Golder Associates Inc.

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SOIL AND GROUNDWATER INVESTIGATION 2400 BAUMANN AVENUE SAN LORENZO, CALIFORNIA

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Gallo Salame 2411 Baumann Avenue San Lorenzo, California

Prepared by: Golder Associates Inc. Oakland, California

Kent R. Reynolds

Senior Hydrogeologist

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Senior Engineer

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1. INTRODUCTION

This report presents the results of a soil and groundwater investigation conducted by Golder Associates Inc. (Golder) for the property located at 2400 Baumann Avenue, San Lorenzo, California (Figure 1). The property is owned by Gallo Salame and the structures are being modified for use by Gallo Salame. The subject property was previously used by the Service Manufacturing Company for truck body manufacturing. The purpose of the investigation was to assess potential impacts on soil and groundwater associated with past use of the site as identified by Environmental Testing and Management (ETM).

1.1 Site Description

The subject property (site) is located in western San Lorenzo, approximately one-half mile east of the San Francisco Bay. An adjacent property located northeast of the subject property at 2364 Baumann Avenue, was also formerly used by Service Manufacturing. The site is bordered to the northwest by the Gallo Salame food manufacturing plant (2411 Baumann Avenue); to the southeast by Santini Foods Inc. (16505 Worthley Drive); to the southwest by J&S Trucking; and to the northeast by the former Service Manufacturing site.

The site vicinity is zoned for heavy industrial use. The site is approximately one-acre with an approximately 15,400 square foot concrete, tilt-up style building (Figure 2). The area surrounding the building is partially asphalt paved.

The site was first developed in 1965 and until 1972 was occupied by Oakland Terrazzo Tile Company, a tile manufacturing and processing operation (ETM, 1996a). From 1972 to 1995 Service Manufacturing operated a truck body fabrication and painting facility at the site. Gallo Salame plans to modify the existing structure for use associated with food production.

1.2 Geology and Hydrogeology

The site is located in an area reclaimed from the nearby bay margin and is immediately underlain by fill material composed of rock and surficial deposits derived from nearby cuts or quarries (Nilsen, 1973). This fill material is underlain by bay deposits consisting of alluvial and estuarian discontinuous deposits of soft mud and silt with some shell, peat, sand and gravel layers. Shallow groundwater is estimated to occur at approximately 7 to 8 feet (ft) below ground surface (bgs). Surface water from the site discharges via storm drains to San Francisco Bay.

1.3 Previous Investigations

ETM performed a Phase I Environmental Site Assessment (ESA) in March 1996. The Phase I ESA identified potential environmental concerns associated with painting activities and storage of hazardous materials at the site. ETM suggested spills or improper disposal of solvents may have occurred at the site. Two former spray paint booths were identified in the east canopy and south canopy areas with considerable paint build up (ETM, 1996a). The Phase I also suggested potential environmental concerns related to waste oil storage, lead based paint on the structure and asbestos containing materials in the building (ETM, 1996a).

ETM performed a Phase II Environmental Investigation in April 1996. The purpose of the Phase II investigation was to assess potential areas of environmental concern identified in the Phase I ESA. The Phase II investigation consisted of the collection of paint, soil vapor, soil, and groundwater samples. Constituents of potential concern were detected in soil vapor, soil, and groundwater samples collected in the south canopy area. Toluene, ethylbenzene and xylene was detected in one soil sample (VP-1) collected at a depth of 3 feet below ground surface (ft bgs) and in shallow groundwater (4 ft bgs) collected at the same location. Lead was detected in surface soil samples collected in the south canopy area. Lead was also detected in paint samples from the former spray booth areas and in the main building (ETM, 1996b).

No source was identified for the petroleum hydrocarbons detected in soil and shallow groundwater, in the vicinity of the south canopy area. In addition, the affected groundwater was determined non-potable; therefore ETM concluded that only a cursory investigation or risk-based evaluation was necessary to address these concerns. Due to the concentrations of lead in a surface soil sample adjacent to the former paint spray booth in the south canopy area, ETM concluded the soil was hazardous. ETM also concluded that paint build-up and dust inside the building was hazardous (ETM, 1996b).

We understand that J. Quarle & Associates also subcontracted the services of Blue Water Environmental Services, Inc. to water blast the interior of the building, pick up miscellaneous lead based paint chips from the surrounding yard and bead blast lead-based paint in the former spray booth areas. All lead water filters, paint chips and concrete dust was disposed of in accordance with State of California regulations.

1.4 Scope of Work

Golder performed a field investigation to assess potential impacts of lead and petroleum hydrocarbon-based solvents on soil and shallow groundwater in the south canopy area. On September 11, 1996, four test pits (TP-1, TP-2, TP-3 and TP-4) were excavated by J. Quarle & Associates on September 11, 1996 with a backhoe. On October 23, 1996, five boreholes were drilled to collect environmental samples and site hydrogeologic data. The locations of the test pits and boreholes are shown in Figure 3.

Test pits, TP-1, TP-2 and TP-3 were excavated to a depth of approximately 2 ft bgs. Test pit, TP-4 was excavated to a depth of 3 ft bgs. One soil sample was collected from each pit at a depth of 2 ft bgs and one additional sample was collected from TP-4 at a depth of 3 ft bgs. All

samples were collected in clean stainless steel sleeves, sealed with Teflon tape and caps, cooled to 4°C, and transported to a California certified environmental laboratory under chain-of-custody protocol. Soil characteristics were noted in the field. All samples were analyzed for total lead (EPA Method 6010) and benzene, toluene, ethylbenzene and xylenes (EPEX) (EPA Method 8020). Soil sample TP-3 was also analyzed for halogenated volatile organic compounds (HVOCs) (EPA Method 8010). Following sampling, the test pits were backfilled with soil.

On October 23, 1996, borings B1 through B4 were advanced to 15 ft bgs and boring B5 was advanced to 25 ft bgs with a hydraulic push drill-rig operated by Precision Sampling Inc. Borings were continuously cored and soil samples were collected in stainless steel sleeves. Borings were logged using the Unified Soil Classification System. All soil samples were screened for organic vapors with an organic vapor meter (OVM) equipped with a photoionization detector (PID). Copies of the soil boring logs are included in Appendix A. Soil samples were selected for laboratory analysis based on field screening results and observations. Selected soil samples were analyzed for BTEX (EPA Method 8020).

Groundwater samples were collected from all borings. Groundwater samples were collected with a clean stainless steel bailer, decanted into laboratory provided containers, sealed, maintained at 4°C, and transported to a California certified environmental laboratory under chain-of-custody protocol. All groundwater samples were screened for organic vapors with an OVM equipped with a PID. All groundwater samples were analyzed for BTEX (EPA Method 8020).

All borings were sealed with neat cement using a tremmie pipe in accordance with boring permits. Investigation derived wastes were containerized in 55-gallon drums, labeled and maintained on site.

2. DISCUSSION OF FINDINGS

2.1 Hydrogeologic Setting

The site is located near the edge of the San Francisco Bay within the San Lorenzo Alluvial Cone hydrogeologic unit of the East Bay Plain. The region is bounded on the north by the San Leandro Alluvial Plain, on the east by the foothills of the Diablo Range, on the south by the Niles Cone and on the west by San Francisco Bay.

The East Bay Plain is situated on the eastern side of the San Francisco Bay depression. The East Bay Plain includes an alluvial area close to the foothills of the San Leandro Hills and a marshland area adjacent to San Francisco Bay. The alluvial materials in the vicinity of the site are included as part of the San Lorenzo Alluvial Cone. The San Lorenzo Alluvial Cone consists of a series of coalescing alluvial fan deposits derived from the San Lorenzo Creek drainage basin. The sediments of the San Lorenzo Cone consist of a mixture of gravels, sands and clays deposited in braided stream channels and floodplains west of the foothills.

Shallow, unconfined and discontinuous, water-bearing zones and clay beds extend to a depth of approximately 50 to 100 ft bgs. The uppermost shallow groundwater zone occurs throughout the San Lorenzo area at depths ranging from 5 to 30 feet (approximately 5 feet at the site), and the groundwater flow direction is generally to the west. Water levels in the shallow aquifers vary seasonally (Maslonkowski, 1984). No regionally extensive shallow aquifers have been identified in the area, but water yielding, discontinuous sand and gravel units are present throughout the area. These units are up to several tens of feet thick and several thousand feet in lateral extent, and are separated by interbedded clays and silts.

Groundwater recharge to shallow aquifers to the East Bay Plan is considered to be by a combination of direct infiltration of precipitation, irrigation and streamflow. Recharge to deeper, confined aquifers is considered to be primarily by subsurface inflow from adjacent aquifers and leakage between aquifers (Hickenbottom and Muir, 1988).

