Environmental Services Division



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www.bnl.gov

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.

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, CEI

Division Manager



LEC/MA:rt

Attachments: As noted

cc: M. Allocco

W. Chaloupka

J. Granzen

R. Lee

E. Murphy

L. Ross

P. Ponturo

T. Sheridan

w/attachments

w/attachments

w/attachments

w/attachments

w/attachments

SCDHS, w/o attachments

w/o attachments

w/o attachments

EC61ER.01

ATTACHMENT I

Brookhaven National Laboratory Potable Water Supply

Monthly Bacteriology and Operational Reports for January 2001

WATER SYSTEMS OPERATION REPORT

Publi	ic Water Sup	oply Protection				***	
PR	OGRAM C	ODE 169	STATION	11515100	SUFFOLK COUNTY		REPORTING PERIOD: JANUARY 2000
	ATION: '	WATER TRE	ATMENT PL	ANT	Did a Does	in emergency s the system h	occur in any part of the water system? yes no ave a chlorination waiver? yes no
Т		CHLORINA	TION		pН		
Ī	Treated	Liquid Sodium I		Free C12	Lime	Totalizer	50 Amer
ay of	Water	Gallons	CI2 use	Residual	Sodium	Daily Totalizer	Population Served 3,500
nonth	K Gals	75/10	per 24hrs	mg/l	Hydroxide	12117295	11
1	О						Number of routine samples
2	2,253	60+140/10	15	0.67	7.6	12119548	(Must collect a minimum of 5 routine samples the month following
3	824	195/10	5	1	7.6	12120372	a repeat sample collection)
4	825	190/10	5	0.8	7.8	12121197	· •
5	832	190/10	0	0.8	8.7	12122029	Number of actual routine samples
6	0						
7	0						Does a M&AR violation exist? yesNo
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	If yes, check reason's below.
11	920	178/10	2	0.84	7.3	12127503	
12	941	172/10	6	0.97	7.4	12128444	Actual number of samples fewer than required.
13	0						
14	0						Failure to analyze for E. Coli if there was a positive result for
15	2,563	162/10	10	0.66	7.5	12131007	total coliform from routine, repeat of high turbidity sample.
16	868	160/10	2	0.34	7.2	12131875	
17	947	152/10	8	0.75	7.4	12132822	Failure to analyze repeat samples.
18	1,182	150/10	2	0.7	7,4	12134004	
19	1,363	147/10	3	0.67	7.5	12135367	Does an MCL violation exist?
20	0					<u> </u>	
21_	0						If yes, check reason(s) below.
22	1,815	141/10	6	0.56	7.4	12137182	
23	1,328	135/10	6	0.71	7.4	12138510	Two or more positive total coliform samples for systems collecting 40
24	1,419	130/10	5	0.87	7.2	12139929	or more samples (routine, repeat or hiturb) per month.
25	1,022	125/10	5	0.71	7.5	⁻ 12140951	-
26	1,104	121/10	4	0.76	7.3	12142055	Positive E. Coli result followed by a positive total coliform repeat sample.
27	C				<u> </u>		,
28						<u> </u>	Positive total coliform result followed by a positive E. Coli repeat sample.
29	2,909	108/10	13	0.8	7.6	12144964	<u>t</u>
30	1,107	101/10	7	0.7	8	1214607	·
31	1,42	95/10	6	0.8	8	12147492	2
тот	30,197	7	120		<u> </u>	<u>.</u>	<u> </u>
AVG.	974.10	o l	3.87	No. Days:	31]

