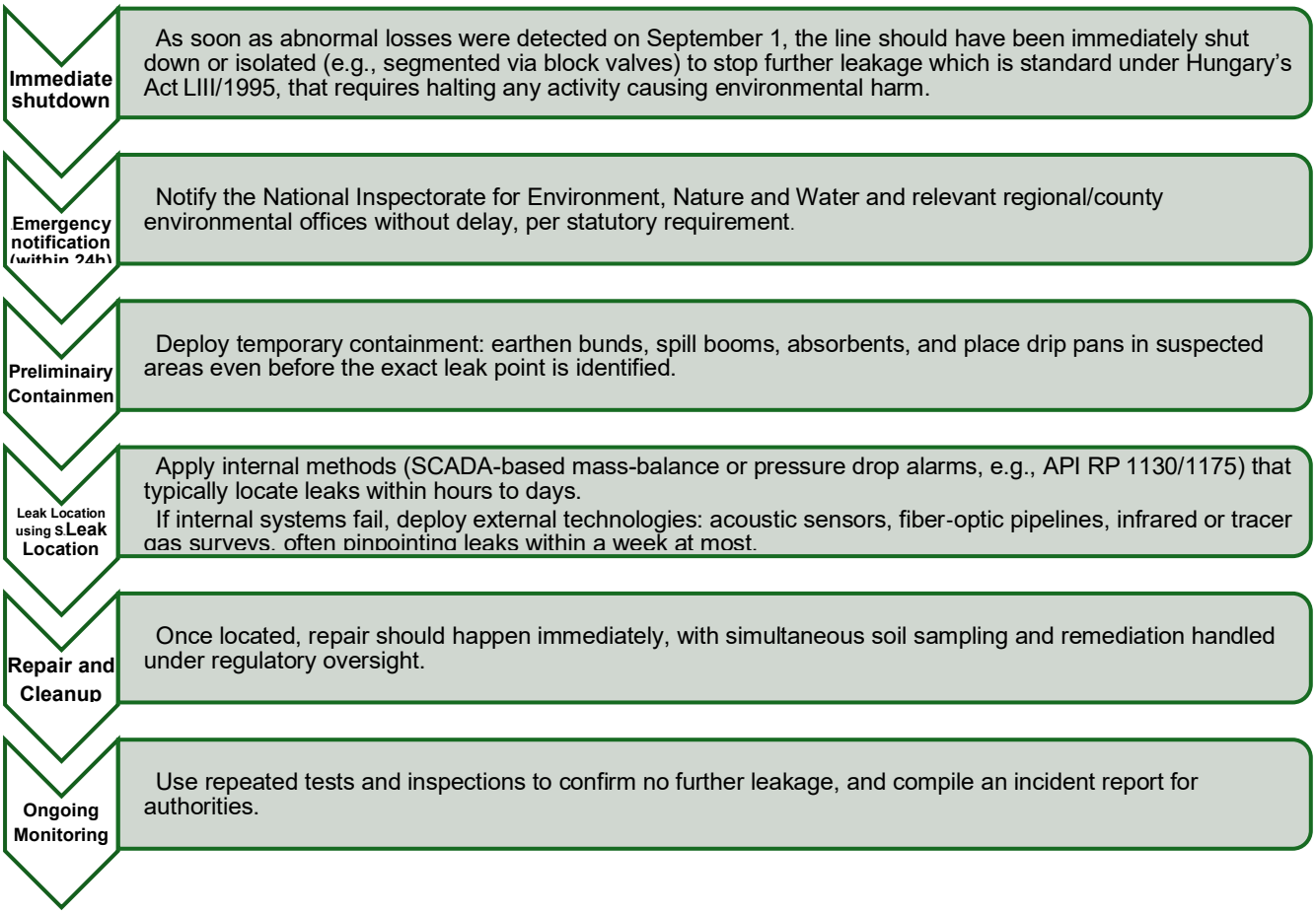
MOL Transmission Pipeline Leak(s) – Hungary 2024

Summary
On September 1 (or 10 unclear), 2024, MOL the operator of a 60-bar high-pressure oil transmission pipeline suspected to be between 50 and 60 years old. in Hungary detected a loss of product. Initially suspected as theft, the loss was eventually confirmed as a pipeline leak, with estimates rising from 10 m^3 to 487 m^3 of oil lost. Despite this, the operator reduced pressure only and stop operation, however a few days later they restarted operating the pipeline again, this took over 7 weeks, claiming this was necessary to locate the leak, before officially notifying Hungarian authorities on October 16, 2024. This prolonged delay in containment and reporting violates standard industry practices and Hungarian environmental law, which require immediate shutdown, prompt notification (within 24 hours), and swift leak detection and remediation. Keeping the pipeline active for weeks during a known leak is not aligned with international standards (e.g. API RP 1130/1175 or EU Regulation 2024/1787) and could constitute regulatory non-compliance or negligence.

Step-by-Step Explanation of what should've been done



Question Raised: Is it realistic to keep the transmission line running for 7 weeks (approximately) to find the leakage?

In my opinion it is definitely not. Best practices, such as those in API RP 1130/1175, aim for detection within hours to days, not weeks. 7 weeks is far outside any industry norm. Even magnetic acoustic or fiber-optic sensing can pinpoint leaks in a matter of days.