The general water quality of the shallow aquifers in the East Bay Plain is reported to be of good quality (Hickenbottom and Muir, 1988), however, there are indications of high nitrate levels (Maslonkowski, 1984), salt-water intrusion (particularly in the San Leandro, San Lorenzo, Alameda, and Oakland areas) (Maslonkowski, 1984), and bacterial and chemical contamination (Hickenbottom and Muir, 1988). The groundwater in the deeper, useable aquifers of the East Bay Plain is generally of a calcium- to sodium-bicarbonate chemical type and is low in total dissolved solids (300 to 1,000 mg/l) (Hickenbottom and Muir, 1988).

The water supply for the San Lorenzo area is primarily imported surface water provided by the East Bay Municipal Utility District (EBMUD). Groundwater uses in the San Lorenzo area include irrigation, domestic and industrial. Few irrigation and domestic wells exist in the vicinity of the site. Review of the Alameda County Public Works Department's well database indicates that the San Lorenzo municipal well field, three irrigation and one domestic well are located within a half-mile radius of the site. The municipal and domestic wells are relatively deep and are completed to depths of greater than 500 feet. The irrigation wells are completed to depths greater than 20 feet.

2.2 Subsurface Conditions

2.2.1 Soil Stratigraphy

All five soil borings were continuously cored and logged to provide information on the shallow soil stratigraphy. Borehole logs are included in Appendix A. Review of the boring logs indicate that the site is underlain by six to seven feet of fill material consisting of sand and gravel and some organic debris. The fill material is underlain by silty clay with some thin interbedded sand lenses. A sand lense was also encountered in boring B5 at 22 to 25 ft bgs. Shallow groundwater occurs at a depth of approximately 6 feet and is expected to flow to the west.

2.2.2 Analytical Results

Soil and groundwater sample results are summarized in Tables 1 and 2, respectively. Laboratory reports are included in Appendix B. Benzene, ethylbenzene and total xylenes were detected in soil samples collected from test pits TP-2, TP-3 and TP-4 at concentrations less than 0.04 milligrams per kilogram (mg/kg). Toluene was detected in the soil sample collected from test pit TP-1. No BTEX was reported in soil samples collected from borings B1 through B5 and test pit TP-3 at a depth of 3 feet bgs. Ethylbenzene and xylenes were detected in the groundwater sample from boring B1 at concentrations of 0.0021 and 0.005 milligrams per liter (mg/l), respectively. No other analytes were detected in groundwater samples. Lead was detected in all test pit soil samples at concentrations ranging from 1.6 to 4.5 mg/kg.

BTEX was reported in soil samples collected from test pits TP-2, TP-3 and TP-4 and in the groundwater collected from boring B1 located, adjacent to, and northeast of the south canopy area (Figure 3). No BTEX was detected in groundwater and soil samples from borings located in the inferred downgradient direction of boring B1. The limited extent of BTEX detected in shallow groundwater near the south canopy area and the relatively shallow depth of BTEX detected in soil samples suggests of a relatively small release may have occurred.

3. COMPARISON OF SITE SOIL AND GROUNDWATER QUALITY WITH POTENTIALLY APPLICABLE ENVIRONMENTAL STANDARDS OR CRITERIA

3.1 Identification of Potentially Applicable Criteria

Current environmental laws and regulations were developed to protect public health and the environment from adverse impacts resulting from exposure to hazardous substances. With regard to the subsurface conditions at the site, the applicable environmental regulations pertain to evaluating impacts to water quality and public health via contact with the detected substances.

Unacceptable exposure to chemical substances at concentrations of concern in subsurface media (i.e., soil and groundwater) are regulated in the California Code of Regulations (CCR), Titles 22 and 23. Title 22 contains regulations for the protection of drinking water quality and environmental health standards for the management of hazardous waste. Title 22 regulations are considered to exceed those promulgated by U.S. Environmental Protection Agency (USEPA). Title 23 contains regulations for the protection of groundwater. Generally, Title 22 regulations are enforced by the local Department of Toxic Substances Control (DTSC), while Title 23 regulations are enforced by the local RWQCB. Cities and counties also have jurisdiction to enforce both Title 22 and Title 23 regulations through the local oversight program (LOP) developed by memorandum of understandings (MOUs) from the regional DTSC and RWQCB offices. In addition, the State Water Resource Control Board (SWRCB) develops resolutions and each RWQCB develops a basin plan for the protection of groundwater and surface water resources. More recently, a national standard entitled "Risk Based Corrective Action (RBCA) Applied at Petroleum Release Sites" have been developed by the American Society of Testing Materials (ASTM) to provide a consistent decision-making

process for the assessment of subsurface petroleum hydrocarbon contamination based on the protection of human health and the environment. No formal risk-based or other cleanup standards have been established for TPH in California.

A brief summary of these standards and guidelines and their applicability to constituents detected in soil or groundwater at this site follows.

3.1.1 Drinking Water Protection Standards

Title 22, Chapter 4 contains the maximum contaminant levels (MCLs) for drinking water. However, since the shallow groundwater is not currently or anticipated to be used in the future, MCLs are not directly applicable to the site.

3.1.2 SWRCB Resolution 88-63

SWRCB Resolution 88-63, part of the San Francisco Bay Basin Water Quality Control Plan, commonly referred to as the San Francisco Bay Basin Plan, defines groundwater beneficial uses. According to Resolution 88-63, the primary beneficial use of groundwater is as a potential drinking water source which is defined as water that:

- Has total dissolved solids (TDS) less than 3,000 mg/l;
- Has no contamination from natural or human activities that cannot reasonably be treated for domestic use using best management practices or best economically achievable treatment practices; and
- Provides sufficient water to supply a single well capable of producing an average sustained yield of 200 gallons per day.

The 1992 amendments to the Basin Plan include a Resolution 89-39 that allows the RWQCB to exempt any groundwater as having beneficial use for drinking water or as a potable water source if any of the above three conditions are not met. The estimated low permeability of the shallow sediments likely precludes the use of shallow groundwater at the site for potable or non-potable purposes (i.e., drinking, process, etc.)

3.1.3 Tier 1 Screening Human Health Risk Assessment

A Tier 1 Risk-Based Corrective Action assessment was performed using ASTM E-1739-95 published in November 1995 to assess the risk of petroleum hydrocarbon in site soil and groundwater.

The ASTM has published a Standard for Rick-Based Correction Action at Petroleum Release Sites (ASTM E1739-95). The guide includes an approach that presents screening target levels

for use in assessing whether a more detailed site-specific risk assessment and/or sit remediation is warranted. The screening target levels are developed using a set of assumptions and exposure scenarios that are generally conservative. For example, at the subject site there are no direct exposure routes to the TPH-impacted soil and groundwater. Dermal, inhalation and ingestion exposure is precluded, except in the event contractors or others excavate the site area, and the site is located in an area where the uppermost water-bearing zone is not used as a resource for drinking or other purposes. Exposure pathways considered, though improbable, are: vapor intrusion into buildings, dermal exposure to soil, leachate from soil to groundwater that is ingested and groundwater ingestion.

The site is located in a highly developed commercial/residential area in San Lorenzo, California. Land use at the site is expected to continue as it currently exists (i.e., commercial/industrial). Contaminated media consist of subsurface soil and groundwater beneath the site at depths from 5 ft bgs to 7 ft bgs. Groundwater impacts are limited to an unconfined shallow aquifer that is not used at the site for potable or non-potable purposes. Because of these limitations, exposures are restricted to current occupational exposures to BTEX through volatilization from soil and groundwater underlying the site to ambient (i.e., outdoor) and indoor air. Exposures are also possible for future construction workers performing shallow excavation projects through direct contact with contaminated media. Groundwater ingestion in an industrial setting is highly improbable because the shallow groundwater is unlikely to be a viable source of water due to the depth, limited yield and quality regardless of the presence of the petroleum hydrocarbons.

The results of the assessment indicate that there are no reported concentrations of BTEX that exceed the conservative ASTM Tier 1 risk-based screening level (RBSL) values for commercial and residential exposures. Tables 3 and 4 summarize ASTM RBSL values and maximum concentrations of BTEX detected in soil and groundwater at the site, respectively.

Current Scenario Exposures

As shown in Tables 3 and 4, there are no exceedances of the ASTM RBSL values from the indoor air and ambient pathways. Maximum concentrations of BTEX are several orders of magnitude lower than the RBSL values.

Future Exposure Scenario

As shown in Tables 3 and 4, there are no exceedances of the ASTM RBSL values for BTEX through future direct contact with soil or ingestion of groundwater. Maximum concentrations of BTEX are several orders of magnitude lower than the RBSL values.

The Tier 1 assumptions are conservative with respect to actual site conditions, and together with the low probability of the future exposure scenarios, the risks of exposure are interpreted to be well below the 1-in-1-million risk level. Therefore, on the basis of risk, future remediation and/or assessment is not justified.

