

May 7, 2002

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 April 2002

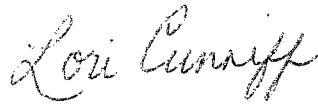
In accordance with the requirements of the BNL Potable Water System Sampling Plan and the 2002 SCDHS Minimum Monitoring Requirements for the BNL Potable Water Supply, included please find the following attachments for your records:

- Attachment I: BNL Potable Water Monthly Bacteriological and Operational Reports for April 2002.
- Attachment II: April 2002 Biweekly Water Quality Monitoring Data for the BNL Potable Water Wells and BNL Distribution System.
- Attachment III: 2002 First Quarter Radiological Analyses for the BNL Potable Water Wells.

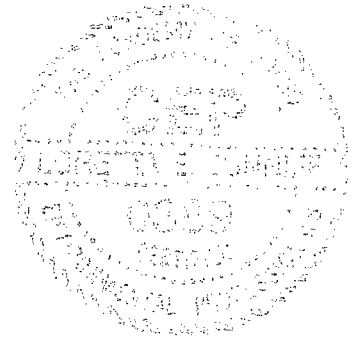
All analytical results have been reviewed and have been found to be within New York State Department of Health Drinking Water Standards (NYSDOH DWS). Collection and analysis of these samples are performed in accordance with the guidelines of the BNL Quality Assurance program, the SCDHS Community Water 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



LC/MA:rt
Attachments: As noted

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

EC61ER.02

ATTACHMENT I

**Brookhaven National Laboratory
Potable Water Supply**

**Monthly Bacteriological and Operational
Reports for April 2002**

BROOKHAVEN NATIONAL LABORATORY

WATER SYSTEMS OPERATION REPORT

PUBLIC WATER SUPPLY PROTECTION

PROGRAM CODE 169 STATION 11515100 SUFFOLK COUNTY REPORTING PERIOD: APRIL 2002

LOCATION: Water Treatment Facility

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

Source: Ground Water

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

Day of month	CHLORINATION				pH		Totalizer Daily Totalizer
	Treated Water	Liquid Sodium Hypochlorite	Free Cl ₂	Residual	Lime	Sodium Hydroxide	
	K Gals	Gallons	Cl ₂ use per 24hrs	mg/l			
1	2 225	125	20	0.6	7.5		12597794
2	703	120	5	0.58	7.5		12588487
3	886	110	10	0.73	7.5		12589373
4	810	100	10	0.66	7.6		12590183
5	690	95+105	5	0.51	7.6		12590873
6	0						
7	0						
8	1,753	183	17	0.88	7.6		12592626
9	566	180	3	1.2	7.6		12593192
10	565	173	7	1.3	7.6		12593757
11	510	170	3	0.85	7.5		12594267
12	545	164	6	0.92	7.5		12594812
13	0						
14	0						
15	1,574	150	14	0.38	7.4		12596396
16	601	146	4	1.1	7.5		12596987
17	768	138	9	1.1	7.4		12597755
18	828	130	8	0.89	7.6		12598583
19	1,056	123+77	7	0.9	7.6		12599639
20	0						
21	0						
22	2,534	179	21	0.75	6.8		12602173
23	27	179	0	0.57	7.6		12602200
24	786	170	9	0.5	7.5		12602986
25	757	162	8	0.65	7.7		12603743
26	695	155	7	0.6	8.1		12604438
27	0						
28	0						
29	678	153	2	1	8		12605116
30	62	152	1	0.68	7.1		12605178
31	0						
TOT	19 619		175				
AVG.	653.97		5.83	No. Days:	30		

Population Served 3,500

Number of routine samples 4

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

Number of actual routine samples 7

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

If yes, check reason's below

____ Actual number of samples fewer than required

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

____ Failure to analyze repeat samples.

Does an MCL violation exist? YES _____ NO X

If yes, check reason(s) below

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

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

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

Reported by: JL. Ross

Date: 9-2-02

Title: Water Systems Supervisor

Certification No. NY0031941

BROOKHAVEN NATIONAL LABORATORY

WATER SYSTEMS OPERATION REPORT

PUBLIC WATER SUPPLY PROTECTION

PROGRAM CODE 169	STATION 11515100	SUFFOLK COUNTY	REPORTING PERIOD: APRIL* 2002
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LOCATION: WELL NO. 4

