

GROUNDWATER TECHNOLOGY, INC.

ALCO
HAZMAT

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4057 Port Chicago Highway, Concord, CA 94520 (415) 671-2387

FAX: (415) 685-9148

November 17, 1993

Project No. 020203139

Ms. Juliet Shin
Alameda County Health Care Services Agency
Department of Environmental Health
80 Swan Way, Room 200
Oakland, California 94621

SUBJECT: *Request for Site Closure*
Southland Site No. 19035
100 Lewelling Boulevard, San Lorenzo, California

Dear Ms. Shin:

On behalf of The Southland Corporation (Southland), Groundwater Technology, Inc. submits this *Request for Site Closure* for the above-referenced site. This letter presents a summary of the site history and an explanation for the appropriateness for site closure.

Southland Site No. 19035 (site) is located at 100 Lewelling Boulevard in San Lorenzo, in Alameda County, California (Figure 1). The site is currently an operating convenience store (Figure 2). The semi-residential area is comprised of residential and commercial properties. The site is located in the regional geologic Bay Plain area which is dominated by Quaternary alluvium deposits derived from the Coast Range Mountains to the east. San Francisco Bay is located to the west. The topography of this location is relatively flat, with surface drainage directed west along Lewelling Boulevard.

Former site activities included gasoline fuel sales which were discontinued in early 1992. Fuel dispensing equipment included one dispenser island, one steel, 6,000-gallon, and two steel, 10,000-gallon, single-walled underground storage tanks (USTs). The dispenser island and three USTs were removed in May 1992 as part of Southland's ongoing project to phase out the sales of gasoline at its facilities. The removal of the three USTs was conducted under the direction of International Technology Corporation (IT). The activities and results of the UST removals were documented in IT's *UST Removal Environmental Compliance Report*, dated June 29, 1992. The analytical results of the verification soil samples collected from beneath the USTs reported a maximum concentration of 63 parts per million (ppm) for total petroleum hydrocarbons as gasoline (TPH-G).

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A soil and groundwater investigation was completed under the direction of Groundwater Technology in November and December 1992. The results of site assessment activities were documented in Groundwater Technology's *Environmental Assessment Report*, dated January 29, 1993. The investigation activities included drilling and sampling four soil borings, completing the soil borings as 4-inch-diameter monitoring wells, collecting soil and groundwater samples, and submitting the samples for laboratory analyses. The scope of work was designed to meet the closure requirements of the Alameda County Health Care Services Agency - Department of Environmental Health (ACHCSA-DEH) and the Regional Water Quality Control Board (RWQCB). The results of the investigation reported that groundwater was encountered at approximately 19 feet below grade. Subsurface materials consisted of predominantly clays, silty clays, and sandy clays (Figure 3). The analytical results of the 12 soil samples collected from the four soil borings reported no concentrations of benzene, toluene, ethylbenzene, xylenes (BTEX), or TPH-G above the analytical reporting limits, with the exception of two samples from boring MW-1. The exceptions were xylenes concentrations at 0.023 ppm and 0.049 ppm from soil samples collected from soil boring MW-1 at depths of 10 feet and 20 feet, respectively. Boring MW-1 was located downgradient of the former UST excavation (Figure 2).

Following the investigation, a quarterly groundwater monitoring and sampling program was implemented. This program included monitoring the four on-site wells to measure depth to water (DTW) and check for the presence of separate-phase hydrocarbons. Groundwater samples were collected from the four monitoring wells and subsequently submitted to a California-certified laboratory for BTEX and TPH-G analyses using Environmental Protection Agency (EPA) Methods 8020/8015. All results from the sample events (December 8, 1992, March 1, June 1, and September 14, 1993) were documented in reports prepared by Groundwater Technology and issued on a quarterly basis to the ACHCSA-DEH and RWQCB. The results of the four consecutive quarters of monitoring and sampling reported that groundwater was encountered at approximately 19 feet below grade, with an average site-wide seasonal fluctuation (decrease) of 4.41 feet. The estimated groundwater flow direction and calculated groundwater gradient is toward the southwest at 0.003 foot per foot. No separate-phase hydrocarbons were ever observed in the four groundwater monitoring wells. The analytical results of the samples collected from the four wells reported no concentrations for BTEX and TPH-G above the analytical reporting limits.

