PATLOC SAFETY SYSTEMS

PUMPJACK SAFETY / OPERATOR BRIEFING

Pawl control. From ground level.

An engineered mechanical retrofit for pawl-equipped pumping units.



PATLOC.COM / NOVEMBER 2026

Designed by oilfield operators

A mechanical retrofit developed for crews who work on pumping units.

10+ years

Field experience and deployment across international oilfields.

Thousands

Installations reported across U.S. oilfields.

100% mechanical

No external power or electronics required for actuation.



PATLOC HARDWARE / FIELD INSTALLATION

Deployment figures are company-reported.

Where manual pawl work adds risk

Access, equipment movement and nonstandard tools can compound exposure.



FIELD INSTALLATION SHOWN FOR CONTEXT

- **Access and footing**

  Wind, ice, mud, rain and grease can complicate climbing and positioning.

- **Unintended movement**

  Shifting counterweights and worn brakes can expose crews to crush hazards.

- **Improvised work**

  Hammering, temporary restraints and improvised tools vary by crew and site.

- **Access equipment**

  Lifts and cranes can add cost, logistics and time.

At five events per unit per year, a 1,000-unit fleet schedules this task 5,000 times.

One incident can affect the entire operation

The impact can extend from the crew and site to production, liability and corrective work.

01

People

Severe crush trauma or a fatality can affect families, morale and crew confidence.

02

Operations

A shutdown or investigation can defer production and delay maintenance. Supervisors and HSE can be diverted for weeks.

03

Liability

Workers’ compensation, claims, legal fees, settlements and higher premiums may follow.

04

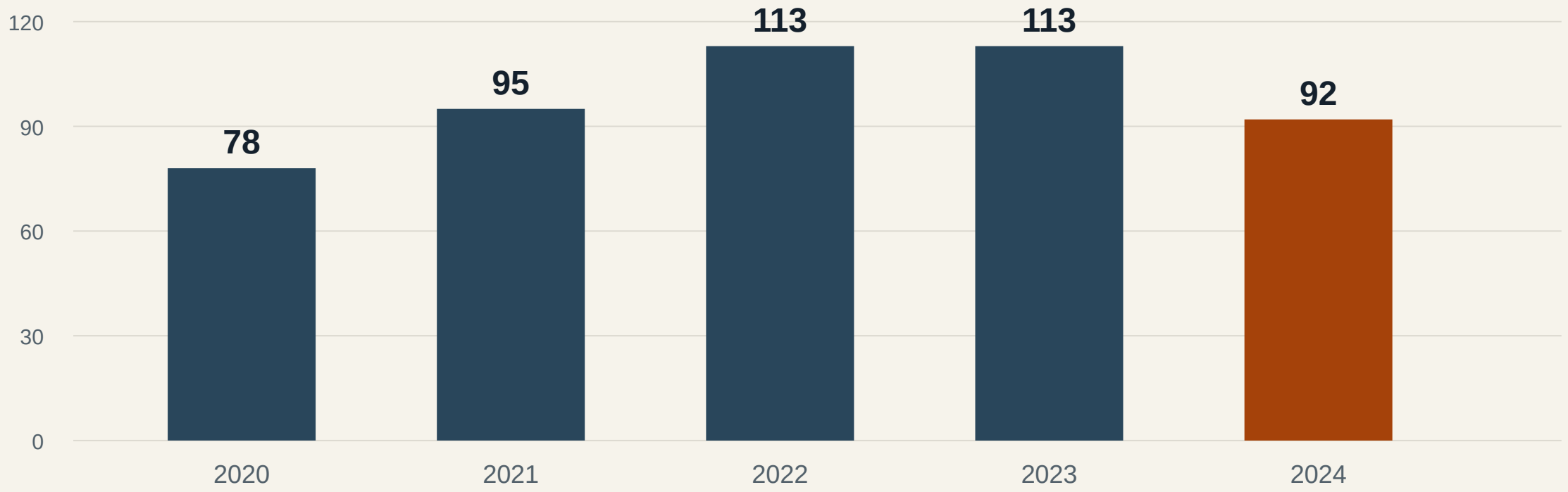
Recovery

Retraining, documentation and corrective actions can affect schedules and contractor trust.

