

Berkeley Ballot Audit Report  
 Election: City of Hanahan  
 Audit Date: 10:54:37, Fri Mar 31, 2017

Precinct				-----EL30A-----			
-----Audit-----							
Nber	Name		Total	Opt	iVo	Flash	
iVo	Opt	Man	Delta	Comments			
0020	Hanahan 1		165	0	165	0	
165	0	0	0				
0021	Hanahan 2		73	0	73	0	
73	0	0	0				
0022	Hanahan 3		128	0	128	0	
128	0	0	0				
0023	Hanahan 4		65	0	65	0	
65	0	0	0				
0068	Hanahan 5		163	0	163	0	
163	0	0	0				
0076	Foster Creek 1		18	0	18	0	
18	0	0	0				
0077	Foster Creek 2		221	0	221	0	
221	0	0	0				
0078	Foster Creek 3		129	0	129	0	
129	0	0	0				
0080	St. James		1	0	1	0	
1	0	0	0				
Precincts Total:			963	0	963	0	
963	0	0	0				
0750	Absentee		27	18	9	0	
9	18	0	0				
0800	Emergency		2	2	0	0	
0	2	0	0				
0850	Failsafe		0	0	0	0	
0	0	0	0				
0900	Provisional		1	1	0	0	
0	1	0	0				
Virtual Precincts Total:			30	21	9	0	
9	21	0	0				
Grand Total:			993	21	972	0	
972	21	0	0				

NOTE: Any manual entries shown on this report are supported by the Manual Entry log (EL68).

Auditor's Comments:

Total number of iVotronic ballots cast containing no votes: 3  
 The following precincts have no ballots cast in them: Failsafe  
 This audit is complete and has no exceptions.

Status of ERM Reports  
 EL30A is marked Official  
 EL45A is marked Official

EL30A iVo to EL155 to EL152 Cross Check and Cancelled Ballots.

+-----+-----+-----+

EL30A Ivo Ballots	EL155 Ballots	EL152 Ballots	
972	972	972	
Delta from EL30A	0	0	
	Delta from EL155	0	
	Cast By Voter	972	
	Cast By Poll Wkr	0	
	Blank Cast by PW	0	
	Cancelled Ballots	17	
	Wrong Ballot	0	
ballot selected by poll worker.)	Voter Left AB	0	(AB = After
ballot selected by poll worker.)	Voter Left BB	1	(BB = Before
	Voter Request	0	
	Printer Problem	3	
	Terminal Problem	4	
	Other Reason	9	

Number of audio (ADA) events in this election: 0

Note: The following machines(s) have audit records but no ballots were cast on them: 5121657

Because they do not have ballots cast, they cannot be matched to a precinct. This is not

an issue as long as the EL30A Ivo Ballots, the EL155 Ballots and the EL152 Ballots match

in the table immediately above.

How to read this report.

This is the ballot level report. It compares the number of ballots cast in the tabulation report, the EL30A with the number of ballots cast in the audit data.

The values read from the EL30A report are reported in four categories; Total, Optical (Opt), iVotronic (iVo) and Flash. None of these values on each line are calculated but parsed from the actual report. The total lines are the calculated sums of the individual precince line values.

The Opt totals are the total number of ballots cast on paper ballots that were scanned into the optical scanner and transferred to the tabulation computer via memory stick or ZipDisk (depending on the type of device, M100 or M650 used to scan the ballots.) Optical totals should exist only in some but not all of the Virtual Precincts at the bottom of the table.

The iVo totals are the results gathered from the PEBs (Personal Electronic Ballot) which are used to open and close an iVotronic voting machine and, after the polls have closed, gather the ballots cast for transmission to the tabulation system.

The Flash totals are the totals that are read from the flash cards in the rare event that the ballots cannot be copied from the machine to the PEB or from the PEB to the tabulating machine.

The values on the Audit side come from the iVotronic audit data that is read from the flash cards as part of the audit process. That process combines the individual machine data into two master audit files, the EL155 Vote image log and the EL152 iVotronic event log. The EL155 contains a record of all the votes cast on a ballot. The vote images indicate the machine counting the number of asterisks in a precinct we get the number of ballots cast in that precinct. That number should always match the number in the iVo column on the EL30A side of the report.

