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October 9, 2001

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

Dear Ms. Newcomer:

**SUBJECT: Monthly Water Treatment Plant Reports** 

Reference: Suffolk County Minimum Monitoring Requirements for September 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 September 2001.

Attachment II: September 2001 Biweekly Water Quality Monitoring Data for

BNL Potable Water Wells and Quarterly Water Quality Data

for the BNL Distribution System.

Attachment III: 2001 Third Quarter Radiological Analyses for the BNL Potable

Water Wells.

All analytical results have been reviewed and have been found to be within New York State Department of Health Drinking Water Standards (NYSDOH DWS). Collection and analysis of these samples are performed in accordance with the guidelines of the BNL Quality Assurance program, the SCDHS Community Water Supply Monitoring Requirements, and the BNL Potable Water System Sampling Plan. Plant Engineering Division personnel using standard operating procedures collect routine monitoring samples; a contractor laboratory using standard methods of analysis performs the subsequent analyses. The Quality Assurance documentation is available from the Environmental Services Division and Plant Engineering Divisions. Based on this information, we believe the values contained in these reports are representative of the BNL potable water system.

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

Sincerely,

Lori Cunniff, CEP

Division Manager

LEC/MA:rt

Attachments: As noted

ce: M. Allocco w/attachments W. Chaloupka 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 September 2001

### WATER SYSTEMS OPERATION REPORT

PUBL	IC WATER	R SUPPLY P	ROTECTIO		MILINOI	OTEMO OTE	INATION ICE OUT		
		CODE 169	<del>,                                      </del>	11515100	SUFFO	LK COUNTY	REPORTING PERIOD: SEPTEMBER	2001	
			tment Facili	tv	<u> </u>				-
	, , , , , , , , , , , , , , , , , , , ,			-,	Did an en	nergency occu	r in any part of the water system? YES	NO	<u> </u>
Sou	ırce: Grou	und Water				Does the sys	tem have a chlorination waiver?	NO	X
		CHLORINA	MOITA		pH				
}	Treated	Liquid Sodium		Free CI2	Lime	Totalizer			
Day of	Water	Gallons	Cl2 use	Residual	Sodium	Daily Totalizer	Population Served 3,500		
month	K Gais	115	per 24hrs	mg/l	Hydroxide	12401035			
1	0						Number of routine samples	4	
2	0						(Must collect a minimum of 5 routine samples the month follow	ring	
3	3,554	90	25	0.8	7	12404589	a repeat sample collection)		
4	0							77	
5	3,267	60 +140	30	0.65	6.5	12407856	Number of actual routine samples	<i>I</i>	
6	1,365	188	12	0.83	7	12409221 12410579	Does a M&AR violation exist? YES	NO	x
7	1,358	175	13	0.72		12410379	Does a Mark Violation exist.		
8	0	· · ·					•		
9	0			0.74	7.4	12414700	If yes, check reason's below.		
10	4,121 1,385	142 131	33 11	0.7	7.4	12416085	1. you, Grook reasons out to		
11	1,433	120	11	0.95	7.4	12417518	Actual number of samples fewer than required.		
13	1,346	110	10	0.78	7.5	12418864			
14	1,374	99	11	0.75	7.9	12420238	Failure to analyze for E. Coli if there was a positive resu	it for	
15	0					· 0	total coliform from routine, repeat of high turbidity sample.		
16	0					0			
17	4,056	65+133	34	0.48	6.3	12424294	Failure to analyze repeat samples.		
18	1,387	188	10	0.91	6.6	12425681			v
19	1,358	177	†1	0.63	6.6	12427039	Does an MCL violation exist? YES	мо	<del>^</del>
20	1,409	161	16	0,71	6.7	12428448			
21	1,366	152	9	0.62	7	12429814	If yes, check reason(s) below.		
22	0						W. A. L. Wenner and a few water	- aullantina	40
23	0				7.0	40.400005	Two or more positive total coliform samples for systems or more samples (routine, repeat or hilturb) per month.	s collecting	40
24	2,451	140	12	0.8	7.2	12432265 12433572	or more samples (rounde, repeat of multip) per momin.		
25	1,307	130	10	0.9	7.3 7.4	12433572	Positive E. Coli result followed by a positive total colifon	m repeat sa	mple.
26	1,393	119	11	0.8	7.3	12434363		•	
27	1,347	95	14	0.68	7.3	12437671	Positive total coliform result followed by a positive E. Co	oli repeat sa	mple.
28	0	33		J.55			<del></del>		
30	0								
31	1,872	82	12	0.66	7.3	12439543			
тот	38,508		305			,			
AVG.	1283.60		10.17	No. Days;	30				
		SU)	lical				10-ZA		
R	eported by:	V.,/	W-7				Date: 10-3-01		
	Title:	Water Sys	tems Supe	ervisor	· · · · · · · · · · · · · · · · · · ·		Certification No. NY0031941		

PURI	IC WATE	R SUPPLY F	PROTECTIO		ATER SY	STEMS OPE	RATION REPORT
<b> </b>		CODE 169	<del></del>	11515100	SUFFC	LK COUNTY	REPORTING PERIOD: SEPTEMBER 2001
	CATION:	WELL NO . und Water	). 4		Did an en	-	rin any part of the water system?  YES  NO  NO  NO  NO  NO  NO  NO  NO  NO  N
300	ince. Gro		. 7:01:		T _,,	Does the syst	
	Tenahad	CHLORIN		Free Cl2	pH Lime	Totalizer	
Day of	Treated Water	Liquid Sodium Gallons	Cl2 use	Residual	Sodium	Daily Totalizer	Population Served 3,500
month	K Gals	130	per 24hrs	mg/l	Hydroxide	1479844	
1	0						Number of routine samples
2	0						(Must collect a minimum of 5 routine samples the month following
3	0	130	0	NR	NR	1479844	a repeat sample collection)
4	0				ļ		<b>5</b>
5	0	130	0	NR	NR	1479844	Number of actual routine samples
6	0	130	0	NR	NR	1479844	Does a M&AR violation exist? YES NO
7	0	130	0	NR	NR	1479844	Does a M&AR violation exist? YES NO C
8	0		-				
9	0			ND.	NID	1479844	If yes, check reason's below.
10	0	130	0	NR NR	NR NR	1479844	ir yes, uneuk reason s ociow.
11	0	130	0	NR NR	NR	1479844	Actual number of samples fewer than required.
12	0	130	0	NR	NR	1479844	
14	0	130	0	NR	NR	1479844	Failure to analyze for E. Coli if there was a positive result for
15	0			<del></del>			total coliform from routine, repeat of high turbidity sample.
16	0						
17	0	130	0	NR	NR	1479844	Failure to analyze repeat samples.
18	0	130	0	NR	NR	1479844	./
19	0	130	0	NR	NR	1479844	Does an MCL violation exist? YES NO
20	0	130	0	NR	NR	1479844	
21	0	130	0	NR	NR	1479844	If yes, check reason(s) below.
22	0						The second secon
23	0				4/6	4470044	Two or more positive total coliform samples for systems collecting 40
24	0	130	0	NR NR	NR NR	1479844 - 1479844	or more samples (routine, repeat or hiturb) per month
25	0	130	0	NR NR	NR	1479844	Positive E. Coli result followed by a positive total coliform repeat sample
26 27	0	130	0	NR	NR	1479844	
28	0	130	0	NR	NR	1479844	Positive total coliform result followed by a positive E. Coli repeat sample
29	0						<del></del>
30	0	130	0	NR	NR	1479844	
31	0						
тот	0		0				
AVG.	0.00		0.00	No. Days.	30		·
Re	eported by:	10/	loss				Dale: 10-3-61
	Title:	Water Sys	tems Supe	rvisor			Certification No NY0031941

