0	59	0	NR	NR	763956
19	0	59	0	NR	NR	763956
20	0	59	0	NR	NR	763956
21	0					
22	0					
23	0	59	0	N.R.	N.R.	763956
24	0	59	0	N.R.	N.R.	763956
25	0	59	0	N.R.	N.R.	763956
26	0	59	0	N.R.	N.R.	763956
27	0	59	0	N.R.	N.R.	763956
28	0					
29	0					
30	2	59	0	NR	NR	763958
31	0	59	0	NR	NR	763958
TOT	89		1			0
AVG	2.87		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 H Ross

Date 11-1-00

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 : OCTOBER 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 ✓

	CHLORINATION				pH	
	Treated	Liquid Sodium Hypochlorite		Free Cl2	__ Lime	Totalizer
Day of	Water	Gallons	Cl2 use	Residual	__ Sodium	Daily Totalizer
month	K Gals	150	per 24hrs	mg/l	Hydroxide	325848
1	0					
2	0	150	0	NR	NR	325848
3	6	150	0	0.02	6.8	325854
4	3	150	0	NR	NR	325857
5	1	150	0	0.67	7.2	325858
6	4	150	0	NR	NR	325862
7	0					
8	0					
9	0	150	0	NR	NR	325862
10	0	150	0	NR	NR	325862
11	0	150	0	NR	NR	325862
12	21	149	1	0.61	8	325883
13	72	149	0	NR	NR	325955
14	0					
15	0					
16	15	149	0	0.02	7.5	325970
17	0	148	1	0.13	6.7	325970
18	54	148	0	0.11	6.8	326024
19	40	148	0	N.R.	N.R.	326064
20	34	148	0	N.R.	N.R.	326098
21	0					
22	0					
23	10	146	2	0.51	7.4	326108
24	68	144	2	0.9	7.8	326176
25	40	144	0	N.R.	N.R.	326216
26	59	144	0	0.3	7.8	326275
27	83	144	0	N.R.	N.R.	326358
28	0					
29	0					
30	241	144	0	0.5	7.8	326599
31	85	144	0	0.38	605	326684
TOT	836		6			
AVG	26.97		0.19	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: 11-1-00

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 : OCTOBER 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 ✓

	CHLORINATION				pH	
	Treated	Liquid Sodium Hypochlorite		Free Cl2	__ Lime	Totalizer
Day of	Water	Gallons	Cl2 use	Residual	__ Sodium	Daily Totalizer
month	K Gals	180	per 24hrs	mg/l	Hydroxide	274027
1	0					
2	5	180	0	0.9	7.6	274032
3	5	180	0	0.36	7.2	274037
4	1	180	0	NR	NR	274038
5	2	180	0	0.62	7.1	274040
6	0	180	0	NR	NR	274040
7	0					
8	0					
9	0	180	0	NR	NR	274040
10	0	180	0	NR	NR	274040
11	0	180	0	NR	NR	274040
12	72	180	0	0.32	7.9	274112
13	79	180	0	0.1	7.9	274191
14	0					
15	0					
16	17	180	0	0.2	7.5	274208
17	0	180	0	1.24	7.5	274208
18	35	180	0	0.02	6.9	274243
19	25	179	1	0.42	7	274268
20	39	178	1	0.83	7.5	274307
21	0					
22	0					
23	10	178	0	0.11	7.4	274317
24	221	178	0	0.4	7.8	274538
25	372	176	2	0.5	7.9	274910
26	261	176	0	0.6	8	275171
27	0	176	0	N.R.	N.R.	275171
28	0					
29	0					
30	0	175	1	0.5	80	275171
31	0	175	1	0.38	7.9	275171
TOT	1,144		6			
AVG	36.90		0.19	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: 11-5-00

