

The AI self-audit

Eight prompts a mining or heavy civil contractor can run on their own paperwork, to find where AI would save the most time and money.

Before you start

I spent ten years underground as a mining engineer, on both ends of the daily report. I wrote them at the end of a twelve hour shift, and later I was the one in the office trying to work out from them whether the job was on time and on budget. This pack is the first half of how I would look at your operation, written so you can run it yourself with the AI tool you already use: ChatGPT, Claude or Copilot.

Who it is for.

The owner, the ops manager or a project manager of a mining or heavy civil contractor that is already running jobs. Pick one project and stay on it. One project done properly tells you more than the whole company done roughly.

How to use it.

Run the prompts in order, in one chat, so each one can build on the last. Start with the setup prompt on the next page. All eight take about an afternoon. Longer if you get the people who do the work to give you their own hours, which is worth it.

Take the names and the rates out first.

Before you paste anything into a public AI tool, remove your client's name, people's names and your real rates and contract values. Write "Client A", "Worker 1" and round made-up rates (\$100, \$50) instead. Keep the structure, because the structure is what the AI needs. Treat anything you paste into a public tool as if someone outside your company could read it. If your company has a business account with its own data settings, use that, and check with whoever looks after your IT.

It will sound sure when it is wrong.

A general chatbot reading a handwritten daily will get some numbers wrong and sometimes invent a field. That is fine here, because this is diagnosis, not data entry. The setup prompt makes it label every figure as from your documents, from you, or its own guess. Check the guesses.

How each prompt page works

Paste with it

The documents to have open, and what to strip out of them before they go in.

The prompt

In a grey box. Copy all of it, exactly as written, into the same chat.

A good answer

What you should get back, so you can tell when the AI did the work and when it guessed.

Start here: paste this first

This sets the rules for the whole conversation. Without it, a general AI tool fills every gap with what is typical for the industry, and you get an answer about somebody else's operation.

SETUP PROMPT. COPY EVERYTHING BELOW

I run a contracting company in mining or heavy civil. I am going to work through a self-audit with you to find where AI would save us the most time and money. Over this chat I will paste our own documents, with names and rates removed, and give you a series of prompts.

Rules for the whole conversation:

- Use only what I paste or tell you. If something is missing, ask me. Do not fill gaps with what is typical for the industry.
- Ask your questions ONE AT A TIME and wait for my answer.
- Mark every figure as FROM DOCUMENT, FROM ME, or YOUR GUESS.
- Plain language. No sales talk, no software or vendor recommendations.
- If you are not sure, say so. A wrong answer said with confidence is the worst thing you can give me.

Reply with "Ready" and one question: what kind of work we do, and how many projects we are running right now.

The eight prompts, in order

- 1. Map your daily report chain
- 2. Find where the same number gets typed again
- 3. Check an invoice against the rate card
- 4. Payroll and the invoice: one record or two?
- 5. Safety and inspection paperwork
- 6. Bid and estimating effort
- 7. Put hours and dollars on it
- 8. Rank it into your top three

If the chat loses the thread. Long conversations drift. If a later prompt seems to have forgotten an earlier answer, paste that table back in and carry on. Nothing is lost.

1

Map your daily report chain

Everything else in this pack hangs off this map, so take your time on it.

PASTE WITH IT One real daily report from last week (a photo is fine, crew names covered), plus the timesheet and daily cost sheet for the same shift if you have them.

PROMPT 1. COPY EVERYTHING BELOW

Here is one daily report from one of our projects, plus the timesheet and the daily cost sheet for the same shift.

Map the full chain this report travels, from the moment someone in the field writes it to the moment it becomes part of an invoice and a pay run. Ask me about anything the documents do not show, one question at a time.