Optical ballots do not have electronically readable audit files. So if the audit data iVotronic total does not match the EL30A Total value, the auditor is prompted to read the paper report from the optical scanner and enter the total ballots cast into the auditing program.

If the sum of the audit iVotronic and Optical ballots cast still do not match the EL30A total value, then the audit software reads the EL68 Manual Entry log for any changes made in that precinct to either the iVo or Opt totals by the CEC staff. It displays any manual entries to the auditor for inclusion into the totals. If accepted by the auditor these entries are automatically added to the Man column from the Manual Entry log.

Finally, the audit software calculates the Delta value which should be zero unless the sum of the iVo, the Opt and the Man do not match the EL30A Total column. If the Delta is greater than zero then audit data is missing. A comment will be placed on that line in the report indicating missing audit data. If the Delta value is less than zero then there are more ballots in the audit data than there are in the tabulated data and a comment will be placed on that line in the report.

Wherever possible, the audit system will attempt to indicate where the difference is by displaying the iVotronic machine numbers and the number of ballots cast on that machine that exist in the audit data. In the case of missing tabulated data, it might be possible to identify a machine that has the same number of ballots cast as the delta value and that number and ballot count will be highlighted with a < sign. If there is a non zero Delta value there will be an entry by the auditor explaining the variance.

Finally, there is a EL30A iVo to EL155 to EL152 Cross Check and Cancelled Ballots table in the report. This table should indicate that the number ballots cast in the EL30A match the numbers in the EL155 and the EL152 report. Then there are some statistics pulled from the EL152 report that indicate how many

ballots were cast by the voter and the number cast by the poll worker. Lastly the number of ballots that were cancelled and the reason they were cancelled. It should be noted that the reason cancelled is chosen from a pull down menu presented to the poll worker when a ballot is cancelled, there is no way to validate the poll worker's choice.

Berkeley EL30A45A Comparison Report  
 Election: City of Hanahan  
 Audit Date: 10:55:35, Fri Mar 31, 2017

```

+-----EL30A-----+-----EL45A-----+
+
Office                               Candidate                               Party
|   Tot   Opt   iVo   Flash |   Tot   Opt   iVo   Flash |   Delta
|-----|-----|-----|-----|-----|-----|-----|-----|-----|
-+-----+-----+
-+
City Council                          C Campbell
203     1   202     0   203     1   202     0     0
City Council                          Ronnie Duncan
45      2    43     0    45     2    43     0     0
City Council                          Kevin Hedgpeth
330    10   320     0   330    10   320     0     0
City Council                          Christie Rainwater
410     7   403     0   410     7   403     0     0
City Council                          Write-In
2       1    1      0    2      1    1      0     0
  
```

How to read this report.

This is EL30A EL45A Crosscheck Report. It sums each candidates vote totals in each precinct in the EL30A Precinct Detail Report and compares it to the EL45A Election Summary Report that contains the tabulated total for each candidate in the county.

The values read from the EL30A report are reported in four categories; Total, Optical (Opt), iVotronic (iVo) and Flash. None of these values on each line are calculated but parsed from the actual report. The total lines are the calculated sums of the individual precince line values.

The Opt totals are the total number of votes cast on paper ballots that were scanned into the optical scanner and transferred to the tabulation computer via memory stick or ZipDisk (depending on the type of device, M100 or M650 used to scan the ballots.) Optical totals should exist only in some but not all of the Virtual Precincts at the bottom of the table.

The iVo totals are the results gathered from the PEBs (Personal Electronic Ballot) which are used to open and close an iVotronic voting machine and, after the polls have closed, gather the ballots cast for transmission to the tabulation system.

The Flash totals are the totals that are read from the flash cards in the rare event that the ballots cannot be copied from the machine to the PEB or from the PEB to the tabulating machine.

The values read from the EL45A report are reported in same four categories; Total, Optical (Opt), iVotronic (iVo) and Flash as the EL30A. Like the EL30A they are parsed from the actual EL45A report. The summary candidate totals are compared against the calculated sums for each candidate from, the EL30A report. Each of the values in each line on the EL30A side must match the same value on the EL45A side and the Delta value must be zero.

