

Sacramento Municipal Utility District (SMUD) Nondestructive Pipeline Examination

Firm

Alta Vista Solutions

Location

Sacramento, CA

Client

Sacramento Municipal
Utility District

Reference

Kevin Hudson
(916) 732-7101

Project Duration

Ongoing

Project Type

Nondestructive testing
and examination
services

Project Cost

\$100,000

Project Description and Scope

SMUD is a community-owned electric service provider for whom Alta Vista performs high-quality and proficient NDE inspection of natural gas pipeline and hydroelectric power generation assets, using visual (VT), ultrasonic (UT), liquid penetrant (PT), magnetic particle (MT), and dimensional examination methods, as well as radiographic testing (RT) film review, in accordance with ASME B31 and API 1104 standards. Alta Vista has also provided phased array ultrasonic testing (PAUT) for in-service inspection to perform flaw sizing for fracture mechanics as part of a risk-based repair maintenance program.

Alta Vista provides certified welding inspectors (CWI) to assist SMUD in reviewing submittals for welding procedures, welding performance qualifications, procedure qualification record (PQR), and laboratory observation of test specimens. Alta Vista is expected to be available for emergency work, routine maintenance and large-scale projects.

Alta Vista also developed specific NDE procedures for pipeline inspection and trained inspection staff on the ASME B31 and API 1104 standards.

Specific projects for which Alta Vista performed NDE/CWI inspections:

- Pipe wall thickness inspection: level II UT NDE for ASME B31G-2012 level 2 analysis, multiple locations
- Tank wall thickness, Loon Lake machine hall septic: level II UT NDE
- Runner bolt UT inspection, Loon Lake powerhouse: level II UT NDE
- Penstock UT inspection, Union Valley and Loon Lake powerhouse: level II UT NDE for penstock and pressure regulator line
- Winter hot tap and PQR inspection, Winters, CA: level II UT, MT, VT, CWI and PQR verification, and CWI laboratory testing observation per API 1104
- Main line valve, 9 replacement: level II UT, MT, VT NDE per API 1104
- NDE of lifting fixtures and runner bolts, Camino powerhouse: level II UT, MT, PT and VT
- Main line valve: 2 replacement and welding 2 replacement and welding PQRs, level II NDE and CWI, and witnessing of PQR per API 1104