Title WATER SYSTEMS SUPERVISOR

Cert. # 05650

10/31/00
Pump Data

MONTHLY GALLONAGE REPORT
Oct2000

Date	Well 4	Well 6	Well 7	Well10	Well11	Well12	Daily Total
1	0	0	0	0	0	0	0
2	1,041	644	2,404	0	0	5	4,094
3	413	122	1,094	0	6	5	1,640
4	388	110	1,156	0	3	1	1,658
5	371	181	971	0	1	2	1,526
6	392	375	932	0	4	0	1,703
7	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0
9	978	523	2,520	0	0	0	4,021
10	354	304	1,005	0	0	0	1,663
11	358	260	950	0	0	0	1,568
12	475	234	1,047	0	21	72	1,849
13	295	201	882	82	72	79	1,611
14	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0
16	1,196	858	2,923	5	15	17	5,014
17	325	111	776	0	0	0	1,212
18	422	235	949	0	54	35	1,695
19	389	260	889	0	40	25	1,603
20	430	136	977	0	34	39	1,616
21	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0
23	902	819	2,204	0	10	10	3,945
24	488	304	1,291	0	68	221	2,372
25	564	105	1,351	0	40	372	2,432
26	344	223	848	0	59	261	1,735
27	439	234	871	0	83	0	1,627
28	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0
30	1,008	352	2,440	2	241	0	4,043
31	337	236	955	0	85	0	1,613
Total	11,909	6,827	29,435	89	836	1,144	50,240

	Totalizer This Month	Totalizer Last Month	Total(x1,000) Gallons
Well 4	1,437,792	1,425,883	11,909
Well 6	72,253	65,426	6,827
Well 7	297,282	267,847	29,435
Well 10	763,958	763,869	89
Well 11	326,684	325,848	836
Well 12	275,171	274,027	1,144
AGS Water Supply Meter	181,546	178,431	3115.00
Medical Reactor - Well 105	86,806,120	83,449,870	3356.25
Biology Building - Well 9	5,747,770	5,714,610	33.16

H2M 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 : 12-OCT-2000 15:05
Collected By : JK99
Sample Type : Potable Water

Copies To : SCHD

Lab Number	Collected	Location	Units / Method / Limits	T.COLI. BACT. NONE SM#9223 NEGATIVE	E.COLI. NONE SM#9223 ABSENT	CHLORINE RESIDUAL mg/L SM#4500-C1G N/A
20001012-218 ROUTINE DISTRIBUTION	12-OCT-2000 06:15	B-49 WATER TOWER		NEGATIVE 12-OCT-2000 19:30	ABSENT 12-OCT-2000 19:30	0.6 12-OCT-2000
20001012-219 ROUTINE DISTRIBUTION	12-OCT-2000 06:45	B-640 WATER TOWER		NEGATIVE 12-OCT-2000 19:30	ABSENT 12-OCT-2000 19:30	0.4 12-OCT-2000
20001012-220 ROUTINE DISTRIBUTION	12-OCT-2000 07:45	B-1005 RHIC		NEGATIVE 12-OCT-2000 19:30	ABSENT 12-OCT-2000 19:30	0.2 12-OCT-2000
20001012-221 ROUTINE DISTRIBUTION	12-OCT-2000 06:00	B-363 APT. LAUNDRY		NEGATIVE 12-OCT-2000 19:30	ABSENT 12-OCT-2000 19:30	0.2 12-OCT-2000
20001012-222 ROUTINE DISTRIBUTION	12-OCT-2000 13:15	B-725 NSLS		NEGATIVE 12-OCT-2000 19:30	ABSENT 12-OCT-2000 19:30	0.2 12-OCT-2000
20001012-223 ROUTINE DISTRIBUTION	12-OCT-2000 12:30	B-490 BLOCK 1 ACF		NEGATIVE 12-OCT-2000 19:30	ABSENT 12-OCT-2000 19:30	0.7 12-OCT-2000
20001012-224 ROUTINE DISTRIBUTION	12-OCT-2000 13:00	B-490 BLOCK 4 MRC		NEGATIVE 12-OCT-2000 19:30	ABSENT 12-OCT-2000 19:30	0.4 12-OCT-2000

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

Date Issued : 10/23/2000

ORIGINAL
Report for client information only

10/23/2000 15:42 5164208436 H2M LABS PAGE 02

ATTACHMENT II

Brookhaven National Laboratory
Potable Water Supply

October 2000 Biweekly and Quarterly 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
October 2000