Berkeley EL152/EL155 Votes Comparison Report

This report is a comparison of the ballots cast in the two audit files.

```
+-----EL152-----+-----EL155-----+-----+
|Machine Ballots|Precinct(s)                Ballots|Delta|
+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+
```

Berkeley Office Non-Match Report

Array of unique EL30A non matches  
0: |City Council|

Array of unique EL155 non matches  
0: |MUN0003 City Council|



Berkeley PEB Exceptions Report  
Election: City of Hanahan  
Audit Date: 10:54:37, Fri Mar 31, 2017

WARNING: Precincts listed in this report have used more than one PEB to open or close iVotronic Machines. Inspect all the precinct materials closely, especially the Precinct Polling Results Tape to be sure that you have collected PEB data from all the iVotronic machines assigned to that precinct.

Precinct	PEBs Used	Comments
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Berkeley PEB Exceptions Report  
Election: City of Hanahan  
Election date: 03/28/2017  
Audit Date: 10:54:37, Fri Mar 31, 2017

iVo #	Op PEB	Open Time	Cl PEB	Close Time	Exception
5126965	229807	02/24/2017 11:52:12	229807	03/28/2017	
19:01:43	>>Open Date<<	Absentee - 5			
5126965	229807	02/24/2017 11:52:12	229807	03/28/2017	
19:01:43	Open Time	Absentee - 5			
5128497	229807	02/24/2017 11:53:14	229807	03/28/2017	
19:05:06	>>Open Date<<	Absentee - 4			
5128497	229807	02/24/2017 11:53:14	229807	03/28/2017	
19:05:06	Open Time	Absentee - 4			

The following machines(s) have audit records but no ballots were cast on them: 5121657

Because they do not have ballots cast, they cannot be matched to a precinct.

How to read this report.

This is the PEB Exceptions Report. It checks for the following conditions in the iVotronic Event log;

- 1: A machine that was opened and closed by different PEBs
- 2: A Machine that was not opened on Election Date - could be either an absentee or test machine
- 3: A Machine that was not closed on Election Date - could have had problem closing
- 4: A Machine that was not opened by 7 am - note most Absentee machines will show up here
- 5: A Machine that was closed before 7pm - polls close at 7 PM
- 6: A Machine that was not closed ever.
- 7: A machine that has no ballots cast on it.

Each of the events above detected are reported on a separate line, each line contains the following information:

iVotronic machine number, Opening PEB Number, Open Time, Closing PEB Number, Closing Time, the Exception Type and the Precinct and the Ballots Cast on that machine.

Absentee and Failsafe precinct machines are opened during the middle of the day several days before the election date of 03/28/2017. So it is normal for these machines to appear on this report with Open Date and Open Time exceptions.

Berkeley PEB Open/Close Report  
Election: City of Hanahan  
Audit Date: 10:54:37, Fri Mar 31, 2017

Precinct	Machine	PEB Used to Open	PEB Used to Close
Hanahan 1	5117507	144729	144729
Hanahan 1	5121886	144729	144729
Hanahan 1	5129920	144729	144729
Hanahan 2	5121488	155752	155752
Hanahan 2	5126540	155752	155752
Hanahan 3	5120162	145903	145903
Hanahan 3	5122475	145903	145903
Hanahan 3	5128711	145903	145903
Hanahan 3	5137393	145903	145903
Hanahan 4	5125824	197181	197181
Hanahan 4	5127747	197181	197181
Hanahan 5	5120162	145903	145903
Hanahan 5	5122475	145903	145903
Hanahan 5	5128711	145903	145903
Hanahan 5	5137393	145903	145903
Foster Creek 1	5119326	142634	142634
Foster Creek 1	5121204	142634	142634
Foster Creek 1	5132314	142634	142634
Foster Creek 2	5119326	142634	142634
Foster Creek 2	5121204	142634	142634
Foster Creek 2	5132314	142634	142634
Foster Creek 3	5130401	119509	119509
Foster Creek 3	5130714	119509	119509
St. James	5123072	229798	229798
Absentee	5126965	229807	229807
Absentee	5128497	229807	229807

The following precinct(s) have no ballots cast in them: Failsafe  
Note: if there are no ballots cast in a precinct the machines in that precinct cannot be identified so the machines in these precinct(s) will not appear in this report.