### WATER SYSTEMS OPERATION REPORT

Decoration:   WELL No. 6   Did an emergency occur in any part of the vaster system?   YES   NO	PUBL	IC WATEI	R SUPPLY F	ROTECTIO		ATEROI	0,2,m0 01 1	·
Did an emergency occur in any part of the water system?   VES   NO   Vest	PF	ROGRAM	CODE 169	STATION	11515100	SUFFC	LK COUNTY	REPORTING PERIOD: SEPTEMBER 2001
Did an emergency occur in any part of the water system?   Visis   No   Visit	100	CATION:	WELL NO	. 6	<del></del>	<del>.l</del>		
CHLORINATION		,,,,,				Did an er	mergency occu	r in any part of the water system? YES NO
Treated	Sot	ırce: Grou	und Water				Does the sys	tem have a chlorination waiver?
Treated	<b></b>		CHLORIN	ATION		pH		
Manuface of routine samples   Manuface of routine samples the month following   A		Treated	Γ		Free Ct2	Lime	Totalizer	,
1	Day of	Water	Gallons	Cl2 use	Residual	Sodium	Daily Totalizer	Population Served 3,500
Church Collection   Chur	month	K Gals	200	per 24hrs	mg/l	Hydroxide	220163	.,
1.388	1	0				ļ		Number of routine samples
1,   1,   1,   1,   1,   1,   1,   1,	2	0						(Must collect a minimum of 5 routine samples the month following
S	3	1,398	180	20	0.08	5.7	221561	a repeat sample collection)
S72   140   10   0.61   5.6   223544   13   132488   8   0.02   5.6   224658   14   132488   8   0.02   5.6   224658   15   14   177   23   0.03   5.9   225675   17   17   177   23   0.03   5.9   225675   17   18   19   19   19   19   19   19   19					0.01	67	272072	Number of actual routine comples
8 0 0 0 0 1.417 177 23 0.03 5.9 225475 If yea, check reason's below.  10 1.417 177 23 0.03 5.9 225475 If yea, check reason's below.  11 529 188 9 0.018 6 226902 Actual number of samples fewer than required.  12 589 154 14 0.02 6 226712 Filter to analyze fewer than required.  13 916 142 12 0.018 6.1 227218 Filter to analyze for E. Coli if there was a positive result for total coliform from routine, repeat of high turbidity sample.  15 0	<b> </b>			<del> </del>	<u> </u>	<del></del>		
8 0 0 0 1, 4177 1777 23 0.03 5.9 225475 If yea, check reason's below.  10 1,4177 1777 23 0.003 5.9 225475 If yea, check reason's below.  11 529 188 9 0.018 6 225602 Actual number of samples fewer than required.  12 588 154 14 0.02 6 225721				<del> </del>	<del> </del>	<del> </del>	<del>                                     </del>	Does a M&AR violation exist? YES NO
10	<del>-</del>		132.00		0.02			
10						<del> </del>		
11			177	23	0.03	5.9	225475	if yes, check reason's below.
Actual number of samples fewer than required.    Actual number of samples fewer than required.								•
13							226602	Actual number of samples fewer than required.
14					l	6.1	227218	
16		454	137	5	0.02	5.7	227672	Failure to analyze for E. Coli if there was a positive result for
17	15	0					•	total coliform from routine, repeat of high turbidity sample.
18 610 95 9 0.02 5.7 229880 19 474 89 6 0.01 5.4 230354 20 647 75+125 14 0.01 5.4 231001 21 531 189 11 0.02 5.5 231532 22 0	16	0						
19	17	1,598	109	28	0.02	5.5	229270	Failure to analyze repeat samples.
20 647 75+125 14 001 5.4 231001 21 531 189 11 0.02 5.5 231532 22 0	18	610	95	9	0.02	5.7		
21	19	474	89	6	0.01	5.4	230354	Does an MCL violation exist? YES NO
22 0	20	647	75+125	14	0.01	5.4		
	21	531	189	11	0.02	5.5	231532	If yes, check reason(s) below.
24       1,300       168       21       0.02       5.8       232832       or more samples (routine, repeat or hiturb) per month.         25       515       158       10       0.02       6       233347         26       822       140       18       0.03       6.1       234169	22							The state of the s
25					0.00		22222	
26 822 140 18 0.03 6.1 234169 Positive E. Coli result followed by a positive total coliform repeat sample.  27 857 128 12 1.1 5.6 235026  28 935 110+55 18 0.18 5.8 235961  29 0	-							or more aditiples (routilite, ropeat of finally) por month.
27 857 128 12 1.1 5.5 235026 28 935 110+55 18 0.18 5.8 235961 29 0	7							Positive E. Coli result followed by a positive total coliform repeat sample.
28 935 110+55 18 0.18 5.8 235961  29 0								
29 0 0 20 0.09 5.8 237251 31 0 298 298 200 0.09 5.8 237251  AVG. 569.60 9.93 No. Days: 30 Date: 10-3-01								Positive total coliform result followed by a positive E. Coli repeat sample.
30 1.290 145 20 0.09 5.8 237251 31 0  TOT 17,088 298  AVG. 569.60 9.93 No. Days: 30  Reported by:   ### Comparison of Comparison								
TOT 17,088 298 AVG. 569.60 9.93 No. Days: 30  Reported by:     Avg.   Color		1.290	145	20	0.09	5.8	237251	
AVG. 569.60 9.93 No. Days: 30  Reported by:     Date: 18-3-81	31	0						
Reported by: Date: 18-3-01	тот	17,088		298				
				<u></u>		30		
	R	eported by:	DE1	Nort				Date: 10-3-0[

