# Statement of Qualifications





## Firm Overview

Murex is a privately held environmental engineering firm specializing in providing design, investigation, and remediation services to clients across California.

At Murex, our goal is for the client to succeed through the efficient execution of the project, whether it is a Brownfield redevelopment, an industrial site cleanup, or urban infrastructure project. Using our multi-disciplinary technical expertise and our deep understanding of the legal and regulatory framework, we deliver environmental engineering and project management services on-schedule and onbudget.

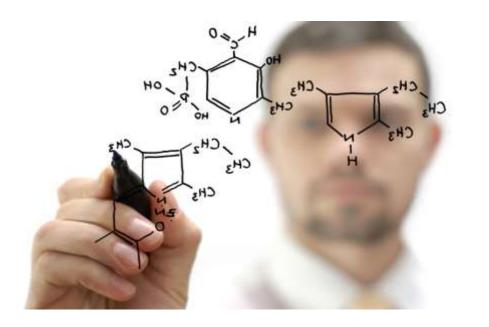
## FIRM EXPERTISE

Environmental Site Assessment
Groundwater Remediation/Treatment
Remedial Design & Construction Oversight
Vapor Intrusion Evaluation
Hazardous Demolition & Divestiture
Air, Stormwater & Groundwater Monitoring
In-Situ Groundwater Remediation
Insurance Defense Project Funding
Risk Assessment & Risk-based Site Closure
Dry Cleaners
Environmental Liability Cost Allocation
Stormwater Pollution Protection Plans/Designs
Brownfields Redevelopment

•Multi-Party Cleanup Projects



Our most important role in every project team is to provide skillful navigation of the environmental regulatory requirements in pursuit of the project goals.



# Expertise

With our leadership duo exhibiting almost 50 years of combined experience supporting the environmental and construction arenas in Southern California, Murex's team is prepared to take on unique projects and challenges, whether technical, organizational, or scheduledriven.

Remediation design and construction are at the heart of the firm's core expertise. Our principals have been working alongside industry leaders and developing and implementing the most cutting edge technologies since the 1980s as well as overseeing the construction of remediation systems.

We also have extensive experience and long relationships with key stakeholders at each of the environmental regulatory agencies on the state and local level. This is an asset to our clients, as it makes project planning more predictable and allows schedules to be optimized in the interest of client or capital requirements.

### Remediation of Recalcitrant Compounds:

Murex has developed successful designs and completed projects for the cleanup of:

- Chlorinated Solvents (PCE/TCE, etc)
- Heavy Metals (Cr(VI), As, Zn, etc)
- Perchlorate, 1,4-Dioxane

#### Brownfields Redevelopment:

- Site Assessments, cost-to-cleanup estimates
- Combined demolition, cleanup, construction projects
- Construction management

#### Remedial Technologies:

Murex has a wide background of technology experience upon which to draw when site challenges present hurdles to typical approaches. We have successfully implemented cleanup approaches using the following technologies:

- In-Situ Chem-Ox, Enhanced Reductive Dechlorination, Bioaugmentation, Ozone Sparging, HyPOX, Air Sparging, Propane Sparging, Zero-Valent Iron PRBs, Chemical Reduction, Electrical Resistive Heating
- Ex-Situ Resin and Carbon Adsorption, Ion Exchange, UV-OX, BioGAC, Air Stripping

## **Client Successes - Site Assessments**



#### Former Chemical Manufacturer - Los Angeles, CA

Murex worked with both the property owners and former owners to complete a vast scope of characterization work under a very short deadline to provide data for pre-trial conference. Work included source area definition by passive and active soil gas sampling, due diligence of potentially contributing parties upgradient, indoor air testing, soil borings, and groundwater sampling by both reconnaissance hydropunch sampling and permanent wells under oversight of the Department of Toxic Substances Control.

#### **Multiple Dry Cleaners - Statewide**

Dr. Hajali and Mr. Squire have worked as technical leads and experts on more than two dozen dry cleaners cases, stemming from single shop cleanups to City-wide litigation efforts; the majority of which involved insurance-funded defense work as the key to moving cases forward towards final resolution. We have particular expertise in the remediation of chlorinated solvents and have acted as expert defense witnesses in past cases.

