

## Stopples Installation and Valve Removal Project Timeline

Date	Time	Event
9-Jul-21	8:25 AM	Gates opened and gas leak survey conducted by Atmos Survey Technician with RMLD and CGI instruments. Survey Tech remained on-site to monitor for natural gas during project work.
	8:30 AM	OSHA representative enters site to photograph site.
	9:15 AM	OSHA representative exits site.
	9:25 AM	Bobcat personnel enters site and flags off around excavator to launcher.
	9:35 AM	Bobcat personnel removes light plant to outside fence.
	9:46 AM	Fesco personnel enters to work on removing flare stack. Atmos and Bobcat start working to secure valve handle and discuss excavation activities.
	11:48 AM	24-inch valve handle secured with fabricated metal bracket. Fesco begins removing flare piping from launcher. Pressure gauge moved from blowdown stack by launcher door to 1-inch valve used for flare stack connection. 1-inch valve on blowdown stack utilized for venting with gauge closer to work area for better monitoring.
	12:09 PM	Atmos closed off mainline by-pass line feeding kicker line to blowdown kicker line and verify seal of by-pass line valve.
	12:23 PM	Fesco personnel exit site with flare stack.
	1:02 PM	Atmos blows down kicker line, pressure drops and levels out with blowdown valve continuing to release gas indicating seepage on by-pass valve. Blowdown valve closed and request for greasing equipment called in.
	1:41 PM	Bulldog Services enters site with hydrovac truck to begin excavating work.
	3:43 PM	Bulldog Services exits site with loaded hydrovac truck and additional truck ordered.
	4:59 PM	Second Bulldog Services hydrovac truck arrives and continues excavation work.
	6:16 PM	Bulldog Services exits site with hydrovac truck. Excavation work shut down for the night and will resume the next morning.
6:20 PM	All personnel exit site, gates closed and locked, and site secured.	
10-Jul-21	7:10 AM	Gates opened and gas leak survey conducted by Atmos Survey Technician with RMLD and CGI instruments. Survey Tech remained on-site to monitor for natural gas during project work.
	7:20 AM	Atmos and Bobcat personnel enter site to continue excavation of 24-inch pipeline for stopple installation.
	2:00 PM	Bobcat completed excavation of pipeline and personnel enter bellhole to begin sandblasting of pipe for wall thickness testing.
	3:00 PM	Non-Destructive Testing technician conducted wall thickness testing of 24-inch pipe.
	5:25 PM	Wall thickness test completed and reviewed by engineer. Bobcat personnel lowered stopple into bellhole to prepare for welding.
	8:05 PM	Welders on south side of stopple completed side seam weld.
	8:39 PM	Welders on north side of stopple completed side seam weld.
	8:43 PM	RRC inspector Kevin Colteryahn reviewing welding procedures identifies discrepancies in procedures. Welding of stopple fittings stopped to review welding procedures.
	10:38 PM	Atmos provided incorrect welding procedures for stopple installation and correct procedures were provided to job site. Welders returned to bellhole to start welding of stopple ends.
	11:43 PM	Welders completed welding on west end of stopple fitting.