Regulatory scrutiny and operational consequences depend on the incident and jurisdiction.

Fatalities across U.S. oil and gas extraction

Private-sector occupational fatalities, all causes, including drilling and support activities.



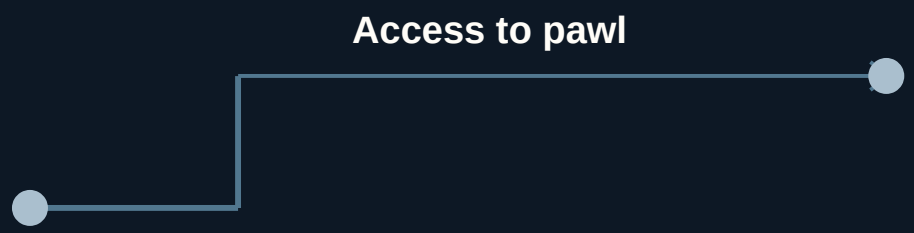
Source: U.S. Bureau of Labor Statistics, CFOI. These counts are industry-wide. BLS does not identify pawl incidents in this series.

Move routine pawl actuation to ground level

Operators stay at ground level for routine pawl actuation. The approved energy-control procedure still applies.

CONVENTIONAL EXAMPLE

Elevated access

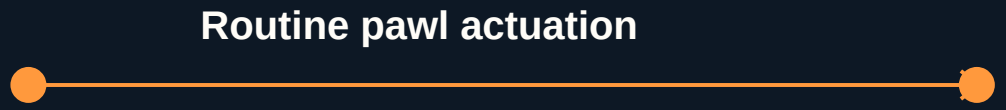


GROUND LEVEL

Crew approaches at ground level

PATLOC ON A COMPATIBLE UNIT

Ground-level control



Operator remains at ground level

The conventional example may involve climbing or access equipment and two workers. PatLoc supports one-person actuation, subject to site staffing rules.

Fit the unit. Standardize the task.

Designed for positive engagement

The company describes the mechanism as patented. Verify engagement and controlled release under approved conditions.

Typical installation under 30 minutes

Company-reported for standard installs. Confirm make, model, pawl geometry and site requirements.

No hot work for standard installation

A repeatable method can support crew training, LOTO consistency and service planning.

Field conditions and site procedures determine when work can proceed.



The two time figures measure different steps

Use the company comparison to frame a pilot with a like-for-like timing protocol.

CONVENTIONAL TASK ESTIMATE

35:00

35 minutes

PATLOC PAWL ACTUATION EXAMPLE

00:03

3 seconds

34.95 minutes per event is the assumed time difference in the fleet model.

Three seconds refers to pawl actuation. Measure the full procedure and actual critical-path well downtime separately.

From service events to recovered well-hours

Illustrative annual case for a fleet of pawl-equipped pumping units.

1,000 PUMPING UNITS × **5** EVENTS / UNIT × **34.95** MINUTES / EVENT

DIVIDE BY 60 →

2,912.5

MODELED WELL-HOURS / YEAR

Equivalent to 121.35 aggregate well-days

Hardware investment is $2.50 million at $2,500 per unit. The model assumes the full time difference reduces critical-path downtime.

What drives the $661k annual case

Gross modeled value for 1,000 pumpjacks, before deployment and operating costs.