4. SUMMARY AND CONCLUSIONS

The site was occupied by Service Manufacturing until 1995 and used for the fabrication and painting of truck bodies. Review of the ETM Phase I ESA indicates there are no outstanding regulatory enforcement issues associated with the subject property. ETM's Phase II ESA identified the following areas of potential environmental concern including: paint build-up in the former paint spray booth area, paint dust inside the building, paint chips in the yard, lead in soil adjacent to the south canopy area, and hydrocarbons in shallow groundwater in the south canopy area. J. Quarle and Associates subcontracted Blue Water Environmental Services to perform lead paint removal from the former spray booth area, inside the building and from the yard. Golder performed a field investigation to address the concerns associated with hydrocarbons in soil and groundwater in the south canopy area, and lead in soil adjacent to the south canopy area.

Comparison of concentrations of lead in shallow soil samples from the site with the Environmental Protection Agency (EPA) Preliminary Remediation Goals (PRGs) indicates that the concentration of lead in shallow soil at the site does not exceed the EPA level of 1,000 mg/kg for industrial use. In addition, the lead concentration in shall shallow soil do not exceed the DTSC risk-based residential screening level of 130 mg/kg.

Based on Golder's investigation, the presence of BTEX in shallow soil and groundwater in the south canopy area is not interpreted to pose a risk to human health or the environment for the following reasons:

- The vertical extent of BTEX in soil is less than 3 feet bgs.
- BTEX was only detected in one groundwater sample and no BTEX was detected in groundwater samples collected in areas located in the estimated downgradient direction from the south canopy.
- Comparison of maximum concentrations of BTEX reported in soil and groundwater at the site with conservative ASTM Tier I Screening levels indicates that there is no exceedance of the 1-in-a-million risk levels for commercial or residential use.

In consideration of the above conclusions, it is our opinion that BTEX in site soil and groundwater poses a low risk to human health and the environment and requires no further investigation or active remediation.

5. REFERENCES

ASTM Designation: E1739-95 Risk-Based Corrective Action Applied at Petroleum Release Sites, November 1995.

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Regional Water Quality Control Board, 1995, Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan).

Regional Water Quality Control Board, 1996, Memorandum to San Francisco Bay Area Agencies Overseeing UST Cleanup and Other Parties Re: Regional Board Supplemental Instructions to State Water Board December 8, 1995, Interim Guidance on Required Cleanup at Low Risk Fuel Sites.

State Water Resources Control Board, 1968, Resolution 68-16 California's Statement of Policy with Respect to Maintaining High Quality Waters in California.

State Water Resources Control Board, 1989, Resolution 89-39 defines groundwater and surface beneficial uses in San Francisco Bay Area.

United States Environmental Protection Agency, 1995, Region IX Preliminary Remediation Goals (PRGs), First Half 1995.

Table 1
Summary of Soil Analytical Results
Gallo Salame, 2400 Baumann Avenue, San Lorenzo, California

Sample Location		Eenzene	Coluene	Ethyl I Benzene	Actual ***	i ad
B1	3-3.5	ND	ND	ND	ND	NA
B1	9.5-10	ND	ND	ND	ND	NA
B2 ·	3-3.5	ND	ND	ND	ND	NA
B2	8.5-9	ND	ND	ND	ND	NA
B2	14.5-15	ND	ND	ND	ND	NA
В3	1.5-2	ND	ND	ND	ND	NA
В3	9.5-10	ND	ND	ND	ND	NA
TP-1	2	ND	ND	ND	ND	3.7
TP-2	2	0.014	ND	0.0092	0.035	1.6
TP-3	2	0.012	0.012	0.011	0.038	4.5
TP-4	2	0.012	ND	0.0071	0.023	3.2
TP-4	3	ND	ND	ND	ND	4.3

Notes:

All concentrations reported in milligrams per kilogram (mg/kg).

ND = not detected at or above reporting limit.

NA = not analyzed.

Table 2
Summary of Ground Water Analytical Results
Gallo Salame, 2400 Baumann Avenue, San Lorenzo, California

Sample Lecation		ioluene	**BPAYE Benkertes*	
B1	ND	ND	0.0021	0.005
B2	ND	ND	ND	ND
В3	ND	ND	ND	ND
B4	ND	ND	ND	ND
B5	ND	ND	ND	ND

Notes:

All concentrations reported in milligrams per liter (mg/l). ND = Not detected at or above reporting limit.

Table 3 Comparison of BTEX Concentrations in Soil to ASTM Tier 1 RBSL Concentrations for the Ambient Air and Direct Exposure Route Gallo Salame, 2400 Baumann Avenue San Lorenzo, California

Compound	Maximum Concentration in Soil (mg/kg)	Ambient Air ASTM RBSL Value (mg/kg)	Direct Exposure (mg/kg)¹
Benzene	0.014	0.008	1.7
Toluene	0.012	RES	13,300
Ethylbenzene	0.011	RES	7,830
Xylenes, Total	0.038	RES	1,450,000

Notes:

1. Direct exposure routes are ingestion, inhalation and dermal contact.

All concentrations reported in milligrams per kilogram (mg/kg).

RES = Risk level is not exceeded for pure compound at any concentration.

Values are for residential exposure scenario.

Target levels for benzene have been adjusted for California toxicity factor.

ASTM RBSL target cancer rates and target hazard quotients are set at 1E-06 and 1, respectively.

RBSL = Risk-based screening level.

Table 4

Comparison of BTEX Concentrations in Groundwater to ASTM Tier 1 RBSL Concentrations for the Ambient Air and Groundwater Ingestion Exposure Routes Gallo Salame, 2400 Baumann Avenue San Lorenzo, California

Compound	Maximum Concentrations in Groundwater (mg/l)	Ambient Air ASTM RBSL Value (mg/l)	Groundwater Ingestion ASTM RBSL Value
Benzene	ND	0.32	0.0009
Toluene	ND	>S	7.3
Ethylbenzene	0.0021	>S	3.65
Xylenes, Total	0.005	>S	73

Notes:

Values are for residential exposure scenario.

ASTM RBSL target cancer rates and target hazard quotients are set at 1E-06 and 1, respectively.

Target levels for benzene have been adjusted using California toxicity factor of 0.29.

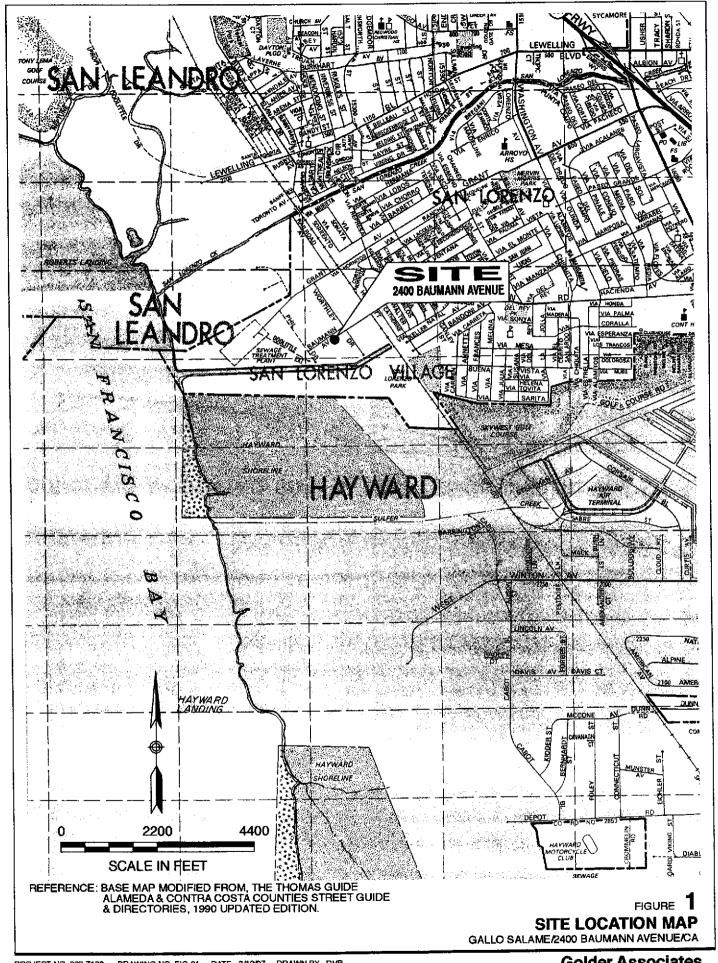
All concentrations reported in milligrams per liter (mg/l).