11-Jul-21	12:50 AM	Welders completed welding on east end of stopple fitting.
	1:44 AM	All personnel exit site, gates closed and locked, and site secured.
12-Jul-21	7:10 AM	Gates opened and gas leak survey conducted by Atmos Survey Technician with RMLD and CGI instruments. Survey Tech remained on-site to monitor for natural gas during project work.
	8:55 AM	Welders completed welding on two 2-inch tap fittings on 24-inch pipe for depressurizing after stopple installation.
	9:02 AM	Stopple contractor TD Williamson starts moving in to work on installing stopple equipment.
	2:33 PM	TD Williamson completes 2-inch taps and starts tapping 24-inch pipe.
	5:35 PM	Tapping of 24-inch pipe is completed and removal of tapping equipment begins.
	7:00 PM	Stopple tool bolted on flange and ready to install.
	7:20 PM	Process of inserting stopple begins.
	7:31 PM	Stopple in-place.
	7:40 PM	24-inch pipeline section between stopple and launcher valve was blown down through 2-inch tap. Section of pipe between stopple cups was blown down through 2-inch tap with some continued pressure, indicating seepage past stopple cup on gas flow side of stopple. After blowdown of both sections the 2-inch taps continued to show release of gas. 2-inch blowdown valves were closed and work shut down for the night.
	8:05 PM	All personnel exit site, gates closed and locked, and site secured.
13-Jul-21	7:15 AM	Gates opened and gas leak survey conducted by Atmos Survey Technician with RMLD and CGI instruments. Survey Tech remained on-site to monitor for natural gas during project work.
	7:45 AM	24-inch pipeline sections between stopple cups and between stopple and launcher valve were blown down through 2-inch taps.
	8:01 AM	Launcher kicker supply line blown down at mainline by-pass. Kicker blow down continued to release gas and air mover equipment was installed to pull gas out of line while unbolting 4-inch kicker valve.
	8:30 AM	Additional air mover installed on launcher on 1-inch by 24-inch valve to pull gas out of launcher while unbolting 4-inch kicker valve. Started unbolting kicker valve.
	8:58 AM	4-inch kicker valve removed. Valve appeared to be in completely closed position. Internal portion of valve appeared to be in good condition with grease around plug and on walls and no noticeable markings on the plug. No debris was observed inside valve or on tarp. Blind flange coverings were bolted on both ends of valve and valve wrapped in plastic. Blind flange coverings were bolted on launcher and kicker feeder line, then air mover removed from the blow down at mainline by-pass.
	9:46 AM	Air mover installed on 2-inch on launcher side of stopple. Air mover on launcher remained in place and unbolting of 24-inch valve began.
	12:43 PM	24-inch valve removed. Valve appeared to be in completely closed position. Internal portion of valve appeared to be in fair condition with grease around ball and on walls. Flange gaskets were destroyed during removal of valve leaving some paint flakes and dirt from the unbolting process inside the valve. Three possible grooves were noticeable on ball, two on launcher side and one on mainline side of ball.

Only paint flakes and gaskets pieces were observed on tarp.

1:00 PM A blind flange covering was placed on mainline and air movers removed.

1:03 PM Launcher door opened and door seal and rim inspected. Door and seal appeared in good condition.  
Only approximately 12 inches of the launcher end was visible enough for inspection. Interior wall contained a dark colored film the entire circumference of barrel. Two areas at the 6 o'clock portion of the barrel appeared to have the film scraped off. One area of 8 to 10 inches on the inside edge of the barrel rim and another area on the interior weld for the launcher door assembly, each area appeared to have the film scraped off, possibly by the pig push pole.

2:15 PM Completed interior inspection of launcher with borescope. The borescope provided a low-quality view of the interior and inspection was unable to distinguish any surface abnormalities.

2:28 PM Gauge pig was opened, transmitter removed, and pig closed up.

2:38 PM Transmitter removed from black plastic tube. Transmitter was not loose in tube and a pressure release sound was emitted when transmitter released from tube. An O-ring seal appeared to be extruding on one side from the location between the cap and transmitter body. The cap on transmitter was difficult to unscrew and appeared to have pipe wrench marks on main body. Cap was removed and batteries taken out without any indications of pressurization in the battery compartment. Transmitter cap was replaced and all transmitter contents placed in plastic bag.

3:15 PM Wooden crates arrive at site and kicker valve and pig are inserted in crates. Truck arrives to haul valves and pig to secured storage.

4:17 PM Kicker valve and pig crates, bolt pallet, and 24-inch valve are loaded on haul truck.

4:26 PM All personnel exit site, gates closed and locked, and site secured. Haul truck leave Farmersville site.

6:33 PM Haul truck arrives with valves at [REDACTED]. Storage facility unable to crate 24-inch valve at the time of unloading and will be crated next day.

7:06 PM Kicker valve and pig crates, bolt pallet, and 24-inch valve are unloaded at storage facility. All personnel exit building, doors closed and locked, and secured.

13-Jul-21 10:30 AM Storage location opened to crate 24-inch valve.

10:54 AM 24-inch valve lifted and placed on crate base.

3:45 PM 24-inch valve crate completed.