



CLEAR SOLUTIONS for complex fluids

Process for Treating Pipeline Hydrostatic Test Water during Pigging Operations



CHALLENGE

- Treat and discharge pipeline fluid in accordance with LADEQ permit following emergency repair and hydrotest of pipeline crossing the Atchafalaya River, in North America, United States, South Central Louisiana



SOLUTION

- Rapid mobilization of equipment package, technicians, and Environmental Engineer to site to quickly address Customer emergency



RESULTS

- Permit compliance achieved, water treated and discharged, and pipeline back in service in timely manner

SUCCESS STORY

Process for Treating Pipeline Hydrostatic Test Water during Pigging Operations

CHALLENGE

A major pipeline company recently conducted hydrostatic testing and pigging operations on 56 miles of pipeline in south central Louisiana. The original plan for the project was to flood the pipeline with water from the Atchafalaya River and perform multiple pig runs while discharging the water from the pipeline back into the river. The company assumed the fluids returning from the pipeline would be in compliance with the state’s NPDES permit. However, after obtaining fluid samples from the pipeline during the project, it was discovered that they were not in compliance with the discharge permit. This prevented the scheduled discharge of the hydrotest water into the river.

Since pigging operations were scheduled to continue, operations were delayed until a resolution for treatment and discharge of the contaminated pipeline fluids could be found. **CETCO ENERGY SERVICES, (CETCO)** was selected as the solution! As operations for the hydrotest and pigging project were being delayed, timely mobilization and setup of CETCO’s equipment were a necessity. CETCO was onsite and setup immediately, successfully completing the project within the Pipeline Company’s schedule. The table below illustrates CETCO’s success:

CETCO SOLUTION

The company expected approximately 67,000 barrels of fluid to return from the pipeline.

In order for proper pig runs to occur, it was necessary to run the pigs at a rate that would produce approximately 1,000 gallons of water per minute, or between 20 and 25 barrels of water per minute. Secondly, since smart pigs were incorporated into the pigging operations, there could be no operational downtime during pigging in order to achieve the maximum performance from the pigs. CETCO’s hydrotest water treatment capabilities were the key in making the project a success, as the pipeline fluids had to be continuously treated and discharged during the pigging operations.

RESULTS

CETCO supplied personnel and equipment capable of handling such a large-scale project. CETCO achieved water treatment rates of over 20 barrels per minute. The entire project was completed successfully, with CETCO treating and discharging 68,200 barrels of water into the river.

Parameter	Hydrotest Fluid Maximum Contaminant Levels (ppm)	Permit Discharge Criteria (ppm)	CETCO’s Effluent (ppm)
Total Organic Carbon (TOC)	266	50	ND (< 3)
Total Suspended Solids (TSS)	70	90	ND (< 5)
pH	6 - 8	6 - 9	7 - 8
Lead	0.095	0.010	ND (<0.010)
Oil & Grease	< 5	15	ND (< 5)
Benzene	0.439	0.050	ND (<0.005)
Toluene	0.081	*	ND (<0.005)
Ethyl Benzene	31.9	*	ND (<0.005)
Xylenes Total	183	*	ND (<0.010)
Total BTEX	215	0.250	ND (<0.010)