PRODUCTION VALUE / 60.4%

4,854.17 barrel-equivalent volume × $82.24/bbl

$399,207

40 BOPD ÷ 24 × recovered well-hours

LABOR VALUE / 39.6%

2,912.5 credited hours × $90/hr

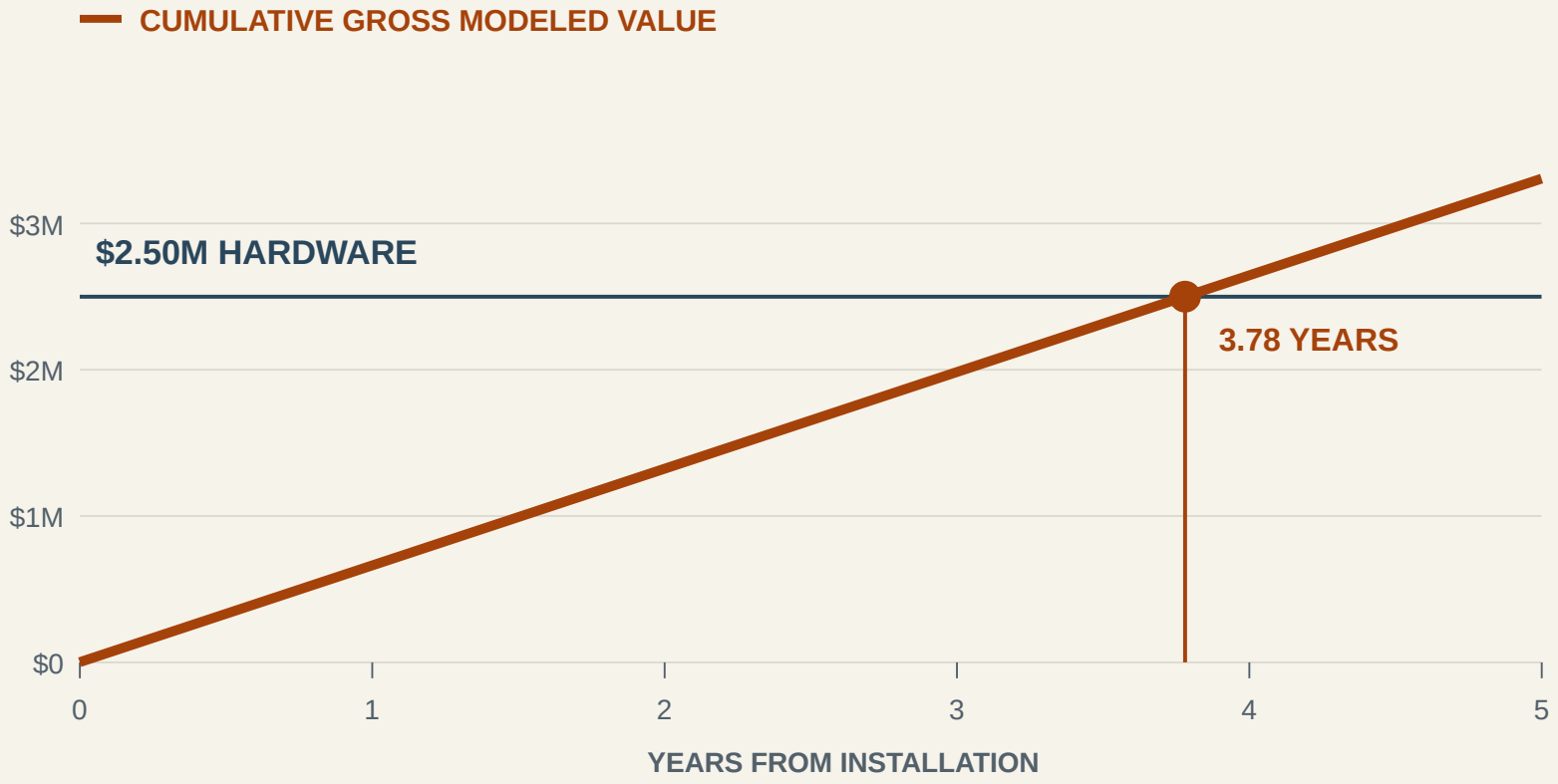
$262,125

One credited labor-hour per well-hour. No separate credit for crew reduction.

WTI Cushing spot, EIA, Nov 24, 2026. Use realized netback, actual critical-path time and monetizable labor for a purchase decision.

3.78-year simple hardware payback

Illustrative base case at $2,500 per unit and $661,332 in annual gross modeled value.



