Glasgow Data Recovery
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SAMPLE DIGITAL FORENSIC REPORT

Was the laptop in use during contracted working hours?

SCENARIO	Disputed working hours of a home-based employee over three weeks
INSTRUCTED BY	An accountancy practice (anonymised)
DEVICE	Apple MacBook Air, Apple silicon, 256 GB, FileVault enabled
PERIOD EXAMINED	7 to 25 September 2026
METHOD	Forensic logical image of the data volume, analysed with our Mac forensic system

Sample report: anonymised, details changed. This is an example of our reporting, based on real casework. Names, dates, file names and identifying details have been changed. It is not a live case file.

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01 Summary of findings

Over the 15 working days examined, the MacBook was in active use for an average of 4 hours 5 minutes a day, against contracted hours of 7.5. The pattern is not uniform. On five days the laptop record supports a full or nearly full day's work, and on four days it shows under two hours of use. Times are UK time (BST).

- **Active use.** Total active use across the 15 days was 61 hours 20 minutes. Timesheets for the same days claim 112.5 hours.
- **Work applications.** Of the active time, 44 hours 10 minutes (72 per cent) was in the practice's accounting software, its document system, spreadsheets and work email.
- **Long gaps.** On nine days there was at least one gap of more than two hours inside the contracted day during which the laptop was asleep with its lid closed.
- **Days that support the timesheet.** On 9, 15, 16, 22 and 24 September the record shows between 6 hours 20 minutes and 7 hours 40 minutes of work-application use.
- **Friday afternoons.** On all three Fridays, use ended before 13:15 and did not resume.
- **Limits.** The laptop cannot see telephone calls, paper files, client visits or work done on another device. A day of little laptop use is not, by that fact alone, a day without work.

The records support the conclusion that the laptop was used for substantially fewer hours than the timesheets record on most of the days examined (confidence: high as a measurement of the laptop). What the employee was doing when the laptop was closed is outside what a forensic examination can establish.

02 Instructions and scope

The client is an accountancy practice. A home-based bookkeeper's output had fallen, and a disciplinary process was under way concerning timesheets for three weeks in September 2026. The employee's position was that the full hours were worked. Both sides agreed that the laptop should be examined independently. The client asked four questions.

NO.	QUESTION	SHORT ANSWER
1	On each working day, when was the laptop in use?	Set out day by day below
2	How much of that use was work?	72 per cent
3	Do the records support the timesheets?	On five days, yes. On ten, the laptop shows materially less
4	What can the laptop not tell us?	Calls, paper, visits and other devices

This report was commissioned by the employer. It is written to be fair to both parties, and findings that support the employee's account are given the same prominence as those that do not.

03 How to read this report

Every finding in this report is labelled so that a reader can see at once how much weight it carries.

LABEL	MEANING
Observed fact	Something recorded on the laptop itself. The source record is named, and another examiner working from the same image would find the same thing.
Inference	What the examiner concludes from one or more observed facts. Each inference carries a confidence level.
Unresolved	A question the laptop cannot answer. Where another source could answer it, that source is named.

Confidence levels are used as follows. **High**: several independent records agree and no reasonable alternative fits them. **Medium**: the records support the conclusion, but an alternative explanation remains open. **Low**: the records are consistent with the conclusion and no more. Findings describe actions recorded under a user account. They do not, by themselves, identify the person at the keyboard or the reason for an action.

04 Evidence and method

Exhibit. One Apple MacBook Air with Apple silicon and a 256 GB internal drive, FileVault enabled. The employee handed it to the practice on 28 September 2026 by agreement. It was delivered to us the next day, with the login password supplied by the employee.

Imaging. Apple silicon storage is encrypted by hardware and cannot be removed for copying. A forensic logical image of the data volume was taken on 29 September with the Mac running and unlocked, and hashed with SHA-256 on completion. All analysis was carried out on a working copy.

Why speed mattered. macOS keeps its detailed record of app use for about four weeks. Because the laptop was imaged four days after the period ended, that record covers all 15 days in full. A month later, most of it would have gone.

Analysis. The working copy was analysed with our Mac forensic system, and the app-usage records were read with a second, independent parser. The two agreed to within one minute on every day.

Sources used.

- App-usage records, which log which app was in front, to the second.
- The power log, which records sleep, wake, lid and display events.
- Screen-lock and login records in the system log.
- Safari and Chrome history, counted by site category.
- File system event logs and saved document versions, as a cross-check that documents were being edited when the app record says so.

Times. Converted from UTC to UK time, BST (UTC+1).

05 Lawful basis and proportionality

The laptop is the client's property and was examined on the client's written instruction for the specific questions listed above. The examination was limited to the stated period and to material relevant to those questions. Personal content found on the laptop was not read beyond what was needed to classify it, and is reported by category and count, not reproduced. The client was advised to record its lawful basis for the examination and to keep this report confidential to those who need it, in line with the Information Commissioner's guidance on monitoring workers. The individual concerned may be entitled to request a copy of personal data held about them, including in this report.