Title WATER SYSTEMS SUPERVESOR Cert. # 05650

WATER SYSTEMS OPERATION REPORT

Pub	lic Water Su	pply Protection				-	
PR	OGRAM (ODE 169	STATION	11515100	SUFFO	LK COUNTY	REPORTING PERIOD: JANUARY 2000
	ATION:	· WELL NO.	.4		Did Doe	an emergency as the system h	occur in any part of the water system? yes no ave a chlorination waiver? yes no
					Τ	· .	
		CHLORIN		5. 00	pH		
	Treated Water	Liquid Sodium Gallons	Cl2 use	Free Ci2 Residual	Lime Sodium	Totalizer Daily Totalizer	Population Served 3,500
Day of month	K Gals	120	per 24hrs	mg/l	Hydroxide	1454790	
1	0		, <u>, , , , , , , , , , , , , , , , , , </u>		 	·	Number of routine samples
2	692	100/100	20	0.02	5.9	1455482	(Must collect a minimum of 5 routine samples the month following
3	239	195	5	0.07	5.8	1455721	a repeat sample collection)
4	241	182	13	0.07	5.7	1455962	-
5	225	179	3.	0.06	5,7	1456187	Number of actual routine samples
6	0		ļ				
7	0				ļ		Does a M&AR violation exist? yesNo/
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	If yes, check reason's below.
11	281	145	12	0.08	5,7	1457833	
12	263	138	7	0.21	5.6	1458096	Actual number of samples fewer than required.
13	0				<u> </u>		
14	0			<u> </u>	ļ		Failure to analyze for E. Coli if there was a positive result for
15	778	110	28	0.11	5.9	1458874	total coliform from routine, repeat of high turbidity sample.
16	259	102	8	0.08	6	1459133	
17	318	91	11	0.07	5.9	1459451	Failure to analyze repeat samples.
18	402	80+70	11	0.02	5.9	1459853	
19	438	142	8	1.4	5.9	1460291	Does an MCL violation exist?
20		<u> </u>		ļ		 	
21		<u> </u>		<u> </u>	 	ļ	If yes, check reason(s) below.
22	523	131	11	0.02	5.9	1460814	
23	490	121	10	0.28	6	1461304	Two or more positive total coliform samples for systems collecting 40
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	Positive E; Coli result followed by a positive total coliform repeat sample.
27	<u> </u>	<u> </u>		 		 	The state of the s
28	ļ		 	 		 	Positive total coliform result followed by a positive E. Coli repeat sample
29	84	7 139	21	0.5	5.9	1463302	•
30	30-		9	0.4	5.9	1463606	
31	49		9	0.4	5.9	1464100	
TOT		 	258		 	 	
AVG	300 3	2	8,32	No, Days:	31	1	1
	Reported	oy: La	2 Rab STENS	22_		· · .	Date: $2 \cdot 0 \cdot - 0 \cdot $ Cert. #: 0.5650
	Tilla O ZA	TER 9	STEMS	SUPI	RUL	sol	Cert.#: 05650

WATER SYSTEMS OPERATION REPORT

Publi	ic Water Sup	pply Protection					· ·
PR	OGRAM C	ODE 169	STATION	11515100	SUFFO	LK COUNTY.	REPORTING PERIOD: JANUARY 2000
LOC		WELL NO. 6	3		Did Doe	an emergency es the system h	occur in any part of the water system? yes no ave a chlorination waiver? yes no
		CHLORIN	ATION		рН		
t	Treated	Liquid Sodium		Free Cl2	Lime	Totalizer ···	er.
Day of	Water	Gallons	CI2 use	Residual	Sodium	Daily Totalizer	Population Served 3,500
month	K Gals	90	per 24hrs	mg/l	Hydroxide	89077	15
1	0						Number of routine samples
2	973	73/17	17	0.02	5.9	90050	(Must collect a minimum of 5 routine samples the month following
3	345	88	2	0.07	5.8	90395	a repeat sample collection)
4	252	82	6	0.07	5.7	90647	7
5	265	80	2	0.06	5.7	90912	Number of actual routine samples
6	0						Does a M&AR violation exist? yesNo
7	0						Does a M&AR violation exist? yesNo
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	If yes, check reason's below.
11	228	150	0	0 08	5.7	92196	
12	322	145	5	0.21	5.6	92518	Actual number of samples fewer than required.
13	0					<u> </u>	
14	0						Failure to analyze for E. Coli if there was a positive result for
15	• 911	133	12	0,11	5.9	93429	total coliform from routine, repeat of high turbidity sample.
16	316	130	3	0,08	. 6	93745	
17	351	125	5	0.07	5.9	94096	Failure to analyze repeat samples.
18	215	124	11	0.02	5.9	94311	10
19	306	120	4	1.4	5.9	94617	Does an MCL violation exist 200
20	c				<u> </u>		,
21	C				<u> </u>		If yes, check reason(s) below.
22	337	115	5	0.02	5.9	94954	
23	379	112	3	0.28	6	95333	Two or more positive total coliform samples for systems collecting 40
24	211	111	1	0.08	6	95544	or more samples (routine, repeat or hiturb) per month.
25	311	105	6	1,1	5.9	95855	
26	. 316	100	5	0.03	5,8	96171	Positive E. Coli result followed by a positive total coliform repeat sample.
27	. (<u> </u>	·
28)		<u> </u>			Positive total coliform result followed by a positive E. Coli repeat sample.
29	870	91	9	0.5	5,9	97041	4
30	27:	3 90	11	0.4	5.9	97314	
31	31	2 85	5	0.4	5.9	97626	
TOT	8,54	9	107				
AVG	. 275.7		3.45	No. Days	31	1	
		No	Doll			:	2-8/-0(

