

STIPITSI
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geotechnical and environmental consulting services

1140 - 5th Avenue, Crockett, CA 94525

(510) 787-6867 - Fax (510) 787-1457

December 7, 1998

Ms. Susan Hugo
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway, 2nd Floor
Alameda, California 94502

RE: Report of Additional Soil Sampling
During Overexcavation of Former Fuel Tank Pit,
Piping Trenches, and Dispenser Island
Former Berkeley Farms Dairy Facility
4550 San Pablo Avenue
Emeryville, California 94608

Dear Ms. Hugo:

Attached is the final report associated with the tank removal for the above-referenced site. Should you have any questions regarding this report, please feel free to call me at (510) 787-6867.

Sincerely,

Geo-Logic, Inc.

Joel G. Greger, C.E.G.
Senior Engineering Geologist

License No. EG 1633
Exp. Date 8/31/2000

Attachments: Report

ENVIRONMENTAL
PROTECTION
98 DEC -8 PM 2:52

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GL-98-120.R2

November 20, 1998

Paradiso Job No. 1094

Berkeley Farms
25500 Clawiter Road
Hayward California

Attention: Mr. Norm Albert

RE: Report of Additional Soil Sampling
During Overexcavation of Former Fuel Tank Pit,
Piping Trenches, and Dispenser Island
Former Berkeley Farms Dairy Facility
4550 San Pablo Avenue
Emeryville, California 94608

Dear Mr. Albert:

This report summarizes the results of the additional soil sampling performed by Geo-Logic at the referenced site. This work was proposed in Geo-Logic's workplan/proposal (GL-98-120.R1/P1) dated September 23, 1998. The work was performed in compliance with the guidelines established by the Regional Water Quality Control Board (RWQCB) and the Alameda County Health Care Services Agency, Department of Environmental Health (ACDEH).

The scope of the work performed by Geo-Logic consisted of the following:

Coordination with the regulatory agencies;

Collection of soil samples from the sidewalls after additional excavation of the former fuel tank pit;

Collection of soil samples from a former gasoline and diesel piping trench and from the dispenser island area;

Delivery of soil samples with properly executed Chain of Custody documentation to a certified analytical laboratory;

Technical review of data and preparation of this report.

SITE DESCRIPTION

The subject site is located on the east side of San Pablo Avenue between 45th and 47th Streets in Emeryville, California, and formerly operated as a Berkeley Farms dairy facility. A Site Plan (Figure 1) is attached to this report.

98 DEC - 8/17/98
ENVIRONMENTAL
PROFESSIONAL

PREVIOUS FIELD ACTIVITIES

Geo-Logic's field work at the site began on September 11, 1998, when one 10,000-gallon diesel tank and one 10,000-gallon gasoline tank were removed from the site. Approximately 150 feet of gasoline product piping had been removed and the piping trenches excavated to a depth of 3 feet below grade. The area of the dispenser island has also been excavated approximately 8 feet by 8 feet laterally and to a depth of 4 feet below grade.

Removal of the tanks was performed by Paradiso Mechanical, Inc. of San Leandro, California. The tanks were made of steel and appeared to be in good condition. Mr. Rob Weston of the ACDEH was present during the tank removal.

Upon removal of the tanks, dark brown oily residue (liquid) was observed beneath the tank locations, and additional petroleum-impacted backfill material was still present. In addition, an area of petroleum-impacted native soil several feet wide and the length of the tank pit was present between the two tank locations. Because it was necessary to pump out the tank pit prior to excavating the remaining backfill and sampling soil and groundwater, sampling of pit under the observation of the ACDEH was scheduled for September 14, 1998.

Six soil samples, labeled P1(3.5'), P2(3.5'), P3(3.5'), P4(3.5'), P5(3.5'), and P6(3.5'), were collected every 20 linear feet from the product piping trenches at approximately 0.5 feet below the trench bottom. Mr. Rob Weston of the ACDEH was present during a portion of the soil sampling. All excavated soil was stockpiled on-site.

