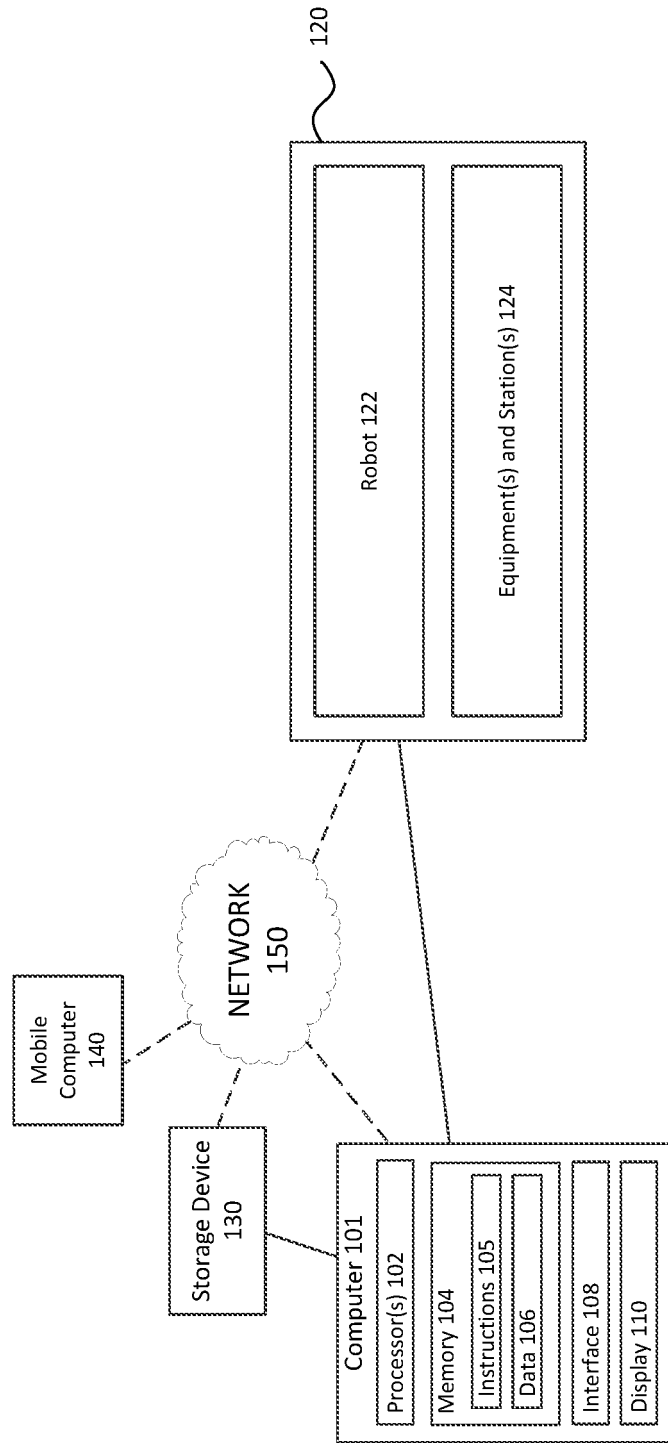
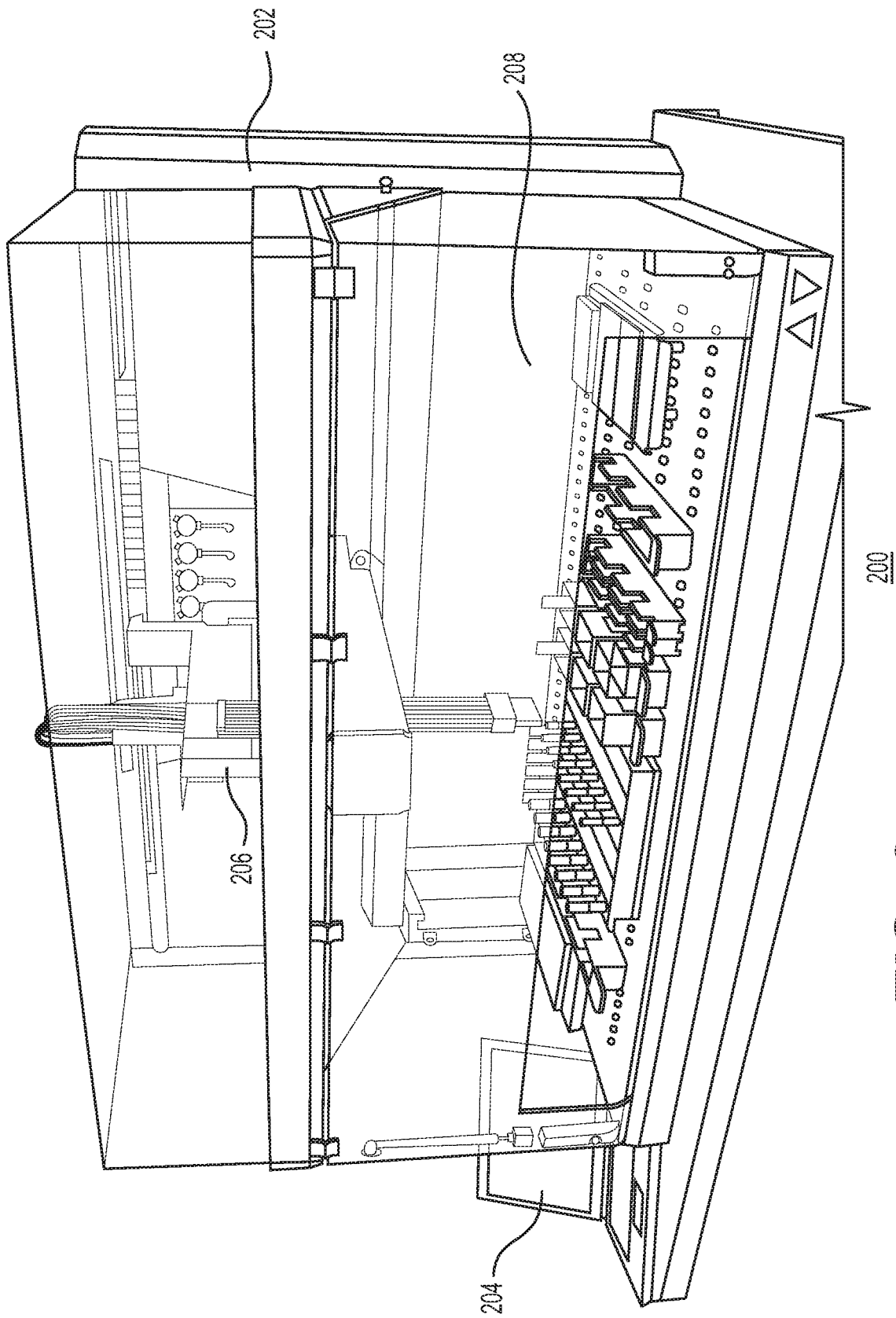