WATER SYSTEMS OPERATION REPORT

Publi	ic Water Su	oply Protection					•
	•						·
PR	OGRAM C	ODE 169	STATION	11515100	SUFFOI	K COUNTY	REPORTING PERIOD: JANUARY 2000
			•				
LOC	ATION:	WELL NO.	7				
		•			Did :	an emergency o	occur in any part of the water system? yesno
Sou	rce: Grou	nd Water			Doe	s the system ha	ave a chlorination waiver? yesno
							•
		CHLORINA	ATION		На		·
1	Treated	Liquid Sodium	Hypochlorite	Free Cl2	Lime	Totalizer	
ay of	Water	Gallons	Cl2 use	Residual	Sodium	Daily Totalizer	Population Served 3,500
nonth	K Gais	110	per 24hrs	mg/l	Hydroxide	334638	. 1
1	0						Number of routine samples
2	1,739	119/81	19	0.02	5.9	336377	(Must collect a minimum of 5 routine samples the month following
		190	10	0.07	5.8		. a repeat sample collection)
3	626		12 ¹	0.07	5.7	337712	
4	709	178		0.06	5.7	338430	Number of actual routine samples
5	718		17.	0.06	5.7	330430	•
6	0				 		Does a M&AR violation exist? yesNo
7	0				 		Does a M&AR Violation exist? yesNo
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	If yes, check reason's below.
11	816	138	14	80,0	5.7	343159	
12	751	122	16	0.21	5,6	343910	Actual number of samples fewer than required.
13	0						
14	0						Failure to analyze for E. Coli if there was a positive result for
15	2,070	80	42	0.11	5.9	345980	total coliform from routine, repeat of high turbidity sample.
16	691	70	10	0.08	6	346671	
17	873	51+79	19	0.07	5.9	347544	Failure to analyze repeat samples
18	1,089	111+89	29	0.02	5,9	348633	
19	1,238		30	1.4	5.9	349871	Does an MCL violation exist? $\underline{\mathcal{U}}\overline{\mathcal{G}}$
20	C					^	
21	0		1				If yes, check reason(s) below.
22	1,625		35	0.02	5.9	351496	
	1,020		20	0.28	6	352709	Two or more positive total coliform samples for systems collecting 40
23		 	26	0.8	6	354092	or more samples (routine, repeat or hiturb) per month.
24	1,383	 	 	1.1	5.9	354928	
25	836		18		5.8	355859	Positive E. Coli result followed by a positive total coliform repeat sample.
26	931		19	0.03	3,0		Solito E. Solitosa, foliation by a positive folial solitonin reposit duliple.
27			 	 	 		Positive total coliform result followed by a positive E. Coli repeat sample.
28			 		+	. 050511	
29	2,655		43	0.5	5.9	358514	
30	1,000	100	20	0.4	5.9	359514	i ·
31	1,33	4 75	25	0.4	5.9	360848	1
TOT	26,21	9	503	 			·
AVG.	845,4	8	16.23	No. Days:	31	1	J