Sample Location	Sample Date	pH (SU)	Temperature (Degrees F)	Conductivity (μmhos)	Alkalinity (mg/L)	Calcium (mg/L)
WTP	10/3/00	7.5	54	136	NR	NR
WTP	10/5/00	7.8	55	135	NR	NR
WTP	10/10/00	7.8	55	134	NR	NR
WTP	10/12/00	7.7	54	137	NR	NR
WTP	10/17/00	7.9	55	130	NR	NR
WTP	10/19/00	7.8	57	65	NR	NR
WTP	10/24/00	7.6	54	130	NR	NR
WTP	10/26/00	7.6	55	128	NR	NR
WTP	10/31/00	7.4	54	125	NR	NR
Well 11	10/3/00	6.8	56	222	NR	NR
Well 11	10/5/00	7.2	56	243	NR	NR
Well 11	10/12/00	8.0	56	195	NR	NR
Well 11	10/17/00	6.7	54	156	NR	NR
Well 11	10/24/00	7.8	56	190	NR	NR
Well 11	10/26/00	7.8	55	191	NR	NR
Well 11	10/31/00	6.5	54	169	NR	NR
Well 12	10/3/00	7.2	56	187	NR	NR
Well 12	10/5/00	7.1	56	142	NR	NR
Well 12	10/12/00	7.9	56	180	NR	NR
Well 12	10/17/00	7.5	56	170	NR	NR
Well 12	10/19/00	7.0	56	149	NR	NR
Well 12	10/24/00	7.8	56	181	NR	NR
Well 12	10/26/00	8.0	56	201	NR	NR
Well 12	10/31/00	7.9	56	188	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

Resubmittal of 2000 Semi-Annual Inorganic Analyses for the BNL Potable Water Distribution System and Potable Water Wells

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

B-185_MEN'S_RM

ab Name: H2M_LABS,_INC.

Contract:

ab Code: H2MLAB

Case No.:

SAS No.:

SDG No.: BNLM097

atrix (soil/water): WATER

Lab Sample ID: 20000706-197

evel (low/med): LOW

Date Received: 07/06/00

Solids:

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	0.80	U		F
7440-38-2	Arsenic	0.80	U		F
7440-39-3	Barium	23.4	B		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.60	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	2.3	B		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron	354			P
7439-92-1	Lead	2.2	B		F
7439-95-4	Magnesium				NR
7439-96-5	Manganese	195			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.7	B		P
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.70	U		F
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	22200			P
7440-28-0	Thallium	0.50	B		F
7440-62-2	Vanadium				NR
7440-66-6	Zinc	31.3			P
	Cyanide	5.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:
DATE_REPORTED: AUGUST 12, 2000

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

WELL_4

ab Name: H2M_LABS,_INC. Contract: _____

ab Code: H2MLAB Case No.: _____ SAS No.: _____ SDG No.: BNLM097

atrix (soil/water): WATER Lab Sample ID: 20000706-191

evel (low/med): LOW Date Received: 07/06/00

Solids: _____

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	0.80	U		F
7440-38-2	Arsenic	1.8	B		F
7440-39-3	Barium	25.5	B		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.60	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	2.4	B		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron	6380			P
7439-92-1	Lead	1.3	B		F
7439-95-4	Magnesium				NR
7439-96-5	Manganese	170			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.0	U		P
7440-09-7	Potassium				NR
7782-49-2	Selenium	1.0	B	W	F
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	12400			P
7440-28-0	Thallium	0.70	B		F
7440-62-2	Vanadium				NR
7440-66-6	Zinc	5.3	B		P
	Cyanide	5.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:
DATE_REPORTED: AUGUST_12, 2000

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

WELL_6

ab Name: H2M_LABS,_INC. Contract: _____

ab Code: H2MLAB Case No.: _____ SAS No.: _____ SDG No.: BNLM097

atrix (soil/water): WATER__ Lab Sample ID: 20000706-192

evel (low/med): LOW____ Date Received: 07/06/00_

Solids: _____

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	0.80	U		F
7440-38-2	Arsenic	0.80	B		F
7440-39-3	Barium	21.1	B		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.60	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	1.8	B		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron	4630			P
7439-92-1	Lead	3.6			F
7439-95-4	Magnesium				NR
7439-96-5	Manganese	78.9			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	4.6	B		P
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.70	U		F
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	8880			P
7440-28-0	Thallium	0.50	U		F
7440-62-2	Vanadium				NR
7440-66-6	Zinc	15.5	B		P
	Cyanide	5.0	U		CA

