Extending Pipeline Life in Steel Production

How CPM Pipelines Delivered a 50-Year Solution with Zero Downtime

Water is the lifeblood of steelmaking. From cooling furnaces and rolling mills to high-pressure descaling, gas cleaning, and product pickling, every step demands significant water volumes—7,500 to 63,000 gallons per ton of steel, depending on the process. While electric arc furnace (EAF) facilities that recycle scrap are more water-efficient than integrated plants, even they depend on dependable water transport.

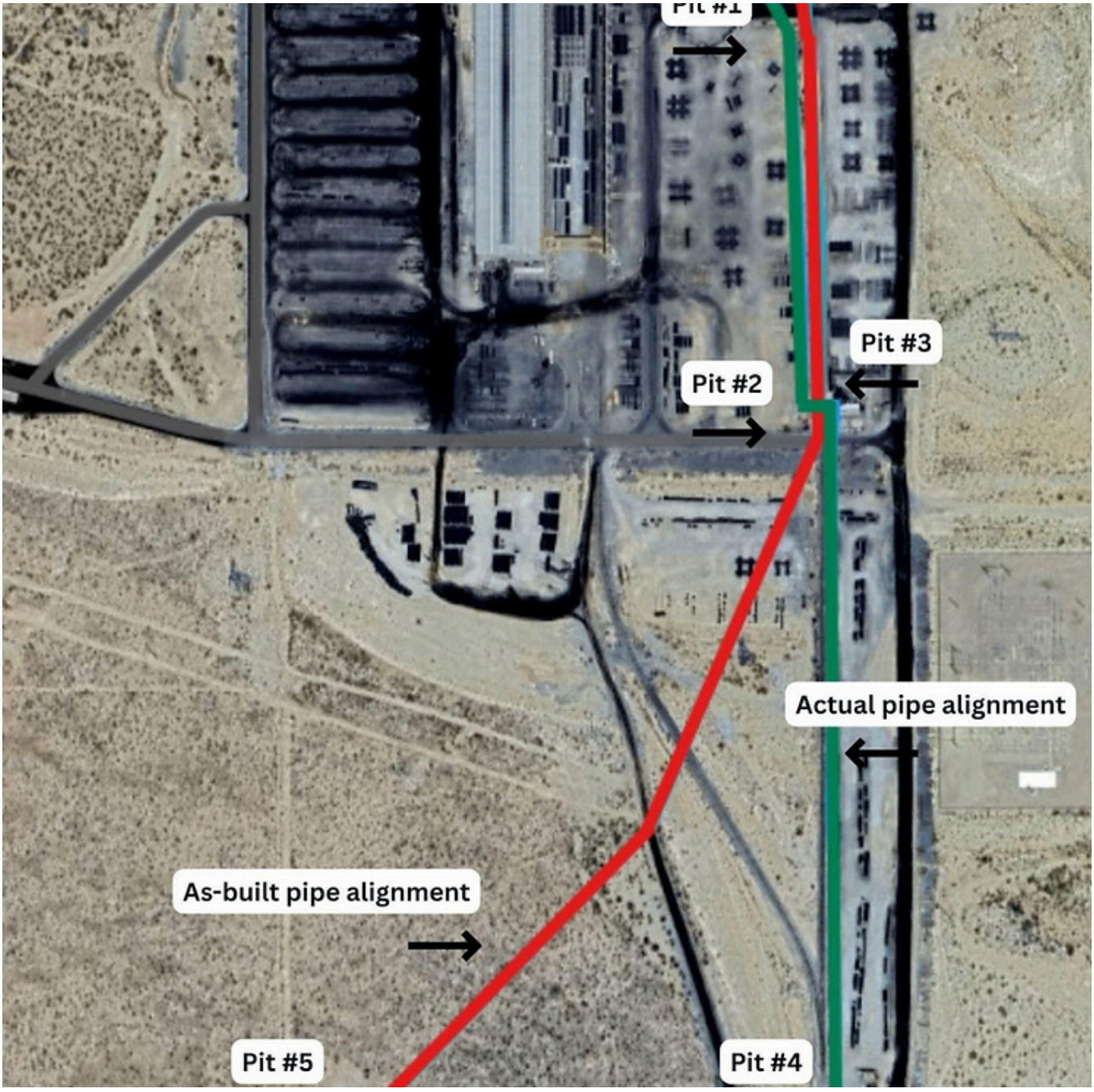
The Challenge

A major steel producer in the western United States recycles scrap into rebar and wire rod.Its process water travels nearly a mile through a buried pipeline to evaporation ponds.

During a routine inspection, the line failed an air-pressure test. A single break was repaired, but the overall pipeline condition remained unknown. To protect operations for the long term, the facility turned to CPM Pipelines to:

- Pinpoint the true pipe alignment
- Locate additional leaks
- Rehabilitate and re-line the pipeline for another 50 years of service

> **Engage with us:** How often does your facility pressure-test critical pipelines to avoid unplanned shutdowns?



Project Highlights

Locating the Pipe

- Actual alignment differed from the original as-built drawings.
- 6" PVC C-900 pipe buried 5–6 feet deep, running 2,000 feet.
- Soft-foam pigging with sonde technology revealed the precise route.

Access & Challenges

- Five excavation pits required at bends and pull points.
- Cast-iron section discovered at the plant tie-in before the PVC transition.
- Two additional breaks found 200 feet south of the first pit.
- Hazards included high-voltage lines, heavy debris, multiple utilities, and a section encased in 10" steel beneath railroad tracks.

> **Your turn:** Which step—locating, excavation, or working near hazards—would pose the biggest challenge at your site?

Our Solution: BulletLiner® W Series

CPM installed the BulletLiner® W Series System in manageable segments.Each section underwent CCTV inspection to confirm fit and dryness.The entire rehabilitation was completed in just three weeks, and the line was back in service 30 minutes after final inspection—no curing time required.

> “The project was a total success… We started using the pipe 30 minutes after completion because we did not have to wait for the liner to cure.”— *Facility Production Manager*

> **Think about it:** How would same-day return-to-service impact your production schedule?

Results & Key Takeaways

- **Accurate pipe locating** streamlines rehabilitation and reduces surprises.
- **Close client collaboration** keeps complex projects on time and on budget.
- **Modern lining technology** like BulletLiner® delivers immediate return-to-service and decades of protection.

This project proves that proactive inspection and advanced relining can extend the life of industrial water infrastructure by half a century—while keeping production running without a hitch.

> **Final question:** Could a similar assessment save your facility from unexpected downtime or water-loss costs?

Ready to protect your critical pipeline? Contact CPM Pipelines today to discuss inspection, pigging, and lining solutions tailored to your operation.