Reported by: La Rose Date: 2-01-01

Title WATER SYSTEM SURRVISOR Cert. # 0-5650

WATER SYSTEMS OPERATION REPORT

Publi	c water out						
PR	OGRAM C	ODE 169	STATION	11515100	SUFFOL	K COUNTY	REPORTING PERIOD: JANUARY 2000
			,			<u> </u>	
						3.,	
LOCA	ATION:	WELL NO. 1	10		D: L		in any most of the worker everters? Was no V
_	_	1337 1			Dia a	an emergency o	occur in any part of the water system? yes no
Soul	rce: Grou	na vvater	•		500	o tile dyolom in	, or
		CHLORINA	ATION		рН		·
f	Treated	Liquid Sodium		Free CI2	Lime	Totalizer	
ay of	Water	Gallons	CI2 use	Residual	Sodium	Daily Totalizer	Population Served 3,500
nonth	K Gals	59	per 24hrs	mg/l	Hydroxide	764023	
1	0						Number of routine samples
2	0	. 59	0	NR	NR	764023	(Must collect a minimum of 5 routine samples the month following
3	0	. 59	0	NR	NR	764023	a repeat sample collection)
4	0	59	0	NR	NR	764023	· ~
5	13	59	0	NR	NR	764036	Number of actual routine samples
6	0						Door a MSAR violation exist? yes No
7	O						Does a M&AR violation exist? yesNo
8	0	59	0	NR	NR	764036	
9	0	59	0	NR	NR	764036	
10	0	59	o	NR	NR	764036	If yes, check reason's below.
11	0	59	0	NR	NR	764036	
12	0	59	0	NR	NR	764036	Actual number of samples fewer than required.
13	0				<u> </u>		
14	0				ļ		Failure to analyze for E. Coli if there was a positive result for
15	0	59	0	NR	NR	764036	total coliform from routine, repeat of high turbidity sample.
16	C	59	0	NR	NR	764036	
17	C	59	O .	NR	NR	764036	Failure to analyze repeat samples.
18	C	59	0	NR	NR	764036	UR
19		59	0	NR	NR	764036	Does an MCL violation exist?
20		<u> </u>	 		ļ	ļ	
21			 		 	ļ	If yes, check reason(s) below.
22		59		NR	NR	764036	
23		59	0	NR	NR	764036	Two or more positive total coliform samples for systems collecting 40
24	<u> </u>	59	0	NR	NR	764036	or more samples (routine, repeat or hiturb) per month.
25		59		NR	NR	764036	
26	 	59	0	NR	NR	764036	Positive E. Coli result followed by a positive total coliform repeat sample.
27	 	<u> </u>	-	 	 	ļ	Positive total coliform result followed by a positive E. Coli repeat sample.
28	 	0	ļ	110	1	 	
29	+	59	0	NR	NR NR	764036 764036	
30		0 59	0	NR	NR NR	764036	
31	· 	0 59	0	NR	1415	704030	
TOT	1	1	0	No. Days:	31	† · · ·	
AVG.	0.4	<u>د</u>	0.00	I IVU. Days	11 3,	<u> </u>	, <i>C</i>

Tille WATER SYSTEMS SUPERIUSOL Cerl. #: 05650

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_

Does the system have a chlorination waiver?

					n Li	
-		CHLORINA		CIO	pH _Lime	Totalizer
	ſ	Liquid Sodium I	:	Free Cl2 Residual	Sodium	Daily Totalizer
ay of	Water	Gallons	CI2 use		Hydroxide	330271
nonth	K Gals	42	per 24hrs	mg/l	Hydroxide	
1	0			0.00	7.9	330273
2	2	41	1	0.38		330275
3	2	41	0	0.42	7.8	330275
4	0	41	0	0.43	. 8	330275
5	0	41	0	0.42		330273
6	0				<u> </u>	
7	0				7.0	330275
8	0	41	0	0.3	7.9	
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		ļ	 		
14	0		ļ			
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	C	41	0	0.28	7.5	330610
19		41	0	0.5	7.5	330610
20						
21	(-	
22		41	0	NR	NR	330610
23		41	0	NR	NR	330610
24		0 41	0	NR	NR	330610
25		0 41	0	NR	NR	330610
26		0 41	О,	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
тот	33	39	2			
AVG			0,06	No. Days	31	

Population	Served	3,500
------------	--------	-------

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

Number of actual routine sample:

Does a M&AR violation exist? ye

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?

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 TER SYSTERS SUPER USOR Cert. # 05650