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

Source: Ground Water

Does the system have a chlorination waiver? YES NO

Day of month	CHLORINATION				pH		Totalizer Daily Totalizer
	Treated Water K Gals	Liquid Sodium Hypochlorite		Free Cl2 Residual mg/l	Lime	Totalizer	
		Gallons	Cl2 use per 24hrs		Sodium Hydroxide		
1	0	130	0	0.6	5.9	1479844	
2	0	130	0	0.15	5.9	1479844	
3	0	130	0	0.13	5.9	1479844	
4	0	130	0	0.04	5.8	1479844	
5	0	130	0	0.09	5.8	1479844	
6	0						
7	0						
8	0	130	0	0.03	5.8	1479844	
9	0	130	0	0.37	5.8	1479844	
10	0	130	0	0.06	5.8	1479844	
11	0	130	0	0.54	5.9	1479844	
12	0	130	0	0.37	5.9	1479844	
13	0						
14	0						
15	0	130	0	0.17	5.8	1479844	
16	0	130	0	0.02	5.8	1479844	
17	0	130	0	0.09	5.8	1479844	
18	0	130	0	0.01	5.8	1479844	
19	0	130	0	0.01	5.9	1479844	
20	0						
21	0						
22	0	130	0	NR	NR	1479844	
23	0	130	0	NR	NR	1479844	
24	0	130	0	NR	NR	1479844	
25	0	130	0	NR	NR	1479844	
26	0	130	0	NR	NR	1479844	
27	0						
28	0						
29	0	130	0	NR	NR	1479844	
30	0	130	0	NR	NR	1479844	
31	0						
TOT	0		0				
AVG.	0.00		0.00	No. Days:	31		

Population Served 3,500

Number of routine samples 4

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

Number of actual routine samples 7

Does a M&AR violation exist? YES NO

If yes, check reason's below.

Actual number of samples fewer than required.

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

Failure to analyze repeat samples.

Does an MCL violation exist? YES NO

If yes, check reason(s) below.

Two or more positive total coliform samples for systems collecting 40 or more samples (routine, repeat or h/turb) 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 *Al Hess*

Date: 5-2-02

Title: Water Systems Supervisor

Certification No. NY0031941

BROOKHAVEN NATIONAL LABORATORY

WATER SYSTEMS OPERATION REPORT

PUBLIC WATER SUPPLY PROTECTION

PROGRAM CODE 169 STATION 11515100 SUFFOLK COUNTY REPORTING PERIOD: APRIL * 2002

LOCATION: WELL NO. 6

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

Source: Ground Water

Does the system have a chlorination waiver? YES _____ NO

Day of month	CHLORINATION			pH		Totalizer Daily Totalizer
	Treated Water K Gals	Liquid Sodium Hypochlorite		Free Cl ₂ Residual mg/l	Lime Sodium Hydroxide	
		Gallons	Cl ₂ use per 24hrs			
1	1,137	147	22	0.6	5.9	318376
2	284	140	7	0.15	5.9	318660
3	534	130+65	10	0.13	5.9	319194
4	475	190	5	0.04	5.8	319669
5	279	180	10	0.09	5.8	319948
6	0					
7	0					
8	607	170	10	0.03	5.8	320555
9	233	165	5	0.37	5.8	320788
10	113	160	5	0.06	5.8	320901
11	48	160	0	0.54	5.9	320949
12	153	160	0	0.37	5.9	321102
13	0					
14	0					
15	426	150	10	0.17	5.8	321528
16	144	148	2	0.02	5.8	321672
17	19	148	0	0.09	5.8	321691
18	53	145	3	0.01	5.8	321744
19	353	135+65	9	0.01	5.9	322097
20	0					
21	0					
22	942	187	13	NR	NR	323039
23	0	187	0	0.06	6.4	323039
24	139	181	6	0.11	6	323178
25	190	180+20	1	1.4	5.9	323368
26	267	198	2	1.3	6	323635
27	0					
28	0					
29	0	198	0	NR	NR	323635
30	61	197	*	NR	NR	323696
31	0					
TOT	6,457		121			
AVG.	208.29		3.90	No. Days	31	

Population Served 3,500

Number of routine samples 4

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

Number of actual routine samples 7

Does a M&AR violation exist? YES _____ NO

If yes, check reason's below.

_____ Actual number of samples fewer than required

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

_____ Failure to analyze repeat samples.

Does an MCL violation exist? YES _____ NO

If yes, check reason(s) below.

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

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

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

Reported by: *[Signature]*

Date: 5-2-02

Title: Water Systems Supervisor

Certification No. NY0031941

BROOKHAVEN NATIONAL LABORATORY

WATER SYSTEMS OPERATION REPORT

PUBLIC WATER SUPPLY PROTECTION

PROGRAM CODE 169 STATION 11515100 SUFFOLK COUNTY REPORTING PERIOD: APRIL, 2002

LOCATION: WELL NO. 7

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

Source: Ground Water

Does the system have a chlorination waiver? YES _____ NO

Day of month	CHLORINATION				pH		Totalizer Daily Totalizer
	Treated Water K Gals	Liquid Sodium Hypochlorite		Free Cl2 Residual mg/l	Lime	Sodium Hydroxide	
		Gallons	Cl2 use per 24hrs		Sodium		
1	2,700	163	28	0.6	5.9	778884	
2	901	155	8	0.15	5.9	779785	
3	947	145+55	10	0.13	5.9	780732	
4	942	190	10	0.04	5.8	781674	
5	816	180	10	0.09	5.8	782490	
6	0						
7	0						
8	2,289	155	25	0.03	5.8	784779	
9	715	145	10	0.37	5.8	785494	
10	879	140	5	0.06	5.8	786373	
11	563	130	10	0.54	5.9	786936	
12	756	120+80	10	0.37	5.9	787692	
13	0						
14	0						
15	2,057	180	20	0.17	5.8	789749	
16	998	171	9	0.02	5.8	790747	
17	1,037	162	9	0.09	5.8	791784	
18	1,078	153	9	0.01	5.8	792862	
19	1,160	143+57	10	0.01	5.9	794022	
20	0						
21	0						
22	2,489	196	4	NR	NR	796511	
23	5	196	0	0.06	6.4	796516	
24	965	196	0	0.11	6	797481	
25	1,071	172+30	24	1.4	5.9	798552	
26	961	182	20	1.3	6	799513	
27	0						
28	0						
29	1,057	160	22	NR	NR	800570	
30	63	160	0	NR	NR	800633	
31	0						
TOT	24,449		253				
AVG	788.68		8.16	No. Days:	31		