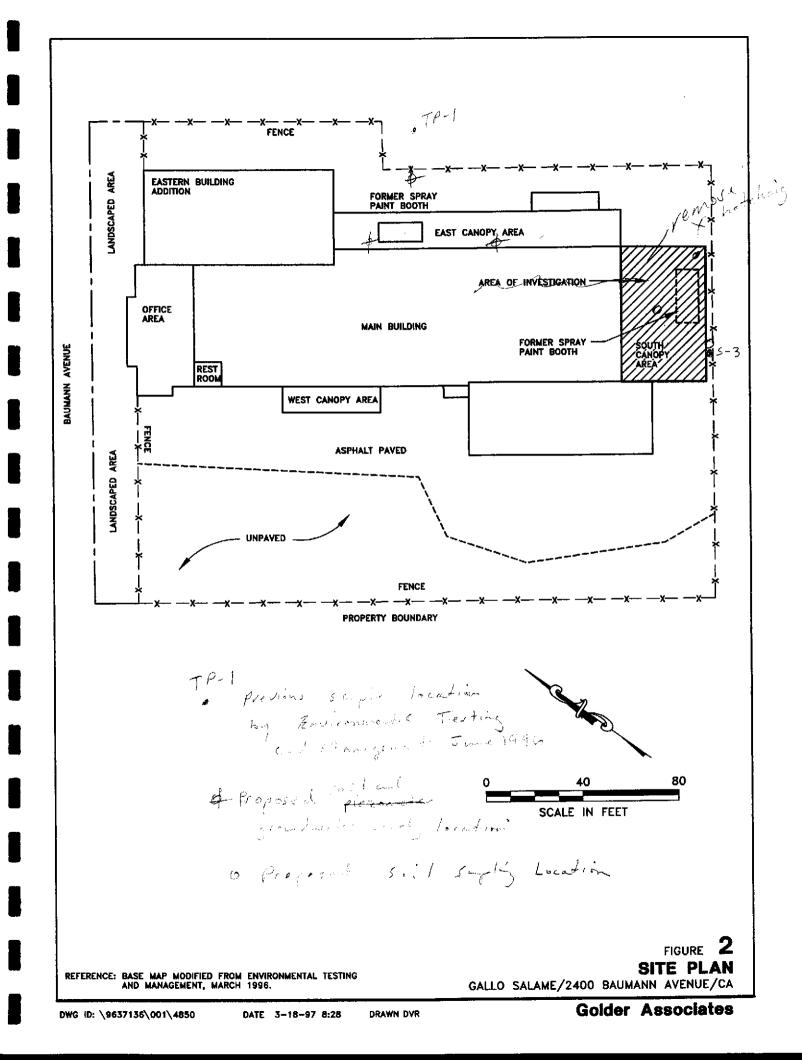
RBSL = Risk-based screening level.

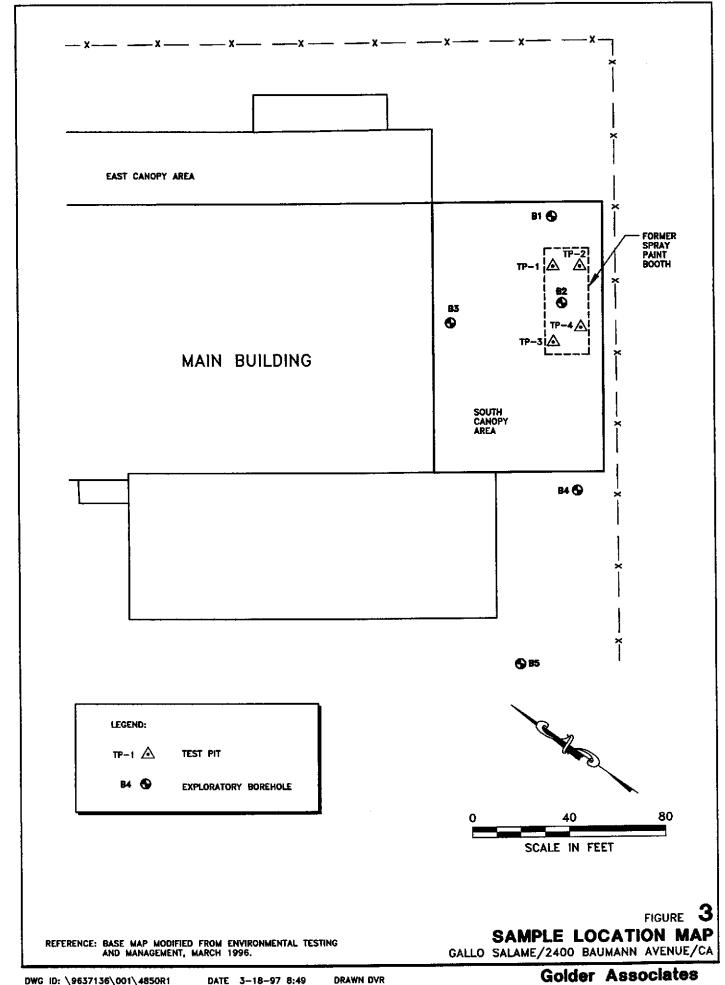
ND = Not detected at or above laboratory reporting limit.

NA = Not analyzed.

>S = Risk level is not exceeded for all possible dissolved levels.







DWG ID: \9637136\001\4850R1

DATE 3-18-97 8:49

APPENDIX A
Borehole Logs

RECORD OF BOREHOLE # B1

PROJECT NO. 963-7136.001

OFFSET L R

ELEVATION NA

DRILLING DATE 10/23/96

SHEET 1 OF 1

DATUM MSL DRILL RIG XD-2

INCL	INATI	ON 90° AZIMUTH NA							DRILL RIG XD-2	
3	тноо	SOIL PROFILE	00			•	SAMPLES			NOTES
DEPTH SCALE (FEET)	BORING METHOD	Boil Profile Description	ORAPHIC LOG	USCS	NUMBER	TYPE	BLOWS/ 6 IN.	RECOVERY	SAMPLE DESCRIPTION	PIEZOMETER STANDPIPE INSTALLATION
H•		0-0.30 ft. Asphalt.								
_		0.8-8.0 ft. Loose, light brown (7.5YR 6/4), SAND and GRAVEL, damp (FILL).		FILL						_
}		3.0-4.0 ft. Compact, gray brown (5Y 5/2), sand and gravel, damp (FILL).					:		Sample B1 (3-3.5) OVM = 0.0 ppm	_
		4.0-5.0 ft. Compact, olive (SY 5/4), SILTY SAND, some GRAVEL, (SM), damp.	***********	SM					Sample B1 (4.5-5) CVM = 0.0 ppm	
₽•		6.0-7.1 ft. Medium stiff, dark brown (7.5YR 3/2), CLAYEY SILT, some organica/wood, (ML), moist.		ML						-
		7.1-9.7 ft. Medium dense, clive (5Y 4/3), SILTY SAND, some oxidized material [RED (2.5YR 4/6)], (SM), wet.	for after after after after after after	ы					OVM = 0.0 ppm	-
10		9.7-12.7 ft. Stiff, gray (2.5YR N4), SILTY CLAY,trace of sand, (CL), moist.		CL			•		Sample B1 (9.5-10) OVM = 0.0 ppm 	-
— 12 —		12.7-15.0 ft. Medium stiff, olive brown (5Y 5/2), SILTY CLAY, trace sand, (CL), moist.								_
- 14 		Total death AFOR							Sample B1 (14.5-15) OVM = 0.0 ppm	_
16		Total depth = 15.0 ft.							Borehole grouted to surface with neat cement on 10/23/96.	_
18										-
-										_

OFFSET **ELEVATION NA** SHEET 1 Œ STA. B2 PROJECT NO. 963-7136.001 DRILLING DATE 10/23/96 DATUM MSL INCLINATION 90" AZIMUTH NA **DRILL RIG XD-1** NOTES SOIL PROFILE **SAMPLES GRAPHIC LOG** PLEZOMETER SAMPLE DESCRIPTION SOIL PROFILE BLOW8/ TYPE DESCRIPTION RTANDPIDE INSTALLATION 0-3.0 ft. Loose, light brown (7.5YR 6/4), SAND and GRAVEL, dry (Fit.L). FILL 3.0-4.5 ft. Compact, gray (5Y 5/4), SILTY SAND, some GRAVEL, (SM), damp. Sample B2 (3-3.5) OVM = 0.0 ppm SM Sample B2 (4-4.5) OVM = 0.0 ppm 4.5-6.7 ft. Medium dense, dark brown (7.5YR 3/2), CLAYEY SILT, some organics/wood, (ML), molst. ML. 6.7-9.6 ft. Medium dense, olive (5Y 4/3) SILTY SAND, some oxidized material [RED (2.5YR 4/6)], (SM), wet. SM Sample 82 (8-8.5) OVW = 0.0 ppm Sample B2 (8.5-9) OVW = 0.0 ppm Sample B2 (9.5-10) OVM = 0.0 ppm 9.6-12.0 ft. Stiff, gray (2.5YR N4), SILTY CLAY, trace SAND, (CL), moist. 10 CL - 12 12.0-15.0 ft. Medium stiff, olive brown (5Y 5/2) SILTY CLAY, trace SAND, (CL), moist. Sample B2 (14.5-15) OVM = 0.0 ppm Total depth = 15.0 ft. Borehole grouted to surface with neat cement on 10/23/96. 16