WATER SYSTEMS OPERATION REPORT

Public	c Water Sup	ply Protection		V	MILICO	TOTELLIO OT	·
PROGRAM CODE 169 STATION			STATION	11515100	SUFFOL	K COUNTY	REPORTING PERIOD: JANUARY 2000
LOCA		WELL NO. 1		·	Did a Doe	an emergency c s the system ha	occur in any part of the water system? yes noave a chlorination waiver? yes no
		CHLORINA	TION		рН		
<u> </u>	Treated I	Liquid Sodium		Free Cl2	Lime	Totalizer	
ay of	Water	Gallons	Cl2 use	Residual	Sodium	Daily Totalizer	Population Served 3,500
nonth	K Gals	165	per 24hrs	mg/l	Hydroxide	275893	<i>, (</i>
1	0						Number of routine samples
2	o	162	3	0,58	7.5	275893	(Must collect a minimum of 5 routine samples the month following
3	5	162	0	0.94	7.7	275898	a repeat sample collection)
4	8	162	0	0.31	7.4	275906	<u> </u>
5	1	162	0	0,92	7.9	275907	Number of actual routine samples
	i						· ·
6	0						:: Does a M&AR violation exist? yesNo
7		400	0	8.1	7.8	275907	1.47
8	0	162	0	0.89	78	275911	•
9	4	162		0.87	7.8	275915	If yes, check reason's below.
10	4	162	0	 	7.8	275915	•
11	0			0.89		275918	Actual number of samples fewer than required.
12	3	162	0	0.88	7.8	2/5910	Actual number of samples rever man equilibrium
13	0		 	 	 		Call if there were a populities regult for
14_	0		 -	 	ļ	 	Failure to analyze for E. Coli if there was a positive result for
15	0	162	0	0.7	7.6	275918	total coliform from routine, repeat of high turbidity sample.
16	4	162	0	0.73	7.9	275922	
17	5	162	0	0.73	7.5	275927	
18	1	161	11	0.86	7.4	275928	
19	14	161	0	1.1	7.3	275942	Does an MCL violation exist?
20	C		1				Page 1
21	C					<u> </u>	If yes, check reason(s) below.
22	2,347	142	19	0.65	7	278289	-
23	1	142	0	0.66	7	278291	
24		1 142	0	0.96	7.3	278292	or more samples (routine, repeat or hiturb) per month.
25	36:	3 140	2	0.6	7.8	278655	4
26	8.		0	NR	NR	278739	Positive E. Coli result followed by a positive total coliform repeat sample.
27	+	0					
28		0	1	1.			Positive total coliform result followed by a positive E. Coli repeat sample.
		7 138	2	0.3	6.6	278746	5
29			0	0.95	6.8	27876	
30				0.9	6,9	278778	7
31		5 137	1 20	-		1	1
TOT			28	Na Della	: 31	1	1
AVG	93.0)6]	0.90	No. Days	. 1 31	-1	<u>.</u>

Title WAJER SUSTEMS SUBERULSED Cert. #:05650

5164208436

575 Broad Hollow Road, Met/lile NY 11747 (631) 694-3040 . FAX: (631) 420-8436 NYSDOHID#10478

BROOKHAVEN NATIONAL LAB.-BNLM

70 BELL AVE,

UPTON, NY 11973

Attn To:

Received

S. SCARPITTA

Federal ID ; 5111891

Collected

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

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

Collected By RL99 Copies To : CLIENT

LABORATORY RESULTS

Lab No. : 0101060-001A

Sample Information...

Type: Potable Water

Origin: Dist.

Client ID.: 7839-001

Point No: 1

Location: B-49 WATER TOWER

Parameter(s)	Results	Units	<u>Limit</u>	Method Number	<u>Analyzed</u>
Total Coliform E_Coliform	Negative Absent		Negative Absent	M9ZZ3 M9ZZ3	1/4/01 5:05:00 PM 1/4/01 5:05:00 PM

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

BROOKHAVEN NATIONAL LAB.-BNLM

LABORATORY RESULTS

Lab No. : 0101060-002A

Client ID.: 7839-002

Sample Information...

Type: Potable Water

Origin: Dist.

Attn To: S. SCARPITTA

Federal ID : 5111891

UPTON, NY 11973

70 BELL AVE.

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

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

Point No: 2

Location: B-640 WATER TOWER

Collected By RL99 Copies To : CLIENT

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

5164208436

575 Broad Hollow Road, Melville NY 11747 (531) 694-3040. FAX: (631) 420-8436 NYSDOHID#10478

BROOKHAVEN NATIONAL LAB.-BNLM

70 BELL AVE.

UPTON, NY 11973

Attn To: S, SCARPITTA

Federal ID : 5111891

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

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

Collected By RL99 Copies To : CLIENT LABORATORY RESULTS

Lab No.: 0101060-003A

Sample information...

Type: Potable Water

Origin; Dist.

Client ID.: 7839-003

Location: B-1005 RHIC

Point No: 3

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

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

BROOKHAVEN NATIONAL LAB.-BNLM

70 BELL AVE.

UPTON, NY 11973

Attn To:

Collected

S. SCARPITTA

Federal ID : 5111891

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

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

Collected By RL99 Copies To ; CLIENT LABORATORY RESULTS

Lab No.: 0101060-004A

Sample Information...

Type: Potable Water

Origin: Dist. ·

Client ID.: 7839-004

Point No: 4

Location: B-363 APT.LAUNDRY

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

02/07/2001 15:18

5164208436

(631) 694-3040 . FAX: (631) 420-8436 NYSDOHID#10478

BROOKHAVEN NATIONAL LAB.-BNLM

70 BELL AVE.

UPTON, NY 11973

Attn To:

S. SCARPITTA

Federal ID ; 5111891

Collected Received :1/4/01 7:10:00 AM

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

Collected By RL99 Copies To : CLIENT

LABORATORY RESULTS

Lab No. : 0101060-005A

Sample Information...

