

9.1.1 Former TA-20

The extent of contamination has not been defined for 11 sites in former TA-20. Additional sampling is needed to define the extent of contamination for one or more inorganic chemicals, organic chemicals, or radionuclides at the following sites:

- SWMU 20-001(a)—the vertical extent of barium and perchlorate
- SWMU 20-001(b)—the vertical extent of perchlorate, uranium-234, uranium-235/236, and uranium-238; the lateral extent of barium and selenium
- SWMU 20-001(c)—the vertical extent of chromium and uranium-234; the lateral extent of chromium
- SWMU 20-002(a)—the vertical extent of barium, chromium, nitrate, uranium-235/236, and uranium-238; the lateral extent of beryllium, chromium, and selenium
- SWMU 20-002(b)—the vertical extent of barium, calcium, and perchlorate
- SWMU 20-002(c)—the lateral extent of cesium-137
- SWMU 20-002(d)—the vertical extent of aluminum, barium, uranium-235/236; the lateral extent of chromium
- AOC 20-003(b)—the vertical extent of uranium-235/236; the lateral extent of perchlorate
- AOC 20-003(c)—the vertical extent of uranium-234, uranium-235/236, and uranium-238
- AOC 20-004—the vertical extent of aluminum, barium, calcium, cobalt, copper, nickel, nitrate, selenium, and vanadium; the lateral extent of aluminum, barium, copper, nickel, and vanadium
- SWMU 20-005—the vertical extent of silver; the vertical extent of inorganic chemicals, organic chemicals, and radionuclides at locations 20-612618 and 20-612619

Although Aroclor-1254 and Aroclor-1260 were detected at low concentrations in multiple samples at SWMUs 20-002(c), 20-002(d), and 20-005, there is no indication that PCBs were used at those sites. It is likely that the detected concentrations reflect widespread but very low concentration contamination from multiple potential sources upgradient of this site, including sites at TA-03, TA-61, and TA-53 and developed areas on Laboratory and Los Alamos County or private property (LANL 2009, 107453, p. 5–8). Furthermore, PCB and other contamination in the main drainage of Sandia Canyon have been addressed as part of separate canyons investigations (LANL 2009, 107453). As indicated in NMED's notice of disapproval (NMED 2011, 204629), additional sampling to define the extent of PCBs is not necessary. PCBs will be included as COPCs for these sites for risk evaluations.

9.1.2 TA-53

The nature and extent of contamination are defined for the following three sites in TA-53:

- SWMU 53-001(b), Storage area
- AOC 53-013, Lead spill site
- AOC 53-014, Lead spill site

The extent of contamination has not been defined for six sites in TA-53. Additional sampling is needed to define the extent of contamination for one or more inorganic chemicals, organic chemicals, or radionuclides at the following sites:

- SWMU 53-001(a)—the vertical extent of copper, Aroclor-1254, and Aroclor-1260; the lateral extent of 1,2,4-trimethylbenzene
- SWMU 53-005—the vertical extent of antimony, chromium, acetone, Aroclor-1254, 2-butanone, sec-butylbenzene, 4-isopropyltoluene, 1,3,5-trimethylbenzene, 1,2-xylene, and cesium-137; the lateral extent of antimony, chromium, nickel, acetone, Aroclor-1254, 2-butanone, sec-butylbenzene, 1,1-dichloroethane, isopropylbenzene, 4-isopropyltoluene, 1,1,1-trichloroethane, trichloroethene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and 1,2-xylene; the vertical extent of inorganic chemicals, organic chemicals, and radionuclides at location 53-612486
- AOC 53-008—the vertical extent of aluminum, antimony, arsenic, barium, calcium, chromium, cobalt, copper, total cyanide, lead, magnesium, nickel, selenium, Aroclor-1248, Aroclor-1254, ethylbenzene, cobalt-60, plutonium-239/240, and tritium
- AOC 53-009—the vertical extent of barium, lead, Aroclor-1242, Aroclor-1254, and Aroclor-1260.
- AOC 53-010—the vertical extent of barium, calcium, chromium, and diethylphthalate
- AOC 53-012(e)—the vertical extent of cesium-137, and uranium-235/236; the vertical extent of inorganic chemicals, organic chemicals, and radionuclides at the location of the drainline elbow

Delayed investigations are proposed for the following seven sites in TA-53:

- SWMU 53-006(b), Underground storage tank
- SWMU 53-006(c), Underground storage tank
- SWMU 53-006(d), Underground storage tank
- SWMU 53-006(e), Underground storage tank
- SWMU 53-006(f), Underground storage tank
- SWMU 53-007(a), Aboveground storage tank
- SWMU 53-015, Wastewater treatment facility

9.1.3 TA-72

The nature and extent of contamination are not defined for AOC 72-001. No sampling was proposed in the approved work plan because it is an active small-arms firing range. Delayed investigations are proposed for this site.

9.2 Summary of Risk Screening Assessments

9.2.1 Human Health Risk Screening Assessments

The human health risk-screening assessments are presented in Appendix I, section I-4.

The risk-screening assessment results indicated no potential unacceptable risks from COPCs exist for the industrial, construction worker, and residential scenarios at SWMU 53-001(b) and AOC 53-013. The total excess cancer risks were below the NMED target risk level of 1×10^{-5} , and the HIs were below or equivalent to the NMED target HI of 1.

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11.2 Data Map Sources

LANL Areas Used and Occupied, plan_lanlarea_ply; Los Alamos National Laboratory, Site Planning & Project Initiation Group, Infrastructure Planning Office; 19 September 2007; as published 04 December 2008.