RECORD OF BOREHOLE # B2



RECORD OF BOREHOLE # B3 SHEET **OFFSET** ELEVATION NA DATUM MSL DRILLING DATE 10/23/96 PROJECT NO. 963-7136.001 **DRILL RIG XD-1** INCLINATION 90° AZIMUTH NOTES BORING METHOD **SOIL PROFILE BAMPLES** PIEZOMETER GRAPHIC SAMPLE DESCRIPTION **SOIL PROFILE** RI OWS/ DESCRIPTION STANDPIPE INSTALLATION 0-0.50 ft. Concrete. 0.5-1.7 ft. Loose, light brown (7.5YR 6/4), SAND and GRAVEL, damp, oxidized (FILL). FILL QVM = 0.0 ppmSample B3 (1.5-2) QVM = 0.0 ppm 1.7-5.0 ft. Compact, clive (5Y 5/4), SILTY SAND, trace GRAVEL, (SM), damp. ŞM Sample B3 (4,5-5) OVM = 0.0 ppm 6.0-6.2 ft. Medium stiff, dark brown (7.5YR 3/2), CLAYEY StLT, some organica/wood, (ML), moist. ML 6.2-9.7 ft. Medium dense, office (5Y 4/3), SILTY SAND, some red oxidized material, (SM), wet. QVM = 0.0 ppmSM Sample B3 (9.5-10) OVM = 0.0 ppm 9.7-12.2 it. Stiff, gray (2.5YR 4N), SILTY CLAY, trace SAND, (CL), moist. CL - 12 12.2-15.0 ft. Medium stiff, olive brown (5Y 5/2), SILTY CLAY, trace SAND, (CL), moist. Sample B3 (14.5-15) OVM ≈ 0.0 ppm Total depth = 15.0 ft. Borehole grouted to surface with neat cement on 10/23/96. 16



RECORD OF BOREHOLE # B4

PROJECT NO. 963-7136.000/001

OFFSET

L R

ELEVATION NA

DRILLING DATE 10/23/96

SHEET 1 OF 1

DATUM MSL

INCL	INATI	ON 90° AZIMUTH NA				•			DRILL RIG XD-1	
9	60	SOU, PROFILE	g			8	AMPLES			NOTES
DEPTH SCALE (FEET)	BORING METHOD	SOIL PROFILE DESCRIPTION	GRAPHICLOG	soen	NUMBER	TYPE	BLOWS/	RECOVERY	SAMPLE DESCRIPTION	PIEZOMETER STANDPIPE INSTALLATION
-0		0-0.3 ft. Aephalt.								\dashv
- -		0.3-2.6 ft. Loose, light brown (7.5YR 6/4), SAND and GRAVEL, dry (FILL).		FILL					OVM = 0.0 ppm Sample B4 (2.5-3) OVM = 0.0 ppm	_
L 2		2.8-4.7 ft. Corripact, ofive (SY 5/4), SILTY SAND, trace GRAVEL, (SM), damp.	ege age ege ege ege ege ege age age ege e	SM						- -
 		4.7-6.3 ft. Medium stiff, dark brown (7.5YR 3/2), CLAYEY SILT, some organics/wood, (ML), damp.	2.0	ML.					Sample B4 (4.6-5) OVM = 0.0 ppm	_
		6.3-9.7 ft. Medium dense, ofive (5Y 4/3), SILTY SAND, some red oxidized material, (SM), wet.	de ede ede ede ede ede e	SM					CVM = 0.0 ppm	_
- 8										_
— 10 —		9.7-12.5 ft. S础, gray (2.5YR N4), SILTY CLAY, trace SAND, (CL), moist.		CL	<u> </u> 				Sample B4 (9.5-10) OVM = 0.0 ppm	_
— 12 —	:	12.5-15.0 ft. Medium stiff, olive brown (5Y 5/2), SILTY CLAY, trace SAND, (CL), moist.								
_ 14									Sample B4 (14.5-15) OVM = 0.0 ppm	_
— — 16		Total depth = 15.0 ft.							Borehole grouted to surface with neat cement on 10/23/98.	
-										_
18 										_
_20.									LOGGED BY K.Kisiel	

ELEVATION NA SHEET **QF** 2 **OFFSET** DRILLING DATE 10/23/96 DATUM MSL PROJECT NO. 963-7136.001 DRILL RIG XD-1 INCLINATION 90' AZIMUTH NA **NOTE8** BORING METHOD **SOIL PROFILE** SAMPLES GRAPHIC LOG PIEZOMETER **SAMPLE DESCRIPTION** NUMBER **SOIL PROFILE** RLOWS/ STANDPIPE **DESCRIPTION** 6 IN. INSTALLATION 0-0.3 ft. Aaphalt. OVM = 0.0 ppm0.3-9.0 ft. Loose, light brown (7.5YR 6/4), GRAVEL and SAND, damp (FILL) FILL Sample B5 (3-3.5) OVM = 0.0 ppm 8.0-4.8 ft. Compact, olive (5Y 5/4) SILTY SAND, some GRAVEL, (SM), damp. SM Sample B5 (4.5-5) OVM = 0.0 ppm 4.8-6.2 ft. Medium stiff, dark brown (7.5YR 3/2), CLAYEY SILT, some organics/wood, trace glass, (ML), damp. 6.2-9.4 ft. Medium dense, olive (5Y 4/3), SILTY SAND, some red oxidized material, (SM), wet. SM Sample B5 (9.5-10) OVM = 0.0 ppm 9.4-12.3 ft. Stiff, gray (2.5YR N4), SILTY CLAY, trace SAND, (CL), moist. CL - 12 12.3-17.1 ft. Medium stiff, olive brown (5Y 5/2), SILTY CLAY, trace SAND, (CL), moist. 14 Sample B5 (14.5-15) OVM = 0.0 ppm 17.1-22.0 ft. Medium stiff, olive (5Y 4/3) to olive (5Y 5/3), SILTY CLAY, (CL), moist to wet. CL 18

RECORD OF BOREHOLE # B5



	RECORD OF BOREHOLE # B5									
	IECT I	OFFSET L R NO. 963-7136.001 DN 90" AZIMUTH NA					ATION NA LING DATE	10/		OF 2
		SOIL PROFILE				8	AMPLES			NOTES
DEPTH SCALE (FEET)	BORENG METHOD	SOIL PROFILE DESCRIPTION	GRAPHIC LOG	SOSA	NUMBER	TYPE	BLOWS/	RECOVERY	SAMPLE DESCRIPTION	PIEZOMETER STANDPIPE INSTALLATION
22		22.0-24.6 ft. L::00se, olive (5Y 5/3), SAND (SP), wet.		CL SP					OVM = 0.0 ppm	
24		Stiff, olive (5Y 4/3), SILTY CLAY, trace, SAND (CL.), wet gradee to moist.		CL			1		Sample B5 (24.5-25) OVM = 0.0 ppm	-
 26		Total depth = 25.0 ft.							Borehole grouted to surface with next cement on 10/23/96.	
_										-
28										
 5 0										_
_										
– 52										_
34										_
<u> </u>										_
— 36										
— 38										-
										_



APPENDIX B Laboratory Chemical Analysis Reports

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation: 11134

PAGE 1

1107 - 6 1996

GOLDER ASSOCIATES 1451 HARBOR BAY PKWY,STE.1000 ALAMEDA, CA 94502

ATTN: KEN KISIEL CLIENT PROJ. ID: GALLO SALAMI REPORT DATE: 11/05/96

DATE(S) SAMPLED: 10/23/96

DATE RECEIVED: 10/25/96

AEN WORK ORDER: 9610355

PROJECT SUMMARY:

On October 25, 1996, this laboratory received 7 soil sample(s).

Client requested sample(s) be analyzed for chemical parameters. Results of analysis are summarized on the following page(s). Please see quality control report for a summary of QC data pertaining to this project.

Samples will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Samples may be archived by prior arrangement.

If you have any questions, please contact Client Services at (510) 930-9090.