Type: Potable Water

Origin; Dist.

Client ID.: 7839-005

Point No: 5 Location: B-930 LINAC

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

02/07/2001

5164208436

(531) 694-3040 . FAX: (631) 420-8436 NYSDOHID#10478

BROOKHAVEN NATIONAL LAB.-BNLM

70 BELL AVE.

UPTON, NY 11973

Attn To: S, SCARPITTA

Federal ID : 5111891

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

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

Collected By RL99 Copies To : CLIENT

Parameter(s)

E_Coliform

Total Coliform

LABORATORY RESULTS

Lab No. : 0101060-006A

Sample Information...

Type: Potable Water

Origin; Dist.

Client ID.: 7839-006

Point No: 6

Location: B-490 OUTPATIENT CLINIC

Results <u>Units</u> Limit Method Number Analyzed 1/4/01 5:05:00 PM Negative M9223 Negative 1/4/01 5:05:00 PM Absent M9223 Absent

5164208436

(631) 694-3040, FAX: (631) 420-8436 NYSDOHID#10478 BROOKHAVEN NATIONAL LAB.-BNLM

70 BELL AVE.

UPTON, NY 11973

Attn To:

S. SCARPITTA

Federal ID : 5111891

Collected

;1/4/01 9:00:00 AM :1/4/01 2:00:00 PM

Received Collected By RL99

Copies To : CLIENT

LABORATORY RESULTS

Lab No. : 0101050-007A

Sample Information... Type: Potable Water

Origin: Dist.

Client ID.: 7839-007

Point No: 7

Location: B-490 BLOCK 11

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

MONTHLY GALLONAGE REPORT Jan2001

/31/01			. Jan	2001		Daily	Total	
oump Data		10/6	ell 7 : Well	10 Well			0	
ate	Well 4 W	/eii o	0	0	0;	0;	3,406	l
1	0	0	1,739	0;	2:	<u>0;</u> 5	1,217	1
2	692	973	626	0	2:	8	1,210	
3 ;	239	345	709	01	0)	1:	1,222	1
4	241	252	718	13	0		0	1
5	225	265	0)	0	0	0	0	1
6	0	0!	0	0.	0	0	3,536	1
7	0	0;	2,254	0	0	0	1,356	7
8	853	429	838	0	0	4	1,454	1
9	243	271	821	0	. 4	4	1,450	7.
10 ;	269	356	816	0	125	0	1,339	
	281	228		0	0	3	0!	一
11	263	322!	751	-0	0	0	0	
12	0	0	0	0	0	0		
13	0	0		0	197	0	3,956 1,279	-
14	778	911	2,070	0	9	4		
15	259	316	691;	0	0	5	1,547	
16	318	351	873	0	0	1	1,707	
17	402	215	1,089	0	0	14	1,996	-
18	438	306	1,238	0	0	0		
19	0	0	0	0	01	0	0	
20	+ 0	0	0	0	0	2,347	4,832	
21	523	337	1,625	0	0	2	2,084	
22	490	379	1,213		0	1	2,083	
23	488	211	1,383	0	0	363	1,828	
24	318	311	836		0	84	1,676	
25	345	316	931	01	0	0	. 0	
26	0	0;	0	0	0	0	0	
27	0	0;	0!	0	0	7	4,379	
28	847	870	2,655	0	0	17	1,594	
29	304	273	1,000	0	0	15	2,155	
30_	494	040	1,334	0	339	2,885	47,306	
31	0:040	0.540	26,210	13			Total(x1,000)	
Total	9,310	1	Totalizer		otalizer		Gallons	
	i 		This Month	L	ast Month		9,310	
		Well 4	1,464,100		1,454,790			
		i vven -			89,077		8,549	
		Well 6	97,626		09,077			
		- VVEII O			224 6281		26,210	
		Well 7	360,848		334,638			
		- VVG/I /			704 023		13	
		Well 10	764,036		764,023			
		AAGIL 10			200 271		339	
		Well 11	330,610		330,271			
		VVell 11	1		=======		2,885	
		187-11 40	278,778		275,893			
		Well 12					5574.00	
		i	187,187		181,613			
AGS	Water Supply M	leter	107,131	<u>.</u>			148.78	
	:	:	04.040.077	-	90,901,200		140.70	
	cal Reactor - W	ell 105	91,049,977	4			111 50	
17/2~~1.	Car 1 Court		ì	:	070		114.59	
Medi		_	5,891,860	7	5,777,270			

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

Summary of Sr-90 Radiological Results for the BNL Potable Water Wells 2000 Fourth Quarter Monitoring Results										
Well ID	Sr-90 pCi/L									
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									

	7
BROO	KHAVEN
NATIONAL	LABORATORY

Chan of Custody No.