## WATER SYSTEMS OPERATION REPORT

PUBL	IC WATER	SUPPLY P	ROTECTION	٧			
PR	OGRAM (	CODE 169	STATION	11515100	SUFFO	LK COUNTY	REPORTING PERIOD: SEPTEMBER 2001
LOC	ATION:	WELL NO.	. 7			-	
					Did an en	nergency occur	in any part of the water system? YES NO
Sou	rce: Grou	nd Water				Does the syst	em have a chlorination waiver? YESNO
		CHLORINA	ATION		рН		
	Treated	Liquid Sodium I	Hypochlorite	Free Cl2	Lime	Totalizer	
Day of	Water	Gallons	CI2 use	Residual	Sodium	Daily Totalizer	Population Served 3,500
month	K Gals	150	per 24hrs	mg/l	Hydroxide	586945	Number of routine samples
1	0						(Must collect a minimum of 5 routine samples the month following
2	0				6.7	589297	a repeat sample collection)
3	2,352	130	20	8.0	5.7	569297	a repeat sample conceasin
5	4,441	110	20	0.01	5.7	593738	Number of actual routine samples
6	1,369	105	5	0.01	5.6	595107	
7	1,337	100+100	5	0.02	5.6	596444	Does a M&AR violation exist? YES NO
8	0						•
9	0						
10	4,290	178	22	0.03	5.9	600734	If yes, check reason's below.
11	1,324	170	8	0.018	6	602058	
12	1,304	163	7	0.018	6	603362	Actual number of samples fewer than required.
13	1,381	159	4	0.018	6.1	604743	
14	1.352	151	8	0.02	5.7	606095	Failure to analyze for E. Coli if there was a positive result for
15	0	<del></del>					total coliform from routine, repeat of high turbidity sample.
16	0					<u> </u>	a vi
17	3,945	138	13	0.02	5.5	610040	Failure to analyze repeat samples
18	1,429 1,427	138 138	0	0.02	5.7	611469 612896	Does an MCL violation exist? YES NO
19			18	0.16	5.4	614178	
20	1,282	120+10	15	0.02	5.5	615568	If yes, check reason(s) below.
21	1,390						·
23	0						Two or more positive total coliform samples for systems collecting 40
24	2,499	80	35	0.02	5.9	618067	or more samples (routine, repeat or hiturb) per month
25	1,190	80+100	0	0.018	6	619257	
26	1,419	147	33	0.03	6.1	620676	Positive E. Coli result followed by a positive total coliform repeat sample
27	1,422	118	29	11	5.6	622098	
28	1,427	90+110	28	0.18	5.9	623525	Positive total coliform result followed by a positive E. Coli repeat sample
29	0		<del> </del>		<del> </del>		
30	1,986	170	30	0 011	58	625511	
31	0						
тот	38,566		300				
AVG.	1285.53	Ĺ <u></u>	10 00	No. Days:	30	ئــــــا	
F	Reported by	Valu	insp			-	Date: 10-3-01.
	Title:	Water Sys	tems Sup	ervisor		•	Certification No NY0031941

0.101	io in a Tex				ATER SY	STEMS OPE	ERATION REPORT				
		R SUPPLY P		11515100	SUFFC	LK COUNTY	REPORTING PERIOD: SEPTEMBER 2001				
<del>                                     </del>	CATION:	WELL NO	1		<del></del>	- <u> </u>	r in any part of the water system? YES NO				
Sou	ırce: Grou	und Water				Does the system have a chlorination waiver?					
		CHLORINA	ATION		pН						
	Treated	Liquid Sodium		Free Cl2	Lime	Totalizer					
Day of	Water	Gailons	Cl2 use	Residual	Sodium	Daily Totalizer	Population Served 3,500				
month	K Gals	58	per 24hrs	mg/l	Hydroxide	764243	H				
1	0				ļ		Number of routine samples				
2	0	 			ļ		(Must collect a minimum of 5 routine samples the month following				
3	0	58	0	NR	NR	764243	a repeat sample collection)				
4	0					70,000	M. A confund anyting complete				
5	0		0	NR	NR	764243	Number of actual routine samples				
6	0		0	NR NB	NR NR	764243 764243	Does a M&AR violation exist? YES NO				
7	0	58	0	NR	NR	764243	Does a Modern Violation exist:				
8	0										
9	0			115	NB	764242	If you about massa's balant				
10	0	58	0	NR NR	NR	764243	If yes, check reason's below.				
11	0	58	0	NR NR	NR NR	764243 764243	_Actual number of samples fewer than required.				
12	0	58 58	0	NR NR	NR	764243	Actual number of samples level man required.				
13	0	58 58	0	NR	NR	764243	Failure to analyze for E. Coli if there was a positive result for				
15	0	36		, , , ,		101210	total coliform from routine, repeat of high turbidity sample.				
16	0										
17	0	58	0	NR	NR	764243	Failure to analyze repeat samples.				
18	0	58	0	NR	NR	764243					
19	o	58	0	NR	NR	764243	Does an MCL violation exist? YES NO				
20	0	58	0	NR	NR	764243					
21	0	58	0	NR	NR	764243	If yes, check reason(s) below.				
22	۵										
23	0						Two or more positive total coliform samples for systems collecting 40				
24	0	58	0	NR	NR	764243	or more samples (routine, repeat or hiturb) per month.				
25	o	58	0	NR	NR	764243					
26	0	58	0	NR	NR	764243	Positive E. Coli result followed by a positive total coliform repeat sample.				
27	0	58	0	NR	NR	764243					
28	0	58	0	NR	NR	764243	Positive total coliform result followed by a positive E. Coli repeat sample.				
29	0										
30	o	58	0	NR	NR	764243					
31	0										
TOT	0		0								
AVG.	0.00		0.00	No. Days:	30		•				
R	eported by: {	Id.	low				Date 10-3-0/				
	Title:	Water Sys	tems Supe	ervisor			Certification No. NY0031941				

