

OPERATOR - HDD AND MINI-X

Field Recipe Book — your edition. Your day in order, your if/then card, nothing that isn't yours.

DOCUMENT NO.	REVISION	EFFECTIVE DATE	OWNER	APPLIES TO
NU-OPS-002-C	1.2	July 7, 2026	Adam Pelewski, Owner	Operator - HDD and Mini-X

HOW TO USE THIS BOOK

This booklet is your full day, written like a recipe: **what you need before you start** (your kit), **the day in order** (keyed to moments, not clock times — start times change by market, and the nightly schedule post tells you when and where), and **the if/then card** for when things go wrong, so nobody freezes and nobody guesses. New hire: read your chapter the night before day one, carry it your first two weeks. It pairs with the Workforce Playbook (NU-OPS-001): the Playbook says what must happen; this book shows you how to do it with zero help.

Why the if/then cards matter: every rule on them is a decision already made. Follow the card and the right person hears the right problem at the right time — and the Owner's phone stays quiet unless it truly shouldn't.

THE LADDER — WHO YOU CALL, IN ORDER

Crew Member → Crew Lead → Field Supervisor → Owner. Gas in the air or anyone hurt beyond first aid: **911 first**, always, then the ladder. On a utility strike, the Supervisor calls the utility's emergency line and the Owner — one caller, no double-calling.

THE OWNER GETS CALLED ONLY FOR

- An injury needing more than first aid
- A utility strike with damage
- A job shut down by police or an inspector
- A customer threatening legal action
- Unplanned spend over \$500

Everything else stops at the Crew Lead or the Supervisor. That is the system working.

THE PAPERWORK THAT RUNS THE DAY (KNOW THESE NAMES)

ARTIFACT	WHAT IT IS	WHO OWNS IT
Nightly schedule post	Posted in the crew chat before the Supervisor goes home: start time, market/yard, crew assignments with work-order number per crew, and the Driver's truck, trailer, and run sequence.	Supervisor
JSA	The daily job safety brief. Every person stands in it, names a hazard, signs it — before any work, every day.	Crew Lead runs it; Supervisor files it
Crossing sheet	One line per utility crossing on a bore: the utility, its measured depth, the clearance the bore needs, and the pothole photo. Filled by the Locator on the path walk; signed by the Operator before the rig moves ; rides with the bore log into the DFR.	Locator
Bore log	One log per shot — rod number, depth, pitch, written by the Locator as each rod goes, countersigned by the Operator at end of shot. What billing and strike defense both run on.	Locator writes; Operator countersigns

DFR (Daily Field Report)	Per crew, per day: units installed, hours, photos before backfill and after restoration. Compiled by the Crew Lead, approved by the Supervisor the same day, and entered by the Supervisor into the Nova app (Softtr) — the app is the tracker of record . Work not on a DFR does not get billed.	Crew Lead compiles; Supervisor approves & enters in app
DVIR	Driver's vehicle inspection report — pre-trip and post-trip, truck AND trailer. Open defects go to the mechanic the same night.	Driver
Damage report	Internal one-pager, filled the SAME DAY for any damage — a utility, private property, a vehicle, a machine — whether we caused it or found it already broken. Facts and photos only, never fault language. Reporting it first is how a repair stays a repair instead of a claim.	Whoever found it; Supervisor reviews; Owner sees it
Timekeeping app	Your clock-in/out — the pay record. What you tell your crew lead is billing units. Both must happen, and they must match. [name the app here]	Everyone

CH. 3 OPERATOR — HDD DRILL & MINI EXCAVATOR

Reports to: Crew Lead / Supervisor · Daily proofs: inspection sheet with opening & closing hours · countersigned bore log · production numbers & photos · maintenance list in writing

A good day puts the planned footage in the ground at plan depth with zero utility contact, every rod logged as it happens, and a machine that is greased, locked, and ready to run again tomorrow.

BEFORE YOU START — YOUR KIT

- Last night's post: start time, yard/market, your crew — screenshot it.
- Full PPE on your body, not in your truck: hard hat, glasses, hi-vis, gloves, boots, hearing protection.
- The work order and prints — know the scope and bore path before you leave the yard.
- HDD days: charged locator support — the Locator runs the wand, you confirm the beacon and carry a spare beacon battery.
- Grease gun with spare tubes, spare hydraulic fluid, and a spill kit riding on the machine.
- Mud products matched to the soil on the plan, and a plan for where water comes from.
- Charged phone with the crew chat and camera — your photos are the proof of done.