06 How "active use" was measured

The method matters in a case like this, so it is set out in full.

- **Awake and unlocked.** A minute counts only if the display was on and the screen was unlocked.
- **An app in front.** The app-usage record must show an app in the foreground.
- **Idle time removed.** macOS dims and then sleeps the display after a period without keyboard or trackpad input. On this laptop the setting was ten minutes. Time after the last input and before the display slept is included, so the figures slightly favour the employee.
- **Work or personal.** Apps and websites were sorted into three groups using a list agreed with the practice: work (accounting software, document system, spreadsheet and word-processing apps, work email and calendar, the tax authority's website and banks' business portals), personal, and neutral (system settings, Finder, software updates).

> OBSERVED FACT
> On every day examined, periods when a document's saved versions show it being edited fall inside periods when the app record shows its app in front. The two independent records agree.

07 Day-by-day record

Contracted hours are 09:00 to 17:00 with 30 minutes for lunch, 7.5 hours a day. The practice confirmed that the bookkeeper may vary start and finish times, so all use between 07:00 and 20:00 is counted.

DATE	FIRST AND LAST USE	ACTIVE USE	WORK APPS	TIMESHEET
Mon 7 Sept	09:22 to 15:10	2 h 45 min	1 h 20 min	7.5 h
Tue 8 Sept	09:05 to 16:48	3 h 50 min	2 h 05 min	7.5 h
Wed 9 Sept	08:41 to 17:32	7 h 50 min	6 h 55 min	7.5 h

DATE	FIRST AND LAST USE	ACTIVE USE	WORK APPS	TIMESHEET
Thu 10 Sept	10:15 to 14:02	1 h 45 min	0 h 30 min	7.5 h
Fri 11 Sept	09:10 to 12:58	2 h 40 min	1 h 15 min	7.5 h
Mon 14 Sept	09:31 to 16:20	3 h 00 min	1 h 10 min	7.5 h
Tue 15 Sept	08:50 to 17:15	7 h 20 min	6 h 20 min	7.5 h
Wed 16 Sept	08:55 to 18:04	8 h 05 min	7 h 40 min	7.5 h
Thu 17 Sept	11:02 to 13:40	1 h 30 min	0 h 40 min	7.5 h
Fri 18 Sept	09:20 to 13:12	2 h 35 min	1 h 25 min	7.5 h
Mon 21 Sept	13:05 to 16:30	1 h 50 min	0 h 25 min	7.5 h
Tue 22 Sept	08:48 to 17:05	7 h 10 min	6 h 30 min	7.5 h
Wed 23 Sept	09:40 to 15:55	2 h 30 min	0 h 50 min	7.5 h
Thu 24 Sept	08:58 to 17:20	7 h 25 min	6 h 45 min	7.5 h
Fri 25 Sept	09:15 to 12:40	1 h 05 min	0 h 20 min	7.5 h

OBSERVED FACT

Total active use was 61 hours 20 minutes. Total work-application use was 44 hours 10 minutes, with the remainder split between personal (11 hours 35 minutes) and neutral (5 hours 35 minutes).

OBSERVED FACT

The five fullest days, 9, 15, 16, 22 and 24 September, account for 34 hours 10 minutes of the work-application time. On each of them the record is consistent with a full working day.

08 The gaps

DATE	LONGEST GAP INSIDE 09:00 TO 17:00	STATE OF THE LAPTOP DURING THE GAP
7 Sept	11:40 to 14:25	Lid closed
10 Sept	14:02 onwards	Lid closed until 08:44 next day
11 Sept	12:58 onwards	Lid closed until Monday
14 Sept	10:50 to 13:35	Lid closed
17 Sept	09:00 to 11:02; 13:40 onwards	Lid closed
18 Sept	13:12 onwards	Lid closed until Monday
21 Sept	09:00 to 13:05	Lid closed since Friday
23 Sept	11:15 to 14:10	Lid open, display asleep
25 Sept	09:50 to 12:15; 12:40 onwards	Lid closed

OBSERVED FACT

The power log records the lid closing and opening as separate events from display sleep. In eight of the nine gaps the lid was closed, and the laptop cannot have been used.

OBSERVED FACT

The laptop was awake and unlocked for a further 9 hours 40 minutes across the period with no app-usage activity and the display asleep. This time is not counted as active use.

INFERENCE

On ten of the 15 days, the laptop was used for materially less time than the timesheet records, by between 3.5 and 6.5 hours a day. Confidence: high. This is a measurement of the laptop and not of the employee's working time.