### WATER SYSTEMS OPERATION REPORT

PUBL	IC WATER	R SUPPLY P	ROTECTIO	N			
PF	OGRAM (	CODE 169	STATION	11515100	SUFFC	LK COUNTY	REPORTING PERIOD: SEPTEMBER 2001
LOC	ATION:	WELL NO	. 11			-	
					Did an en	nergency occur	r in any part of the water system? YES NO
Sou	ırce: Grou	ind Water				Does the sys	tem have a chlorination waiver? YES NO
		CHLORIN	ATION		pН		
	Treated	Liquid Sodium	Hypochlorite	Free Cl2	Lime	Totalizer	
Day of	Water	Gallons	Cl2 use	Residual	Sodium	Daily Totalizer	Population Served 3,500
month	K Gals	95	per 24hrs	mg/l	Hydroxide	364657	i de la companya de l
1	0			<del>  .                                   </del>	<del> </del>		Number of routine samples
2	0		<u> </u>		<del> </del>		(Must collect a minimum of 5 routine samples the month following
3	0	95	0	NR	NR _	364657	a repeat sample collection)
<u>4</u> 5	0	95	0	0,45	7.4	364657	Number of actual routine samples
				<del></del>	7.6	364661	
7	2	92 92+108	0	0,56 NR	NR	364663	Does a M&AR violation exist? YES NO
8	0	32.100	-				
9	0						
10	0	200	0	NR	NR	364663	If yes, check reason's below.
11	5	200	0	NR	NR	364668	
12	0	200	0	NR	NR	364668	Actual number of samples fewer than required.
13	0	200	0	7.3	0.5	364668	
14	2	200	0	NR	NR	364670	Failure to analyze for E. Coli if there was a positive result for
15	0						total coliform from routine, repeat of high turbidity sample.
16	0						
17	0	200	0	NR	NR	364670	Failure to analyze repeat samples.
18	0	200	0	NR	NR	364670	Does an MCL violation exist? YES NO
19	0	200	0	NR	NR	364670	Does an MCL violation exist? YES NO
20	0	200	0	NR	NR	364670	
21	5	200	0	1	7.3	364675	If yes, check reason(s) below.
22	0						Two or more positive total coliform samples for systems collecting 40
23	0		-10	0.70	6.5	366275	or more samples (routine, repeat or hiturb) per month.
24	1,600	187	13 5	0.76	6.5 7,4	* 366277	of those semples frounds, issued of means, por manning
25	2	182	0	0.72	6.2	366279	Positive F. Coli result followed by a positive total coliform repeat sample
26	2	185	0	0.6	6.6	366281	
28	1	185	0	0.57	7.8	366282	Positive total coliform result followed by a positive E. Coli repeat sample
29	0						
30	1	185	o	0.62	74	366283	
31	0						
тот	1,626		21				
AVG.	54.20		0.70	No. Days.	30		
	eported byt	Ja,	Leon	~			Date 18-3-01
	•		items Supe				Certification No NY0031941
	-					•	

					ATER SY	STEMS OPE	RATION REPORT
			ROTECTION				REPORTING PERIOD: SEPTEMBER 2001
PF	ROGRAM	CODE 169	STATION	11515100	SUFFO	LK COUNTY	REPORTING PERIOD: SEPTEMBER 2001
	CATION:	WELL NO.	. 12		Did an en		in any part of the water system?  YES  NO  NO  NO  NO  NO  NO  NO  NO  NO  N
Sou	urce: Grou	und Water				Does the syst	em have a chlorination waiver? YES NO
		CHLORINA	ATION		pH		
	Treated	Liquid Sodium	1	Free Cl2	Lime	Totalizer	Population Served 3,500
Day of	Water	Gallons	CI2 use	Residual	Sodium	Daily Totalizer	r opulation derved 5,500
month 1	K Gals	125	per 24hrs	mg/l	Hydroxide	331476	Number of routine samples
2	0						(Must collect a minimum of 5 routine samples the month following
3	875	120	5	6.5	7.5	352353	a repeat sample collection)
4	0.5	125					
5	362	112	8	0.98	7.6	- 352715	Number of actual routine samples
6	198	112	0	0.61	7,7	352913	Number of actual routine samples  Does a M&AR violation exist?  YES  NO
7	217	110+75	2	NR	NR	353130	Does a M&AR violation exist? YES NO
8	0					0	
9	0						
10	1,175	175	10	0.57	7.6	354305	If yes, check reason's below.
11	674	175	10	0.57	7.6	354979	•
12	0	170	5	0.58	7.7	354979	Actual number of samples fewer than required.
13	, 3.	165	5	1	8	354982	
14	500	165	0	0.56	7.2	355482	Failure to analyze for E. Coli if there was a positive result for
15	0						total coliform from routine, repeat of high turbidity sample.
16	0						m n
17	1	165	11	0.43	7.8	355483	Failure to analyze repeat samples.
18	172	160	5	0.52	7,5	355655 355861	Does an MCL violation exist? YES NO
19	206	160				356036	
20	175	159	1	0.52	7.6	356507	If yes, check reason(s) below.
21	471	154	5	NR	NR	330307	it yes, circuit toosettos.
22	0						Two or more positive total coliform samples for systems collecting 40
23 24	1,971	140	14	0.78	7.8	358478	or more samples (routine, repeat or hiturb) per month.
25	871	132	8	0.68	7.9	359349	
26	368	130	2	0.44	7.7	359717	Positive E. Coli result followed by a positive total coliform repeat sample
27	242	130	0	0.57	7.6	359959	
28	142	130	0	0.6	7.6	360101	Positive total coliform result followed by a positive E, Coli repeat sample.
29	0						_
30	250	130	0	0,5	7.6	360351	
31	0						
тот	8,873		81				
AVG.	295.77		2.70	No. Days:	30		
R	eported by:	Xa	Cuer	/			Date 6-3-6/
	Title:	Water Sys	tems Supe	ervisor			Certification No. NY0031941