The following machines(s) have no ballots cast on them: 5121657

Berkeley PEB Use Report  
Election: City of Hanahan  
Audit Date: 10:54:37, Fri Mar 31, 2017

Precinct	PEBs Used	Comments
Hanahan 1	144729	
Hanahan 2	155752	
Hanahan 3	145903	
Hanahan 4	197181	
Hanahan 5	145903	
Foster Creek 1	142634	
Foster Creek 2	142634	
Foster Creek 3	119509	
St. James	229798	
Absentee	229807	

10 precincts processed

The following precinct(s) have no ballots cast in them: Failsafe  
Note: if there are no ballots cast in a precinct the machines in that precinct cannot be identified so these precinct(s) will not appear in this report.

How to read this report.

This is the PEB Used report. It lists the precincts found in the Audit data and lists all the PEBs that were used by the poll workers to open and close the iVotronic machines in that precinct.

If more than one PEB is used to open and close all the iVotronic machines in a precinct, then the County Election Commission must read ALL the PEBs used in that precinct to assure that they have collected all the ballots from that precinct. A county whose report shows a precinct that has machines open or closed by more than one PEB should double check the Ballot Audit Report against the iVotronic paper tapes and the Poll Book to make sure that all the ballots have been collected and tabulated.

Berkeley Vote Level Audit Report  
 Election: City of Hanahan  
 Audit Date: 10:55:27, Fri Mar 31, 2017

Precinct Number / Name

-----EL30A-----					-----Audit-----		
Office					Candidate		Party
Total	Optical	iVo	Flash	iVo	Delta	Comments	

0020 Hanahan 1  
 #####  
 #####  
 City Council C Campbell  
 32 0 32 0 32 0  
 City Council Ronnie Duncan  
 26 0 26 0 26 0  
 City Council Kevin Hedgpeth  
 41 0 41 0 41 0  
 City Council Christie Rainwater  
 66 0 66 0 66 0  
 City Council Write-In  
 0 0 0 0 \* No Audit Data expected or found

0021 Hanahan 2  
 #####  
 #####  
 City Council C Campbell  
 14 0 14 0 14 0  
 City Council Ronnie Duncan  
 1 0 1 0 1 0  
 City Council Kevin Hedgpeth  
 13 0 13 0 13 0  
 City Council Christie Rainwater  
 45 0 45 0 45 0  
 City Council Write-In  
 0 0 0 0 \* No Audit Data expected or found

0022 Hanahan 3  
 #####  
 #####  
 City Council C Campbell  
 55 0 55 0 55 0  
 City Council Ronnie Duncan  
 2 0 2 0 2 0  
 City Council Kevin Hedgpeth  
 17 0 17 0 17 0  
 City Council Christie Rainwater  
 52 0 52 0 52 0  
 City Council Write-In  
 0 0 0 0 \* No Audit Data expected or found

0023 Hanahan 4  
 #####  
 #####  
 City Council C Campbell  
 12 0 12 0 12 0  
 City Council Ronnie Duncan  
 1 0 1 0 1 0

City Council					Kevin Hedgpeth
27	0	27	0	27	0
City Council					Christie Rainwater
24	0	24	0	24	0
City Council					Write-In
0	0	0	0	0	* No Audit Data expected or found

0068 Hanahan 5

```
#####
#####
City Council C Campbell
55 0 55 0 55 0
City Council Ronnie Duncan
8 0 8 0 8 0
City Council Kevin Hedgpeth
19 0 19 0 19 0
City Council Christie Rainwater
81 0 81 0 81 0
City Council Write-In
0 0 0 0 0 * No Audit Data expected or found
```

0076 Foster Creek 1

```
#####
#####
City Council C Campbell
3 0 3 0 3 0
City Council Ronnie Duncan
0 0 0 0 * No Audit Data expected or found
City Council Kevin Hedgpeth
10 0 10 0 10 0
City Council Christie Rainwater
5 0 5 0 5 0
City Council Write-In
0 0 0 0 0 * No Audit Data expected or found
```