Relevant Legal & Industry Standards

- **Hungary's Environmental Act LIII/1995:** Requires immediate halting of harmful activities and prompt reporting to the environmental inspectorate.
- **API RP 1130 & RP 1175** (widely recognized best practice): Mandate leak detection sensitivity, precision in locating leaks, and prompt shut-down protocols.
- Comparable **EU/GER TRFL standards** also require multiple independent LDS systems and rapid response to minimize leak duration.

Explanation of Industry Standards

API Technical Standards

- **API RP 1130** – "Computational Pipeline Monitoring for Liquids"– Provides design and performance guidance for internal leak detection systems (LDS), defining key metrics such as sensitivity (hours), accuracy (≤ 24 h), robustness, and reliability.
- **API RP 1175** – "Pipeline Leak Detection Program Management"– Outlines how operators must implement leak detection programs, including rapid shutdown triggers, controller protocols, and alarm criteria.

EU Regulation & Standards

- Regulation (EU) 2024/1787 – Leak Detection & Repair (LDAR)- Applies to underground/aboveground pipelines: Requires multi-step detection:
  - initial screening → excavation/drilling → repair where needed.
  - Immediate repair after detection; delays must be justified with evidence.

Summary of Industry Standards & EU Directives

- **API 1130/1175:** Mandate algorithmic and programmatic approaches to detect and act on leaks within hours to days, followed by shutdown.
- **EU Regulation 2024/1787:** Requires stepwise detection and prompt repair, including underground pipelines, reflecting rigorous LDAR obligations.
- **German TRFL:** Mandates multiple independent LDS, capable of continuous and transient detection, as well as location of leaks.

Case Studies

British Petroleum BP Prudhoe Bay (Alaska, 2006)

Incident: A 34-inch pipeline developed a 0.25-inch hole due to corrosion; the leak persisted for 5 days before being discovered by an operator during a drive-by inspection.
Response:

1. Pipeline was shut down immediately upon discovery.
2. A unified incident command system responded with rapid deployment of crews.
3. Regulatory investigation revealed failure to pig (inspect) since 1998, leading to corrosion.

Outcome: Over 212,000 gallons spilled. BP faced a $20 million criminal fine and was ordered to install smart pigs for inspection protocols.

Enbridge Line 6B / Kalamazoo River (Michigan, 2010)

Incident: A 40-foot segment ruptured, spilling diluted bitumen into Talmadge Creek and extending into Kalamazoo River.

Detection: Though internal alarms sounded immediately, operators misinterpreted them, delaying shutdown. It was 18 hours before staff alerted to the spill, after a utility employee noticed it.
Response:

1. Pipeline shut down after initial leak detection.
2. Hundreds of personnel deployed to contain and clean.
3. Ongoing remediation took months to years.

Outcome: Cleanup costs exceeded $1.2 billion. The delay in proper alarm analysis was a critical failure point.

Key Takeaways & Relevance to MOL Case

Aspect	Industry Standard	MOL Case (7 week leak)
Leak Detection Time	Hours to few days	*7 weeks, well beyond norm*
Immediate Shutdown	Yes	*No, pressure was reduced and transportation was stopped. Few days later transportation resumed.*
Alarm Interpretation	Investigated Immediately	*Delayed, assuming possibe theft or testing needed*
Regulatory Compliance	Immediate Reporting	*Reported after 6+ weeks*
Consequence	Major fines/orders	*Possible regulatory backlash*

(Possible action to undertake) Actions for Greenpeace Hungary to undertake

Enforce Compliance & Transparency

- Request full data from MOL and regulators on leak volume, timeline, cleanup efforts, and environmental testing.
- Advocate for air, soil, and water sampling reports from local wells and Lake Velence, since benzene contamination has already been detected.

Legal and Regulatory Action

- Push the National Inspectorate for Environment, Nature and Water to:
  - Open an official violation proceeding under Act LIII/1995 for delayed notification and continued operation.
  - Impose administrative fines, mandate full remediation, and possibly stop further pipeline use.
- Use EU mechanisms: as Lake Velence is a Natura 2000 protected site, file a complaint with the European Commission under the Habitats Directive, urging infringement proceedings like those initiated for Lake Balaton and Fertő.

Community Mobilization

- Encourage local residents to collect testimonies of health impacts, gasoline smell, or water discoloration.
- Launch public awareness campaigns to pressure regulators and the government for transparent clean-up. (this has been ordered and it is taking place, however significant pollution remain).
- Build alliances with environmental NGOs (e.g., ClientEarth, local waterkeeper groups) to demand robust government action.

Potential Court Action

- If administrative routes stall, Greenpeace can:
    - Bring cases to the Environmental Tribunal, arguing:
    - Violation of 24-hour reporting obligations.
    - Damage to Natura 2000 protected sites.
    - Negligence and breach of environmental duty.
- Use this incident as a precedent, similar to successful cases like Lake Fertő and Neusiedl, where courts halted harmful development projects.

Next Steps Recommendation

- Formally request documents from MOL and environmental authorities under FOI (Freedom of Information – The Hungary Fundamental Law and Act CXII of 2011) .
- Engage a legal team to identify infringements of Hungarian and EU laws.
- Prepare for ecological impact assessments focused on Lake Velence's hydrology and biodiversity.
- Build a public campaign, combining expert voices, local testimonies, and legal pressure.

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