### MONTHLY GALLONAGE REPORT 2001SEPTEMBER

Date	Well 4	Well 6	Well 7	Well10	Well11	Well12	Daily Total	
1	0	0	0	0	0	- · · · · · 0		
2		0	0	.0_	0		0	
3	0	1,398	2,352	0	0	875	4,625	
4	0	0	0	0	0	362	0	
5	0	0 1,411 572	4,441	0	0	362	6,214	
		572	1,369	.0	4	198 217	2,143	. = .
7		514	1,337	0	2	217	2,070	
		0	0	0	0	0	0	
0	0	^	Λ	0	0	0	0	
10	<u>.</u>	1 417	0 4,290 1,324 1,304	0	· · · · · · · · · · · · · · · · · · ·	1,175		
11	0	529	1.324	0	5	674		
	10	508	1 304		0	0	1,902	_
12		616	1,381		0	3	2,000	
13 14	0	454	1,352		2	500	2,308	-
		404				0	0	
15	0		0	<u>-</u>	. = <u></u> .		Ö	• • •
16	0	0		7	· <del>"</del> " ·	1	5,544	
17 18	0	1,598	3,945	0		172	2,211	
18	0	610	1,429	0		206	2 107	
19	0	474	1,427		. 0	-	2,104	
20	0	0-11	1,282			175 471	2,397	
21	0	531	1,390	0	5			
	0	0	0	0	0	0		
22 23 24 25	Ō	0	0_	0	0	0		
24	0	1,300	2,499	0	1,600	1,971	7,370	
25	0	515	1,190	0	2	871	2,578	
26	0	822	1.419	0	2	368		
27	0	857	1,422	0	2	242		
28		935	1,427	Ω	1	142	_	
		0	0	0	0	0		
29 30	0	1 290	1,986	0	1	250	3,527	
31			,	0	0	0	_0	
-	0	17,088	38,566	0	1,626	8,873	66,153	
Total	, 0	17,000	Totalizer	0 0	Totalizer		Total(x1,000)	
			This Month		Last Month		Gallons	
					1,479,844		<del>.</del>	
		Well 4	1,479,844				· · ·	
		Well 6	237,251	and an extension of	220,163		17,088	
		Well 7	625,511	ادامها در این این این این این ا	586,945		38,566	
-		Well 10	764,243		764,243	· - ··	0	•
		Well 11	366,283		364,657		1,626	
		Well 12	360,351		351,478		8,873	<del>.</del>
AGS Water	r Supply Mete	er	301,525		289,525		12000.00	
Medical Re	eactor - Well	105	91,710,910	 	91,710,910		0.00	
Biology Bu	ilding - Well 9	· · ·	6,164,050	<u> </u>	6,141,960		22.09	

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

**BROOKHAVEN NATIONAL LAB.-BNLM** 

70 BELL AVE.

UPTON, NY 11973

Attn To:

Federal ID

Collected

**BOB LEE** 

5111891

: 9/6/01 8:45:00 AM

: 9/6/01 3:00:00 PM

LABORATORY RESULTS

Lab No. : 0109112-001A

Sample Information...

Type: Potable Water

Origin: Dist.

Routine

Client ID.: 8450-001

Point No: 1

Location: B-49 WATER TOWER Received

Collected By : CLIENT Copies To :TONY ROSS

Parameter(s)	Results	<u>Units</u>	<u>Limit</u>	Method Number	Analyzed
Total Coliform E_Coliform	Negative Absent		Negative Absent	M9223 M9223	9/6/01 4:18:00 PM 9/6/01 4:18:00 PM
Total Residual Chlorine	0.5	mg/L		M4500-CI G	9/6/01

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

**BROOKHAVEN NATIONAL LAB.-BNLM** 

LABORATORY RESULTS

Lab No. : 0109112-002A

Sample Information... Type: Potable Water

Origin: Dist.

Routine

Attn To:

Federal ID

Collected

Received

70 BELL AVE.

**UPTON, NY 11973** 

**BOB LEE** 

5111891

: 9/6/01 8:55:00 AM

Point No: 2 : 9/6/01 3:00:00 PM Location: B-640 WATER TOWER

Collected By: CLIENT

Copies To :TONY ROSS Client ID.: 8450-002

Parameter(s) <u>Units</u> Limit Method Number **Analyzed** Results Negative M9223 9/6/01 4:18:00 PM **Total Coliform** Negative 9/6/01 4:18:00 PM E Coliform **Absent** Absent M9223 M4500-CI G 9/6/01 **Total Residual Chlorine** 0.4 mg/L

Sym Douts

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

**BROOKHAVEN NATIONAL LAB.-BNLM** 

70 BELL AVE.

**UPTON, NY 11973 BOB LEE** Attn To:

Federal ID

Collected

Received

5111891

LABORATORY RESULTS

Lab No.: 0109112-003A

Client ID.: 8450-003

Sample Information...

Type: Potable Water

Origin: Dist.

Routine

: 9/6/01 9:05:00 AM

: 9/6/01 3:00:00 PM

Point No: 3

Location: B-1005 RHIC

Collected By : CLIENT

: TONY ROSS Copies To

Parameter(s)	Results	<u>Units</u>	<u>Limit</u>	Method Number	Analyzed
Total Coliform E_Coliform	Negative Absent		Negative Absent	M9223 M9223	9/6/01 4:18:00 PM 9/6/01 4:18:00 PM
Total Residual Chlorine	0.4	mg/L		M4500-Cl G	9/6/01 .

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

**BROOKHAVEN NATIONAL LAB.-BNLM** 

LABORATORY RESULTS

Lab No. : 0109112-004A

Client ID.: 8450-004

Sample Information... Type: Potable Water

Origin: Dist. Routine

Attn To: Federal ID

Collected

Received

70 BELL AVE.

**UPTON, NY 11973** 

**BOB LEE** 

5111891

: 9/6/01 10:05:00 AM

: 9/6/01 3:00:00 PM

Point No: 4

Location: B-363 APT.LAUNDRY

Collected By : CLIENT

Copies To : TONY ROSS

Parameter(s)	Results	<u>Units</u>	Limit	Method Number	Analyzed
Total Coliform E_Coliform	Negative Absent		Negative Absent	M9223 M9223	9/6/01 4:18:00 PM 9/6/01 4:18:00 PM
Total Residual Chlorine	0.4	ma/L		M4500-CI G	9/6/01

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

Date Reported:

9/10/01

Olym Dauto

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:

Federal ID

Received

Copies To

**BOB LEE** 

Point No: 5

Location: B-930 LINAC

5111891 Collected : 9/6/01 10:25:00 AM

: 9/6/01 3:00:00 PM

Collected By : CLIENT

: TONY ROSS

### LABORATORY RESULTS

Lab No. : 0109112-005A

Sample Information...