For every hop, capture five things:

- WHO touches it (a role, not a name)
- WHAT TOOL (paper, group chat, Excel, accounting package, payroll, email)
- HOW LONG it takes them, per day or per week
- HOW OFTEN it happens
- WHAT BREAKS there (missing info, can't read it, wrong code, waiting on someone)

When you have it, give me:

1. A table of every hop in order, with those five columns.
2. How many hands it passes through, and the total hours a week across all roles.
3. Every hop where information is typed in again rather than moved.
4. The longest wait in the chain, and who is waiting on whom.

Then read the chain back to me and ask: "Did I get this right?"

A good answer

- Six to twelve hops. Fewer usually means it skipped one. In most operations the office touches the same report more than once.
- A role on every hop. "The office" is not a role.
- It asks about the back-and-forth when something is missing from the daily, and how long that waits. Sometimes it waits until the opposite shift wakes up.
- If it hands you a tidy five-step chain without asking you anything, it guessed. Ask it: "What did you assume?"

2 Find where the same number gets typed again

The map shows the hops. This follows the numbers through them.

PASTE WITH IT The chain table from prompt 1, plus the daily report, timesheet, daily cost sheet and the invoice backup that the same day ends up in.

PROMPT 2. COPY EVERYTHING BELOW

Using the chain you mapped and the documents I just pasted, follow the numbers.

Take every number that starts on the daily report: hours per person, meters or quantities, delay hours by code, equipment hours, materials used.

For each one, show me:

- every document it appears in, in order
- whether it was TYPED again by hand, COPIED, or CALCULATED from something else
- whether the value is the same everywhere. Quote any place it is not.

Then tell me:

1. How many times the same number is entered by hand before we can bill.
2. Which single number, typed wrong once, ends up wrong in the most places.
3. Any number on the invoice or in payroll that you cannot trace back to the daily report.

Do not fix anything or suggest software. Just show me the trail.

A good answer

- A trail for each number, document by document.
- A hand-entry count. Three or four is common: the timesheet, the cost sheet, payroll, sometimes a backup sheet as well.
- Real mismatches quoted from your own paperwork, not "there may be discrepancies".
- Question 2 is the one to read twice. For most contractors it is the hours, because the same hours drive both the invoice and the pay run.

3

Check an invoice against the rate card

Whoever does this by hand will tell you finding the disagreements is most of their month.

PASTE WITH IT One recent invoice, the rate card or rate schedule behind it, and the daily reports for the same period (a week is enough). Swap real rates for round made-up ones and keep the structure.

PROMPT 3. COPY EVERYTHING BELOW

Here is one invoice, the rate card behind it, and the daily reports for the same period. The rates are made up. The structure is real.

Check the invoice the way our office does it by hand:

1. Trace every invoice line back to the daily reports and the rate card. Mark each line MATCHES, DOES NOT MATCH, or CANNOT TRACE.
2. List anything in the daily reports that looks billable but is not on the invoice: delays, standby, extra work, equipment, materials.
3. List any invoice line the daily reports do not support. That is the line the client will push back on.
4. List every charge that seems to rest on an agreement with the client rather than a line in the rate card. Ask me about each one.

Then ask me how many hours this check takes our office for one invoice, and how many invoices we send a month.

A good answer

- Every line marked, with the document each number came from.
- List 2 is money you may have left on the table. Check one of them by hand before you believe it.
- On list 4 it asks you instead of calling the charge an error. Some of what you bill is a handshake, not a clause. A check that assumes everything comes from the rate card will be confidently wrong on exactly those lines.

4

Payroll and the invoice: one record or two?

The same hours drive what you bill and what you pay. Find out whether they come from the same place.

PASTE WITH IT The timesheets for one pay period, the payroll summary for the same period, and the hours you billed the client for the same days. Workers as numbers, pay rates removed.

PROMPT 4. COPY EVERYTHING BELOW

Here are the timesheets, the payroll summary and the hours we billed the client for the same pay period. Names are replaced with worker numbers.