HARDWARE-ONLY CASE

$2,500

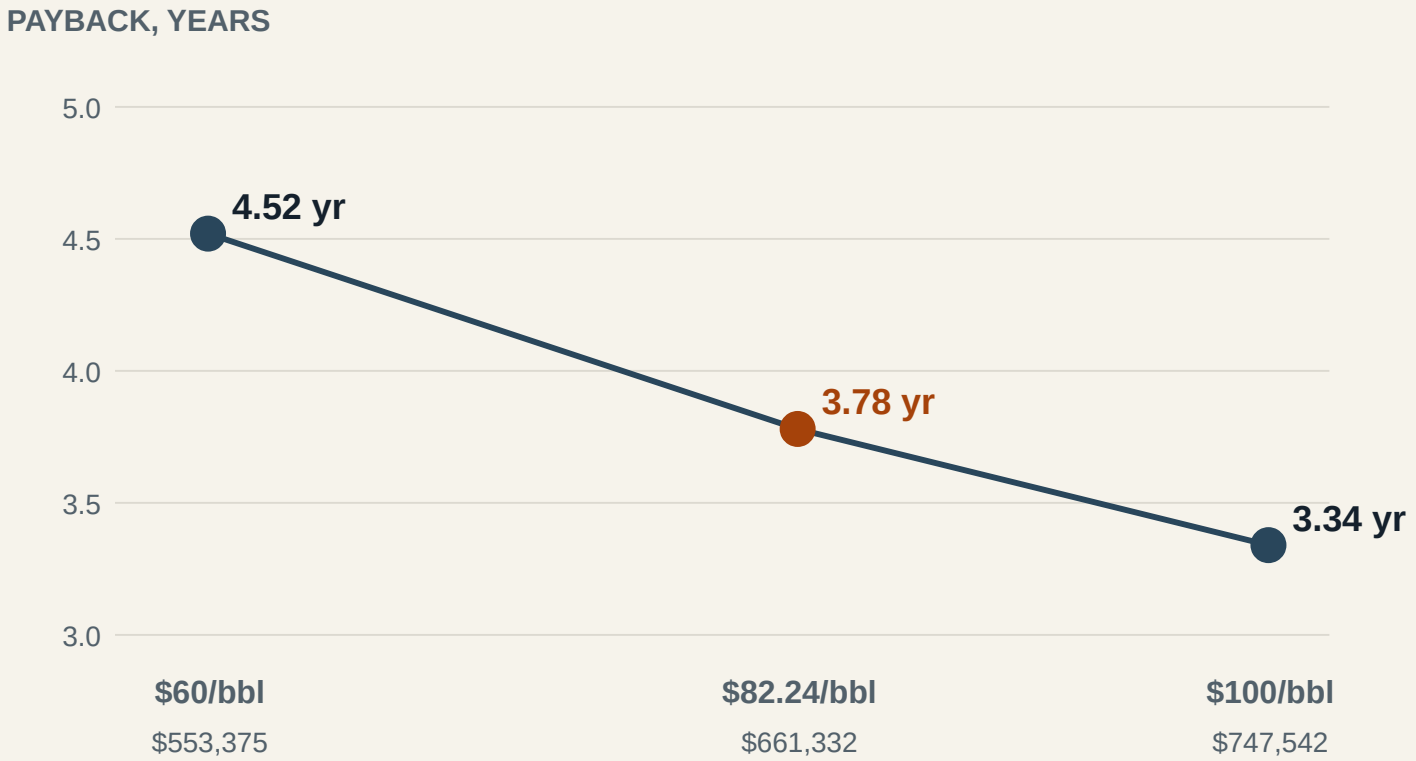
per unit

$661.33 annual gross modeled value per unit

Assumes full realization. Installation, freight, tax, upkeep and netback deductions are excluded.

The business case changes with realized value

Modeled hardware-only payback at different oil prices. All other assumptions stay constant.



AT THE $82.24 WTI CASE

6.26 years

If oil value is realized and no labor value is credited.