0077 Foster Creek 2

```
#####
#####
City Council C Campbell
15 0 15 0 15 0
City Council Ronnie Duncan
4 0 4 0 4 0
City Council Kevin Hedgpeth
123 0 123 0 123 0
City Council Christie Rainwater
78 0 78 0 78 0
City Council Write-In
1 0 1 0 1 0
```

0078 Foster Creek 3

```
#####
#####
City Council C Campbell
14 0 14 0 14 0
City Council Ronnie Duncan
0 0 0 0 * No Audit Data expected or found
City Council Kevin Hedgpeth
69 0 69 0 69 0
City Council Christie Rainwater
46 0 46 0 46 0
```

City Council Write-In  
0 0 0 0 \* No Audit Data expected or found

0080 St. James

#####  
#####

City Council C Campbell  
1 0 1 0 1 0  
City Council Ronnie Duncan  
0 0 0 0 \* No Audit Data expected or found  
City Council Kevin Hedgpeth  
0 0 0 0 \* No Audit Data expected or found  
City Council Christie Rainwater  
0 0 0 0 \* No Audit Data expected or found  
City Council Write-In  
0 0 0 0 \* No Audit Data expected or found

0750 Absentee

#####  
#####

City Council C Campbell  
2 1 1 0 1 0  
City Council Ronnie Duncan  
3 2 1 0 1 0  
City Council Kevin Hedgpeth  
9 8 1 0 1 0  
City Council Christie Rainwater  
12 6 6 0 6 0  
City Council Write-In  
1 1 0 0 \* All votes cast for this candidate

\* in this precinct are optical.

\* No Audit Data for optical.

0800 Emergency

#####  
#####

City Council C Campbell  
0 0 0 0 \* No Audit Data expected or found  
City Council Ronnie Duncan  
0 0 0 0 \* No Audit Data expected or found  
City Council Kevin Hedgpeth  
2 2 0 0 \* All votes cast for this candidate

\* in this precinct are optical.

\* No Audit Data for optical.

City Council Christie Rainwater  
0 0 0 0 \* No Audit Data expected or found  
City Council Write-In  
0 0 0 0 \* No Audit Data expected or found

0850 Failsafe

#####  
#####

City Council C Campbell  
0 0 0 0 \* No Audit Data expected or found

City Council				Ronnie Duncan
0	0	0	0 * No Audit	Data expected or found
City Council				Kevin Hedgpeth
0	0	0	0 * No Audit	Data expected or found
City Council				Christie Rainwater
0	0	0	0 * No Audit	Data expected or found
City Council				Write-In
0	0	0	0 * No Audit	Data expected or found

0900 Provisional

#####  
#####

City Council				C Campbell
0	0	0	0 * No Audit	Data expected or found
City Council				Ronnie Duncan
0	0	0	0 * No Audit	Data expected or found
City Council				Kevin Hedgpeth
0	0	0	0 * No Audit	Data expected or found
City Council				Christie Rainwater
1	1	0	0 * All votes cast for this candidate	

\* in this precinct are optical.

\* No Audit Data for optical.

City Council				Write-In
0	0	0	0 * No Audit	Data expected or found

There was no unmatched audit data

How to read this report.

This is the vote level report. It compares the number of votes cast for each candidate in the tabulation report with the number of ballots cast in the audit data for each candidates in each precinct.

The tabulated values as read from the EL30A report are reported in four categories; Total, Optical (Opt), iVotronic (iVo) and Flash. None of these values on each line are calculated but parsed from the actual report. In the EL30A report all Write-in votes are added together and reported as one candidate name - Write-in. The EL30A does not report individual Write-in candidates.

The Opt totals are the total number of votes cast on paper ballots that were scanned into the optical scanner and transferred to the tabulation computer via memory stick or ZipDisk (depending on the type of device, M100 or M650 used to scan the ballots.) Optical totals should exist only in some but not all of the Virtual Precincts at the bottom of the table.

The iVo totals are the results gathered from the PEBs (Personal Electronic Ballot) which are used to open and close an iVotronic voting machine and, after the polls have closed, gather the ballots cast for transmission to the tabulation system.



The Flash totals are the totals that are read from the flash cards in the rare event that the ballots cannot be copied from the machine to the PEB or from the PEB to the tabulating machine.

The values on the Audit side come from the iVotronic audit data that is read from the flash cards as part of the audit process. That process combines the individual machine data into a master audit file, the EL155 Vote image log.