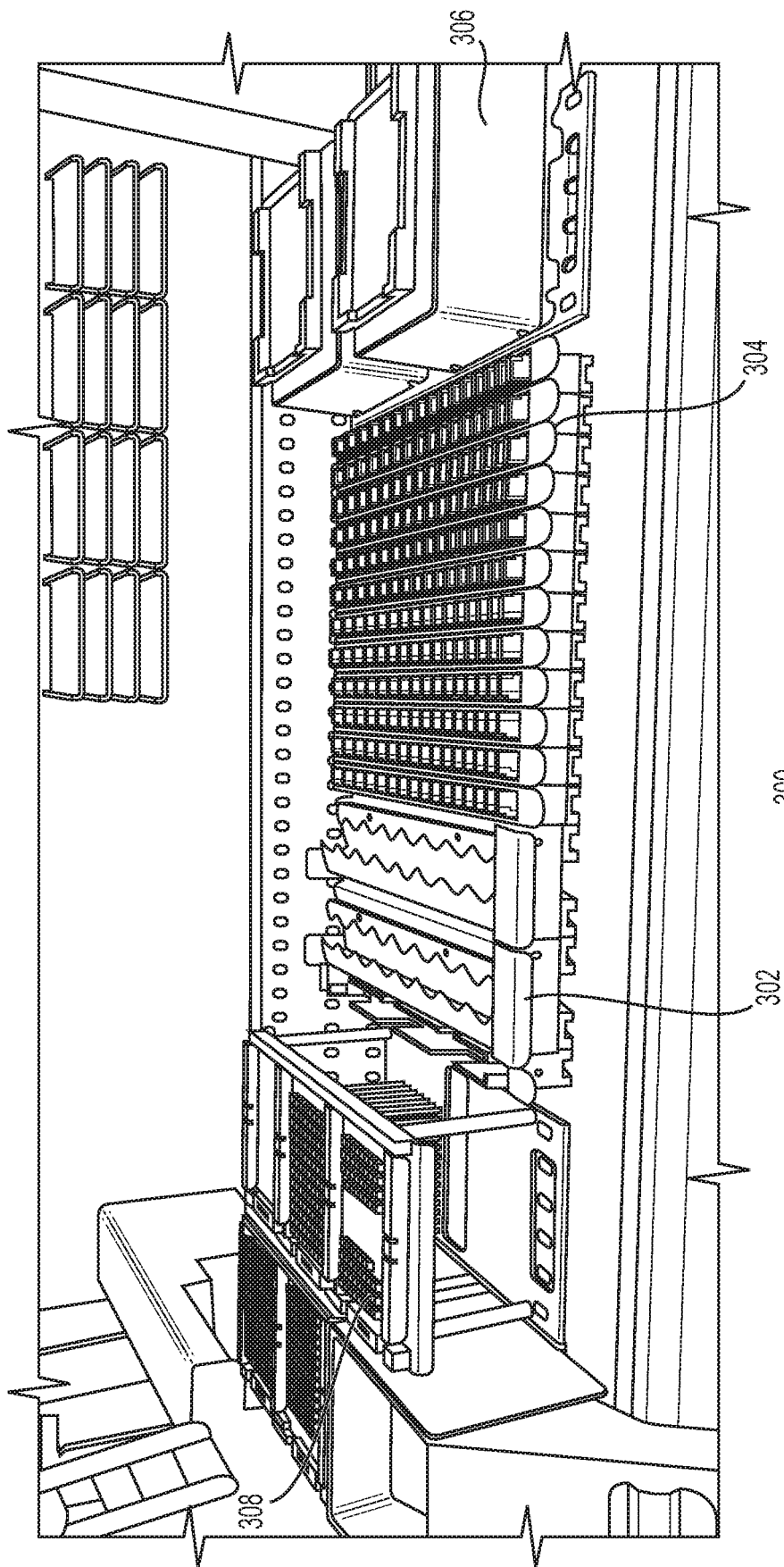