Laryy Klein

Laboratory Director

GOLDER ASSOCIATES

SAMPLE ID: B1 (3-3.5) AEN LAB NO: 9610355-01 AEN WORK ORDER: 9610355 CLIENT PROJ. ID: GALLO SALAMI

DATE SAMPLED: 10/23/96 DATE RECEIVED: 10/25/96 REPORT DATE: 11/05/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE Analyzed
EPA 8020 - Soil matrix Benzene Chlorobenzene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene Ethylbenzene Toluene Xylenes, total	EPA 8020 71-43-2 108-90-7 95-50-1 541-73-1 10-46-7 100-41-4 108-88-3 1330-20-7	ND ND ND ND ND ND ND	5 ug. 5 ug. 5 ug. 5 ug. 5 ug. 5 ug. 20 ug	/kg /kg /kg /kg /kg /kg	11/01/96 11/01/96 11/01/96 11/01/96 11/01/96 11/01/96 11/01/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

GOLDER ASSOCIATES

SAMPLE ID: B1 (9.5-10) AEN LAB NO: 9610355-02

AEN WORK ORDER: 9610355 CLIENT PROJ. ID: GALLO SALAMI

DATE SAMPLED: 10/23/96 DATE RECEIVED: 10/25/96 REPORT DATE: 11/05/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 - Soil matrix Benzene Chlorobenzene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene Ethylbenzene Toluene Xylenes, total	EPA 8020 71-43-2 108-90-7 95-50-1 541-73-1 10-46-7 100-41-4 108-88-3 1330-20-7	ND ND ND ND ND ND ND	5 i 5 i 5 i 5 i 5 i	ıg/kg ıg/kg ıg/kg ıg/kg ıg/kg ıg/kg ıg/kg	11/01/96 11/01/96 11/01/96 11/01/96 11/01/96 11/01/96 11/01/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

GOLDER ASSOCIATES

SAMPLE ID: B2 (3-3.5) AEN LAB NO: 9610355-03 AEN WORK ORDER: 9610355 CLIENT PROJ. ID: GALLO SALAMI

DATE SAMPLED: 10/23/96 DATE RECEIVED: 10/25/96 REPORT DATE: 11/05/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 - Soil matrix Benzene Chlorobenzene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene Ethylbenzene Toluene Xylenes, total	EPA 8020 71-43-2 108-90-7 95-50-1 541-73-1 10-46-7 100-41-4 108-88-3 1330-20-7	ND ND ND ND ND ND ND	5 ι 5 ι 5 ι 5 ι 5 ι	ig/kg ig/kg ig/kg ig/kg ig/kg ig/kg ig/kg	11/01/96 11/01/96 11/01/96 11/01/96 11/01/96 11/01/96 11/01/96

ND = Not detected at or above the reporting limit
 * = Value at or above reporting limit

GOLDER ASSOCIATES

SAMPLE ID: B2 (8.5-9) **AEN LAB NO:** 9610355-04 AEN WORK ORDER: 9610355

CLIENT PROJ. ID: GALLO SALAMI

DATE SAMPLED: 10/23/96 DATE RECEIVED: 10/25/96 REPORT DATE: 11/05/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 - Soil matrix Benzene Chlorobenzene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene Ethylbenzene Toluene Xylenes, total	EPA 8020 71-43-2 108-90-7 95-50-1 541-73-1 10-46-7 100-41-4 108-88-3 1330-20-7	ND ND ND ND ND ND ND	5 w 5 w 5 w 5 w 5 w	g/kg g/kg g/kg g/kg g/kg g/kg g/kg	11/01/96 11/01/96 11/01/96 11/01/96 11/01/96 11/01/96 11/01/96

ND = Not detected at or above the reporting limit
 * = Value at or above reporting limit

GOLDER ASSOCIATES

SAMPLE ID: B2 (14.5-15) AEN LAB NO: 9610355-05 AEN WORK ORDER: 9610355

CLIENT PROJ. ID: GALLO SALAMI

DATE SAMPLED: 10/23/96 DATE RECEIVED: 10/25/96 REPORT DATE: 11/05/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 - Soil matrix Benzene Chlorobenzene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene Ethylbenzene Toluene Xylenes, total	EPA 8020 71-43-2 108-90-7 95-50-1 541-73-1 10-46-7 100-41-4 108-88-3 1330-20-7	ND ND ND ND ND ND ND	5 i i 5 i i 5 i i 5 i	ig/kg ig/kg ig/kg ig/kg ig/kg ig/kg ig/kg	11/01/96 11/01/96 11/01/96 11/01/96 11/01/96 11/01/96 11/01/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

GOLDER ASSOCIATES

SAMPLE ID: B3 (1.5-2) AEN LAB NO: 9610355-06 AEN WORK ORDER: 9610355

CLIENT PROJ. ID: GALLO SALAMI

DATE SAMPLED: 10/23/96 DATE RECEIVED: 10/25/96 REPORT DATE: 11/05/96

METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
71-43-2 108-90-7 95-50-1 541-73-1 10-46-7 100-41-4	ND ND ND ND ND ND	5 เ 5 เ 5 เ 5 เ	ug/kg ug/kg ug/kg ug/kg ug/kg	11/04/96 11/04/96 11/04/96 11/04/96 11/04/96 11/04/96
	CAS# EPA 8020 71-43-2 108-90-7 95-50-1 541-73-1 10-46-7	CAS# RESULT EPA 8020 71-43-2 ND 108-90-7 ND 95-50-1 ND 541-73-1 ND 10-46-7 ND 100-41-4 ND 108-88-3 ND	CAS# RESULT LIMIT EPA 8020 71-43-2 ND 5 1 108-90-7 ND 5 1 95-50-1 ND 5 1 541-73-1 ND 5 1 10-46-7 ND 5 1 100-41-4 ND 5 1 108-88-3 ND 5 1	CAS# RESULT LIMIT UNITS EPA 8020 71-43-2 ND 5 ug/kg 108-90-7 ND 5 ug/kg 95-50-1 ND 5 ug/kg 541-73-1 ND 5 ug/kg 10-46-7 ND 5 ug/kg 100-41-4 ND 5 ug/kg 108-88-3 ND 5 ug/kg

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

GOLDER ASSOCIATES

SAMPLE ID: B3 (9.5-10) AEN LAB NO: 9610355-07

AEN WORK ORDER: 9610355 CLIENT PROJ. ID: GALLO SALAMI

DATE SAMPLED: 10/23/96 DATE RECEIVED: 10/25/96 **REPORT DATE: 11/05/96**

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 - Soil matrix Benzene Chlorobenzene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene Ethylbenzene Toluene Xylenes, total	EPA 8020 71-43-2 108-90-7 95-50-1 541-73-1 10-46-7 100-41-4 108-88-3 1330-20-7	ND ND ND ND ND ND ND	5 ug 5 ug 5 ug 5 ug 5 ug 20 ug	i/kg i/kg i/kg i/kg i/kg	11/04/96 11/04/96 11/04/96 11/04/96 11/04/96 11/04/96 11/04/96

ND = Not detected at or above the reporting limit
 * = Value at or above reporting limit

AEN (CALIFORNIA) QUALITY CONTROL REPORT

AEN JOB NUMBER: 9610355

CLIENT PROJECT ID: GALLO SALAMI

Quality Control Summary

All laboratory quality control parameters were found to be within established limits.

<u>Definitions</u>

Laboratory Control Sample (LCS)/Method Spike(s): Control samples of known composition. LCS and Method Spike data are used to validate batch analytical results.

Matrix Spike(s): Aliquot of a sample (aqueous or solid) with added quantities of specific compounds and subjected to the entire analytical procedure. Matrix spike and matrix spike duplicate QC data are advisory.

Method Blank: An analytical control consisting of all reagents, internal standards, and surrogate standards carried through the entire analytical process. Used to monitor laboratory background and reagent contamination.

Not Detected (ND): Not detected at or above the reporting limit.

Relative Percent Difference (RPD): An indication of method precision based on duplicate analysis.

Reporting Limit (RL): The lowest concentration routinely determined during laboratory operations. The RL is generally 1 to 10 times the Method Detection Limit (MDL). Reporting limits are matrix, method, and analyte dependent and take into account any dilutions performed as part of the analysis.

Surrogates: Organic compounds which are similar to analytes of interest in chemical behavior, but are not found in environmental samples. Surrogates are added to all blanks, calibration and check standards, samples, and spiked samples. Surrogate recovery is monitored as an indication of acceptable sample preparation and instrumental performance.

- D: Surrogates diluted out.
- #: Indicates result outside of established laboratory QC limits.

