

AFFIDAVIT OF BENJAMIN R. COTTON 11 JULY 2022

I, Ben Cotton, being duly sworn, hereby depose and state as follows:

- 1) I am over the age of 18, and I understand and believe in the obligations of an oath. I make this affidavit of my own free will and based on first-hand information and my own personal observations.
- 2) I am the founder of CyFIR, LLC (CyFIR).
- 3) I have a master's degree in Information Technology Management from the University of Maryland University College. I have numerous technical certifications, including the Certified Information Systems Security Professional (CISSP), Microsoft Certified Professional (MCP), Network+, and Certified CyFIR Forensics and Incident Response Examiner.
- 4) I have over twenty-five (25) years of experience performing computer forensics and other digital systems analysis.
- 5) I have over eighteen (18) years of experience as an instructor of computer forensics and incident response. This experience includes thirteen (13) years of experience teaching students on the Guidance Software (now OpenText) EnCase Investigator and EnCase Enterprise software.
- 6) I have testified as an expert witness in state and federal courts and before the United States Congress.
- 7) I regularly lead engagements involving digital forensics for law firms, corporations, and government agencies and am experienced with the digital acquisition of evidence under the under the Federal Rules of Evidence.
- 8) I reviewed the Administrator manual for the Hart Verity system for the version of software that was purchased by the State of Michigan under contract number #071B7700128.

- 9) I reviewed the State of Michigan contract number #071B7700128, which is specific to the State of Michigan acquisition, deployment and operation of the Hart voting systems from March 1, 2017 to February 28, 2027 and was in effect during the November 3, 2020 general election.
- 10) I reviewed the Voting System Examination of Hart InterCivic Verity Voting 2.4 report dated May 16, 2020 the was conducted by Brian Mechler on behalf of the State of Texas.
- 11) The analysis and review of the Hart InterCivic contract, administrative and user manuals state the following:
- a) State Michigan contract number #071B7700128 documents the inclusion of the State of MI Qualified Voter Files (QVF) loaded onto the tabulators on page 59 and are illustrated in the diagram on page 60.
 - b) This download of QVF occurs 4-5 weeks prior to election via the Verity Drive USB stick (V-Drive). This data is loaded onto the tabulator prior to the Public Accuracy Test and not modified by the clerk prior to election day.
 - c) The Verity drive is provided by the County to the township clerk.
 - d) The Hart InterCivic tabulator includes WIFI and ethernet local area network (LAN) network support coupled with an automatic transmission process to connect to the internet. (Page 61)
 - e) The ballot images are stored on the tabulator in PNG format. (page 77)
 - f) The time stamp of the ballot insertion into the tabulator is removed per paragraph 1.1.A.24 of Hart contract.
 - g) Ballot information is recorded in 3 physically separate locations: internal memory, the paper ballot itself and on the V-drive.
 - h) Given that the ballot images are stored on the tabulator, the QVF is stored on the tabulator, the ballot images are stored on the tabulator and the tabulator has multiple

modes of internet connectivity with few if any cyber security protections, a huge vulnerability to the integrity of the voting process exists. If an unauthorized person were to gain remote access to the tabulators the vote as recorded on the tabulator could be modified or additional votes entered into the system.

12) The Adams Township tabulator was confiscated by MI State Police and remains in their custody. Since maintenance was not performed prior to the seizure, the ballot information from the 2018 thru March 2021 elections should remain on the device.

13) I have had the opportunity, with the permission of Adams Township, Michigan officials, to examine the contents of the Electronic Poll Book (EPB) USB drive from the November 2020 General Election.

14) I have reviewed the letter from Jonathan Brater, Director of Elections, dated 15 October 2021 to Stephanie Scott.

15) I have reviewed a series of emails between Stephanie Scott and Abe Dane dated 23 February 2021 through 24 February 2021.

16) I have reviewed the Memorandum dated 12 February 2021 named 2021.02.12 Final Release of Security Memo Nov 2020.pdf. This memorandum is unsigned but is written on Michigan Bureau of Elections letterhead.

17) I have had the opportunity to review the reports that are generated and printed by the Secretary of State following the submission of precinct results for a given election. These reports are referenced in the Jonathan Brater document dated 15 October 2021.

18) The administrative and operator manuals for the Hart InterCivic voting system clearly state that the Qualified Voter Record is stored on the voting machines and poll books..

19) The epb.accdb file on the EPB USB is a password-protected data base that contains the election definition data as well as qualified voter data. At the point that these files are utilized in

the course of the election, the data contained in these files becomes unique to that machine and election. For example, when a qualified voter casts a vote the exact date and time that the vote is cast is added to the voter's record. At this point, the data on the devices and the EPB USB becomes original evidence for the voting process.