100

FIG. 1

**FIG. 2**

**FIG. 3**

LOGON

STATUS: INITIALIZED

402

406

404

TEMPLATES

NAME	TEST TYPE	ASSAY TYPE	ANALYST ID	WORKGROUP	MODIFIED
0 SIMPLE	ROUTINE	KQCL	SMCP	XXX	10/21/2015
0 SIMPLE HIGH REPS	ROUTINE	KQCL	CMCS	AAA	11/18/2016
0 TEST COL CORRECT	ROUTINE	KQCL	SMCP	AAA	12/18/2015
1 EVO	INHIBIT ENHANCE	KQCL	CMCP	XXX	10/07/2016
1.1 EVO	INHIBIT ENHANCE	KQCL	KMCS	AAA	11/18/2016
10 WITH 5 STD	ROUTINE	KQCL	SMCP	AAA	10/30/2015
2 MORE COMPLEX	INHIBIT ENHANCE	KQCL	CMCS	XXX	11/29/2016
3 EVO	ROUTINE	KQCL	SMCP	XXX	06/10/2015
4 EVO	ROUTINE	KQCL	CMCP	XXX	03/03/2015
5 EVO	ROUTINE	PYROGEN15000	KMCS	XXX	03/03/2015
6 MORE COMPLEX	ROUTINE	PYROGEN15000	CMCP	XXX	08/13/2015
7 EVO	INHIBIT ENHANCE	KQCL	KMCS	XXX	02/25/2015
8 EVO	ROUTINE	PYROGENE	KARSON	XXX	07/14/2015
9 EVO	ROUTINE	PYROGENE	SMCP	XXX	06/10/2015
EVO STANDARDS ONLY	ROUTINE	KQCL	CMCP	XXX	06/09/2015
12 PT STANDARDS	ROUTINE	KQCL	KMCS	LOWZA	09/10/2014
10 - C LANE FL	INITIAL QUAL	PYROGENE	KARSON	LOWZA	02/06/2014
A WORKLIST TEST	RSECE	PYROGENE	SMCP	XXX	10/29/2014
HH2-6	ROUTINE	PYROGEN15000	SMCP	LOWZA	
HV6-12	ROUTINE	KQCL	CMCP	LOWZA	
INH 12 PTS	INHIBIT ENHANCE	KQCL	KMCS	LOWZA	
INHEN - C LANE	INHIBIT ENHANCE	KQCL	KARSON	LOWZA	
INHEN - C LANE FL	INHIBIT ENHANCE	PYROGENE	SMCP	LOWZA	
INHEN - C LANE TURB	INHIBIT ENHANCE	PYROGEN15000	CMCP	LOWZA	

NAME:

ALL TEST TYPES

ALL ASSAY TYPES

ANALYST:

RESET

APPLY

☐ ME

0 SIMPLE HIGH REPS

	1	2	3	4	5	6	7	8	9	10	11	12
A	BLANK	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
B	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
C	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
D	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
E	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
F	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
G	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
H	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD

2 MORE COMPLEX

	1	2	3	4	5	6	7	8	9	10	11	12
A	BLANK	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
B	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
C	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
D	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
E	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
F	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
G	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
H	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD

DECK SETUP >>

400

506

DECK SETUP CHECKLIST ☐ CONFIRM ALL

GENERAL

☐ ALL LABWARE PRESENT IN REQUIRED LOCATIONS

TROUGHS

☐ 10: TROUGH WITH MINIMUM 51 TROUGH FOR LAL REAGENT WATER.
☐ 11: TROUGH FOR RECONSTITUTION

REAGENTS

☐ 13.1: ENDOTOXIN
☐ 13.2: LAL (2.6ml VIAL)
☐ 13.3: LAL (2.6ml VIAL)

STANDARD TUBES

☐ 15.1: EMPTY TUBE
☐ 15.2: EMPTY TUBE
☐ 15.3: EMPTY TUBE

AUXILIARY TUBES

☐ 17.1: BETA-G-BLOCKER 5901
☐ 17.2: MAGNESIUM CHLORIDE

SAMPLE TUBES

☐ 19.1: SAMPLE 1 (ZZZZ) 500 ul
☐ 19.2: 00016N9 (N9) 3005 ul
☐ 19.3: DEXTROSE (5%-70%) (C)

READERS

☐ ALL ZEROS VIRTUAL READER
☐ ALL ZEROS VIRTUAL READER

<<BACK

RUN ASSAY >>

10

LAL REAGENT WATER

10: TROUGH 100ml
TROUGH FOR LAL REAGENT WATER.
A MINIMUM VOLUME OF 51436 ul
MUST BE PRESENT IN THIS TROUGH
TO SUPPORT ALL TEMPLATES IN
THE RUN.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40										
										10										19										20										21									

500

FIG. 5

FIG. 6

FIG. 7

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15: TUBE 13*100mm Pos

16: POSITION TUBE RACK USED FOR CREATING STANDARD CURVE DILUTIONS FOR TEMPLATE:
_ 0 SIMPLE HIGH REPS.

TUBES 1 - 5 MUST BE PRESENT IN THE RACK AND MUST BE EMPTY (CONTAIN NO LIQUID).

THE GRAPHIC SHOWS THE TUBE IN WHICH EACH STANDARD WILL BE CREATED BY THE ROBOT (FOR INFORMATIVE PURPOSES ONLY).