QUALITY CONTROL DATA

METHOD: EPA 8020

AEN JOB NO: 9610355

INSTRUMENT: G MATRIX: SOIL

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery 1-Chloro-2-fluoro- benzene
11/01/96 11/01/96 11/01/96 11/01/96 11/01/96 11/04/96 11/04/96	B1 (3-3.5) B1 (9.5-10) B2 (3-3.5) B2 (8.5-9) B2 (14.5-15) B3 (1.5-2) B3 (9.5-10)	01 02 03 04 05 06 07	70 71 70 70 70 71 71
QC Limits			70-130

DATE ANALYZED: 11/01/96 SAMPLE SPIKED: INSTRUMENT: G 9610405-02

Matrix Spike Recovery Summary

				QC Limi	ts
Analyte	Spike Added (ug/kg)	Average Percent Recovery	RPD	Percent Recovery	RPD
Benzene Toluene Chlorobenzene	50 50 50	87 84 78	6 5 1	65-122 68-124 54-141	20 20 20

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

GOLDER ASSOCIATES THE CHAIN OF CUSTODY RECORD 1012514 9610353 9610355 SITE /LOCATION PROJ. NO. GALLO SALAMI OF. REMARKS (with initials) KEN KISIEZ CON-TAINERS MEDIA SAMPLE IDENTIFICATION AB STA. NO. DATE TIME 10/23/4C 8:15 SOIL 8:30 BA 9:00 3-3,5)03A 9:20 9:40 B3 06A 10:00 B3 (9.5-10) 10:15 DZA Relinguished by: (Signature/Firm) Date / Time Received by: (Signature / Firm) Date / Time Received by/(Signature/Fi Relinquished by: (Signature/Firm) Received by (Signature/Firm) Relinquished by: (Signature/Firm) Relinquished by: (Signature / Firm) Date/Time Received by: (Signature / Firm) Remarks (attachments if necessary) Received by: (Signature/Firm) Date / Time. Date / Time Relinquished by: (Signature/Firm)

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation: 11134

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- 4 1996

GOLDER ASSOCIATES 1451 HARBOR BAY PKWY,STE.1000

ALAMEDA, CA 94502

ATTN: KEN KISIEL

CLIENT PROJ. ID: GALLO SALAMI

REPORT DATE: 11/01/96

DATE(S) SAMPLED: 10/23/96

DATE RECEIVED: 10/24/96

AEN WORK ORDER: 9610328

PROJECT SUMMARY:

On October 24, 1996, this laboratory received 5 water sample(s).

Client requested sample(s) be analyzed for chemical parameters. Results of analysis are summarized on the following page(s). Please see quality control report for a summary of QC data pertaining to this project.

Samples will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Samples may be archived by prior arrangement.

If you have any questions, please contact Client Services at (510) 930-9090.

Larry Klein

Laboratory Director

GOLDER ASSOCIATES

SAMPLE ID: B2 **AEN LAB NO:** 9610328-01 AEN WORK ORDER: 9610328

CLIENT PROJ. ID: GALLO SALAMI

DATE SAMPLED: 10/23/96 DATE RECEIVED: 10/24/96 REPORT DATE: 11/01/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 - Water matrix Benzene Chlorobenzene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene Ethylbenzene Toluene Xylenes, Total	EPA 8020 71-43-2 108-90-7 95-50-1 541-73-1 106-46-7 100-41-4 108-88-3 1330-20-7	ND ND ND ND ND ND ND	0.5 ug 0.5 ug 0.5 ug 0.5 ug 0.5 ug 0.5 ug	g/L g/L g/L g/L g/L g/L	10/31/96 10/31/96 10/31/96 10/31/96 10/31/96 10/31/96 10/31/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

GOLDER ASSOCIATES

SAMPLE ID: B5

AEN LAB NO: 9610328-02

AEN WORK ORDER: 9610328 CLIENT PROJ. ID: GALLO SALAMI

DATE SAMPLED: 10/23/96

DATE RECEIVED: 10/24/96 REPORT DATE: 11/01/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 - Water matrix Benzene Chlorobenzene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene Ethylbenzene Toluene Xylenes, Total	EPA 8020 71-43-2 108-90-7 95-50-1 541-73-1 106-46-7 100-41-4 108-88-3 1330-20-7	ND ND ND ND ND ND ND	0.5 ug 0.5 ug 0.5 ug 0.5 ug 0.5 ug 2 ug	g/L g/L g/L g/L g/L g/L	10/31/96 10/31/96 10/31/96 10/31/96 10/31/96 10/31/96 10/31/96

ND = Not detected at or above the reporting limit

^{* =} Value at or above reporting limit

GOLDER ASSOCIATES

SAMPLE ID: B4

AEN LAB NO: 9610328-03 AEN WORK ORDER: 9610328

CLIENT PROJ. ID: GALLO SALAMI

DATE SAMPLED: 10/23/96

DATE RECEIVED: 10/24/96 REPORT DATE: 11/01/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 - Water matrix Benzene Chlorobenzene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene Ethylbenzene Toluene Xylenes, Total	EPA 8020 71-43-2 108-90-7 95-50-1 541-73-1 106-46-7 100-41-4 108-88-3 1330-20-7	ND ND ND ND ND ND ND	0.5 u 0.5 u 0.5 u 0.5 u 0.5 u 0.5 u	g/L g/L g/L g/L g/L g/L	10/31/96 10/31/96 10/31/96 10/31/96 10/31/96 10/31/96 10/31/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

GOLDER ASSOCIATES

SAMPLE ID: B3 **AEN LAB NO:** 9610328-04 AEN WORK ORDER: 9610328

CLIENT PROJ. ID: GALLO SALAMI

DATE SAMPLED: 10/23/96 DATE RECEIVED: 10/24/96 REPORT DATE: 11/01/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 - Water matrix Benzene Chlorobenzene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene Ethylbenzene Toluene Xylenes, Total	EPA 8020 71-43-2 108-90-7 95-50-1 541-73-1 106-46-7 100-41-4 108-88-3 1330-20-7	ND ND ND ND ND ND ND	0.5 u 0.5 u 0.5 u 0.5 u 0.5 u 0.5 u	g/L g/L g/L g/L g/L g/L	10/31/96 10/31/96 10/31/96 10/31/96 10/31/96 10/31/96 10/31/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

GOLDER ASSOCIATES

SAMPLE ID: B1

AEN LAB NO: 9610328-05 AEN WORK ORDER: 9610328 CLIENT PROJ. ID: GALLO SALAMI

DATE SAMPLED: 10/23/96

DATE RECEIVED: 10/24/96 REPORT DATE: 11/01/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 - Water matrix Benzene Chlorobenzene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene Ethylbenzene Toluene Xylenes, Total	EPA 8020 71-43-2 108-90-7 95-50-1 541-73-1 106-46-7 100-41-4 108-88-3 1330-20-7	ND ND ND ND ND 2.1 * ND 5 *	0.5 u	g/L g/L g/L g/L g/L g/L	10/31/96 10/31/96 10/31/96 10/31/96 10/31/96 10/31/96 10/31/96 10/31/96

ND = Not detected at or above the reporting limit
 * = Value at or above reporting limit

AEN (CALIFORNIA) QUALITY CONTROL REPORT

AEN JOB NUMBER: 9610328

CLIENT PROJECT ID: GALLO SALAMI

Quality Control Summary

All laboratory quality control parameters were found to be within established limits.

<u>Definitions</u>

Laboratory Control Sample (LCS)/Method Spike(s): Control samples of known composition. LCS and Method Spike data are used to validate batch analytical results.

Matrix Spike(s): Aliquot of a sample (aqueous or solid) with added quantities of specific compounds and subjected to the entire analytical procedure. Matrix spike and matrix spike duplicate QC data are advisory.

Method Blank: An analytical control consisting of all reagents, internal standards, and surrogate standards carried through the entire analytical process. Used to monitor laboratory background and reagent contamination.

Not Detected (ND): Not detected at or above the reporting limit.

Relative Percent Difference (RPD): An indication of method precision based on duplicate analysis.

Reporting Limit (RL): The lowest concentration routinely determined during laboratory operations. The RL is generally 1 to 10 times the Method Detection Limit (MDL). Reporting limits are matrix, method, and analyte dependent and take into account any dilutions performed as part of the analysis.

Surrogates: Organic compounds which are similar to analytes of interest in chemical behavior, but are not found in environmental samples. Surrogates are added to all blanks, calibration and check standards, samples, and spiked samples. Surrogate recovery is monitored as an indication of acceptable sample preparation and instrumental performance.

- D: Surrogates diluted out.
- #: Indicates result outside of established laboratory QC limits.