Population Served 3,500

Number of routine samples 4
 (Must collect a minimum of 5 routine samples the month following a repeat sample collection)

Number of actual routine samples 7

Does a M&AR violation exist? YES _____ NO

If yes, check reason's below.

_____ Actual number of samples fewer than required.

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

_____ Failure to analyze repeat samples.

Does an MCL violation exist? YES _____ NO

If yes, check reason(s) below.

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

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

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

Reported by: *J.D. Ross*

Date: 5-2-02

Title: Water Systems Supervisor

Certification No. NY0031941

BROOKHAVEN NATIONAL LABORATORY

WATER SYSTEMS OPERATION REPORT

PUBLIC WATER SUPPLY PROTECTION

PROGRAM CODE 169 STATION 11515100 SUFFOLK COUNTY REPORTING PERIOD: APRIL 2002

LOCATION: WELL NO. 10

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

Source: Ground Water

Does the system have a chlorination waiver? YES _____ NO

Day of month	CHLORINATION				pH		Totalizer Daily Totalizer 764327
	Treated Water K Gals	Liquid Sodium Hypochlorite		Free Cl2 Residual mg/l	Lime Sodium Hydroxide		
		Gallons	Cl2 use per 24hrs		_____	_____	
1	0	58	0	NR	NR	764327	
2	0	58	0	NR	NR	764327	
3	0	58	0	NR	NR	764327	
4	0	58	0	NR	NR	764327	
5	0	58	0	NR	NR	764327	
6	0						
7	0						
8	0	58	0	NR	NR	764327	
9	0	58	0	NR	NR	764327	
10	0	58	0	NR	NR	764327	
11	0	58	0	NR	NR	764327	
12	0	58	0	NR	NR	764327	
13	0						
14	0						
15	0	58	0	NR	NR	764327	
16	0	58	0	NR	NR	764327	
17	0	58	0	NR	NR	764327	
18	0	58	0	NR	NR	764327	
19	0	58	0	NR	NR	764327	
20	0						
21	0						
22	0	58	0	NR	NR	764327	
23	0	58	0	NR	NR	764327	
24	0	58	0	NR	NR	764327	
25	0	58	0	NR	NR	764327	
26	0	58	0	NR	NR	764327	
27	0						
28	0						
29	0	58	0	NR	NR	764327	
30	0	58	0	NR	NR	764327	
31	0						
TOT	0		0				
AVG.	0.00		0.00	No Days:	31		

Population Served 3,500

Number of routine samples 4

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

Number of actual routine samples 7

Does a M&AR violation exist? YES _____ NO

If yes, check reason's below

_____ Actual number of samples fewer than required

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

_____ Failure to analyze repeat samples.

Does an MCL violation exist? YES _____ NO

If yes check reason(s) below.

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

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

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

Reported by: *Joe Rossi*

Date: 5-2-02

Title: Water Systems Supervisor

Certification No. NY0031941

BROOKHAVEN NATIONAL LABORATORY

WATER SYSTEMS OPERATION REPORT

PUBLIC WATER SUPPLY PROTECTION

PROGRAM CODE 169 STATION 11515100 SUFFOLK COUNTY REPORTING PERIOD: APRIL 2002

LOCATION: WELL NO. 11

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

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

Day of month	CHLORINATION				pH		Totalizer Daily Totalizer
	Treated Water	Liquid Sodium Hypochlorite		Free Cl ₂ Residual	Lime Sodium Hydroxide		
		K Gals	Gallons		Cl ₂ use per 24hrs	mg/l	
1	223	193	2	0.28	7.3	400572	
2	85	193	0	NR	NR	400657	
3	49	193	0	NR	NR	400706	
4	95	192	1	0.35	7.5	400801	
5	850	188	4	0.65	7	401651	
6	0						
7	0						
8	121	187	2	0.32	5.6	401772	
9	221	186	1	0.31	5.9	401993	
10	415	184	2	0.37	5.8	402408	
11	465	181	3	0.32	5.8	402873	
12	386	179	2	NR	NR	403259	
13	0						
14	0						
15	2,160	175	4	NR	NR	405419	
16	736	172	3	0.72	6.9	406155	
17	418	170	1	0.35	6.9	406573	
18	317	168	2	NR	NR	406890	
19	347	165+35	3	0.4	6.8	407237	
20	0						
21	0						
22	0	189	11	0.64	6.1	407237	
23	666	178	12	0.91	5.8	407903	
24	997	161	17	0.67	7	408900	
25	993	146+52	13	0.92	6.5	409893	
26	996	181	19	0.64	7.2	410889	
27	0						
28	0						
29	4,238	119	62	0.67	6.5	415127	
30	1,596	111	8	0.16	6.8	416723	
31	0						
TOT	16,374		172				
AVG	528.19		5.55	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? YES _____ NO