1. For each worker and each day, compare hours on the timesheet, hours paid and hours billed. Show me only the places where the three do not agree.
2. For each mismatch, tell me which way it goes: paid but not billed, billed but not paid, or a plain typing error.
3. Tell me whether payroll and the invoice look like they are built from the same record or from two separate ones, and what in the documents tells you.
4. Ask me who catches these mismatches today, and when: the same week, at month end, or when somebody complains.

If you find no mismatches, say so plainly. That is a result too.

A good answer

- A short table of mismatches only, each with its direction.
- A straight answer on question 3. If payroll and the invoice come off two separate sheets, one typing error is a revenue error and a cost error at the same time.
- A clean pay period is worth knowing. Run it on a second period before you believe it.

5

Safety and inspection paperwork

Not the inspection itself. The hours spent collecting, typing, filing and chasing around it.

PASTE WITH IT A blank copy of each form your crews fill in (workplace or pre-shift exam, equipment pre-op checklist, JHA or JSA, incident report), and a line on where each one goes after it is signed.

PROMPT 5. COPY EVERYTHING BELOW

Here are the safety and inspection forms our crews fill in, and where each one goes after it is signed.

I am NOT looking to replace a signed inspection, an exam or any record that a regulator or our client relies on. The signature and the judgment stay with the person who signs. I am looking for the time spent AROUND those records.

For each form, ask me, one at a time:

- how many get filled in a week across all crews
- who collects them, and how
- where they get typed, scanned or filed
- who chases the missing ones, and how long that takes
- who reports on them (to the client, the owner, the regulator) and how often

Then give me:

1. A table: form, count per week, hours per week spent collecting, typing, filing, chasing and reporting.
2. Which of those steps are pure clerical work around the record.
3. Any form that gets filled in and then never read by anybody.

A good answer

- It keeps the record and the paperwork around the record apart. The typing, the chasing, the filing and the monthly summary for the client are fair game. The exam itself is not.
- If it suggests AI fill in or sign the inspection, ignore that part. An AI transcript as your compliance record is a regulatory exposure, not a time saving.
- Question 3 often turns up a form nobody reads. That is a finding, and it costs nothing to fix.

6

Bid and estimating effort

The bids you win at the wrong price cost more than the ones you lose.

PASTE WITH IT One recent bid or tender response, with client details and rates removed, and the final cost summary of a finished job that was similar, if you have it.

PROMPT 6. COPY EVERYTHING BELOW

Here is one recent bid we submitted and the final cost summary of a similar job we already finished. Client details and rates are removed.

1. List every input that went into the bid: quantities, production rates, crew sizes, equipment, delays allowed for, materials. For each one, ask me where the number came from: a past job, a spreadsheet, someone's memory, or the client's documents.
2. Ask me how many hours this bid took, and who did them.
3. Compare the assumptions in the bid with what the finished job actually did. Where were we furthest off, and in which direction?
4. Tell me which inputs we could pull from our own records if our daily reports were clean and searchable, and which will always need an estimator's judgment.

A good answer

- A source next to every input. If most of them say "someone's memory" or "a spreadsheet only one person understands", that is the finding.
- Question 3 in dollars or in production rate, not in adjectives.
- Bidding sits on top of clean daily reports. If prompt 2 showed your numbers typed four times, your history is not searchable yet, which is why estimating usually comes after the reporting is fixed.

7

Put hours and dollars on it

Do the arithmetic off your own numbers. They are the only ones nobody in your office can argue with.

PASTE WITH IT Nothing new if you are in the same chat. Have the loaded hourly cost for each role ready (wage plus burden).

BEST DONE With the people in the room. Put the task list on screen and have each person give their own hours in front of the others. Their numbers will beat yours.

PROMPT 7. COPY EVERYTHING BELOW

Using everything we found in this conversation, build me a cost table.