On September 14, 1998, Geo-Logic returned to the site for sampling of soil and groundwater from the tank pit, and to sample the stockpile for disposal profiling. Following dewatering of the tank pit, the pit was excavated to a depth of approximately 13 feet below grade, and to the limits of the sawcut concrete (approximately 25 feet by 39 feet). The excavation bottom at this depth consisted of a orangish brown sandy silt, exposed in the sidewalls at approximately 12.8 feet below grade. Some petroleum-impacted backfill material was still present on the sidewalls.

Water was encountered in the tank pit at a depth of approximately 13.0 feet below grade and entered the excavation slowly. Six soil samples, labeled N(12'), S(12'), NE(12'), NW(12'), SE(12'), and SW(12'), were collected from the sidewalls of the excavation, at the depths indicated. Mr. Larry Seto of the ACDEH witnessed the soil sampling activities.

The undisturbed soil samples were collected from bulk material excavated by backhoe. The samples were each placed in clean, two-inch diameter brass tubes, sealed with teflon and plastic caps, and stored in a cooled ice chest for delivery to a certified laboratory. Sample locations are shown on Figure 2.

One water sample, labeled Water 1, was collected from the groundwater that had collected within the excavation. The sample was collected from the northwest corner of the excavation beneath the diesel tank location, where sufficient water had collected, and where a brown oily residue was noted on the water. The sample was placed in two clean glass VOA vials and one amber one-liter bottle. The water sample was stored and delivered as described above. Mr. Larry Seto of the ACDEH witnessed the water sampling.

The samples were analyzed by Calcoast Analytical in Emeryville, California, and were accompanied by properly executed Chain of Custody documentation. The tank pit sidewall soil samples and the tank pit grab groundwater sample were analyzed for total petroleum hydrocarbons (TPH) as diesel and TPH as gasoline by EPA Method 8015, and benzene, toluene, ethylbenzene, and xylenes (BTEX) and methyl tert-butyl ether (MTBE) by EPA method 8020. The product piping trench samples were analyzed for TPH as gasoline, BTEX, and MTBE. A four-part composite sample was taken from the excavated soil stockpile and was analyzed for TPH as diesel, TPH as gasoline, BTEX, and total lead.

The results of the soil analyses are summarized in Tables 1 and 2. The results of the water analyses are summarized in Table 3. This work was summarized in Geo-Logic's workplan/report (GL-98-120.R1/P1) dated September 23, 1998.

FIELD ACTIVITIES

Geo-Logic returned to the site on September 25, 1998, when additional overexcavation of the tank pit sidewalls had been completed. The pit had been dewatered to an onsite Baker tank prior to overexcavation. The north, south, and west sidewalls had been overexcavated approximately 5 feet laterally. The eastern sidewall had been overexcavated approximately 1.5 feet laterally due to the presence of underground utilities.

Groundwater had stabilized in the tank pit at a depth of approximately 13.0 feet below grade. Six soil samples, labeled N2(12'), S2(12'), NE2(12'), NW2(12'), SE2(12'), and SW2(12'), were collected from the sidewalls of the excavation, at the depths indicated. Sample locations are shown on Figure 2.

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On September 30, Ms. Susan Hugo of the ACDEH inspected the open excavations.

As of October 1, 1998, a total of approximately 32,200 gallons of purged groundwater had been removed from the tank pit. An onsite 21,000-gallon Baker tank was used for temporary storage.

On October 5, 1998, Geo-Logic returned to the site and sampled a gasoline and diesel product piping trench and the former dispenser island area. Five soil samples, labeled P7(3'), P8(3'), P9(5'), P10(5'), and P12(5.5') were collected every 20 linear feet from the product piping trench at approximately 0.5 feet below the trench bottom. Sample P11(4') was taken at the depth indicated from beneath a drive slab area directly adjacent to and west of the product piping trench. Samples P13(6') and P14(5.5') were taken from the former dispenser island location at the depths indicated. On October 8, 1998, Ms. Susan Hugo of the ACDEH visited the site and viewed these sample locations within the open excavations.

All excavated soil, consisting of approximately 1152.35 tons, was stockpiled on-site and profiled prior to proper disposal at an approved landfill facility.

SUBSURFACE CONDITIONS

The soils encountered in the excavations consisted predominantly of dark brown to brown stiff silty clay and clay fill materials to a depth of about 5 to 6 feet below grade, underlain by brownish green to light green clay and silty clay to about 12.8 feet below grade. The predominantly clayey soils are in turn underlain by orangish brown sandy silt. Groundwater was seen to slowly enter the excavation upon exposing the sandy silt.