ASI, Prefix No. 201018+6	OQL	BROOKHAVEN NATIONAL LABORATORY Carrier/Way										7534		,			
Requires EDD 🖸		SAMPLING CHA	IN OF CUSTOD	Y													
Analysis Requested By	Sampling Contrac	ttor	A A	ralytical Labo	ratory	,					Analy	tical L	aborat	ary			
Name D Paquette	Name ESD Field S		Vame: GEL										T				
Life: Na: 14314 Exc. 7046	Contact:	= V · V · V · V	Widtress: 2040 So	م ۵ ص	20	1							l				
	Phone:		city.charleston	6- 5C	7:	-							į				
Accu, No. 6 4089 Dept: 65 Establish Reports To:	Erroil/Fax:		Contact:	بار س									Ì				
	Sampler: LleHeri		hone:						ļ							1	
D Paquette	Samples S CATTLE		maiVFax:						l					! !		1	
Project Name:	Project Manager:	e e e e e e e e e e e e e e e e e e e	NAMES AND THE PERSON OF	Field Eng	neer:			ì	İ		i	Į		1	Í		1
Potable Wells	Project Manager: RL099 HellG											ĺ		!	ļ		
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Sample Information Sample Information Capita	dom Oato Fime Hatox		Additional Sample to	Conclictude its	\$25	100	Freservane	- [출]	Tritium Gamma	Stro	524.	2			-		
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	19/18/00 1348 W			41	P	1	HMOZ	11		X	İ	-		 	-	1	П
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Company:

Brookhaven National Laboratory

Address:

Building 134C

Upton, NY 11973-5000

Contact:

Mr. Greg Flette

Project:

Routine Analytical

BRKL00198

BRKL002

Report Date: January 9, 2001

Page 1 of 1

Client Sample 1D:

Sample ID: Matrix: Collect Date:

Receive Date: Collector:

083-400 33016001 **Ground Water**

18-OCT-00 13:30 20-OCT-00 10:00 COC: 7534 Samp Recv.: 7534 Client Desc.:

Project:

Client ID:

Client			
	Cli	ent	

	0 10	77			***	Units	DF	AnalystDate	T1	Batab	Method
Parameter	Qualiffer	Result		DL	RL	Onns		Allalystoate	LIMIT	Dawn	1-X CITIOU
Rad Gas Flow											
GFPC. Sr90, liquid Strontium-90	U	-0.151	-1-0.306	0.740	1.00	pCi/L		AAK 11/10/0	0 1046	51535	i

The following Analytical Methods were performed

Method Description

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.

The data are unusable (radionuclide may or may not be present).

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

Company: Brookhaven National Laboratory

Address:

Building 134C

Upton, NY 11973-5000

Contact: Project:

Mr. Greg Flette

Routine Analytical

Client Sample ID:

Sample ID: Matrix: Collect Date:

Receive Date:

Collector:

BD-1 33016002 Ground Water 18-OCT-00 13:30

20-OCT-00 10:00

Report Date: January 9, 2001

Page I of I

BRKL00198 BRKL002 Project: Client ID:

COC: 7534 Samp Recv.: 7534

Client Desc.:

	WHICE COL.		•	Chen							
Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Rad Gas Flow			. 1								
GFPC, Sr90, liquid											
Strontium-90	ឋ	-0.178	4-/-0.332	0.800	90.3	pCi/L		AAK 11/10/0	0 1046	51535	1
The following Analyti	cal Methods were	e performed									
	cription			·							

EPA 905.0

Notes:

The Qualifiers in this report are defined as follows:

DL Failed required detection limit.

Potable Well #4 Duplicate Estimated value; the result was greater than the MDA but less than the required detection limit.

Presumptive evidence of the analyte at an estimated quantity. JN

The data are unusable (radionuclide may or may not be present).

U Undetected; sample result < MDA

Uncertain identification for gamma spectroscopy. UI

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

Company:

Brookhaven National Laboratory

Address:

Building 134C

Upton, NY 11973-5000

Contact: Project: Mr. Greg Flette Routine Analytical

Client Sample ID: Sample ID: Matrix:

Matrix: Collect Date: Receive Date: Collector: l .