The EL155 contains a record of all the votes cast on a ballot. The vote images indicate the machine. Counting the number of times a candidate name for a contest appears in a precinct we get the number of votes cast in that precinct for that candidate. That number should always match the number of votes cast for that candidate in that contest in the iVo column on the EL30A side of the report.

Optical ballots do not have electronically readable audit files. So if the audit data iVotronic total votes does not match the EL30A iVo value one of two things will occur. The first is if the iVotronic tabulated is zero and the Total tabulated votes match the tabulated Optical votes the following comment is made in the Audit side of the report; All votes cast for this candidate in this precinct are optical No Audit Data for optical, or secondly, if the iVotronic total is not zero, a notation indicating which data Audit data. In the event a candidate or the combined Write-in candidates did not receive any votes in a precinct the EL30A will report a zero vote count. If there are no votes for this candidate in a precinct in the audit data, the following comment will be placed into the audit report by the auditing software; No Audit Data expected or found.

Finally the audit software will search the audit data for any votes that were not found on the EL30A report. If it finds some, it will report those vote totals by contest, candidate name and precinct. if it does not find any unmatched audit data it will report; There was no unmatched audit data

Berkeley Vote Level Audit Exception Report

Precinct Number / Name

-----EL30A-----				-----Audit-----		
Office	Total	Optical	iVo	Flash	Candidate	Party
					iVo	Delta
-----						
-----						

City Council	0	0	0	0	Write-In	
					* No Audit Data expected or found	
City Council	0	0	0	0	Write-In	
					* No Audit Data expected or found	
City Council	0	0	0	0	Write-In	
					* No Audit Data expected or found	
City Council	0	0	0	0	Write-In	
					* No Audit Data expected or found	
City Council	0	0	0	0	Write-In	
					* No Audit Data expected or found	
City Council	0	0	0	0	Ronnie Duncan	
					* No Audit Data expected or found	
City Council	0	0	0	0	Write-In	
					* No Audit Data expected or found	
City Council	0	0	0	0	Ronnie Duncan	
					* No Audit Data expected or found	
City Council	0	0	0	0	Write-In	
					* No Audit Data expected or found	
City Council	0	0	0	0	Ronnie Duncan	
					* No Audit Data expected or found	
City Council	0	0	0	0	Kevin Hedgpeth	
					* No Audit Data expected or found	
City Council	0	0	0	0	Christie Rainwater	
					* No Audit Data expected or found	
City Council	0	0	0	0	Write-In	
					* No Audit Data expected or found	
City Council	1	1	0	0	Write-In	
					* All votes cast for this candidate	

\* in this precinct are optical.

\* No Audit Data for optical.

City Council	0	0	0	0	C Campbell	
					* No Audit Data expected or found	
City Council	0	0	0	0	Ronnie Duncan	
					* No Audit Data expected or found	
City Council	2	2	0	0	Kevin Hedgpeth	
					* All votes cast for this candidate	

\* in this precinct are optical.

\* No Audit Data for optical.

City Council				Christie Rainwater
0	0	0	0	* No Audit Data expected or found
City Council				Write-In
0	0	0	0	* No Audit Data expected or found
City Council				C Campbell
0	0	0	0	* No Audit Data expected or found
City Council				Ronnie Duncan
0	0	0	0	* No Audit Data expected or found
City Council				Kevin Hedgpeth
0	0	0	0	* No Audit Data expected or found
City Council				Christie Rainwater
0	0	0	0	* No Audit Data expected or found
City Council				Write-In
0	0	0	0	* No Audit Data expected or found
City Council				C Campbell
0	0	0	0	* No Audit Data expected or found
City Council				Ronnie Duncan
0	0	0	0	* No Audit Data expected or found
City Council				Kevin Hedgpeth
0	0	0	0	* No Audit Data expected or found
City Council				Christie Rainwater
1	1	0	0	* All votes cast for this candidate

\* in this precinct are optical.

\* No Audit Data for optical.

City Council				Write-In
0	0	0	0	* No Audit Data expected or found

There was no unmatched audit data

How to read this report.

precinct.

cast for transmission to the tabulation system.

file, the EL155 Vote image log.

found.