Color Before: COLORLESS_ Clarity Before: CLEAR__ Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:
DATE_REPORTED:_AUGUST_12,_2000

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

WELL_7

ab Name: H2M_LABS,_INC. Contract: _____

ab Code: H2MLAB Case No.: _____ SAS No.: _____ SDG No.: BNLM097

atrix (soil/water): WATER Lab Sample ID: 20000706-193

evel (low/med): LOW Date Received: 07/06/00

Solids: _____

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	0.80	U		F
7440-38-2	Arsenic	1.1	B		F
7440-39-3	Barium	19.5	B		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.60	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	1.6	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron	1560			P
7439-92-1	Lead	0.50	U		F
7439-95-4	Magnesium				NR
7439-96-5	Manganese	58.5			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.5	B		P
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.70	U		F
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	11600			P
7440-28-0	Thallium	0.50	U		F
7440-62-2	Vanadium				NR
7440-66-6	Zinc	4.9	B		P
	Cyanide	5.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:
DATE_REPORTED:_AUGUST_12,_2000

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

WELL_10

Lab Name: H2M_LABS,_INC._____ Contract: _____

Lab Code: H2MLAB_ Case No.: _____ SAS No.: _____ SDG No.: BNLM097

Matrix (soil/water): WATER__ Lab Sample ID: 20000706-194

Level (low/med): LOW____ Date Received: 07/06/00_

% Solids: _____

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	0.80	U		F
7440-38-2	Arsenic	0.80	U		F
7440-39-3	Barium	16.8	B		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.60	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	1.6	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron	335			P
7439-92-1	Lead	2.1	B		F
7439-95-4	Magnesium				NR
7439-96-5	Manganese	10.7	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.0	U		P
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.70	U		F
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	13400			P
7440-28-0	Thallium	0.50	U		F
7440-62-2	Vanadium				NR
7440-66-6	Zinc	18.2	B		P
	Cyanide	5.0	U		CA

Color Before: COLORLESS_ Clarity Before: CLEAR__ Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:
DATE_REPORTED:_AUGUST_12,_2000

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

WELL_11

ab Name: H2M_LABS,_INC._____ Contract: _____

ab Code: H2MLAB_ Case No.: _____ SAS No.: _____ SDG No.: BNLM097

atrix (soil/water): WATER__ Lab Sample ID: 20000706-195

evel (low/med): LOW____ Date Received: 07/06/00_

% Solids: _____

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	0.80	U		F
7440-38-2	Arsenic	0.80	U		F
7440-39-3	Barium	32.1	B		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.60	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	1.6	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron	14.3	B		P
7439-92-1	Lead	0.80	B		F
7439-95-4	Magnesium				NR
7439-96-5	Manganese	0.56	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.0	U		P
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.70	U	W	F
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	14400			P
7440-28-0	Thallium	0.60	B		F
7440-62-2	Vanadium				NR
7440-66-6	Zinc	5.3	B		P
	Cyanide	5.0	U		CA

Color Before: COLORLESS_ Clarity Before: CLEAR__ Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

DATE_REPORTED:_AUGUST_12,_2000

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

WELL_12

Lab Name: H2M_LABS,_INC. Contract: _____

Lab Code: H2MLAB Case No.: _____ SAS No.: _____ SDG No.: BNLM097

Matrix (soil/water): WATER Lab Sample ID: 20000706-196

Level (low/med): LOW Date Received: 07/06/00

% Solids: _____

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	0.80	U		F
7440-38-2	Arsenic	0.80	U		F
7440-39-3	Barium	18.2	B		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.60	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	1.6	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron	20.9	B		P
7439-92-1	Lead	0.50	U		F
7439-95-4	Magnesium				NR
7439-96-5	Manganese	0.50	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.0	U		P
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.70	U		F
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	11500			P
7440-28-0	Thallium	0.80	B		F
7440-62-2	Vanadium				NR
7440-66-6	Zinc	1.7	B		P
	Cyanide	5.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:
DATE_REPORTED:_AUGUST_12,_2000