DECK SETUP CHECKLIST ☐ CONFIRM ALL

GENERAL

☐ ALL LABWARE PRESENT IN REQUIRED LOCATIONS

TROUGHS

☐ 10: TROUGH WITH MINIMUM 51

☐ 11: TROUGH FOR RECONSTITUTION

REAGENTS

☐ 13.1: ENDOTOXIN

☐ 13.2: LAL (2.6ml VIAL)

☐ 13.3: LAL (2.6ml VIAL)

STANDARD TUBES

☐ 15.1: EMPTY TUBE

☐ 15.2: EMPTY TUBE

☐ 15.3: EMPTY TUBE

AUXILIARY TUBES

☐ 17.1: BETA-G-BLOCKER 5901

☐ 17.2: MAGNESIUM CHLORIDE

SAMPLE TUBES

☐ 19.1: SAMPLE 1 (ZZZZ) 500 ul

☐ 19.2: 00016N9 (N9) 3005 ul

☐ 19.3: DEXTROSE (5%-70%) (C)

READERS

☐ ALL ZEROS VIRTUAL READER (

☐ ALL ZEROS VIRTUAL READER (

<< BACK

RUN ASSAY >>

800

FIG. 8

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BETA-G-BLOCKER

MAGNESIUM CHLORIDE SOLUTION

HYDROCHLORIC ACID

[MIN VOL: 5901 ul]

[MIN VOL: 2623 ul]

[MIN VOL: 1624 ul]

17: TUBE 13*100mm 16 Pos

16 POSITION TUBE RACK CONTAINING DILUENTS FOR AUXILIARY PRODUCT DILUTIONS.

EACH TUBE MUST CONTAIN AT LEAST THE SPECIFIED MINIMUM VOLUME OF THE INDICATED DILUENT TO SUPPORT ALL ASSAYS IN THE RUN.

DECK SETUP CHECKLIST ☐ CONFIRM ALL

GENERAL

☐ ALL LABWARE PRESENT IN REQUIRED LOCATIONS

TROUGHS

☐ 10: TROUGH WITH MINIMUM 51

☐ 11: TROUGH FOR RECONSTITUTION

REAGENTS

☐ 13.1: ENDOTOXIN

☐ 13.2: LAL (2.6ml VIAL)

☐ 13.3: LAL (2.6ml VIAL)

STANDARD TUBES

☐ 15.1: EMPTY TUBE

☐ 15.2: EMPTY TUBE

☐ 15.3: EMPTY TUBE

AUXILIARY TUBES

☐ 17.1: BETA-G-BLOCKER 5901

☐ 17.2: MAGNESIUM CHLORIDE

SAMPLE TUBES

☐ 19.1: SAMPLE 1 (ZZZZ) 500 ul

☐ 19.2: 000116N9 (N9) 3005 ul

☐ 19.3: DEXTROSE (5%-70%) (C)

READERS

☐ ALL ZEROS VIRTUAL READER (

☐ ALL ZEROS VIRTUAL READER (

<< BACK

RUN ASSAY >>

900

FIG. 9

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DECK SETUP CHECKLIST ☐ CONFIRM ALL

GENERAL

☐ ALL LABWARE PRESENT IN REQUIRED LOCATIONS

TROUGHS

☐ 10: TROUGH WITH MINIMUM 51

☐ 11: TROUGH FOR RECONSTITU

REAGENTS

☐ 13.1: ENDOTOXIN

☐ 13.2: LAL (2.6ml VIAL)

☐ 13.3: LAL (2.6ml VIAL)

STANDARD TUBES

☐ 15.1: EMPTY TUBE

☐ 15.2: EMPTY TUBE

☐ 15.3: EMPTY TUBE

AUXILIARY TUBES

☐ 17.1: BETA-G-BLOCKER 5901

☐ 17.2: MAGNESIUM CHLORIDE

SAMPLE TUBES

☐ 19.1: SAMPLE 1 (ZZZZ) 500 ul

☐ 19.2: 00016N9 (N9) 3005 ul

☐ 19.3: DEXTROSE (5%-70%) (C

READERS

☐ ALL ZEROS VIRTUAL READER (

☐ ALL ZEROS VIRTUAL READER (

<< BACK

RUN ASSAY >>

SOURCE SAMPLE TUBES

TUBE	TEMPLATE	PRODUCT	LOT NUMBER	DILUTION	DILUENT	MIN VOL
1	0 SIMPLE HIGH REPS	SAMPLE 1	ZZZZ	1:1200	LRW	500
2	2 MORE COMPLEX	00016N9	N9	1:1, 1:50	LRW	3005
3	2 MORE COMPLEX	DEXTROSE (5%-70%)	COOL	1:1	LRW	1250
4	2 MORE COMPLEX	SAMPLE 1	COOLER	1:5, 1:50	LRW	820

EMPTY TUBES REQUIRED FOR DILUTIONS

TUBE	TEMPLATE	PRODUCT	LOT NUMBER	DILUTION	DILUENT
17	0 SIMPLE HIGH REPS	SAMPLE 1	ZZZZ	1:10	LRW
18	0 SIMPLE HIGH REPS	SAMPLE 1	ZZZZ	1:10	LRW
19	0 SIMPLE HIGH REPS	SAMPLE 1	ZZZZ	1:10	LRW
20	0 SIMPLE HIGH REPS	SAMPLE 1	ZZZZ	1:12	LRW
21	0 SIMPLE HIGH REPS	SAMPLE 1	ZZZZ	1:2	BETA-G-BLOCKER
22	2 MORE COMPLEX	00016N9	N9	1:10	LRW