If yes, check reason(s) below

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

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

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

Reported by: [Signature]

Date: 5-2-02

Title: Water Systems Supervisor

Certification No. NY0031941

BROOKHAVEN NATIONAL LABORATORY

WATER SYSTEMS OPERATION REPORT

PUBLIC WATER SUPPLY PROTECTION

PROGRAM CODE 169 STATION 11515100 SUFFOLK COUNTY REPORTING PERIOD: APRIL 2002

LOCATION: WELL NO. 12

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

Source: Ground Water

Does the system have a chlorination waiver? YES _____ NO

Day of month	CHLORINATION				pH		Totalizer Daily Totalizer 459015
	Treated Water K Gals	Liquid Sodium Hypochlorite		Free Cl2 Residual mg/l	Lime Sodium Hydroxide		
		Gallons	Cl2 use per 24hrs				
1	2,566	92	3	0.77	7.5	461581	
2	812	90	2	0.84	7.5	462393	
3	1,020	80+60	10	0.7	7.5	463413	
4	931	140	5	1	7.7	464344	
5	303	130	10	0.9	7.7	464647	
6	0						
7	0						
8	2,005	120	10	0.9	8.2	466652	
9	658	119	1	0.76	3.5	467310	
10	646	110	9	0.8	8.3	467956	
11	565	110	0	0.91	8.7	468521	
12	601	105+95	5	0.93	8.5	469122	
13	0						
14	0						
15	1,869	190	10	0.67	8.6	470991	
16	688	185	5	0.65	8.9	471679	
17	877	180	5	0.65	8.8	472556	
18	943	174	6	0.6	8.5	473499	
19	1,137	169	5	0.78	7.6	474636	
20	0						
21	0						
22	2,719	152	17	0.93	6.3	477355	
23	1,445	148	4	0.79	6.3	478800	
24	0	148	0	NR	NR	478800	
25	3	147+33	1	1	6.7	478803	
26	4	180	0	1.7	6.7	478807	
27	0						
28	0						
29	521	179	1	1.1	6.6	479328	
30	430	177	2	0.6	7.1	479758	
31	0						
TOT	20,743		116				
AVG	669.13		3.74	No Days:	31		

Population Served 3,500

Number of routine samples 4
 (Must collect a minimum of 5 routine samples the month following
 a repeat sample collection)

Number of actual routine samples 2

Does a M&AR violation exist? YES _____ NO

If yes, check reason's below.

_____ Actual number of samples fewer than required

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

_____ Failure to analyze repeat samples

Does an MCL violation exist? YES _____ NO

If yes, check reason(s) below.

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

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

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

Reported by: *J.L. Smith*

Date: 5-2-02

Title: Water Systems Supervisor

Certification No. NY0031941

4/30/02
Pump Data

MONTHLY GALLONAGE REPORT
2002 APRIL

Date	Well 4	Well 6	Well 7	Well10	Well11	Well12	Daily Total
1	0	1,137	2,700	0	223	2,566	6,626
2	0	284	901	0	85	812	2,082
3	0	534	947	0	49	1,020	2,550
4	0	475	942	0	95	931	2,443
5	0	279	816	0	850	303	2,248
6	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0
8	0	607	2,289	0	121	2,005	5,022
9	0	233	715	0	221	658	1,827
10	0	113	879	0	415	646	2,053
11	0	48	563	0	465	565	1,641
12	0	153	756	0	386	601	1,896
13	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0
15	0	426	2,057	0	2,160	1,869	6,512
16	0	144	998	0	736	688	2,566
17	0	19	1,037	0	418	877	2,351
18	0	53	1,078	0	317	943	2,391
19	0	353	1,160	0	347	1,137	2,997
20	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0
22	0	942	2,489	0	0	2,719	6,150
23	0	0	5	0	666	1,445	2,116
24	0	139	965	0	997	0	2,101
25	0	190	1,071	0	993	3	2,257
26	0	267	961	0	996	4	2,228
27	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0
29	0	0	1,057	0	4,238	521	5,816
30	0	61	63	0	1,596	430	2,150
31	0	0	0	0	0	0	0
Total	0	6,457	24,449	0	16,374	20,743	68,023
			Totalizer This Month		Totalizer Last Month		Total(x1,000) Gallons
	Well 4		1,479,844		1,479,844		0
	Well 6		323,696		317,239		6,457
	Well 7		800,633		776,184		24,449
	Well 10		764,327		764,327		0
	Well 11		416,723		400,349		16,374
	Well 12		479,758		459,015		20,743
AGS Water Supply Meter			368,852		357,323		11529.00
Medical Reactor - Well 105			0		0		0.00
Biology Building - Well 9			6,378,030		6,351,800		26.23

H2M LABS, INC.