09 What the active time was spent on

APPLICATION OR CATEGORY	TIME	SHARE OF ACTIVE USE
Accounting software (web-based)	19 h 40 min	32%
Spreadsheets	11 h 15 min	18%
Work email and calendar	8 h 05 min	13%
Document system and PDF viewer	5 h 10 min	8%
Personal browsing: shopping, news, video and social media	9 h 20 min	15%
Personal messaging and mail	2 h 15 min	4%
Neutral: Finder, settings, updates	5 h 35 min	9%

OBSERVED FACT

Personal browsing was concentrated on the low-use days. On the five full days it averaged 22 minutes. On the other ten it averaged 45 minutes.

OBSERVED FACT

The practice's accounting software keeps its own log of entries by user. The practice supplied it. On the five full days it shows between 96 and 141 entries. On the four lowest days it shows between 4 and 11.

INFERENCE

The accounting software's own log, which is independent of the laptop, shows the same pattern of full and thin days. Confidence: high.

10 What the employee has said, and what the laptop shows

The employee provided a written account, which the practice passed to us with consent. Each point was tested against the records.

EMPLOYEE'S ACCOUNT	WHAT THE LAPTOP SHOWS
"I often work from paper bank statements and enter them later in a batch."	Consistent with 9, 15, 16, 22 and 24 September, where entry volumes are high. It does not explain days with few entries before or after
"On Thursdays I visit a client's premises."	10 and 17 September are the two lowest Thursdays. The practice confirms a client visit on 17 September, 14:00 to 16:30, and none on 10 September
"I take calls on my mobile away from the desk."	Cannot be tested from the laptop. The practice's phone system records would show call times
"The laptop sometimes sleeps while I am reading documents."	Allowed for: time before display sleep is counted. Lid-closed periods cannot be reading time
"On 21 September I had no power in the morning."	The laptop was not opened until 13:05. A power cut would not prevent use of a charged laptop, although it could affect home broadband

INFERENCE

The client visit on 17 September accounts for 2.5 hours of that afternoon's gap, and the findings are adjusted to reflect it. Confidence: high. The other explanations account for some variation and do not account for the overall shortfall. Confidence: medium.

11 Alternative explanations considered

- **Work on another device.** The accounting software can be used from any browser. Its log records the device for each session, and all sessions in the period came from this laptop.
- **A fault in the usage record.** The app-usage record and the saved-document versions are independent, and they agree throughout. The power log is a third independent source for sleep and lid events.
- **Clock error.** The laptop's clock is set automatically, and its times match the accounting software's server times to within seconds.
- **Legitimate flexible working.** Evening and weekend use was checked. There were 2 hours 10 minutes of work-application use outside 07:00 to 20:00 across the period, which is included in the total above.

12 Conclusions

QUESTION	FINDING	CONFIDENCE
When was the laptop in use?	61 h 20 min of active use over 15 working days	HIGH
How much of it was work?	44 h 10 min, or 72 per cent	HIGH
Do the records support the timesheets?	On five days, yes. On ten days the laptop shows 3.5 to 6.5 hours less	HIGH
Is the shortfall explained by work away from the laptop?	In part: one confirmed client visit. Not in full	MEDIUM
Was the laptop record itself reliable?	Three independent sources agree	HIGH

13 What we would also ask for

> WHAT WE WOULD ASK FOR
> The practice's telephone system call log for the employee's extension or work mobile, to credit time spent on client calls.

> WHAT WE WOULD ASK FOR
> The practice's diary of client visits for all three weeks, so that every confirmed visit is credited as the 17 September visit has been.

> WHAT WE WOULD ASK FOR
> The document system's access log, which may show documents read on a phone or tablet.

A report of this kind measures a machine. It should be one input to a fair process alongside the employee's own account, and we recommend that the day-by-day table is shared with the employee before any decision is made.

14 Glossary of records relied on

RECORD	WHAT IT IS	WHAT IT CAN AND CANNOT SHOW
File system events (FSEvents)	macOS's log of files created, renamed, moved and removed	What happened to which path. Each event is timed by the log file that holds it, usually a window of seconds to a few minutes.
Recent-item lists	Each app's list of recently opened documents and volumes	That a file was opened, and from where, including external drives. Most lists carry no time for each entry.
App-usage records (Biome)	Minute-by-minute record of which app was in front	How long each app was in use. Kept for about four weeks only.
Power log	The Mac's record of sleep, wake and lid events	When the laptop was awake. Not who was using it.
Quarantine and download records	A log of files downloaded from the internet	The file, the time and the app that fetched it, and often the web address.
Safari history	Browsing history database	Sites visited with times. If history is cleared, a marker records when.
Trash index	The hidden index inside the Trash folder	Original location of items put in the Trash. Not the time.
Print and version records	Print-job files and saved document versions	What was printed and when; earlier saved versions of documents.

15 About this sample report

This document is a sample. It is based on employment casework carried out by our forensic team and shows the structure, depth and wording a client receives. Names, dates, file names, device identifiers and other identifying details have been changed, and findings have been adapted so that no real person or organisation can be recognised. It is not a live case file and should not be relied on as evidence of any event.

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