1000

FIG. 10

1102 CURRENT STEP 00:00:00

1114 ☐ RUN SELECTED SEGMENTS AS A SINGLE SCRIPT ASSAY 1 1104 0 SIMPLE HIGH REPS

1116 START

1108 STATUS

ELAPSED TIME: 00:00:00

SYSTEM INITIALIZED

SCRIPT

2 MORE COMPLEX ASSAY 2 1106

☒ DILUTE SAMPLES IN TUBES: LRW DILUENT
☒ DILUTE SAMPLES IN TUBES: AUX DILUENT(S)
☒ SAMPLES TO MICROPLATE (REGULAR AND PPC SAMPLES)
☒ BLANKS TO MICROPLATE
☒ CREATE STANDARDS IN TUBES
☒ STANDARDS TO MICROPLATE
☒ PPC SPIKES TO PLATE
☒ RECONSTITUTE LAL IN VIAL (1 OF 5) POSITION = 2 (2600ul)
☒ MOVE RECONSTITUTED LAL IN VIAL 1 TO RECON TARGET
☒ RECONSTITUTE LAL IN VIAL (2 OF 5) POSITION = 3 (2600ul)
☒ MOVE RECONSTITUTED LAL IN VIAL 2 TO RECON TARGET
☒ RECONSTITUTE LAL IN VIAL (3 OF 5) POSITION = 4 (2600ul)
☒ MOVE RECONSTITUTED LAL IN VIAL 3 TO RECON TARGET
☒ RECONSTITUTE LAL IN VIAL (4 OF 5) POSITION = 5 (2600ul)
☒ MOVE RECONSTITUTED LAL IN VIAL 4 TO RECON TARGET