#### Former Plating Operation - South Gate, CA

Designed and implemented a characterization program designed to identify and delineate multiple off-site sources of chlorinated solvents within a larger region of multiple CERCLA sites and EPA investigations. Involved multiple RPs, multiple insurers, and required significant efforts to bring consensus among project stakeholders, all while convincing the RWQCB to delay the requirement for remediation.

"In order to successfully complete the Site Assessment process in a timely manner under close scrutiny from regulatory agencies, you must stay true to the fundamentals of engineering practices and exhibit an ability to develop straightforward solutions based on the needs of all parties involved."

> - Paris Hajali, Ph.D., P.E. Murex Environmental President

# Client Successes - Industrial Site Cleanup

Murex has experience in all phases of the site remediation process, including project scoping and strategic plan development; remedial investigation; interim remedial measure development and evaluation; engineering evaluation and cost analyses; feasibility studies; pilot testing; and remedial action implementation.

#### Former Clean Room Facility - Los Angeles, CA

Major historical solvent spill impacting soil and groundwater was remedied using an innovative combination of limited-access excavation, oxidants and vacuum extraction underneath active commercial buildings. Project involved identifying other RPs, negotiating clean-up levels with the RWQCB and supporting client's insurance cost recovery efforts.



#### Aerospace Manufacturing Facility- Sylmar, CA

Active aerospace manufacturing facility exhibiting contamination from PCE and hexavalent chromium in soil, and three aquifers beneath the site. Project work involved site characterization, fate & transport modeling, investigation of off-site sources, multi-phase extraction to remove PCE from soil and groundwater, and in-situ chemical reduction of the hexavalent chromium.

"The true value of Murex as a firm is their technical competence and their project execution. They bring costeffective, well-thought out solutions to complex and difficult problems. And, perhaps most importantly, they have earned the trust and respect of the environmental regulatory agencies that oversee us. That trust is an asset to our company"

> Ken Verheyen, President Astro Pak Corporation



#### Metals Recycling Facility - Los Angeles, CA

Murex designed and implemented a cost-effective bioremediation approach to a chlorinated solvent plume site that utilized both fast- and slowfermenting carbon sources to achieve full degradation of TCE. This approach replaced a costly extraction system and reduced costs significantly.

# **Client Successes - Site Redevelopment**



#### Shopping Mall Redevelopment - Manhattan Beach, CA

Provided environmental planning and engineering support on the redevelopment of a regional shopping center built over historic oil reservoirs. The project required widely varied expertise, including planning & EIR work, public outreach, methane & vapor intrusion assessment, planning for large scale excavation into impacted soils, stormwater mitigation measures, and negotiations with the Regional Water Quality Control Board.

#### Former Manufacturing Facility - Gardena, CA

Provided engineering design, construction, and operation of a multi-faceted remediation system network, which included a combined sub-slab depressurization/SVE system as well as a network of groundwater ISCO injection wells. The combined design and accelerated installation schedule allowed for tenants to occupy the building quickly, helping to recoup the cleanup costs.

#### Former Auto Wrecking Yard - Carson, CA

Provided environmental oversight and program management of the redevelopment of a former junk yard. Significant lead and TPH contamination was excavated, regulatory closure was achieved, and the Site was returned to productive use generating new tax base for the City.

"Murex took several complex site issues and worked with the City, environmental regulators, and the civil engineers to simplify the design and help us meet our sustainability goals without exacerbating the soil contamination issues on Site. They were efficient, thorough, and a great project partner."

> - Amber Richane, Director Callison



# Client Successes - Large-Scale Cleanups

#### Former Electronics Manufacturer - Santa Ana, CA

Provided expert testimony and engineering design, construction, and operation for the cleanup of a former electronics manufacturing facility in Orange County, California. Remediation of the chlorinated solvents was made more difficult in shallow and intermediate zone aquifers by fine-grained lithology. Murex's studies resulted in the identification of two additional responsible parties contributing chlorinated solvents to the groundwater.