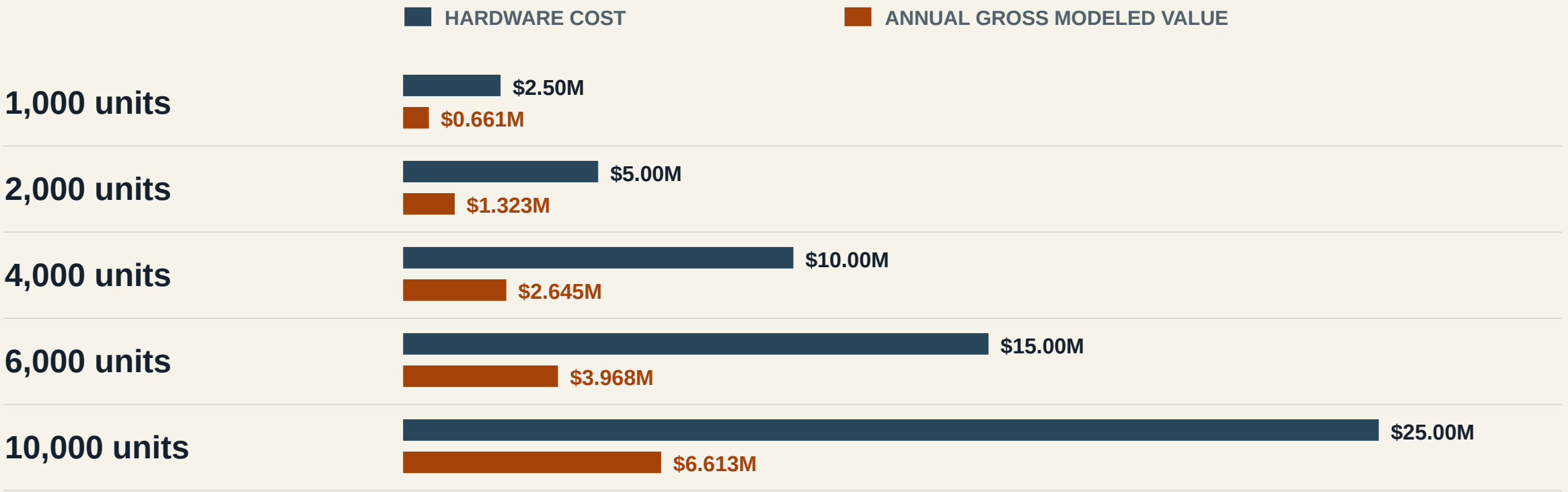
7.56 years

If only 50% of modeled oil and labor value is realized.

Prices are sensitivity inputs. WTI is a benchmark. If production is merely deferred, value the timing benefit separately.

Scale the case across the fleet

Linear illustration under the same production, labor and service assumptions.



Each unit is priced at $2,500. Confirm well productivity, fit and actual captured value by asset group before scaling.

Measure a pilot before sizing the rollout

Put comparable timing and site-specific economics in front of operations, HSE and procurement.

01

Confirm fit

Share pumping-unit makes, models, numbers and locations. Verify pawl geometry and site requirements.

02

Time the same work

Record crew size, actuation, full isolation time and time off production before and after installation.

03

Price the fleet

Use installed cost, realized oil value and monetizable labor to evaluate the rollout.

Compare equivalent work under the operator’s approved procedures and verify whether recovered time affects the production schedule.

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Plan a field evaluation

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APPENDIX

Basis of the numbers

Benchmarks, company estimates and claims that require field verification.

Oil and payback	EIA Daily Prices, November 25 release (November 24, 2026 close). WTI $82.24/bbl; Brent $91.80/bbl. Payback = hardware cost ÷ annual modeled gross value.
Industry data	U.S. BLS CFOI private-sector series (NAICS 211, 213111, 213112). CDC/NIOSH FOG and OSHA DAL-CPL-04-00-003 give broader incident and enforcement context.
Original fleet example	Legacy deck used $85/bbl and reported $674,585/year. Holding its inputs constant and avoiding intermediate rounding gives approximately $674,729/year.
Field verification	Company-reported timing, installation and deployment figures should be verified for the application. Legacy injury-rate shares and guarantees require supporting records.

EIA: eia.gov/todayinenergy/prices.php · BLS: bls.gov (CFOI) · CDC: cdc.gov/mmwr/volumes/72/ss/ss7208a1.htm · OSHA: osha.gov