SELECT ALL SELECT NONE

☒ MOVE PLATE TO ALL ZEROS VIRTUAL READER [COM3]
 READER AFTER PREP

1110 RUNTIME MESSAGES

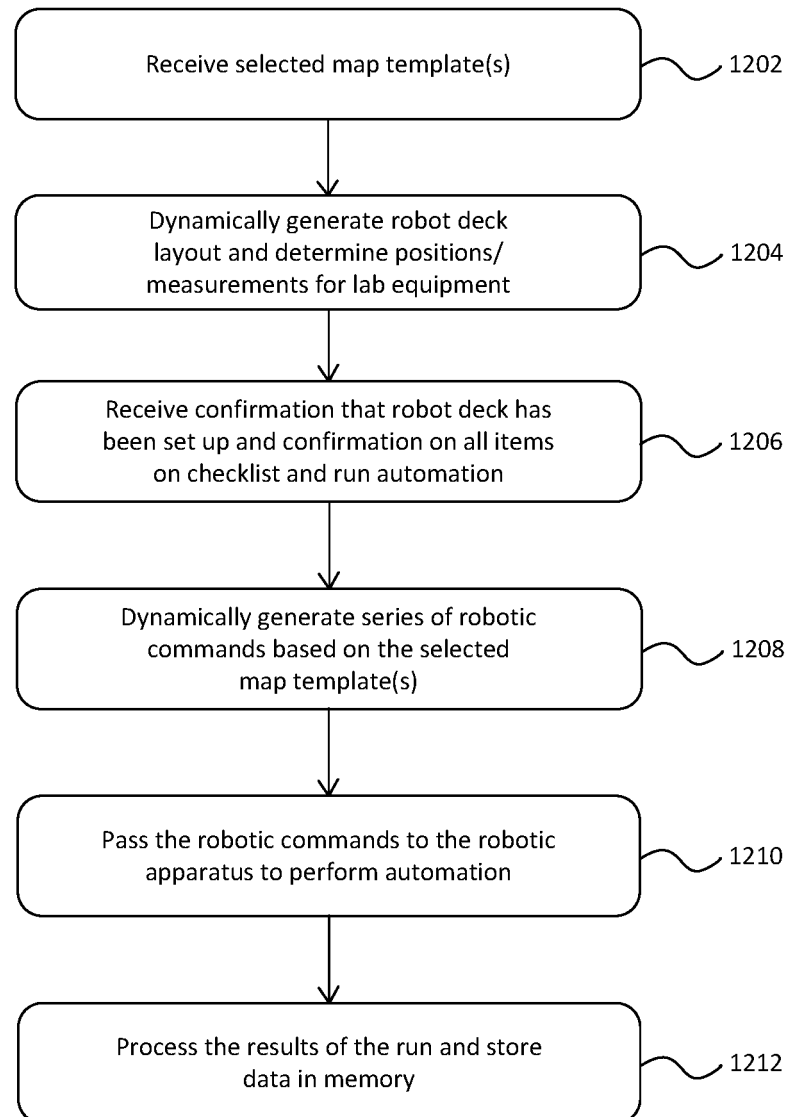
DATE	TIME	ASSAY	TYPE	MESSAGE

1112 INCUBATORS