THE DAY

WHEN YOU ARRIVE AT THE YARD

1. Clock in by the posted start.
2. Walk your machine cold: engine oil, hydraulic fluid, coolant, tracks, hoses, pins, guards. Look under it for fresh drips.
3. Write the engine hours on the inspection sheet BEFORE you start it.
4. Start it, warm it up, work every function slow — rotation and thrust, or boom, stick, bucket, swing — and listen for anything wrong.
5. Fault found? Tag it DO NOT OPERATE, photo it, tell the Crew Lead. A \$50 hose you ran anyway becomes a \$15,000 pump.

Done when: inspection sheet has opening hours, and the machine is warmed and ready — or tagged out with the Crew Lead told.

BEFORE THE MACHINE MOVES AT THE JOB

1. Sign the JSA at the crew brief. No signature, no work.
2. **Get the crossing brief from the Locator:** where every crossing sits, its measured depth, and the clearance the bore needs. Repeat the list back to him, then **sign the crossing sheet** — the rig does not move before your signature is on it.
3. Ticket status comes from the Locator's morning check, through the Crew Lead: valid ticket, positive response from every utility. No valid locate — the machine stays parked. No exceptions.
4. Put eyes on every crossing: each one potholed — visually exposed — before your head or bucket gets near it. Paint is an estimate; the open hole is the truth.
5. Walk the full bore path or dig area yourself and match marks to prints. Anything off — stop and ask before iron moves.

Done when: JSA signed, crossing sheet signed, locates confirmed through the Locator, every crossing exposed, and you can say the plan back without looking at it.

WHEN YOU SET UP THE MACHINE

1. Park on stable, level ground — block or grade it if it isn't. A tilted drill walks off the shot.
2. HDD: stake and anchor the machine so it can't rock under thrust.
3. HDD: mix mud for TODAY'S soil and test it with the Marsh funnel against the mix chart laminated on the mud system — sand wants thicker (≈50–70 sec), clay thinner with additives (≈35–45 sec) [\[confirm Nova's chart\]](#) . Wrong mud is how you lose returns and frac out into someone's yard.
4. HDD: beacon test — the Locator confirms depth and pitch read from the housing before the head goes in the ground.
5. Mini-X: spoil pile at least two feet back from the trench edge; swing path clear of people.

Done when: machine level and anchored, mud tested for the soil, locator talking to the beacon, swing clear.

WHILE YOU'RE BORING OR DIGGING

1. Drill to the plan: the Locator shoots every rod — depth and pitch — before you push the next. No signal, no pushing. Ever.
2. **One log:** confirm the Locator has written the rod into the bore log before the next rod goes. His hand writes it; you countersign at end of shot. A rebuilt log defends nobody.
3. Hold the planned separation from every marked utility. Can't hold it — stop and get the Crew Lead before the next rod.
4. Watch mud returns at the entry pit every rod. Flow slows or stops — stop pushing, go straight to the frac-out play.
5. Mini-X: dig in lifts, everyone out of your swing, nobody in a trench past waist deep without sloping, benching, or a box.
6. Touch, nick, or snag ANYTHING that isn't yours — stop right there, don't cover it, go to the strike play.

Done when: footage going in per plan, the log has every rod the moment it's pushed, zero unreported contact.

AT LUNCH

1. Shut down and grease every zerk on the lube chart in the machine's door pocket — spindle and breakout wrenches, or boom, stick, and bucket pins.
2. Check hydraulic level; look for fresh drips that weren't there this morning.
3. Top off mud and water for the afternoon so you're not caught short mid-bore.
4. Read the bore log back **with the Locator** — current through the last rod? Fix it now while you both remember.

Done when: machine greased, no new leaks, mud and water squared away, log current to the last rod.

LAST HOUR ON SITE

1. Stop at a clean point: HDD — park the head at a known spot, write the rod count. Mini-X — never leave an open trench unprotected: plate, backfill, or fence it.
2. Shut down proper: idle cool-down, controls neutral, attachments flat on the ground.
3. End-of-day walkaround; closing engine hours on the sheet.
4. Count production with the Crew Lead: footage, pits, units — with photos. Work not reported today does not get billed, period.
5. Tell the Crew Lead anything the machine needs, even small — a slow leak reported today is a down machine avoided next week.

Done when: Crew Lead has your footage, pit count, units, and photos for the DFR before anyone rolls.

BEFORE YOU LEAVE

1. Stage or load the machine per the Crew Lead's plan for tomorrow.
2. Lock it down: cab locked, fuel cap locked, keys OUT and handed to the Crew Lead — machines with keys in them disappear overnight.
3. Send your maintenance list in the crew chat so it's in writing — even if it's "none."
4. Check the chat for tomorrow's post before you're off the clock.