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 : TONY ROSS

Federal ID 5111891

Collected : 4/4/2002 8:50:00 AM

Received : 4/4/2002 3:10:00 PM

Collected By : RL99

Copies To : TONY ROSS

Point No : 094-273

Location : B-49 WATER TOWER

LABORATORY RESULTS

Lab No. : 0204190-001A

Sample Information...

Type : Potable Water

Origin : Dist.

Routine

Client ID. : 11402-001

Parameter(s)	Results	Units	Limit	Method Number	Analyzed
Total Coliform	Negative		Negative	M9223	4/4/2002 5:30:00 PM
E_Coliform	Absent		Absent	M9223	4/4/2002 5:30:00 PM
Total Residual Chlorine	0.6	mg/L		M4500-Cl G	4/4/2002

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

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

Date Reported:

H2M LABS, INC.

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 : TONY ROSS

Federal ID 5111891

Collected : 4/4/2002 9:00:00 AM

Received : 4/4/2002 3:10:00 PM

Collected By : RL99

Copies To : TONY ROSS

LABORATORY RESULTS

Lab No. : 0204190-002A

Sample Information...

Type : Potable Water

Origin : Dist.

Routine

Client ID. : 11402-002

Point No : 076-408

Location : B-640 WATER TOWER

<u>Parameter(s)</u>	<u>Results</u>	<u>Units</u>	<u>Limit</u>	<u>Method Number</u>	<u>Analyzed</u>
Total Coliform	Negative		Negative	M9223	4/4/2002 5:30:00 PM
E_Coliform	Absent		Absent	M9223	4/4/2002 5:30:00 PM
Total Residual Chlorine	0.6	mg/L		M4500-Cl G	4/4/2002

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

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

CONFIDENTIAL

H2M LABS, INC.

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 : TONY ROSS

Federal ID 5111891

Collected : 4/4/2002 9:10:00 AM

Point No : 045-12

Received : 4/4/2002 3:10:00 PM

Location : B-1005 RHIC

Collected By : RL99

Copies To : TONY ROSS

LABORATORY RESULTS

Lab No. : 0204190-003A

Sample Information...

Type : Potable Water

Origin : Dist.

Routine

Client ID. : 11402-003

Parameter(s)	Results	Units	Limit	Method Number	Analyzed
Total Coliform	Negative		Negative	M9223	4/4/2002 5:30:00 PM
E_Coliform	Absent		Absent	M9223	4/4/2002 5:30:00 PM
Total Residual Chlorine	0.6	mg/L		M4500-Cl G	4/4/2002

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

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

Date Reported :

H2M LABS, INC.

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 : TONY ROSS

Federal ID 5111891

Collected : 4/4/2002 10:05:00 AM

Received : 4/4/2002 3:10:00 PM

Collected By : RL99

Copies To : TONY ROSS

Point No : 109-19

Location : B-363 APT.LAUNDRY

LABORATORY RESULTS

Lab No. : 0204190-004A

Client ID : 11402-004

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

<u>Parameter(s)</u>	<u>Results</u>	<u>Units</u>	<u>Limit</u>	<u>Method Number</u>	<u>Analyzed</u>
Total Coliform	Negative		Negative	M9223	4/4/2002 5:30:00 PM
E_Coliform	Absent		Absent	M9223	4/4/2002 5:30:00 PM
Total Residual Chlorine	.07	mg/L		M4500-Cl G	4/4/2002

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

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

Date Reported:

H2M LABS, INC.

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

LABORATORY RESULTS

BROOKHAVEN NATIONAL LAB.-BNLM
 70 BELL AVE.

UPTON, NY 11973

Attn To : TONY ROSS

Lab No. : 0204190-005A

Sample Information...

Type : Potable Water

Origin : Dist.

Routine

Client ID. : 11402-005

Federal ID 5111891

Collected : 4/4/2002 9:20:00 AM

Point No : 075-602

Received : 4/4/2002 3:10:00 PM

Location : B-725 NSLS

Collected By : RL99

Coplas To : TONY ROSS

Parameter(s)	Results	Units	Limit	Method Number	Analyzed
Total Coliform	Negative		Negative	M9223	4/4/2002 5:30:00 PM
E_Coliform	Absent		Absent	M9223	4/4/2002 5:30:00 PM
Total Residual Chlorine	0.6	mg/L		M4500-Cl G	4/4/2002

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

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

PRELIMINARY

Date Reported :

H2M LABS, INC.

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 : TONY ROSS

Federal ID 5111891

Collected : 4/4/2002 10:20:00 AM

Point No : 084-69

Received : 4/4/2002 3:10:00 PM

Location : B-490 BLOCK 1 AFC

Collected By : RL99

Copies To : TONY ROSS

LABORATORY RESULTS

Lab No. : 0204190-006A

Sample Information...

Type : Potable Water

Origin : Dist.