QUALITY CONTROL DATA

METHOD: EPA 8020

AEN JOB NO: 9610328

INSTRUMENT: I MATRIX: WATER

Surrogate Standard Recovery Summary

			Percent Recovery
Date Analyzed	Client Id.	Lab Id.	1-Chloro-2-fluoro- benzene
10/31/96 10/31/96 10/31/96 10/31/96 10/31/96	B2 B5 B4 B3 B1	01 02 03 04 05	82 80 81 88 86
QC Limits			70-130

DATE ANALYZED: 10/30/96 SAMPLE SPIKED: INSTRUMENT: I 9610300-03

Matrix Spike Recovery Summary

-			<u>.</u> .	QC Limi	ts
Analyte	Spike Added (ug/L)	Average Percent Recovery	RPD	Percent Recovery	RPD
Benzene Toluene Chlorobenzene	50 50 50	94 93 92	<1 1 3	65-122 68-124 54-141	20 20 20

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

CHAIN OF CUSTODY RECORD 1354 94502 9610328 PROJ. NO. SITE /LOCATION GALLO SALAMI **REMARKS** (with initials) KEN KISIEL CON-TAINERS EDIA TIME SAMPLE IDENTIFICATION STA. NO. DATE B2 10/23/16 1400 01A-C 02A-C **B**5 1300 0346 B4 1430 OHAB **B**3 1445 05A-C 1430 Date / Time Date / Time Received by: (Signature / Firm) Received by: (Signature / Firm) Relinquished by: (Signature/Firm) Relinquished by: (Signature / Firm) Date / Time Remarks (attachments if necessary) Received by: (Signature/Firm) Date/Time Relinquished by: (Signature / Ficm)



Precision Environmental Analytical Laboratory

September 17, 1996

PEL # 9609029

JACK OUARLE & ASSOCIATES

Attn: Jack Quarle

Project name: Gallo / San Lorenzo

Sample I.D.: NW-2

Date Sampled: Sep 11, 1996

Method of Analysis: EPA 8010

Date Analyzed: Sep 13-16, 1996

Date Submitted: Sep 13, 1996

Detection limit: 5.0 ug/Kg

SPIKE RECOVERY CONCENTRATION COMPOUND NAME (%) (uq/Kg) N.D. Chloromethane Vinyl Chloride N.D. Bromomethane N.D. Chloroethane N.D. Trichlorofluoromethane N.D. N.D. 1,1-Dichloroethene Methylene Chloride N.D. 81.4 1,2-Dichloroethene (TOTAL) N.D. 98.4 1,1-Dichloroethane N.D. 108.5 N.D. Chloroform 1,1,1-Trichloroethane N.D. Carbon Tetrachloride N.D. N.D. 1,2-Dichloroethane 93.7 N.D. Trichloroethene 88.7 N.D. 1,2-Dichloropropane N.D. Bromodichloromethane 2-Chloroethylvinylether N.D. Trans-1,3-Dichloropropene N.D. Cis-1,3-Dichloropropene N.D. 1,1,2-Trichloroethane N.D. 96.3 Tetrachloroethene N.D. N.D. Dibromochloromethane Chlorobenzene N.D. N.D. Bromoform N.D. 1,1,2,2-Tetrachloroethane N.D. 1,3-Dichlorobenzene N.D. 1,4-Dichlorobenzene N.D.

David Duong Laboratory Director

1.2-Dichlorobenzene

Fax: 408-946-9663

Tel: 408-946-9636



Precision Environmental Analytical Laboratory

September 16, 1996

PEL # 9609029

JACK QUARLE & ASSOCIATES

Attn: Jack Quarle

Project name: Gallo / San Lorenzo

Sample I.D.: NE-2 $(T \rho - 1)$

Date Sampled: Sep 11, 1996

Date Analyzed: Sep 13-16, 1996

Date Submitted: Sep 13, 1996

Method of Analysis: EPA 8020 Detection limit: 5.0 ug/Kg

COMPOUND NAME	CONCENTRATION (ug/Kg)	SPIKE RECOVERY
Benzene	N.D.	86.6
Toluene	N.D.	97.1
Chlorobenzene	N.D.	
Ethyl Benzene	N.D.	101.3
Total Xylenes	N.D.	96.6
1,4 - Dichlorobenzene	N.D.	
1,3 - Dichlorobenzene	N.D.	
1,2 - Dichlorobenzene	N.D.	

Vocas

David Duong Laboratory Director

1764 Houret Court Milpitas, CA. 95035



Precision Environmental Analytical Laboratory

September 16, 1996

PEL # 9609029

Date Submitted: Sep 13, 1996

JACK QUARLE & ASSOCIATES

Attn: Jack Quarle

Project name: Gallo / San Lorenzo

Sample I.D.: NW-2 (TP-3)

Date Sampled: Sep 11, 1996

Date Analyzed: Sep 13-16, 1996

Method of Analysis: EPA 8020 Detection limit: 5.0 ug/Kg

COMPOUND NAME	CONCENTRATION (ug/Kg)	SPIKE RECOVERY (%)
Benzene	12	86.6
Toluene	12	97.1
Chlorobenzene	N.D.	
Ethyl Benzene	11	101.3
Total Xylenes	38	96.6
1,4 - Dichlorobenzene	N.D.	
1,3 - Dichlorobenzene	N.D.	and and and 600 000
1,2 - Dichlorobenzene	N.D.	

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David Duong Laboratory Director

1764 Houret Court Milpitas, CA. 95035



Precision Environmental Analytical Laboratory

September 16, 1996

PEL # 9609029

JACK QUARLE & ASSOCIATES

Attn: Jack Quarle

Project name: Gallo / San Lorenzo

Sample I.D.: SE-2 (TP-2)

Date Sampled: Sep 11, 1996

Date Analyzed: Sep 13-16, 1996

Date Submitted: Sep 13, 1996

Method of Analysis: EPA 8020 Detection limit: 5.0 ug/Kg

COMPOUND NAME	CONCENTRATION (ug/Kg)	SPIKE RECOVERY (%)
Benzene	14	86.6
Toluene	N.D.	97.1
Chlorobenzene	N.D.	
Ethyl Benzene	9.2	101.3
Total Xylenes	35	96.6
1,4 - Dichlorobenzene	N.D.	
1,3 - Dichlorobenzene	N.D.	
1,2 - Dichlorobenzene	N.D.	

David Duong Laboratory Director

1764 Houret Court Milpitas, CA, 95035



Precision Environmental Analytical Laboratory

September 16, 1996

PEL # 9609029

JACK QUARLE & ASSOCIATES

Attn: Jack Quarle

Project name: Gallo / San Lorenzo

Sample I.D.: SW-2 (TP-4)

Date Sampled: Sep 11, 1996

Date Analyzed: Sep 13-16, 1996

Date Submitted: Sep 13, 1996

Method of Analysis: EPA 8020 Detection limit: 5.0 ug/Kg

COMPOUND NAME	CONCENTRATION (ug/Kg)	SPIKE RECOVERY (%)	
Benzene	12	86.6	
Toluene	N.D.	97.1	
Chlorobenzene	N.D.		
Ethyl Benzene	7.1	101.3	
Total Xylenes	23	96.6	
1,4 - Dichlorobenzene	N.D.		
1,3 - Dichlorobenzene	N.D.		
1,2 - Dichlorobenzene	N.D.		

David Duong Laboratory Director

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Fax: 408-946-9663



Precision Environmental Analytical Laboratory

September 16, 1996

PEL # 9609029

JACK QUARLE & ASSOCIATES

Attn: Jack Quarle

COMPOUND NAME

Project name: Gallo / San Lorenzo

Sample I.D.: SW-3 (TP-4)

Date Sampled: Sep 11, 1996

Date Analyzed: Sep 13-16, 1996

Date Submitted: Sep 13, 1996

SPIKE RECOVERY

Method of Analysis: EPA 8020 Detection limit: 5.0 ug/Kg

COMPOUND NAME	(ug/Kg)	(%)	
Benzene	N.D.	86.6	
Toluene	N.D.	97.1	
Chlorobenzene	N.D.		
Ethyl Benzene	N.D.	101.3	
Total Xylenes	N.D.	96.6	
1,4 - Dichlorobenzene	N.D.		
1,3 - Dichlorobenzene	N.D.		
1,2 - Dichlorobenzene	N.D.		

CONCENTEATION

David Duong Laboratory Director

1764 Houret Court Milpitas, CA. 95035



Precision Environmental Analytical Laboratory

Tel: 408-946-9636

September 17, 1996

PEL # 9609029

JACK QUARLE & AASOCIATES

Attn: Jack Quarle

Re: Five soil samples for total Lead analysis.

Project name: Gallo / San Lorenzo

Date sampled: Sep 11, 1996

Date extracted: Sep 13-17, 1996

Date submitted: Sep 13, 1996 Date analyzed: Sep 13-17, 1996

RESULTS:

SAMPLE I.D.	Lead (mg/Kg)		
NE-2 (TP-1) NW-2 (TP-3) SE-2 (TP-2) SW-2 (TP-4) SW-3 (TP-4)	3.7 4.5 1.6 3.2 4.3		
Blank	N.D.		
Detection limit	0.50		
Method of Analysis	7420		

David Duong Laboratory Director

Fax: 408-946-9663

PROJ NO SITE/LOCATION	See la come	OF SUSTODY RE	18/3/8/5//	/ /&/	
SAMPLERS: (Signature)		ou Con		PEL#	9609029
STA NO. DATE TIME WYS	SAMPLE DENTIFICATION	TAINEDS AS		INV#	27280
NW-2 9/11/16 626	SEE SELVINE	37/38 2 3 3			
SW-2 1 4 4 4 4	CD = Comment				
SN-3 2 8 8 8 8 8	(a) (a) (b) (a) (a) (a) (a) (a) (a) (a) (a) (a) (a				
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