"Murex was tasked to provide technical support for a large, multi-party mediation involving impacts to a municipal water supply. On short notice, they developed detailed designs and cost estimates for groundwater cleanup, that were instrumental in resolving the matter with substantial contributions from the parties' insurers to fund the necessary remediation."

Dave Isola, Isola Law Group

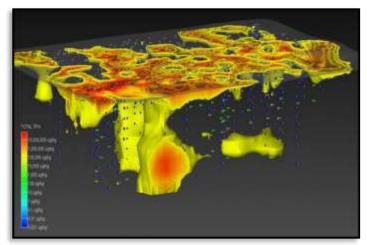


#### Superfund Site - San Bernardino, CA

Significant rocket, flare, and pyrotechnics site that resulted in the contamination of a major municipal supply system, and involved numerous responsible parties. Murex performed hydrogeologic studies, allocated portioned responsibility to various entities, and prepared construction cost desians and estimates identifying cost contributions based on the different contributing chemical agents and their sources.

#### Former Refinery - Los Angeles, CA

Performed litigation and insurance recovery efforts to support the characterization of a 55acre former refinery site where free-phase petroleum hydrocarbons releases were significant. Approximately 250 borings and wells were advanced, and high-resolution mapping tools were utilized to generate a 3dimensional picture of the overall site impacts for design and planning. Project resulted in policy buy-back negotiations and significant funding for site cleanup.



# <u>Client References</u>

## <u>Site Assessment</u>

City of El Monte - Alma Martinez, Asst City Mngr 11333 Valley Blvd, El Monte, CA 91731 (626) 580-2001 -- amartinez@elmonteca.gov

**Granite Hill Pyrite Properties - Tom Searles, Partner** 23191 La Cadena Drive, Laguna Hills, CA 92653 (714) 390-5237 -- tom@searlescompany.com

Arconic – Ryan Guillory, EH&S Manager 12975 Bradley Ave, Sylmar, CA 91342 (818) 364-6056 -- ryan.guillory@arconic.com

## Large-Scale Cleanups

**Isola Law Group - Dave Isola, President** 405 West Pine Street, Lodi, CA 95240 (209) 367-7055 -- disola@isolalaw.com

Paladin Law Group - Bret Stone, Partner 3 West Carrillo Street, S-212, Santa Barbara, CA 93101 (805) 898-9700 -- bstone@paladinlaw.com

Murray M. Sinclair & Associates - Murray Sinclair 1880 Century Park East, Los Angeles, CA 90067 (310) 826-2700 – murray@murraysinclairlaw.com

Thomas Bois – Bois & MacDonald, Partner 2030 Main Street, Suite 660, Irvine, CA 92614 (949) 660-0011 – tbois@boismac.com

## Industrial Site Cleanup

Astro Pak Corporation - Ken Verheyen, President 270 E. Baker St, Ste 100, Costa Mesa, CA (949) 274-0199 -- kverheyen@astropak.com

Alcoa - Ron Morosky, Environmental Manager 201 Isabella Street, Pittsburg, PA 15212 (412) 553-1859 -- ronald.morosky@alcoa.com

**Fulcrum Resources Environmental – Don Kellar** 517 S. Ivy Avenue, Monrovia, CA 91016 (310) 876-4128 – don@frenviro.com Our clients rely on the strategic planning guidance and reliable project management as an extension of their organizations' capabilities.

## **Contaminated Site Redevelopment**

#### RREEF - Mark English, Vice President

101 California Street, 26th Floor, San Francisco, CA (415) 781-3300 -- mark.english@rreef.com

#### Latham & Watkins - Michael Feeley, Partner

355 S. Grand Ave, Los Angeles, CA 90071 (213) 485-1234 -- michael.feeley@lw.com

#### Black Hawk Strategic Partners – Richard Burton

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#### USS Cal Builders - Allen Othman, Owner

8051 Main Street, Stanton, CA 90680 (714) 828-4882 – allen@usscalbuilders.com

#### JLL – Mark Cermak, VP Development

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