Routine

Client ID. : 11402-006

<u>Parameter(s)</u>	<u>Results</u>	<u>Units</u>	<u>Limit</u>	<u>Method Number</u>	<u>Analyzed</u>
Total Coliform	Negative		Negative	M9223	4/4/2002 5:30:00 PM
E_Coliform	Absent		Absent	M9223	4/4/2002 5:30:00 PM
Total Residual Chlorine	0.8	mg/L		M4500-Cl G	4/4/2002

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

Date Reported :

H2M LABS, INC.

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

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

Federal ID 5111891
 Collected : 4/4/2002 10:25:00 AM
 Received : 4/4/2002 3:10:00 PM
 Collected By : RL99
 Copies To : TONY ROSS

Point No : 084-68
 Location : B-490 BLOCK 4 MRC

Client ID. : 11402-007

LABORATORY RESULTS

Lab No. : 0204190-007A

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

Parameter(s)	Results	Units	Limit	Method Number	Analyzed
Total Coliform	Negative		Negative	M9223	4/4/2002 5:30:00 PM
E_Coliform	Absent		Absent	M9223	4/4/2002 5:30:00 PM
Total Residual Chlorine	0.8	mg/L		M4500-Cl G	4/4/2002

ATTACHMENT II

**Brookhaven National Laboratory
Potable Water Supply**

**April 2002 Biweekly Water Quality Monitoring Data for
the BNL Potable Water Wells and
the BNL Distribution System**

Attachment II
Table 1
Summary of Water Quality Analyses
for the BNL Potable Water System
April 2002

Sample Location	Sample Date	pH (SU)	Temperature (Degrees F)	Conductivity (µmhos)	Alkalinity (mg/L)	Calcium (mg/L)
WTP	4/2/02	7.5	53	134	NR	NR
WTP	4/4/02	7.6	54	137	NR	NR
WTP	4/9/02	7.6	53	140	NR	NR
WTP	4/11/02	7.6	53	140	NR	NR
WTP	4/16/02	7.5	57	136	NR	NR
WTP	4/18/02	7.6	57	163	NR	NR
WTP	4/23/02	7.6	55	150	NR	NR
WTP	4/25/02	7.8	55	154	NR	NR
WTP	4/29/02	7.1	57	191	NR	NR
Well 11	4/2/02	NR	NR	175	NR	NR
Well 11	4/4/02	7.5	56	185	NR	NR
Well 11	4/9/02	5.9	54	187	NR	NR
Well 11	4/11/02	5.9	56	188	NR	NR
Well 11	4/16/02	6.9	55	208	NR	NR
Well 11	4/18/02	NR	NR	NR	NR	NR
Well 11	4/23/02	5.8	54	171	NR	NR
Well 11	4/25/02	6.5	55	198	NR	NR
Well 11	4/29/02	6.8	55	199	NR	NR
Well 12	4/2/02	7.5	56	178	NR	NR
Well 12	4/4/02	7.7	56	167	NR	NR
Well 12	4/9/02	8.5	55	176	NR	NR
Well 12	4/11/02	8.7	56	175	NR	NR
Well 12	4/16/02	8.9	56	246	NR	NR
Well 12	4/18/02	8.5	56	170	NR	NR
Well 12	4/23/02	6.3	56	145	NR	NR
Well 12	4/25/02	6.7	56	197	NR	NR
Well 12	4/29/02	7.1	56	158	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**

**2002 First Quarter Radiological Analyses
for the BNL Potable Water Wells**

ATTACHMENT III
Table 2
Brookhaven National Laboratory
Potable Water Supply

Summary of Radiological Results for the BNL Potable Water Wells 2002 First Quarter Monitoring Results				
Well ID	Gross Alpha pCi/L	Gross Beta pCi/L	Tritium pCi/L	Sr-90 pCi/L
Well # 6	1.03	< 2.15	< 287	< 0.85
Well # 7	1.07	< 2.15	< 287	< 0.74
Well # 11	0.43	< 2.15	< 287	< 0.86
Well # 12	0.94	< 2.15	< 287	< 0.77
Well # 7 (Duplicate)	0.95	< 2.15	< 287	< 0.99

ASL C.O.C. No:

22012408

BROOKHAVEN NATIONAL LABORATORY

RADIOLOGICAL CONTROL DIVISION

ERD COC No.: **12011**

Contractor Number

ANALYTICAL SERVICES LABORATORY

BLDG 490

UPTON, N.Y. 11973-5000

Ship to: _____

Pick Up by: _____

Attention: _____

Page 1 of 1

Chain of Custody Information

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

Project Name: F Wells		E-Mail Reports to: D Paquette		SAMPLER: R Metz		Priority Authorization	
Requested by: D Paquette				SAMPLER: L Lettieri		Group Leader or Higher CALL	
Life Number: 14314 x7046				SAMPLER:		x3630, x2502 (Rad), x4860 (Non-Rad)	
Account No.: 07089 Dept. Code: ES							
***OTHER ANALYSIS NOT LISTED				COMMENTS			

