



# Los Alamos National Laboratory Chromium Plume Fact Sheet



## CAMPAIGN:

*Chromium  
Interim  
Measure and  
Characterization*

## LOCATION:

*Beneath Sandia  
and Mortandad  
canyons at Los  
Alamos National  
Laboratory  
(LANL)*

## CONTAMINANT OF CONCERN:

*Hexavalent  
chromium*

## PROJECT GOAL:

*Control migration  
of the chromium  
plume and  
reduce the plume  
footprint, while  
investigating the  
final remedy*

## ESTIMATED COMPLETION:

*2020-2022*

## HISTORY

From 1956 to 1972, workers at a non-nuclear power plant at LANL periodically flushed chromium-contaminated water from the cooling towers into Sandia Canyon. Chromium was commonly used as a corrosion inhibitor. The water flowed down Sandia Canyon as surface water, penetrated the underlying rock layers, and in time seeped into the regional aquifer beneath Sandia and Mortandad canyons. LANL ceased releasing chromium-contaminated water in 1972.

### FEBRUARY 2019

#### STATUS

- Implementing the Interim Measure along the southern edge of the chromium plume
- Preparing to implement the remaining portion of the IM along the eastern edge of the plume
- Evaluating Final Remedy options

## BY THE NUMBERS

50  
parts per  
billion

*New Mexico hexavalent chromium  
groundwater standard*

2  
years

*Approximate time it will take the IM to  
fully control the plume within the LANL  
boundary*

1 mile long  
x ½ mile wide x  
50-75 ft. thick  
> 50ppb

*Approximate size of the chromium plume*

¼ mile

*Approximate distance from the plume  
edge to the nearest Los Alamos County  
groundwater well*

900-  
1,000  
feet

*Depth of the regional aquifer. Chromium is  
located within the top 100 feet of the aquifer.*

5  
miles

*Distance (as measured at the surface)  
of the plume from the Rio Grande*

35

*Number of monitoring, extraction and  
injection wells installed in and around  
the plume*

0

*Amount of chromium contamination in  
Los Alamos County drinking water wells*

## CHROMIUM INTERIM MEASURE AT A GLANCE

An interim measure is a set of actions that have a high probability of meeting environmental protection goals until a final remedy is implemented. In the case of the chromium plume, a combination of extraction, treatment, and injection is being used to control plume migration and hold it within the LANL boundary.

### WHY IT'S NEEDED

The Interim Measure, approved by the New Mexico Environment Department, is needed to address plume growth.

### WHAT IT IS

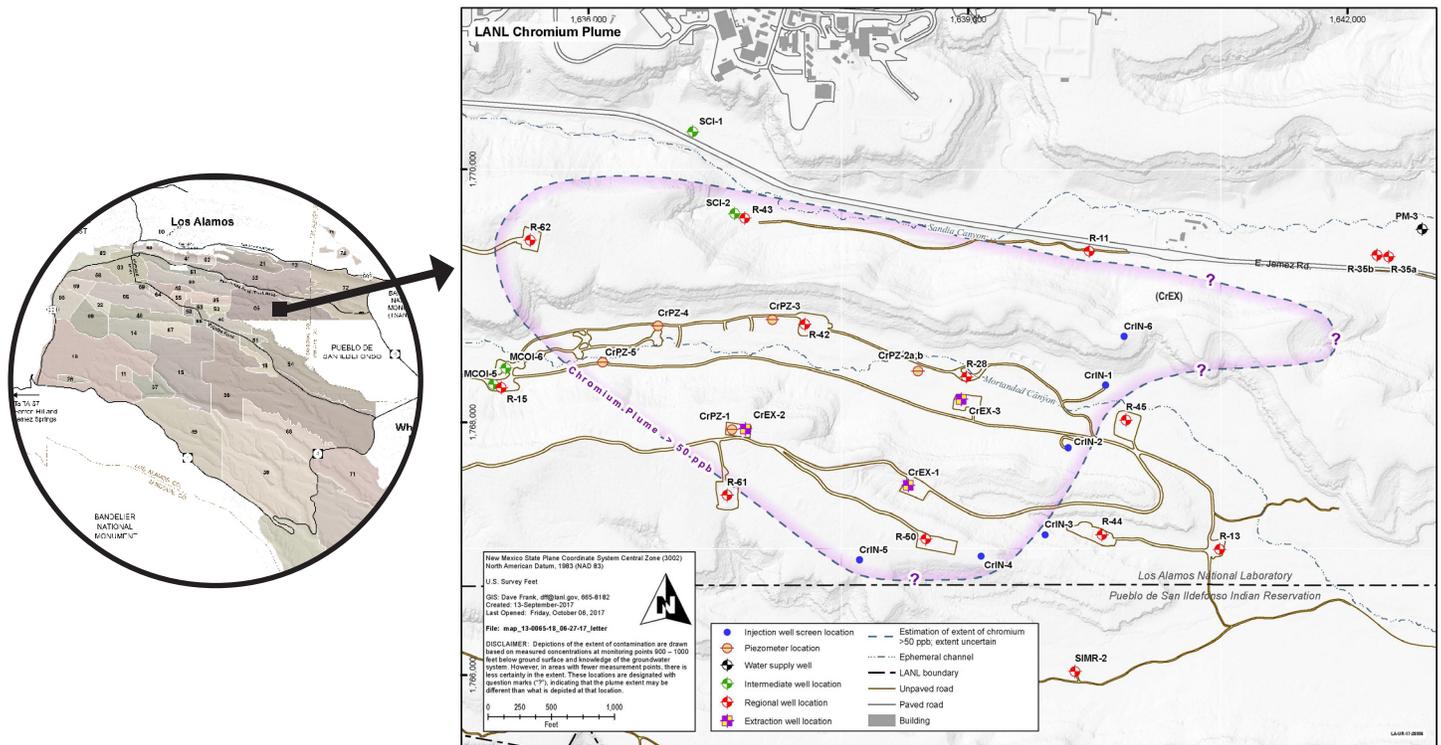
The Interim Measure consists of extraction and injection wells, a centrally located treatment system, and piping and infrastructure tying it all together.

### HOW IT WORKS

Contaminated water is extracted and treated. The treated water is then injected along the plume edge. Chromium concentrations will be reduced at the plume edge and the plume footprint will be reduced in size.

### WHAT'S NEXT

The Interim Measure will take place over the next several years until a final remedy has been identified and implemented. Optimization will include converting injection well CrIN-6 to an extraction well in early fiscal year 2019.



## FINAL REMEDY

DOE's Environmental Management Los Alamos Field Office and its contractor, N3B, are investigating potential remedy options for remediating the plume. Public review and comment is integral to the decision-making process.

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