For every task we found that is typing, retyping, checking, chasing or filing, give one row:

task | role | people | hours a week each | loaded \$ per hour

Use this formula and show the working on every row:

monthly cost = (people x hours a week) x 4.33 x loaded \$ per hour

Two rules. Do not skip them:

- Count only the part of each person's week this task takes, never the whole week. A superintendent on site twelve hours a day is not twelve hours of paperwork.
- Then take 25 percent off every row, because a person will still check and approve whatever a system produces.

Ask me for any hours or rates you do not have. Do not estimate them.

Finish with the total per month and per year, before and after the 25 percent, and the three rows that carry the most money.

Worked example, made-up numbers. An office manager matching daily reports against timesheets: 1 person x 15 hours a week x 4.33 x \$55 an hour = \$3,572 a month. Take 25 percent off and it is \$2,679 a month, about \$32,000 a year, from one task.

A good answer

- The working shown on every row, so you can check it with a calculator.
- No hours it made up. Every figure marked FROM ME or FROM DOCUMENT.
- A total you would be willing to defend in front of your own office manager. If you would not, the hours are wrong. Fix them before prompt 8.

8

Rank it into your top three

Value, effort and how sure you are, scored the same way for every finding.

PASTE WITH IT Nothing new. If the tool has lost the thread, paste back the tables from prompts 1 to 7.

PROMPT 8. COPY EVERYTHING BELOW

Now rank everything we found. Score each finding from 1 to 5 on three things:

VALUE monthly dollars from the cost table, plus whether it cuts
 billing errors or payroll errors
EFFORT 1 = a simple, repeatable step from documents we already have
 5 = needs new data, a new system, or crews working differently
CONFIDENCE how sure we are the data exists and is clean enough to use

$\text{score} = (\text{VALUE} \times \text{CONFIDENCE}) / \text{EFFORT}$

Apply these rules, and tell me where a rule changed the order:

- Office work that asks nothing of the crews ranks ahead of anything the crews would have to do differently.
- Early picks must pay back inside one cycle of what they touch: one invoice cycle, one pay period, one rotation.
- Nothing that replaces a signature or judgment on a safety record.
- Where the knowledge lives in one person's head, the first step is writing the process down, not software.

Give me:

1. The full ranked table with scores.
2. My top three, each with: how it works today, how it would work, what it saves a month, and what has to be true first.
3. Every number in my top three that is YOUR GUESS rather than from my documents or from me.
4. What you could not check from what I pasted.

A good answer

- A top three that is mostly office work, and mostly on the path from the daily report to the invoice. That is where the hours usually are.
- An honest list 3. If half the numbers in your top three are guesses, you have a direction, not a decision.
- List 4 is the most useful thing on the page. It is everything an AI cannot see from a handful of pasted samples.

What the professional audit adds

You now have a top three built from a few samples and your own estimates. That is a real start, and it is yours whether or not we ever talk. Here is what changes when we do it with you.

WHAT YOU JUST DID

WHAT THE AUDIT DOES

A few samples, pasted in

A full month of daily reports from one project, the messy ones included, plus the monthly backup as you actually sent it, the invoice and rate card, the timesheet and the cost sheet

An AI filled the gaps by asking you

Interviews with your office manager, your site PM or superintendent and you. Then the map read back to your team: "did I get this right?"

Your estimate of the hours

The hours from the people who do the work, given in the room with the same honesty rules, so the number is one your own team signs off on

A ranked list

The three highest-ROI uses, each with how it works today, how it would work and what it saves, plus a 6 to 12 month roadmap and a walkthrough with your team

Nothing about where to stop

Where we would not put AI, said plainly. It is the section that gets the rest of your team on board

Done within 4 weeks. We sign your NDA before we see anything, and you can redact your rates first.

Bring your top three

If your top three looks right, I will tell you what it missed. If it looks wrong, that is worth twenty minutes on its own.

Book a 20 min call

go.bigdogmining.com/widget/booking/TNLVb3hJTtarj1VyVBYL

Daniel Gauerke, mining engineer. Ten years underground. Big Dog Mining.