ASL Number	Sample Description								Container		Analysis Requested***									
	Grid	-ID	Date	-C	Time	Depth	Matrix		#	vol.	αβ	3H	γ	Sr90	MET	WQ	VOA	PCB	pH	
22012408-01	093	400	01/24/02		1350	99-150	W	Well #6	1	4.5 L	X	X	X							
22012408-02	092	400	01/24/02		1341	99-150	W	Well #7	1	4.5 L	X	X	X							
22012408-03	56	400	01/24/02		1405	93-142	W	Well #11	1	4.5 L	X	X	X							
22012408-04	56	401	01/24/02		1400	92-137	W	Well #12	1	4.5 L	X	X	X							
22012408-05	BD-1	n/a	01/24/02		n/a	n/a	W	BD-1 - Well #7 (092-400) duplicate	1	4.5 L	X	X	X							

Must be one of the samplers ↓

Transferred to :	R Metz	V Lettieri		
Signed by:	R Metz	V Lettieri		
Date/time	1/24/2002 1510	1/24/2002 1515		

22012406

55174

12012

SAMPLING CHART OF CUSTODY

Analysis Requested By Name: <u>D. Paquette</u> Life ID: <u>14314</u> Est: <u>7046</u> Acct ID: <u>07089</u> Dept: <u>ES</u> Email Reports To: <u>D. Paquette</u>		Sampling Contractor Name: <u>ESD Field Sampling</u> Contact: Phone: Email Fax: Sampler: <u>R. Metz C. Lettieri</u>		Analytical Laboratory Name: <u>GEL</u> Address: City: St: Zip: Contact: Phone: Email Fax:	
Project Name: <u>E. Wells (Potable)</u> Comments: <u>55174?</u>		Project Manager: <u>D. Paquette</u>		Field Engineer:	

Analysis Requested									
Alpha-Beta	Tritium	Gamma	Strontium	137Cs	624	Nuclide-specific Inerts	PCBs	Metals	
			X						
			X						
			X						
			X						
			X						

UID	TYP	Site ID/Well ID #	Sample Information		Date	Time	Plate	Plate Description	Additional Sample Information			Preservative
			Depth P.V.P.						Count Unit	Vol	Flow	
001	e	093-400	99-150		1/24/02	1350	w	well # 6	4L	P	1	HNO3
002	e	092-400	99-150		1/24/02	1341	w	well # 7	4L	P	1	HNO3
003	e	056-400	93-142		1/24/02	1405	w	well # 11	4L	P	1	HNO3
004	e	056-400	92-137		1/24/02	1400	w	well # 12	4L	P	1	HNO3
005	e	BD-1			1/24/02		w	BD-1	4L	P	1	HNO3

1 Relinquished By/Date/Time Print: <u>R. Metz</u> <u>1/24/02</u> Signature: <u>[Signature]</u> <u>1435</u>	2 Relinquished By/Date/Time Print: Signature:	3 Relinquished By/Date/Time Print: Signature:
1 Received By/Date/Time Print: Signature:	2 Received By/Date/Time Print: Signature:	3 Received By/Date/Time Print: <u>T. Thomas W. Cook</u> <u>25/02-02</u> Signature: <u>[Signature]</u> <u>930</u>

Contractor Lab Sample Disposal:

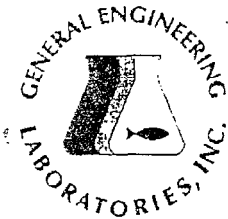
Return To Client Disposal by Lab

Archive For _____ Months

Turn-Around Time Required:

Rush (1 Day) 14 Days 30 Days

7 Days Other ()



GENERAL ENGINEERING LABORATORIES

Meeting today's needs with a vision for tomorrow.

Certificate of Analysis

Company : Brookhaven National Laboratory
Address : Bell Avenue and Building 490
Upton, New York 11973

Report Date: February 19, 2002

Contact: Sal Scarpitta
Project: ESD Contract w/EDD

Page 1 of 1

Client Sample ID:	12012-001	Project:	BRKL00101
Sample ID:	55174001	Client ID:	BRKL002
Matrix:	Water	COC:	12012
Collect Date:	24-JAN-02 13:50	Sampl Recv.:	12012
Receive Date:	25-JAN-02 09:30	Client Desc.:	093-400
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow											
GFPC, Sr90, liquid											
Strontium-90	U	0.241 +/-0.396	0.847	1.00	pCi/L	RDD	01/31/02	2130	132925	1	

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 905.0 Modified	

Notes:

The Qualifiers in this report are defined as follows :

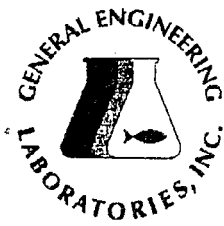
- DL Failed required detection limit.
- J Estimated value; the result was greater than the MDA but less than the required detection limit.
- JN Presumptive evidence of the analyte at an estimated quantity.
- R The data are unusable (radionuclide may or may not be present).
- U Undetected; sample result < 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.