093-400 33016003 Ground Water 18-OCT-00 13:40

20-OCT-00 10:00 Client Project: Client ID:

BRKL00198 D: BRKL002

Report Date: January 9, 2001

Page 1 of 1

Potable Well # 6

COC: 7534 Samo Recv.: 7534 Client Desc.:

	• • • • • • • • • • • • • • • • • • • •		-								
Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Rad Gas Flow											
GFPC, Sr90, liquid Strontium-90	U	0.455	-/-0.298	0,582	1.00	pCi/L		AAK 11/10/0	0 1046	51535	1
The following Analyti	çal Methods were	performed					,				

dethed Description

Methed Description

EPA 905.0

Notes:

The Qualifiers in this report are defined as follows:

DL Failed required detection limit.

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

 $\mathsf{LHV} \cdot$

Company:

Brookhaven National Laboratory

Address:

Building 134C

Upton, NY 11973-5000

Contact: Project:

Mr. Greg Flette

Routine Analytical

Client Sample ID: Sample ID:

Matrix: Collect Date: Receive Date:

Collector:

092-400 33016004

Ground Water 18-OCT-00 13:48

20-OCT-00 10:00 Client

Report Date: January 9, 2001

Page 1 of 1

Potable Well #7

BRKL00198 BRKL002 Client ID:

COC: 7534 Samp Reev.: 7534

Client	Desc.:

Project:

	• • • • • • • • • • • • • • • • • • • •		_								
Parameter	Qualifier	Result		DI	RL	Units	DF	AnalystDate	Time	Batch	Method
Rad Gas Flow			<u> </u>								
GFPC, Sr90, liquid Strontium-90	U	0,590	÷/-0.345	0,684	1.00	pCi/L		AAK 11/10/0	0 1046	51535	1
The following Analytic	cal Methods were	performed									•••

EPA 905.0

Notes:

The Qualifiers in this report are defined as follows:

DL Failed required detection limit.

Estimated value; the result was greater than the MDA but less than the required detection limit. J

Presumptive evidence of the analyte at an estimated quantity. JN

The data are unusable (radionuclide may or may not be present). R

Undetected: sample result < MDA U

Uncertain identification for gamma spectroscopy. UI

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, Valeric Davis at 843-556-8171 Ext. 4485.

Reviewed by

• 5 8LH 1

ו זר ארל האר האר האר האר

Company:

Brookbaven National Laboratory

Address:

Building 134C

Upton, NY 11973-5000

Report Date: January 9, 2001

Contact:

Mr. Greg Flette

Page

l of 1

Project:

Routine Analytical

Client Sample ID:

093-400 33016005 Ground Water Project: Client ID: COC:

BRKL00198 BRKL002

Sample ID: Matrix: Collect Date:

18-OCT-00 14:00 20-OCT-00 10:00 Client

DL

COC: 7534 Samp Recv.: 7534 Client Dosc.:

Receive Date: Collector:

Qualifier

U

Result

AnalystDate Time Batch Method DF Units

Potable Well#11

Parameter Rad Gas Flow

> GFPC, Sr90, liquid Strontium-90

0.548

4/40,352

0.700

pCi/L 1.00

RL

AAK 11/10/00 1046 51535 1

The following Analytical Methods were performed

Method

Description

EPA 905.0

Notes:

The Qualifiers in this report are defined as follows:

DL Failed required detection limit.

Estimated value: the result was greater than the MDA but less than the required detection limit.

Presumptive evidence of the analyte at an estimated quantity.

The data are unusable (radionuclide may or may not be present).

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

Company:

Brookhaven National Laboratory

Address:

Building 134C

Upton, NY 11973-5000

Client Sample ID:

Contact;

Mr. Greg Flotte

Sample ID:

Receive Date:

Qualifler

Collector:

Mairix: Collect Date:

Routine Analytical Project:

056-401

33016006 Ground Water

18-OCT-00 14:07 20-OCT-00 10:00

DL

Client

Report Date: Jamary 9, 2001

Page 1 of

BRKL00198 BRKL002 COC: 7534 Samo Recv.: 7534 Client Desc.:

AnalystDate Time Batch Method Units DF

Parameter Rad Gas Flow

> GFPC, Sr90, liquid Strontium-90

-0.0646

Result

₽/-0,257

0.611

t.00

RL

pCi/L

Project:

Client ID:

AAK 11/10/00 1043 51535 1

Potable New #12

The following Analytical Methods were performed

Description Method

EPA 905.0

Notes:

The Qualifiers in this report are defined as follows:

DL Failed required detection limit.

Estimated value; the result was greater than the MDA but less than the required detection limit. j

Presumptive evidence of the analyte at an estimated quantity. JN

The data are unusable (radionuclide may or may not be present).

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

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