ANALYTICAL RESULTS

The samples were analyzed by Calcoast Analytical in Emeryville, California, and were accompanied by properly executed Chain of Custody documentation. The overexcavation sidewall soil samples from the tank pit were analyzed for TPH as diesel by EPA method 8015. The sidewall sample located near the gasoline product piping trench [NE2(12')] was also analyzed for TPH as gasoline by EPA Method 8015, and for BTEX by EPA Method 8020. The product piping trench samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline and TPH as diesel by EPA method 8015, and benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA method 8020. The dispenser island sample [P14(5.5')] was also analyzed for Total Recoverable Petroleum Hydrocarbons by EPA Method 418.1.

The results of the soil analyses are summarized in Tables 4 through 6. Copies of the laboratory analyses and the Chain of Custody documentation are attached to this report.

DISPOSAL

On September 9 and 10, 1998, prior to removing the tanks, approximately 3,800 gallons of gasoline and 900 gallons of diesel were pumped from the tanks and then the tanks were rinsed. The fuel and the rinse water was transported under manifest by Clearwater Environmental Management, Inc. (Clearwater) of Fremont, California, and taken to Alviso Independent Oil (Alviso) in Alviso, California. Following removal on September 11, 1998, the 10,000-gallon diesel tank and the 10,000-gallon gasoline tank were transported by Trident Trucking to Erickson, Inc., of Richmond, California.

On October 1, 1998, approximately 200 gallons of water with oil sheen that had been removed from the tank pit was transported by Clearwater under manifest to Alviso. Also on October 1, 1998, approximately 33,000 gallons of groundwater that had been removed from the tank pit was transported by NG Chemical (NG) under manifest to Seaport Environmental in Redwood City, California.

During the period September 25, 1998 through October 23, 1998, approximately 1152.35 tons of excavated soil was transported by Conrad and Sons of Escalon, California, under proper manifest, to Forward Landfill in Manteca, California.

The manifests for the disposal of the USTs, fuel, purged groundwater, rinsate, and excavated soil are attached to this report as Appendix A.

DISCUSSION AND RECOMMENDATIONS

Based on the analytical results of the soil samples, and in accordance with the guidelines established by the RWQCB, no further excavation work at the site associated with the former fuel tanks, product piping, or dispenser island is considered warranted.

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DISTRIBUTION

A copy of this report should be sent to Ms. Susan Hugo of the ACDEH.

LIMITATIONS

Soil deposits and rock formations may vary in thickness, lithology, saturation, strength and other properties across any site. In addition, environmental changes, either naturally-occurring or artificially-induced, may cause changes in the extent and concentration of any contaminants. Our studies assume that the field and laboratory data are reasonably representative of the site as a whole, and assume that subsurface conditions are reasonably conducive to interpolation and extrapolation.

The results of this study are based on the data obtained from the field and laboratory analyses obtained from a state certified laboratory. We have analyzed this data using what we believe to be currently applicable engineering techniques and principles in the Northern California region. We make no warranty, either expressed or implied, regarding the above, including laboratory analyses, except that our services have been performed in accordance with generally accepted professional principles and practices existing for such work.

Should you have any questions regarding this report, please feel free to call me at (510) 787-6867.

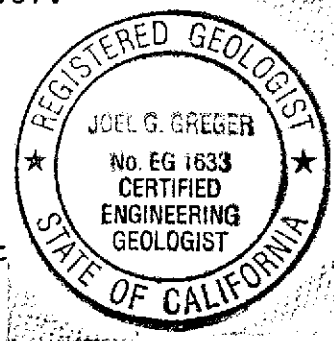
Sincerely,

Geo-Logic



Joel G. Greger, C.E.G.
Certified Engineering Geologist

License No. EG 1633
Exp. Date 8/31/2000



Attachments: Tables 1 through 5
Figures 1 & 2
Laboratory Analyses and
Chain of Custody documentation
Appendix A - Disposal Manifests
Workplan/proposal