Done when: machine secured with keys handed off, maintenance list sent in writing, and you know where to be tomorrow.

WHEN THINGS GO WRONG — THE IF/THEN CARD

IF THIS HAPPENS	DO THIS	WHO YOU CALL
Machine won't start at the yard	Check the basics once: battery connections, fuel, master disconnect, neutral switches. Not running in 15 minutes — tag it, grab another task. Don't crank until you cook the starter.	Crew Lead now — he arranges mechanic or swap
Morning check finds a fault — leak, cracked hose, cut track, missing guard	Tag DO NOT OPERATE, photo it, write it on the sheet. Not "just for today" — that's how small repairs become blown pumps.	Crew Lead now
Hydraulic leak mid-bore or mid-dig	Stop, shut down, spill kit under and around the drip — oil in a creek or storm drain is a fine plus a shutdown. Photo everything.	Crew Lead now; he decides fix-in-place or swap

Mud returns slow or stop — possible frac-out	Stop pushing immediately. Walk the whole path looking for mud surfacing — yards, driveways, pavement cracks, creeks, storm drains. Found — berm and contain with whatever you have. Never “push through it.”	Crew Lead now. Supervisor before restarting if mud reached water, pavement, or private property
You hit, nick, snag, or scuff ANY utility — even tracer wire or duct wall	Stop. Shut down. Everyone back. Gas: kill engines, evacuate upwind, no smoking. Don’t touch, don’t backfill, don’t cover. Photos. A covered nick becomes an explosion or a six-figure claim.	Gas or injury past first aid: 911 first. Then Crew Lead → Supervisor — the Supervisor calls the utility and the Owner, not you
Locator says head depth doesn’t match plan	Stop pushing. He re-shoots twice from clean ground away from interference; check the beacon battery. Still off — no rod goes on hope.	Crew Lead before the next rod
Rod stuck — won’t push, won’t pull	Don’t max torque yanking until something snaps — a twisted-off rod turns a slow day into a lost bore and a dig-up. Gentle: rotation, more mud, small moves. Note rod count and depth.	Crew Lead now; Supervisor makes the recovery call
Soil changes — rock or cobble mid-bore	Stop, note the rod where it changed. Don’t grind a dirt bit on rock — you’ll burn tooling and go nowhere. Different tooling, mud, or route is not your day-one call.	Crew Lead now
Inspector or utility rep shows up	Polite, keep working safe, don’t argue, don’t guess, don’t sign. Show the JSA and ticket if asked.	Crew Lead immediately; Supervisor if work is stopped; Owner only via the Supervisor if shut down
Mini-X trench wall caving or sloughing	Everybody OUT now — collapsed soil weighs like concrete; you cannot dig a buried man out fast enough. Nobody back in until sloped, benched, or shored.	Crew Lead now; Supervisor signs off before re-entry
Marks missing, faded, or don’t match prints	No digging “close enough.” Park the machine on that segment; work where marks are good.	Crew Lead now — the site’s Locator calls the re-mark in; no Locator on the job, Crew Lead gets the Supervisor to call it
Angry homeowner or bystander while the machine runs	Shut down or swing away first so nobody gets hurt. Calm, no arguing, no fault, no promises — your promise becomes a claim.	Crew Lead handles them; Supervisor if they threaten legal

NEVER — THESE END CAREERS

- Never put a bit or bucket in the ground without a valid 811 locate with positive responses. Not “staying shallow,” not “marks are probably good.”
- Never cover, backfill, or hide a utility contact — even a scuffed tracer wire.
- Never operate a tagged-out machine or bypass a guard, interlock, or safety switch.
- Never push a rod without a locator shot on the one before it. Drilling blind is how gas mains get hit.
- Never make up log or production numbers after the fact. A faked log destroys the company’s defense — and unreported work never bills.
- Never let anyone into an unprotected trench past waist deep; never leave keys in an unattended machine.

YOUR PROOFS — WHAT SOMEONE CHECKS TONIGHT

- Signed JSA with today’s date.
- Inspection sheet with opening AND closing engine hours, faults noted or “none.”
- **Your countersignature on the Locator’s bore log** — one log, matching the footage you reported.
- Production numbers and photos handed to the Crew Lead for the DFR before leaving site.
- Machine staged or loaded, locked, keys physically with the Crew Lead.
- Maintenance list sent in the crew chat, in writing, same day.

I have read this chapter, been trained on it, and can run this day. Employee: _____ Date: _____ Trainer:
_____ Date: _____

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