20) Under the Federal Rules of Evidence Rule 902 paragraph 14, data copied from an electronic device, storage medium or file is admissible if authenticated by a process of digital identification and certified by a qualified person. This presumes that all data contained on the device is copied and reproduced. I saw no evidence that there is any such certification attesting to the completeness of the copied data associated with the conversion of the electronic EPB USB to the printed format that is produced by the Secretary of State. Without this certification, the original evidence must be preserved. In this case that would require that the systems involved in the election and the removable media used in the election be preserved in their digital state following the closure of the polls. There are forensic preservation processes that could have preserved the data, but there are no current processes or procedures approved by the Secretary of State to perform these operations.

21) The EPB USB is original evidence. The basic principle governing the preservation of electronic data and ensuring that digital evidence is admissible in court is that original evidence is the best evidence. Preserving a digital device in an original state ensures that the evidence is reliable, dates and times are factual, and that the data has not been altered. Failure to preserve digital evidence in a forensically sound manner can result in charges of spoliation and the inadmissibility of that evidence in court. Based on my review of the Hart InterCivic manuals and the Secretary of State's instructions to the municipality election officials, I do not see any

method or procedure to forensically preserve the voting systems or the digital media used in a Michigan election.

22) The EPB USB contains data that is unique to that specific EPB USB and to the equipment that the USB is plugged into. The following items are not recorded anywhere else in the night-end reporting:

- a. Same Day Voting Data. The quantity of same-day in-person registrations is not summarized on night-end reports.
- b. Same Day Voting Data. The voter identification/ information is not recorded in the printed total votes cast nor is this information delineated in the end-of-night voter list.
- c. Same Day votes. These votes are not separated out on the night-end ballot summary report.
- d. The reports produced at the closing of the polls will reconcile the voting numbers, but there is no method to separate out the same-day registers without the original EPB USB.

23) I have analyzed reports produced by the Secretary of State for the preservation of voting data and materials under the Federal Statute and have determined that those reports do not capture and preserve all the data contained on the EBP USB. The following data elements for and Electronic Pollbook and other voting equipment used in the election are not part of these reports:

- a) Computer Name that the Vote was Conducted On
- b) The Domain of the Computer
- c) Manufacturer of the Computer
- d) The Model of the Computer
- e) Processor Name

- f) Total Virtual Memory Size
- g) Free Virtual Memory
- h) Free Physical Memory
- i) Internet Connection Status
- j) Internet Connection Type
- k) Cable Internet Speed
- l) Cable Internet MAC Address
- m) Wifi Internet Speed
- n) Wifi Internet Mac Address
- o) Windows Operating System Version
- p) AntiVirus Program and Status
- q) Firewall Type and Status
- r) Bit Locker Disk Encryption Status
- s) Bitlocker Hard Disk Status
- t) Bitlocker Removeable Drive Status
- u) .Net Version
- v) Dymo Lable Version.

Once again, these data elements are not part of the reports that are produced for preservation by the Secretary of State, but would be data that should be preserved under the Federal statutes.

Should an audit of the election or should the voting records be produced in support of a legal action, the above components would be critical to prove compliance with election law, validate voting system configurations and the demonstrate the fairness of the election. Failure to

forensically preserve the EPB USB would have effectively deleted and wiped these elements of information, as they are not present or preserved on any other component of the voting system.

24) The following data fields for voter information from election day are not part of the night end reports:

- a) VOTERID
- b) BALLOTTYPE
- c) PRECINCT
- d) CREATE DATE – Recorded date of election.
- e) ADDRESS_ID
- f) LICENSE_NUMBER
- g) IDENTIFICATION_STATUS_ID
- h) DISTINCT_POLITICAL_AREA_ID
- i) CODE
- j) PARTYID

25) I had the opportunity to review FOIA documents produced by the Secretary of State's office to Scott Aughney. These documents included the official vote totals for Adams Township. Analysis of these official totals revealed some significant deviations from the data contained on the voting media at the local Township level.

- a) The Electronic Poll Book USB data for Adams Township recorded 1,362 voters in night end reporting. This includes the same-day registered voters.
- b) The Hillsdale County Canvassing Board confirms the quantity of 1362 votes in Adams Twp
- c) The State records indicate 1332 votes recorded in Adams Township. This is short 30 votes from the end-of-day totals in the Adams Township data. These numbers do not include the fourteen (14) same-day registration voters.

- d) A comparison of names between the two data sources illustrates seventy-nine (79) unique names on the Electronic Poll Book data for Adams township that are not listed on the State's official records.
- e) Conversely, there are sixty-four (64) names unique to the State's records that are not represented on the Adams Township Electronic Poll Book records.
- f) The combination of these report discrepancies documents an 11.5% difference in votes between township and state.