Geo-Logic
GL-98-120.R2
November 20, 1998

TABLE 1

SUMMARY OF LABORATORY ANALYSES
SOIL

(Collected on September 11, 1998)

<u>Sample/depth</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl- benzene</u>	<u>Xylenes</u>	<u>MTBE</u>
P1 (3.5')	<0.1	<0.005	<0.005	<0.005	<0.005	<0.1
P2 (3.5')	<0.1	<0.005	<0.005	<0.005	<0.005	<0.1
P3 (3.5')	<0.1	<0.005	<0.005	<0.005	<0.005	<0.1
P4 (3.5')	<0.1	<0.005	<0.005	<0.005	<0.005	<0.1
P5 (3.5')	<0.1	<0.005	<0.005	<0.005	<0.005	<0.1
P6 (3.5')	<0.1	<0.005	<0.005	<0.005	<0.005	<0.1
Method Blank/ Detection Limit	<0.1	<0.005	<0.005	<0.005	<0.005	<0.1

Results are in milligrams per kilogram (mg/kg).

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TABLE 2

SUMMARY OF LABORATORY ANALYSES
 SOIL

(Collected on September 14, 1998)

<u>Sample/ depth</u>	<u>TPH Gas</u>	<u>TPH Diesel</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl- benzene</u>	<u>Xylenes</u>	<u>MTBE</u>
N(12')	<0.1	290	<0.005	<0.005	<0.005	<0.005	<0.1
S(12')	<0.1	6,700	<0.005	<0.005	<0.005	<0.005	<0.1
NE(12')	22	72	2.1	1.3	0.77	3.7	<0.1
SE(12')	<0.1	150	<0.005	<0.005	<0.005	<0.005	<0.1
SW(12')	<0.1	<0.1	<0.005	<0.005	<0.005	<0.005	<0.1
NW(12')	<0.1	410	<0.005	<0.005	<0.005	<0.005	<0.1
Comp S1*	<0.1	1110	<0.005	<0.005	<0.005	<0.005	--
Method Blank/ Detection Limit	<0.1	<0.1	<0.005	<0.005	<0.005	<0.005	<0.1

Results are in milligrams per kilogram (mg/kg).

-- analysis not performed

* Total Lead was detected at a concentration of 7.3 mg/kg.

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TABLE 3

SUMMARY OF LABORATORY ANALYSES
WATER

(Collected on September 14, 1998)

<u>Sample</u>	<u>TPH Gas</u>	<u>TPH Diesel</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl- benzene</u>	<u>Xylenes</u>	<u>MTBE</u>
Water-1	<5.0	600	<0.5	<0.5	<0.5	<0.5	<5.0
Method Blank/ Detection Limit	<5.0	<5.0	<0.5	<0.5	<0.5	<0.5	<5.0

Results are in micrograms per liter (ug/l).

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TABLE 5

SUMMARY OF LABORATORY ANALYSES
SOIL

(Collected on October 5, 1998)

<u>Sample/depth</u>	<u>TPH as Diesel</u>	<u>TPH Gas</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl-benzene</u>	<u>Xylenes</u>
P7 (3')	<0.1	<0.1	<0.005	<0.005	<0.005	<0.005
P8 (3')	<0.1	<0.1	<0.005	<0.005	<0.005	<0.005
P9 (5')	<0.1	<0.1	<0.005	<0.005	<0.005	<0.005
P10 (5')	<0.1	<0.1	<0.005	<0.005	<0.005	<0.005
P11 (4')	<0.1	<0.1	<0.005	<0.005	<0.005	<0.005
P12 (5.5')	<0.1	<0.1	<0.005	<0.005	<0.005	<0.005
P13 (6')	<0.1	<0.1	<0.005	<0.005	<0.005	<0.005
P14 (5.5')*	<0.1	<0.1	<0.005	<0.005	<0.005	<0.005
Method Blank/ Detection Limit	<0.1	<0.1	<0.005	<0.005	<0.005	<0.005

Results are in milligrams per kilogram (mg/kg).

* TRPH was detected at a concentration of 110 mg/kg.