Type: Potable Water

Origin: Dist.

Routine

Client ID.: 8450-005

						_
Parameter(s)	Results	<u>Units</u>	<u>Limit</u>	Method Number	Analyzed	
Total Coliform E_Coliform	Negative Absent		Negative Absent	M9223 M9223	9/6/01 4:18:00 PM 9/6/01 4:18:00 PM	
Total Residual Chlorine	0.2	mg/L		M4500-C1 G	9/6/01	

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

BROOKHAVEN NATIONAL LAB.-BNLM

70 BELL AVE. UPTON, NY 11973

Attn To: BOB LEE

LABORATORY RESULTS

Lab No. : 0109112-006A

Client ID.: 8450-006

Sample Information...

Type: Potable Water

Origin : Dist.

Routine

Federal ID

Collected

Received

5111891

: 9/6/01 10:45:00 AM

Point No: 6

: 9/6/01 3:00:00 PM

Point No : 6

Location: B-490 OUTPATIENT CLINIC

Collected By: CLIENT

Copies To : TONY ROSS

Parameter(s)	<u>Results</u>	<u>Units</u>	Limit	Method Number	Analyzed
Total Coliform E_Coliform	Negative Absent		Negative Absent	M9223 M9223	9/6/01 4:18:00 PM 9/6/01 4:18:00 PM
Total Residual Chlorine	0.5	mg/L		M4500-Cl G	9/6/01

Olym Dauto

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

**BROOKHAVEN NATIONAL LAB.-BNLM** 

70 BELL AVE.

**UPTON, NY 11973** Attn To:

Federal ID

Collected

Received

Copies To

**BOB LEE** 

5111891

: 9/6/01 10:50:00 AM

9/6/01 3:00:00 PM

Collected By : CLIENT

: TONY ROSS

LABORATORY RESULTS

Lab No.: 0109112-007A

Sample Information...

Type: Potable Water

Origin: Dist.

Routine

Client ID.: 8450-007

Point No: 7 Location: B-490 BLOCK 11

Method Number **Analyzed** Results <u>Units</u> Limit Parameter(s) 9/6/01 4:18:00 PM Negative M9223 **Total Coliform** Negative Absent M9223 9/6/01 4:18:00 PM E\_Coliform Absent

M4500-CI G 9/6/01 **Total Residual Chlorine** 0.4 mg/L

Olym Danto

(631) 694-3040 FAX: (631) 420-8436 NYSDOH ID#10478

**BROOKHAVEN NATIONAL LAB.-BNLM** 

70 BELL AVE.

Collected

Received

**UPTON, NY 11973** Attn To: **BOB LEE** 

Federal ID

5111891

: 9/6/01 8:55:00 AM

: 9/6/01 3:00:00 PM

Point No: 26

Location: DUPLICATE

Collected By : CLIENT Copies To : TONY ROSS

Parameter(s)

E Coliform

**Total Coliform** 

Total Residual Chlorine

Results

Negative Absent

0.3

mg/L

Sample Information...

Type: Potable Water

Origin: Dist.

Routine

Client ID.: 8450-008

Limit

Negative

Absent

LABORATORY RESULTS

Lab No.: 0109112-008A

Units

Method Number **Analyzed** 

M9223 M9223 9/6/01 4:18:00 PM 9/6/01 4:18:00 PM

9/6/01 M4500-CI G

Result(s) reported meet(s) Regulatory Limit(s).

Result(s) flagged with

\* Exceed Regulatory Limit(s). Limit noted.

Date Reported:

9/10/01

Sym Danto

### **ATTACHMENT II**

Brookhaven National Laboratory Potable Water Supply

September 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 September 2001

Sample Location	Sample Date	pH (SU)	Temperature (Degrees F)	Conductivity (µmhos)	Alkalinity (mg/L)	Calcium (mg/L)
WTP	9/6/01	7.0	56	128	NR	NR
WTP	9/11/01	7.4	57	129	NR	NR
WTP	9/13/01	7.5	56	128	NR	NR
WTP	9/18/01	6.3	55	126	NR	NR
WTP	9/20/01	6.7	58	131	NR	NR
WTP	9/25/01	7.3	57	134	NR	NR
WTP	9/27/01	7.3	56	131	NR	NR
Well 12	9/6/01	7.7	56	122	NR	NR
Well 12	9/11/01	7.7	56	121	NR	NR
Well 12	9/13/01	8.0	56	176	NR	NR
Well 12	9/18/01	8.0	56	152	NR	NR
Well 12	9/20/01	7.6	56	139	NR	NR
Well 12	9/25/01	7.9	56	163	NR	NR
Well 12	9/27/01	7.6	55	142	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 Third Quarter Radiological Analyses for the BNL Potable Water Wells

# ATTACHMENT III Table 2 Brookhaven National Laboratory Potable Water Supply

	BN	of Radiological Res L Potable Water W l Quarter Monitor	Vells	
Well ID	Gross Alpha pCi/L	Gross Beta pCi/L	Tritium pCi/L	Sr-90 pCi/L
Well # 6	< 0.83	< 2.37	< 300	< 0.275
Well # 7	0.95	< 2.37	< 300	< 0.325
Well # 11	< 0.83	< 2.37	< 300	< 0.371
Well # 12	2.49	3.12	< 300	< 0.356
Well # 12 (Duplicate)	1.50	< 2.37	< 300	< 0.402

C. O. C. Number **21072407** 

Contractor Number

## BROOKHAVEN NATIONAL LABORATORY RADIOLOGICAL CONTROL DIVISION

### ANALYTICAL SERVICES LABORATORY BLDG 490

UPTON, N.Y. 11973-5000

**Chain of Custody Information** 

BNL	P.O.	No:	10580
-----	------	-----	-------

Ship to:
Pick Up by:
Attention:

Page 1	of '
--------	------

Project Name: F Wells				y samples will not be accepted sare filled above the shoulder.
Requested by: B Lee	E-Mail Reports to: SAMPLER: R Metz	<u> </u>	T	Priority Authorization
Life Number: 20222 ext 3148	EP Manager: 8 Lee SAMPLER: 1. Lettleri			Group Leader or Higher CALL
Account No.: 07089 Dept. Code: ES	FSS Manager: SAMPLER:			x2502 (Rad), x4860 (Non-Rad)