Groundwater Technology recommends site closure for the referenced site based on the following reasons:

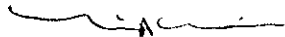
- Analytical data indicates that only a limited vertical and lateral extent of petroleum hydrocarbons exist. Such concentrations suggest a low driving mass and low potential for migration to groundwater.

- The surface at the site is capped by uninterrupted asphalt paving, limiting percolation from precipitation.
- Groundwater flow direction and gradient have been observed to be consistent for four consecutive quarters of monitoring, suggesting subsurface conditions are fairly static.
- No separate-phase hydrocarbons have been observed in any of the four on-site wells.
- The analytical results for groundwater samples for four consecutive quarters of sampling reported no BTEX and TPH-G concentrations above the reported analytical limits, suggesting that groundwater beneath the site has not been impacted by site activities.


Groundwater Technology requests that the ACHCSA-DEH forward a copy of this letter to the California RWQCB with recommendations for site closure. Upon approval of site closure, Groundwater Technology will proceed with the abandonment of the four on-site monitoring wells in accordance with Alameda County Water District, Zone 7 requirements. If you have any questions or comments, please contact our Concord office at (510) 671-2387.

Sincerely,
Groundwater Technology, Inc.
Written/Submitted by

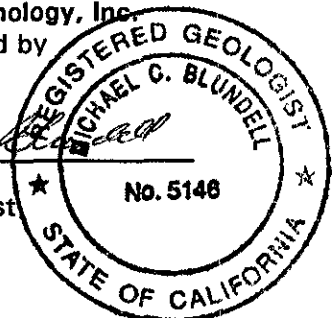
Groundwater Technology, Inc.
Reviewed/Approved by