NUMBER	STATUS	MODEL/VERSION	SERIAL NUMBER	COM PORT	MICROPLATE	TEMPERATURE	TEMPERATURE STATUS

1100 <<BACK

FIG. 11

1200**FIG. 12**

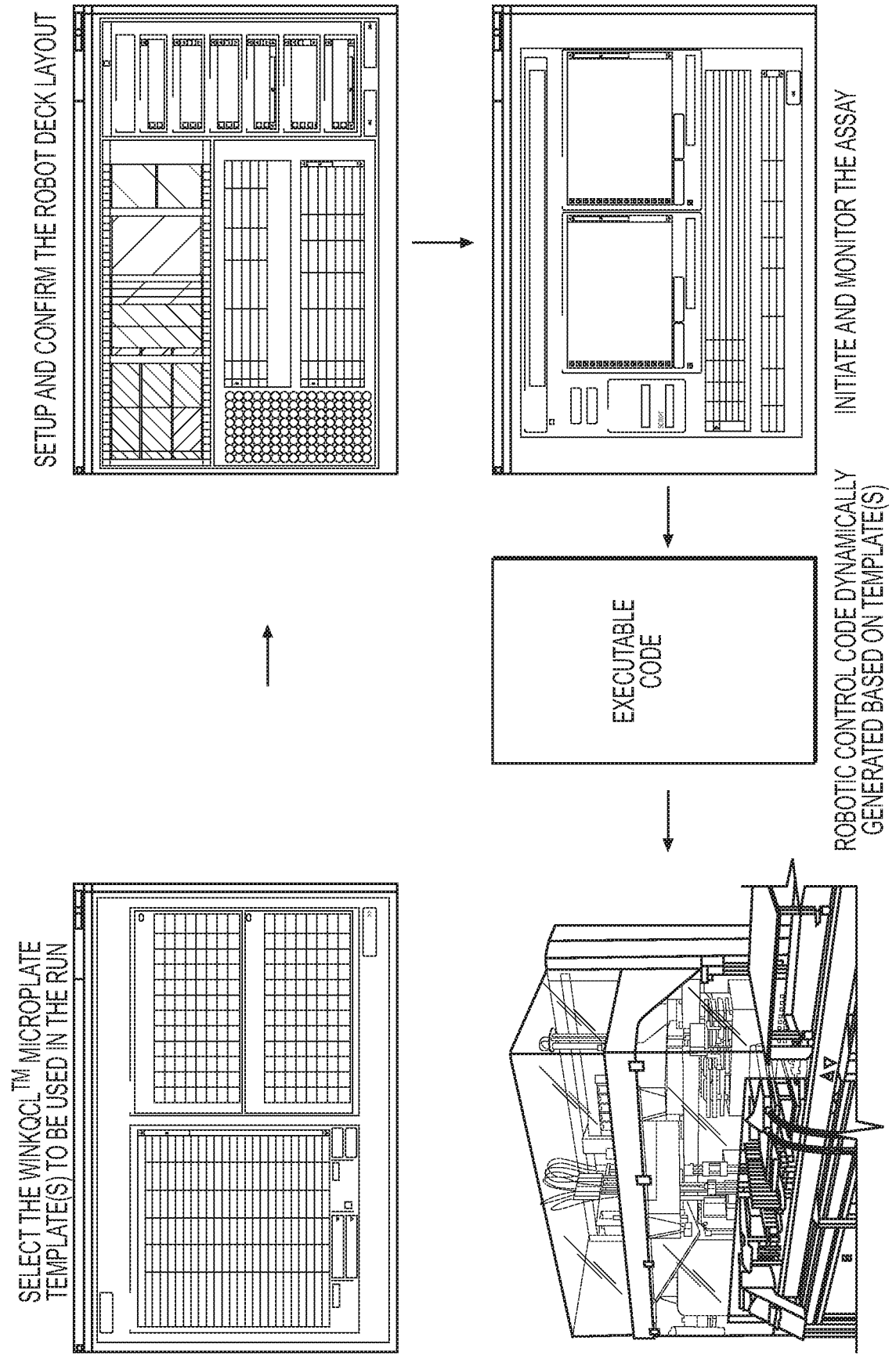
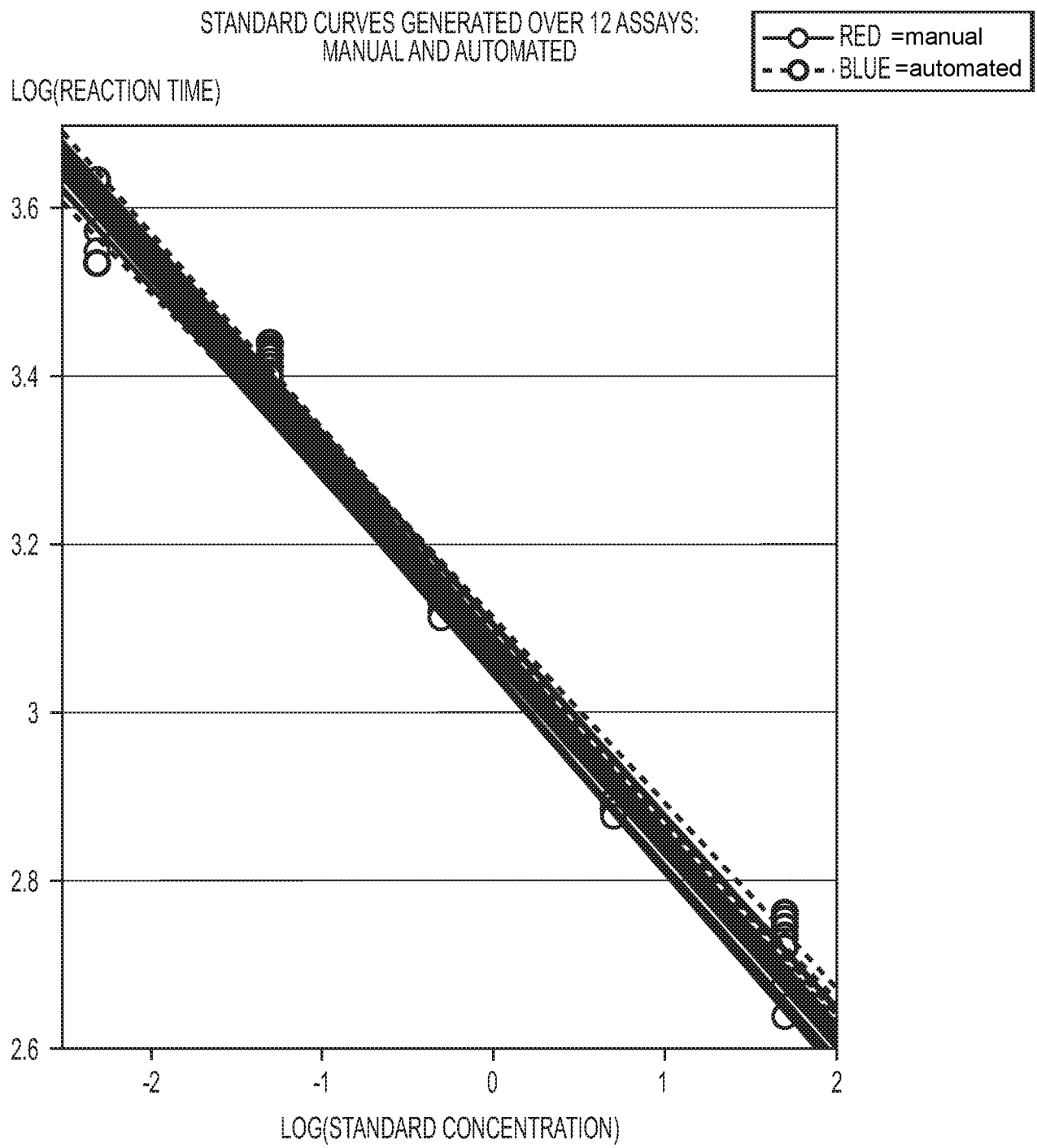