Reviewed by

Well # 6



GENERAL ENGINEERING LABORATORIES

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Certificate of Analysis

Company : Brookhaven National Laboratory
Address : Bell Avenue and Building 490
Upton, New York 11973

Contact: Sal Scarpitta
Project: ESD Contract w/EDD

Report Date: February 19, 2002

Page 1 of 1

Client Sample ID: 12012-002
Sample ID: 55174002
Matrix: Water
Collect Date: 24-JAN-02 13:41
Receive Date: 25-JAN-02 09:30
Collector: Client

Project: BRKL00101
Client ID: BRKL002
COC: 12012
Samp Recv.: 12012
Client Desc.: 092-400

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Rad Gas Flow										
GFPC, Sr90, liquid										
Strontium-90	U	-0.0185	+/-0.324	0.738	1.00	pCi/L	RDD 01/31/02	2130	132925	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 905.0 Modified	

Notes:

The Qualifiers in this report are defined as follows :

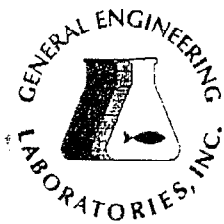
- DL Failed required detection limit.
- J Estimated value; the result was greater than the MDA but less than the required detection limit.
- JN Presumptive evidence of the analyte at an estimated quantity.
- R The data are unusable (radionuclide may or may not be present).
- U Undetected; sample result < 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.

Valerie Davis

Reviewed by



GENERAL ENGINEERING LABORATORIES

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Certificate of Analysis

Company : Brookhaven National Laboratory
 Address : Bell Avenue and Building 490
 Upton, New York 11973

Report Date: February 19, 2002

Contact: Sal Scarpitta
 Project: ESD Contract w/EDD

Page 1 of 1

Client Sample ID: 12012-003
 Sample ID: 55174003
 Matrix: Water
 Collect Date: 24-JAN-02 14:05
 Receive Date: 25-JAN-02 09:30
 Collector: Client

Project: BRKL00101
 Client ID: BRKL002
 COC: 12012
 Samp Recv.: 12012
 Client Desc.: 056-400

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Rad Gas Flow										
GFPC, Sr90, liquid										
Strontium-90	U	-0.198 +/-0.366	0.857	1.00	pCi/L		RDD 01/31/02	2130	132925	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 905.0 Modified	

Notes:

The Qualifiers in this report are defined as follows :

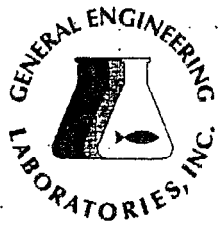
- DL Failed required detection limit.
- J Estimated value; the result was greater than the MDA but less than the required detection limit.
- JN Presumptive evidence of the analyte at an estimated quantity.
- R The data are unusable (radionuclide may or may not be present).
- U Undetected; sample result < 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.

M. Nune

Reviewed by



GENERAL ENGINEERING LABORATORIES

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Certificate of Analysis

Company : Brookhaven National Laboratory
Address : Bell Avenue and Building 490
Upton, New York 11973

Report Date: February 19, 2002

Contact: Sal Scarpitta
Project: ESD Contract w/EDD

Page 1 of 1

Client Sample ID: 12012-004
Sample ID: 55174004
Matrix: Water
Collect Date: 24-JAN-02 14:00
Receive Date: 25-JAN-02 09:30
Collector: Client

Project: BRKL00101
Client ID: BRKL002
COC: 12012
Samp Recv.: 12012
Client Desc.: 056-401

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Rad Gas Flow										
GFPC, Sr90, liquid										
Strontium-90	U	0.00756	+/-0.344	0.771	1.00	pCi/L	RDD 01/31/02	2130	132925	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 905.0 Modified	

Notes:

The Qualifiers in this report are defined as follows :

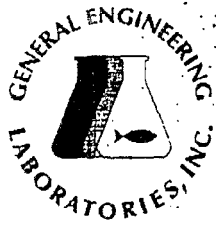
- DL Failed required detection limit.
- J Estimated value; the result was greater than the MDA but less than the required detection limit.
- JN Presumptive evidence of the analyte at an estimated quantity.
- R The data are unusable (radionuclide may or may not be present).
- U Undetected; sample result < 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.

in name

Reviewed by



GENERAL ENGINEERING LABORATORIES

Meeting today's needs with a vision for tomorrow.

Certificate of Analysis

Company : Brookhaven National Laboratory
Address : Bell Avenue and Building 490
Upton, New York 11973

Report Date: February 19, 2002

Contact: Sal Scarpitta
Project: ESD Contract w/EDD

Page 1 of 1

Client Sample ID: 12012-005
Sample ID: 55174005
Matrix: Water
Collect Date: 24-JAN-02 12:00
Receive Date: 25-JAN-02 09:30
Collector: Client

Project: BRKL00101
Client ID: BRKL002
COC: 12012
Samp Recv.: 12012
Client Desc.: BD-1

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Rad Gas Flow										
GFPC, Sr90, liquid										
Strontium-90	U	0.322 +/-0.468	0.994	1.00	pCi/L	RDD	01/31/02	2130	132925	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 905.0 Modified	

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.
- 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.

Reviewed by

Well #7 - Duplicate