Michael A. Chamberlain
Project Geologist



Michael C. Blundell
Registered Geologist
No. 5146





John J. McCarthy
Project Manager

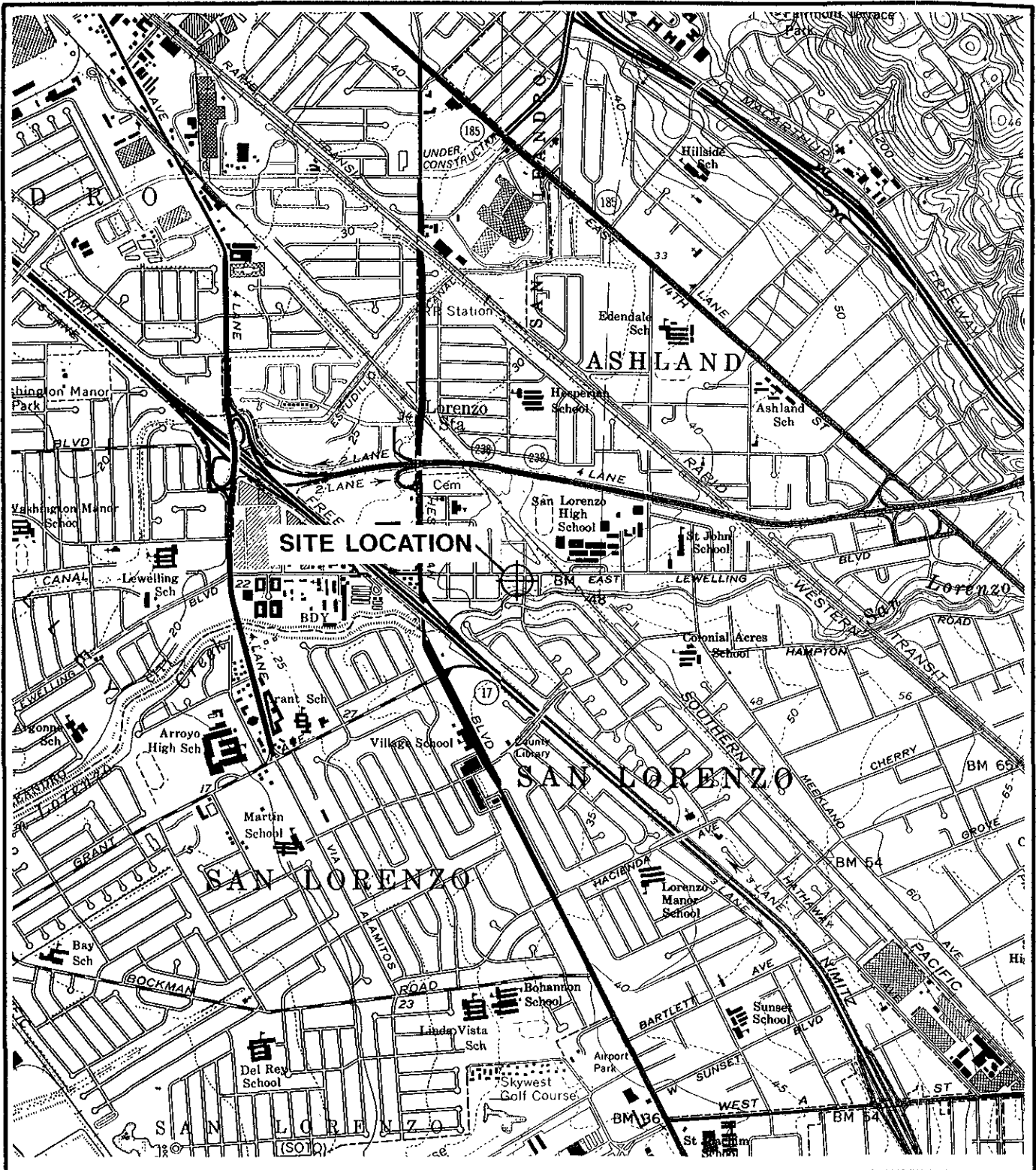
For:
Wendell W. Lattz
Vice President, General Manager
West Region

Attachment 1 Figures

ATTACHMENT 1

FIGURES

- Figure 1 Site Location Map
- Figure 2 Site Plan and Cross Section Location Map
- Figure 3 Cross Section A-A'



**GROUNDWATER
TECHNOLOGY**

4057 PORT CHICAGO HWY
CONCORD, CA 94520
(510) 671-2387



SCALE:



SITE LOCATION MAP

CLIENT:

**THE SOUTHLAND CORPORATION
STORE No. 19035**

DATE:

1/21/93

LOCATION:

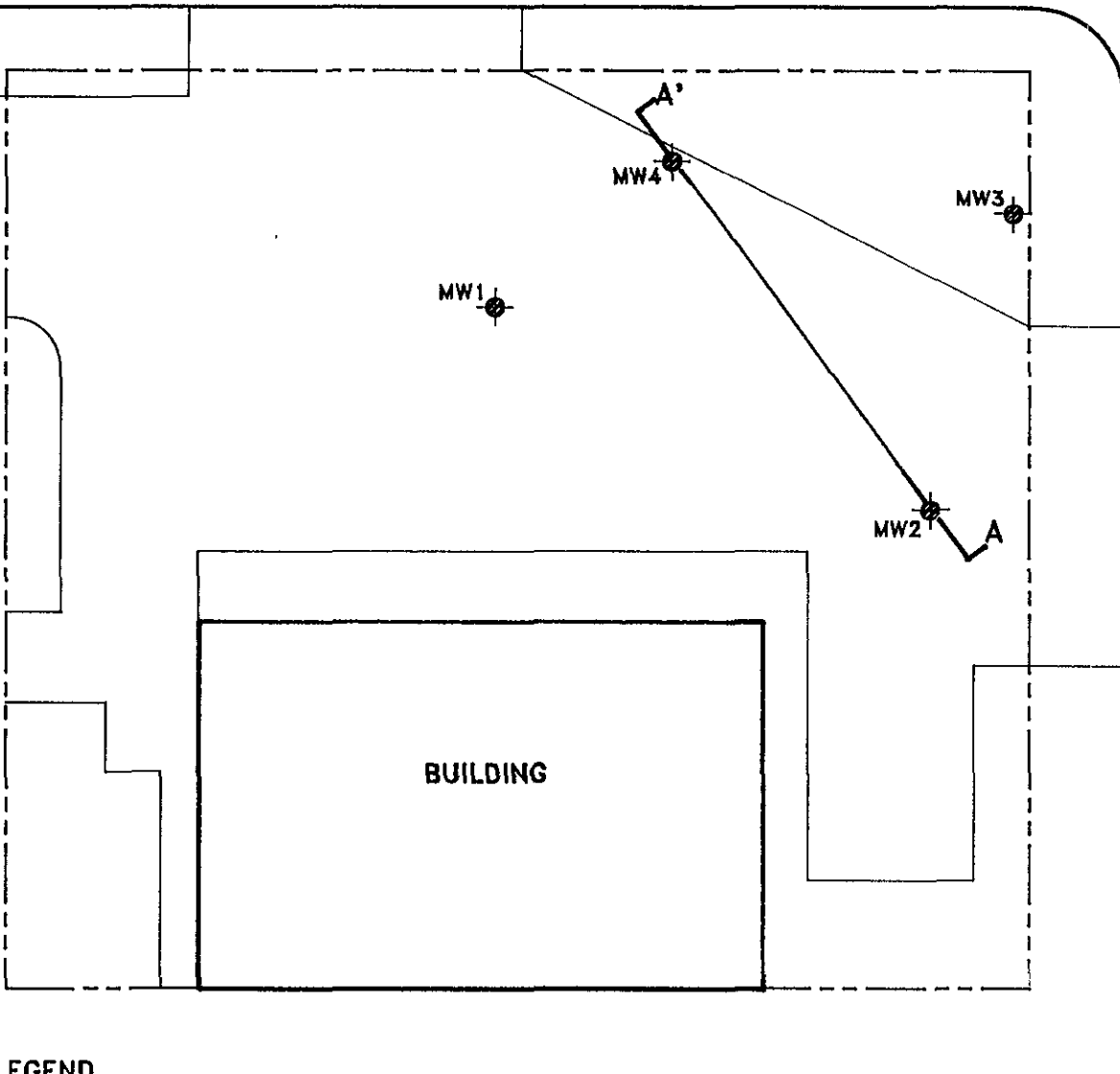
**100 LEWELLING BLVD.
SAN LORENZO, CALIFORNIA**

FIGURE:

1

LEWELLING BLVD.

VIA GRANADA ST.



LEGEND

⊕ MONITORING WELL

0 FEET 20
SCALE



**GROUNDWATER
TECHNOLOGY**

4057 PORT CHICAGO HWY.
CONCORD, CA 94520
(510) 871-2387

**SITE PLAN AND
CROSS SECTION LOCATION MAP**

CLIENT:
THE SOUTHLAND CORPORATION
STORE No. 19035

LOCATION:
100 LEWELLING BLVD.
SAN LORENZO, CALIFORNIA

REV. NO.:
0

DATE:
2/2/93

PM
[Signature]