							Sample	Information		Co	ntainer		A	nalysis	Requeste	d***
ASL Number	Grid	٩D	Date	-C	Time	Depth	Matrix		Description	ŧ	vol.	аβ 3Н	··/···································	·····		A PCB pH
21072407-01	056	401	07/24/01		1326	92-137	W	Well #12		1	4L	Х	X			
21072407-01	056	401	07/24/01		1326	92-137	w	Well #12		1	500 mL	Πx				
21072407-02	BD-1		07/24/01				W	Well#12		1	4L	X	$\mathbf{I}_{\mathbf{X}}$			
21072407-02	BD-1		07/24/01				W	Wedta		1	500 mL	Πx	П			
21072407-03	056	400	07/24/01		1340	93-142	W	Well #11		1	41	x	TX			
21072407-03	056	400	07/24/01		1340	93-142	W	Well #11		1	500 mL	ТŢ				
21072407-04	092	400	07/24/01		1450	99-150	W	Well #7		1	4L	l <sub>x</sub> l	T <sub>X</sub>			
21072407-04	092	400	07/24/01		1450	99-150	W	Well #7			500 mL	$\Pi_{\mathbf{x}}$				
21072407-05	093	400	07/24/01		1455	99-150	W	Well #6		- 1,	4 L	X	$T_{X}T$			
21072407-05	093	400	07/24/01		1455	99-160	W	Well#6		1	500 mL	ĺχ				
	M	ust be	one of the	samp	lers								1 1			
Transferred to :			R Metz				V Lettie	ri			·			<del></del>		
Signed by:			R Metz				V Lettie	ri								
Date/time	]		7/24/2001	144	7		7/24/200	1450			·				1	

# BROOKHAVEN NATIONAL LABORATORY RADIOLOGICAL CONTROL DIVISION Analytical Services Laboratory

### **RADIOLOGICAL REPORT**

Reviewed by:	Robert R. Gaschott	8/20/01
		*****

SAMPLE I.D.	ALPHA	ALPHA	BETA	BETA	TRITIUM	TRITIUM	N	IDL - uCi/mL		
NUMBER	uCi/mL	Error	uCi/mL	Error	uCi/mL	Error	Alpha	Beta	Tritium	
21072407-01	2.49E-09	7.04E-10	3.12E-09	1.50E-09	-2.15E-08	1.92E-07	8.27E-10	2.37E-09	3.00E-07	
21072407-02	1.50E-09	6.14E-10	1.54E-09	1.45E-09	1.37E-08	1.91E-07	8.27E-10	2.37E-09	3.00E-07	•
21072407-03	5.98E-10	5.13E-10	8.94E-10	1.43E-09	1.19E-07	1.97E-07	8.27E-10	2.37E-09	3.00E-07	****
21072407-04	9.45E-10	5.54E-10	5.30E-10	1.42E-09	-7.86E-08	1.88E-07	8.27E-10	2.37E-09	3.00E-07	1
21072407-05	4.35E-10	4.97E-10	-8.10E-10	1.37E-09	-3.64E-08	1.91E-07	8.27E-10	2.37E-09	3.00E-07	
		·								100 mg
										ie *
										194

## Brookhaven National Laboratory Radiological Control Division Analytical Services Laboratory

### **GAMMA RESULTS**

D. C. H. D. Levil D. Oanaball	0/40/04
Reviewed by: Robert R. Gaschott	8/10/01
	· · · · · · · · · · · · · · · · · · ·

	Nuclide	Activity	2-Sigma
Sample I.D.	Name	uCi/mL	% Error
21072407-01	There are no nuc	lides meeting sum	mary criteria
21072407-02	There are no nuc	lides meeting sum	mary criteria
21072407-03		lides meeting sum	
21072407-04	There are no nuc	lides meeting sum	
21072407-05	K-40	3.28E-08	67.12
			·
	·		

46282%

		72410 BB D		DQL		,	SAMPLING CH					Page c Carrier/Waybi	# 				_				Custod 5 8	
		Analysis Requested By	· · · · · ·				or Andrews 整意		Analytical Lal	borator	<b>y</b>	No. Marie		<del>, , , ,</del>	-,	<b>م</b>	Analysis	s Requ	rested			
Name		Lee		Name: ESI	2 fie	19	Sampling								Ì							
			«3148	Contact:			· · · · · · · · · · · · · · · · · · ·	Address:													ŀ	
Acct. 1	No:		ept: <b>E</b> S	Phone:				City:	St:	Z	ip:											
1	31	Email Reports To	D:	Email/Fax:	1015		10 14 1	Contact:					1			1	1		j			
1 2		DE		Sampler:	Certi	6./	· /B metz	Phone: Email/Fax:						1 1								
		Project Name:		21-21-15	Project M	anager;	V. Starte Hills	Aller of the Array	State Field En	ginger	i tree	namidater.						ipha				
	E_	heals			180	Cer									-			ific A				
Com	ments:	-									_		l ä			ا ء		Nuclide-specific Alpha				
	·		Sample Information	on .				, Add	trional Sample In	formerio	n .		Alpha/Beta	Tritium	Gamma	Strontium 524.2	ا ا	ilide	器   岩			
UID	TYP	Site ID/Bldg/Life #	Depth/RWP	Date	Time		Name/Description		ConcVoL/Units		N of Cont	Preservative	₹	įξ	₹ .	Stront 524.2	624	Ž	PCBs Metals	<u>:                                    </u>		
001	e	056-401	92-127	7/24/01	1326	W	mell #	-12	42	P	1	HNOZ			-\	X				T		
OCZ.	e	BD-1		7/24/01		W	- 1/1	eu#0564	- 41	P	1	HNOZ			ر ا	X				11		7-1
2005	1	056-400	93-142		1340	w	well #	11	42	P	,	HN03	+	1-1	ĺ	汁	+		-	+		+1
3	0	-62 4-3	95 150	2 1112		V		11 7	173		1		+-	++	-6	1	+	$\vdash \vdash$	-	+	_	+
704	e		99-150	14500	1730			<del>#1</del>	무슨	P	1	HMO3	-	$\vdash$		×	-	$\sqcup$		1-1		$\perp$
<del>2</del> 25	9	093-400	99-150	7/24/21	1422	w	We(1 #	= 6	47	P	1	4403		$\perp \downarrow$	_)	4		$\sqcup$				
										1												
										1				$\prod$		T				11		11
		<u> </u>								1			1-	11	$\neg$	+	+-	1-1		+-1		++
				<del></del>	<u> </u>	+				<del> </del>			+	+	$\dashv$		+	╂╼┼	+	+	-	+
					<u> </u>	<del></del>				<b>-</b>			_	1_1	$\dashv$			$\sqcup$				11
																T	T	$\prod$		7 7		$\top$
					†					+	-		+	+-+	$\dashv$	+	+	11	+	+-1		+-
	-					+				+-	-		+	-	$\dashv$	+	+	++	+	+	-+-	+
			<del></del>		<u> </u>	+					ļ			+	$\dashv$			$\perp \downarrow$	$\perp$	4-1	<del>                                     </del>	$\perp \perp \mid$
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Meeting today's needs with a vision for tomorrow.