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November 20, 1998

TABLE 4

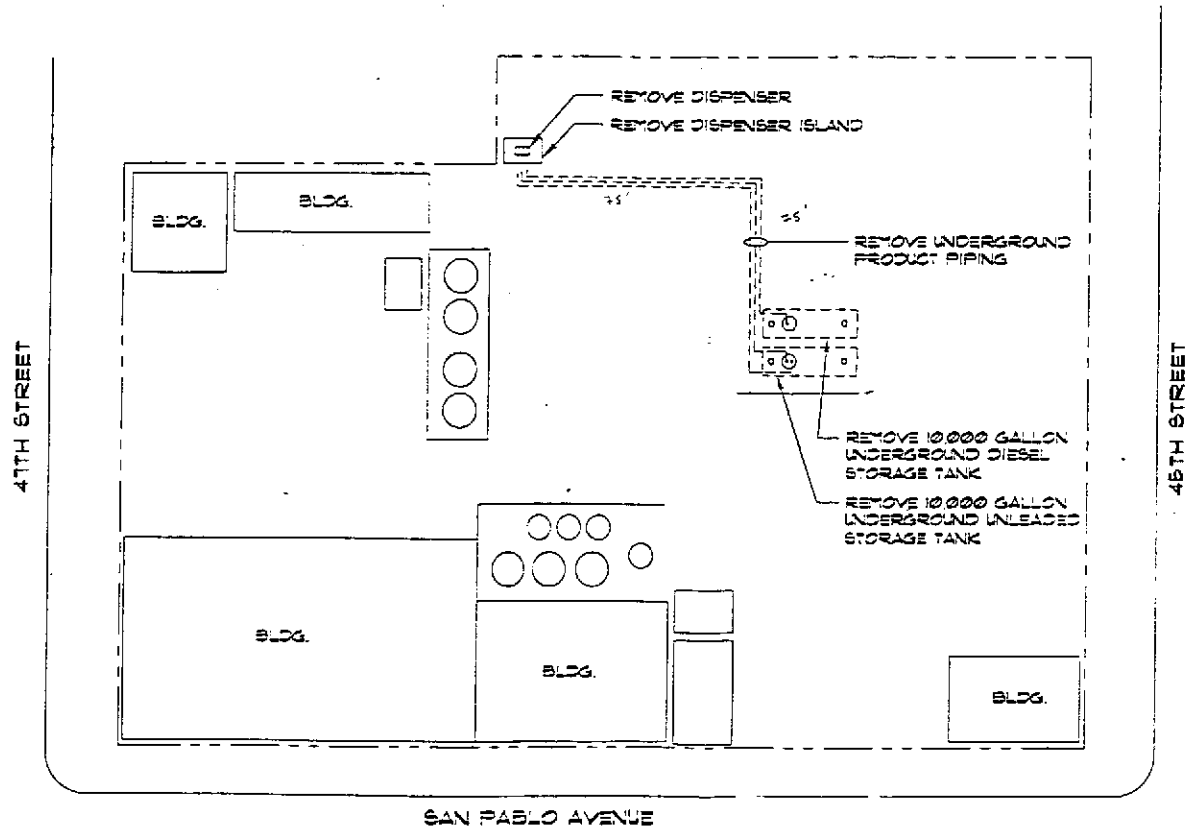
SUMMARY OF LABORATORY ANALYSES
SOIL

(Collected on September 25, 1998)

<u>Sample/depth</u>	<u>TPH as Diesel</u>	<u>TPH Gas</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl-benzene</u>	<u>Xylenes</u>
N2 (12')	120	--	--	--	--	--
S2 (12')	770	--	--	--	--	--
NE2 (12')	100	<0.1	<0.005	<0.005	<0.005	<0.005
SE2 (12')	59	--	--	--	--	--
NW2 (12')	66	--	--	--	--	--
SW2 (12')	230	--	--	--	--	--
Method Blank/ Detection Limit	<0.1	<0.1	<0.005	<0.005	<0.005	<0.005

Results are in milligrams per kilogram (mg/kg).

* TRPH was detected at a concentration of 110 mg/kg.