PE/RG
DRK

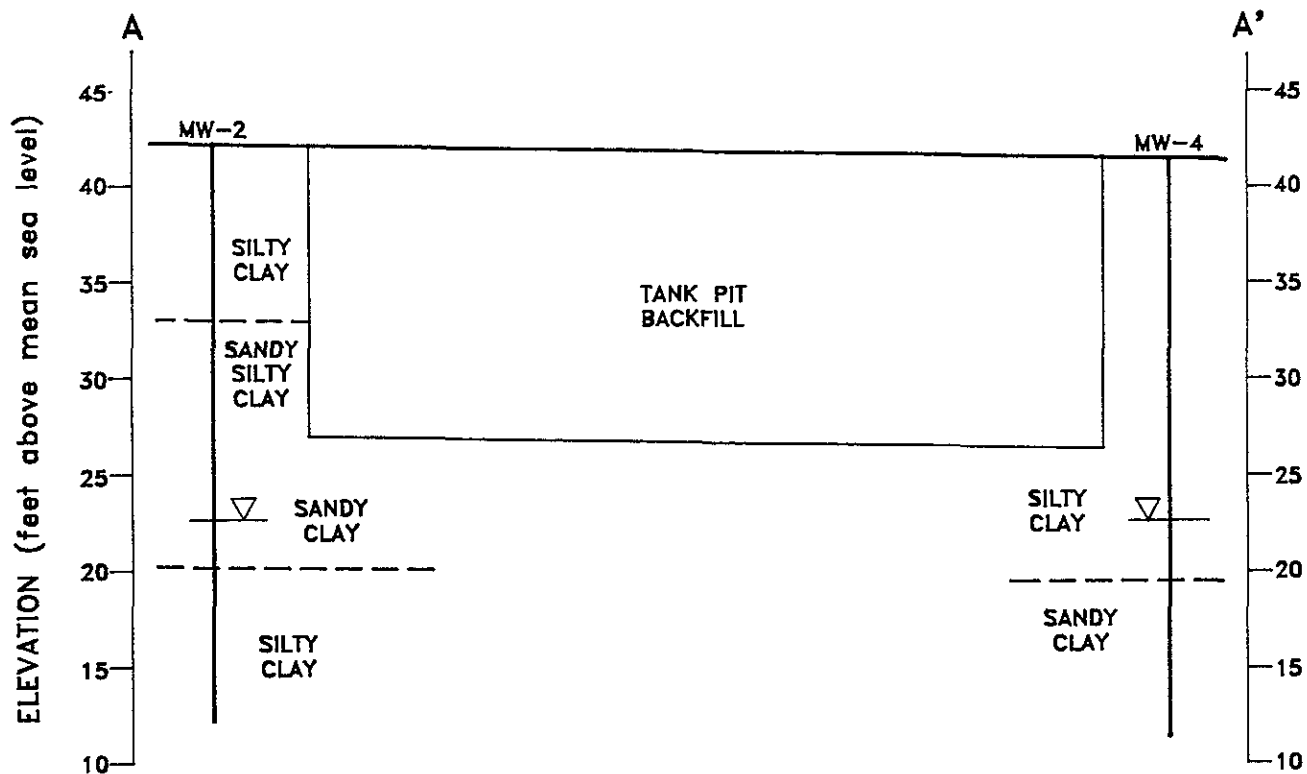
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SL

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ACAD FILE:
CSECLOC/SP293



PROJECT NO.:
020203139

FIGURE:
2



LEGEND

▽ WATER TABLE ELEVATION

 GROUNDWATER TECHNOLOGY				4057 PORT CHICAGO HWY CONCORD, CA 94520 (510) 671-2387		GEOLOGIC CROSS SECTION A-A'			
CLIENT: THE SOUTHLAND CORPORATION STORE No. 19035					LOCATION: 100 LEWELLING BLVD. SAN LORENZO, CALIFORNIA			REV. NO.: 0	DATE: 1/26/93
PM 	PE/RG DRK	DESIGNED SL	DETAILED ML	ACAD FILE: CSECAA		PROJECT NO.: 020203139		FIGURE: 3	