### Certificate of Analysis

Company: Brookhaven National Laboratory

Address:

OER

Building 51M

Upton, New York 11973--5000

Contact:

Ms. Susan Young

Project:

Brookhaven ERD Contract

Report Date: August 22, 2001

1

Page

of

Time Batch Method

Potable Well # 12

Client Sample ID:

Sample ID:

Matrix:

Collect Date:

Receive Date:

Qualifier

Collector:

10581-001 46282001

Water

24-JUL-01 13:26

DL

26-JUL-01 09:30

Client

Project: Client ID:

BRKL02000 BRKL003

AnalystDate

COC:

COC: 10581 Samp Recv.: 10581

DF

Client Desc.: 056-401

	P	агал	neter
D.		Car	Elo-

GFPC, Sr90, liquid

Strontium-90

H 0.00967

Result

J-0 207

0.356

0.800

RL

pCi/L

Units

LOM1 08/17/01 0631 101937

The following Analytical Methods were performed

Method

Description

EPA 905.0

Analyst Comments

Notes:

1

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.

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.

Reviewed by

POBox 30712 \* Charleston, SC 29417 \* 2040 Savage Road \* 29407



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### Certificate of Analysis

Company: Brookhaven National Laboratory

Address:

OER

Building 51M

Upton, New York 11973-5000

Contact:

Ms. Susan Young

Project:

**Brookhaven ERD Contract** 

Result

Client Sample ID: Sample ID: Matrix:

Collect Date: Receive Date:

Qualifier

Collector:

10581-002 46282002

Water

24-JUL-01 00:00 26-JUL-01 09:30

DL

Client

Report Date: August 22, 2001

Page 1 of 1

Time Batch Method

**BRKL02000** 

BRKL003 Client ID: COC: 10581 Samp Recv.: 10581

Client Desc.:BD-1 AnalystDate

Parameter	
Rad Gas Flow	

GFPC, Sr90, liquid

Strontium-90

U -0.0537 +/-0.232

0.402

0.800

RI.

pCi/L

**Analyst Comments** 

Units

Proiect:

DF

LOMI 08/17/01 0631 101937

Potable Well # 12 Duplicate

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.

Presumptive evidence of the analyte at an estimated quantity. JN

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

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Reviewed by



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### Certificate of Analysis

Company:

Brookhaven National Laboratory

Address:

OER

**Building 51M** 

Upton, New York 11973-5000

Contact:

Ms. Susan Young

Sample ID:

Receive Date:

Collector:

Matrix: Collect Date:

Project:

Brookhaven ERD Contract

Client Sample ID:

10581-003

46282003 Water

24-JUL-01 13:40 26-JUL-01 09:30 Client

Report Date: August 22, 2001

**BRKL02000** 

BRKL003

Page 1 of 1

Client Desc.:056-400

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch !	Method
	• • • • • • • • • • • • • • • • • • • •									

Rad Gas Flow

GFPC, Sr90, liquid

Strontium-90

0.0225

+/-0.217

0.371

0.800

pCi/L

Project:

Client ID:

COC: 10581 Samp Recv.: 10581

LOM1 08/17/01 0630 101937 1

Potable Wew#11

The following Analytical Methods were performed

**Analyst Comments** Method Description **EPA 905.0** 1

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

Uncertain identification for gamma spectroscopy. UI

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Reviewed by



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### Certificate of Analysis

Company: Brookhaven National Laboratory

Address:

OER

Building 51M

Upton, New York 11973--5000

Contact:

Ms. Susan Young

Project:

Brookhaven ERD Contract

Client Sample ID:

Sample ID: Matrix:

Collect Date:

Receive Date: Collector:

10581-004

46282004 Water

24-JUL-01 14:50 26-JUL-01 09:30

Report Date: August 22, 2001

Page 1 of 1

Potable Well #7

BRKL02000 BRKL003 Client ID:

COC: 10581 Samp Recv.: 10581 Client Desc.: 092-400

Project:

			•	-III-III							
Parameter	Qualifier	Result	•	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Rad Gas Flow											
GFPC, Sr90, liquid											
Strontium-90	U	0.0881	+/-0.192	0.325	0.800	pCi/L		LOM1 08/17/01	0630	101937	1
The following Analyti	cal Methods were	performed									
Method	Description				Aı	nalyst Comm	ents				-
1	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.

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Undetected; sample result < MDA

UI Uncertain identification for gamma spectroscopy.

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

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Reviewed by



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### Certificate of Analysis

Company:

Brookhaven National Laboratory

Address:

OER

Building 51M Upton, New York 11973-5000

Contact:

Ms. Susan Young

Project:

Brookhaven ERD Contract

Client Sample ID: Sample ID:

Matrix:

Collect Date: Receive Date: Collector:

10581-005 46282005 Water

24-JUL-01 14:55 26-JUL-01 09:30 Client

Report Date: August 22, 2001

Page 1 of

BRKL02000 BRKL003

COC: 10581 Samp Recv.: 10581 Client Desc.: 093-400

Project:

COC:

Client ID:

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time Ba	atch Method
Rad Gas Flow GFPC, Sr90, liquid Strontium-90	U	0.161	+/-0.166	0.275	0.800	pCi/L		LOM1 08/17/0	1 0630 101	937 1
The following Analytics	al Methods were	performed								

Description Method

Analyst Comments

EPA 905.0

The Qualifiers in this report are defined as follows:

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Undetected: sample result < MDA U

UI Uncertain identification for gamma spectroscopy.

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

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Reviewed by

P O Box 30712 \* Charleston, SC 29417 \* 2040 Savage Road \* 29407