Sampling location- er_location_ids_pnt; Point Feature Locations of the Environmental Restoration Project Database; Los Alamos National Laboratory, Waste and Environmental Services Division, EP2010-0035; 21 January 2010.

SWMU or AOC: er_prs_all_reg, Potential Release Sites; Los Alamos National Laboratory, ESH&Q Waste & Environmental Services Division, Environmental Data and Analysis Group, EP2010-1C; 1:2,500 Scale Data; 02 December 2010.

Structure or Building: ksl_structures_ply; Structures; Los Alamos National Laboratory, KSL Site Support Services, Planning, Locating and Mapping Section; 06 January 2004; as published 28 May 2009.

Fence: ksl_fences_arc; Security and Industrial Fences and Gates; Los Alamos National Laboratory, KSL Site Support Services, Planning, Locating and Mapping Section; 06 January 2004; as published 28 May 2009.

Paved road: ksl_paved_rds_arc; Paved Road Arcs; Los Alamos National Laboratory, KSL Site Support Services, Planning, Locating and Mapping Section; 06 January 2004; as published 28 May 2009.

Dirt road: ksl_dirt_rds_arc; Dirt Road Arcs; Los Alamos National Laboratory, KSL Site Support Services, Planning, Locating and Mapping Section; 06 January 2004; as published 28 May 2009.

Paved Parking, ksl_paved_prking_arc; Los Alamos National Laboratory, KSL Site Support Services, Planning, Locating and Mapping Section; 12 August 2002; as published 28 May 2009.

Road Centerlines for the County of Los Alamos, lac_centerlin_arc; County of Los Alamos, Information Services; as published 04 March 2009.

Storm drain: ksl_stormdrn_arc; Storm Drain Line Distribution System; Los Alamos National Laboratory, KSL Site Support Services, Planning, Locating and Mapping Section; 06 January 2004; as published 28 May 2009.

Contours: lanl_contour1991; Hypsography, 2, 10, 20, 100 Foot Contour Interval; Los Alamos National Laboratory, ENV Environmental Remediation and Surveillance Program; 1991.

Communication: ksl_comm_arc; Communication Lines; Los Alamos National Laboratory, KSL Site Support Services, Planning, Locating and Mapping Section; 08 August 2002; as published 28 May 2009.

Electric: ksl_electric_arc; Primary Electric Grid; Los Alamos National Laboratory, KSL Site Support Services, Planning, Locating and Mapping Section; 06 January 2004; as published 28 May 2009.

Gas: ksl_gas_arc; Primary Gas Distribution Lines; Los Alamos National Laboratory, KSL Site Support Services, Planning, Locating and Mapping Section; 06 January 2004; as published 28 May 2009.

Sewer: ksl_sewer_arc; Sewer Line System; Los Alamos National Laboratory, KSL Site Support Services, Planning, Locating and Mapping Section; 06 January 2004; as published 28 May 2009.

Steam: ksl_steam_arc; Steam Line Distribution System; Los Alamos National Laboratory, KSL Site Support Services, Planning, Locating and Mapping Section; 06 January 2004; as published 28 May 2009.

Water: ksl_water_arc; Water Lines; Los Alamos National Laboratory, KSL Site Support Services, Planning, Locating and Mapping Section; 06 January 2004; as published 28 May 2009.

Primary Industrial Waste Lines, wfm_indstrl_waste_arc; Los Alamos National Laboratory, KSL Site Support Services, Planning, Locating and Mapping Section; 06 January 2004; as published 28 May 2009.

Inset LANL Boundary: plan_ownerclip_reg; Ownership Boundaries Around LANL Area; Los Alamos National Laboratory, Site Planning & Project Initiation Group, Infrastructure Planning Office; 19 September 2007; as published 04 December 2008.

Landscape: ksl_landscape_arc; Primary Landscape Features; Los Alamos National Laboratory, KSL Site Support Services, Planning, Locating and Mapping Section; 06 January 2004; as published 28 May 2009.

Former structures: frmr_structures_ply; Former Structures of the Los Alamos Site; Los Alamos National Laboratory, Waste and Environmental Services Division, EP2008-0441; 1:2,500 Scale Data; 08 August 2008.

Technical area boundary: plan_tecareas_ply; Technical Area Boundaries; Los Alamos National Laboratory, Site Planning & Project Initiation Group, Infrastructure Planning Office; September 2007; as published 04 December 2008.

Inactive Outfall: wqh_inact_outfalls_pnt; WQH Inactive Outfalls; Los Alamos National Laboratory, ENV Water Quality and Hydrology Group; Edition 2002.01; 01 September 2003.

NPDES Outfalls: wqh_npdes_outfalls_pnt; WQH NPDES Outfalls; Los Alamos National Laboratory, ENV Water Quality and Hydrology Group; Edition 2002.01; 01 September 2003.

Outfalls: er_outfalls_pnt; Outfalls; Los Alamos National Laboratory, ENV Environmental Remediation and Surveillance Program; Unknown publication date.

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Supply Wells: Locations of Monitoring and Supply Wells at Los Alamos National Laboratory, Table A-2, 2009 General Facility Information; LANL Report LA-UR-09-1341; March 2009.

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SMA Monitoring Locations, sma_monitoring_pnt; Los Alamos National Laboratory, ESH&Q Waste and Environmental Services Division; 1:2,500 Scale Data; published 14 February 2011.

Drainage: wqh_drainage_arc; WQH Drainage_arc; Los Alamos National Laboratory, ENV Water Quality and Hydrology Group; 1:24,000 Scale Data; 03 June 2003.