NOT TO SCALE

FORMER BERKELEY FARMS DAIRY
4550 SAN PABLO AVENUE
EMERYVILLE, CALIFORNIA

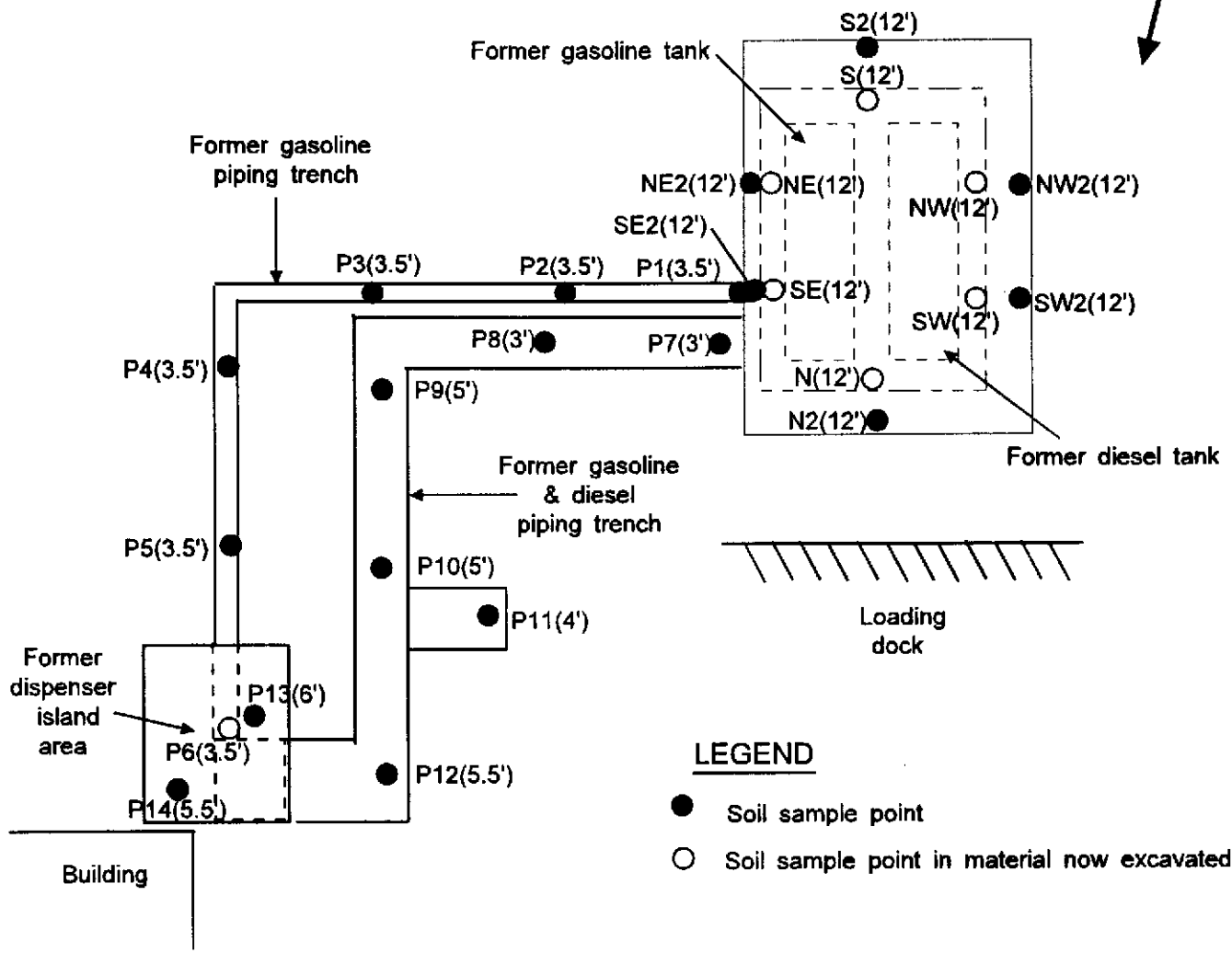
Figure No:
1

Date: September 22, 1998

Drawn By: JG/Geo-Logic

Site Plan

N



SCALE: 1" = 20'

FORMER BERKELEY FARMS DAIRY
 4550 SAN PABLO AVENUE
 EMERYVILLE, CALIFORNIA

Figure No:

2

Date: November 20, 1998

Drawn By: JG/Geo-Logic

Sample Location Map