Without the data contained on the EPB USB data there is no manner by which these discrepancies could be investigated and reconciled. The EPB USB data is essential to any audit or reconciliation.

I have had the opportunity to review two reports created by Scott Aughney. The first report titled "BALLOTS CAST HILLSDALE COUNTY ADAMS TOWNSHIP ELECTION DATE 2020-11-03" was printed on 1/13/2022. The second report titled "BALLOTS CAST HILLSDALE COUNTY ADAMS TOWNSHIP ELECTION DATE 2020-11-03" was produced on 1/13/2022 as well. Both reports were produced in an Adobe Acrobat .pdf format document. Highlighting was applied to the "BALLOTS CAST HILLSDALE COUNTY ADAMS TOWNSHIP ELECTION DATE 2020-11-03" document on 1/17/2022.

This was done to highlight voters, who according to the report, voted in the November 3, 2020 election but were not registered until after that date. In some cases these voters data of registration reflects registering to vote 7 months after the election. Figure one is a screen capture of this report. Voter identification data has been blocked to preserve privacy. The original document is available for review.

Report Prepared by:

Scott Aughney

Jackson, Michigan

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BALLOTS CAST

HILLSDALE COUNTY

ADAMS TOWNSHIP

ELECTION DATE 2020-11-03

SORT BY

VOTER IDENTIFICATION NUMBER,

LAST NAME, FIRST NAME

Print Date:

1/13/2022

Total Ballots cast:

1332

VOTER IDENTIFICATION NUMBER	LAST NAME	FIRST NAME	REGISTRATION DATE	ELECTION DATE	IS ABSENTEE	IS PERMANENT ABSENTEE VOTER	YEAR OF BIRTH	GENDER
			2020-12-29	2020-11-03 00:00:00	V	V	1964	F
			2020-10-21	2020-11-03 00:00:00	V	V	1959	M
			2020-12-15	2020-11-03 00:00:00	V	V	1956	F
			1997-12-05	2020-11-03 00:00:00	V	N	1962	M
			1997-12-12	2020-11-03 00:00:00	V	N	1959	F
			1997-12-29	2020-11-03 00:00:00	V	V	1974	M
			2021-06-28	2020-11-03 00:00:00	N	N	1959	F
			2021-06-18	2020-11-03 00:00:00	N	N	1955	M
			1998-04-10	2020-11-03 00:00:00	N	N	1948	F
			1998-04-10	2020-11-03 00:00:00	N	N	1950	F

Figure 1 - Voter Registration After the Election


It is evident that the election date column reflects the date of the November 2020 general election and it is also apparent that on this one snippet of the report four (4) individuals registered well after the election date. A search was conducted on the QVR from the EPB.accdb file and none of these individuals were shown to have been registered before the election. A review of the total information contained in this report indicates that thirteen (13) individuals are recorded as successfully voting in the November 2020 general election that were not registered to vote until well after the election.

26) I have had the opportunity to examine multiple voting systems from multiple software vendors. It is clear from my experience that there is a blatant lack of cyber security protection within the election systems. In the case of Adams Township I have had a limited opportunity to examine the complete voting system, but the items that I have been able to examine confirmed that there are shared passwords utilized by the personnel supporting the election process. Specifically the primary data base that is utilized on the EPB USB is a Microsoft Access database named epb.accdb. This file is password protected, which is sound security practices, but Microsoft Access only support a single password for multiple users. Each person using this

data base would have had to have possession of this single password. This is known as a shared password. Sharing passwords is a violation of one of the basic tenants of sound cyber security practices.

27) It is clear from my examination of the materials, the Secretary of State's election reports and the digital EPB USB data that had Ms. Scott followed the directive from the Secretary of State's to delete the EPB USB data, none of these discrepancies could have been detected or substantiated.

SIGNED UNDER THE PAINS AND PENALTIES OF PERJURY THIS 14th DAY OF July
2022.



Benjamin R. Cotton

NOTARIAL CERTIFICATE

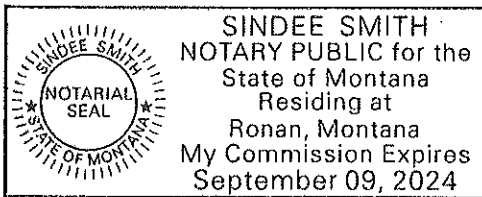
Acknowledgment

State of Montana

County of Lake

The attached record was acknowledged before me on 7-16-2022
(Date)

by Benjamin Richard Cotton
(Name of signer(s).)



[Signature]
(Notary Signature)

[Affix stamp above]

This certificate has been attached to the Affidavit of Benjamin Richard Cotton
(Type of record or document)

consisting of 10 page(s), dated July 11, 2022

Any evidence that this certificate has been detached or removed from the above described document may render the notarization invalid or unacceptable.