FIG. 13

REACTION TIME SUMMARY STATISTICS OVER 12 ASSAYS

STANDARD EU/mL	MEAN REACTION TIME		STANDARD DEVIATION OVER ASSAYS		POOLED %CV AMONG REPLICATE WELLS	
	MANUAL	AUTO	MANUAL	AUTO	MANUAL	AUTO
50	481	536	±28	±29	2.9%	2.8%
5	794	815	±29	±24	2.2%	1.2%
0.5	1 371	1 377	±38	±28	1.8%	1.1%
0.05	2 60	2 576	±77	±79	1.1%	2.2%
0.005	3 904	3 991	±166	±213	2.4%	1.4%

FIG. 14

**FIG. 15**

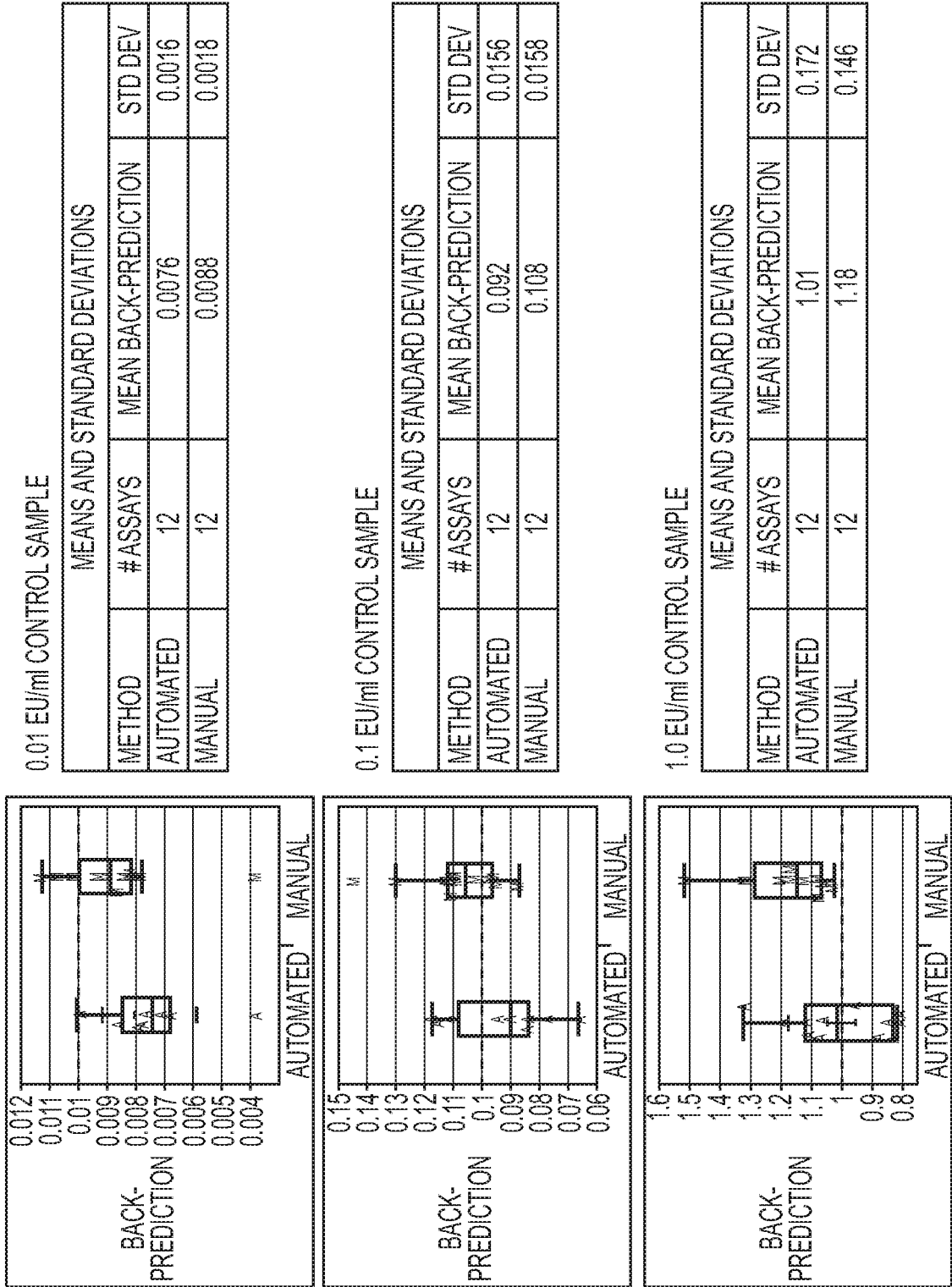


FIG. 16

PPC RECOVERY MEASUREMENTS ON THE SAMPLES CONTAINING 0.5 EU/mL PPC SPIKE

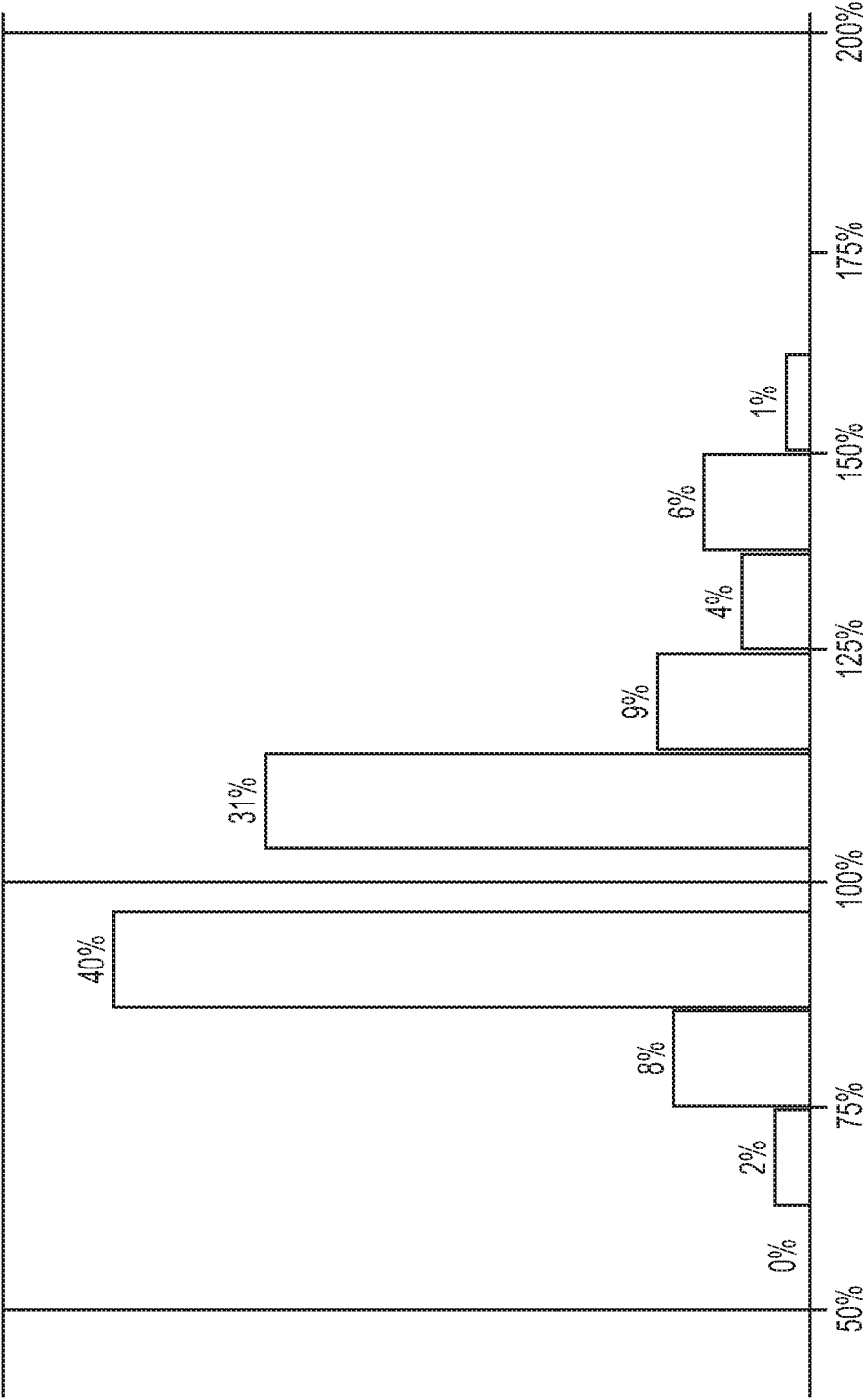


FIG. 17

DATA DEMONSTRATING A LARGE-SCALE IMPLEMENTATION OF A ROBOTIC PIPETTING SOLUTION

	SAMPLE SIZE	PASSING	AVERAGE	% PASSING
STANDARD CURVE CORRELATION	25,819	25,734	-0.999	99.67%
STANDARD CURVE SLOPE	25,819	25,734	-0.241	99.67%
AVERAGE STANDARD %CV	129,095		1.07%	
ASSAY PASS/FAIL	542,199	527,954		97.40%
AVERAGE SAMPLE %CV	204,394		1.19%	

FIG. 18