

REPORT

Dec 14 89

REMEDIAL INVESTIGATION

2801 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

Prepared for

CALI FRANCE CORPORATION
1904 FRANKLIN STREET
OAKLAND, CALIFORNIA 94612

Riedel Environmental Services, Inc.
4138 Lakeside Drive
Richmond, California 94806

RES Project No. 4004
December 14, 1989



RIEDEL ENVIRONMENTAL
SERVICES, INC.

San Francisco Region:
4138 Lakeside Drive
Richmond, California 94806
(415) 222-7810
FAX: (415) 222-6868

January 18, 1990

Mr. Nicholas Molnar
Cali France Corporation
1904 Franklin Street
Oakland, California 94612

Subject: Remedial Investigation Report
2801 MacArthur Boulevard
Oakland, California
RES Project No. 4004

Dear Mr. Molnar:

Riedel Environmental Services, Inc. (RES) is pleased to present this Remedial Investigation Report documenting the activities to date at the Cali France site located at 2801 MacArthur Boulevard in Oakland, California.

Copies of this report must be forwarded to the following agencies:

Alameda County Flood Control and Water Conservation District
5997 Parkside Drive
Pleasanton, CA 94566
Attn: Wyman Hong

Alameda County Department of Environmental Health
80 Swan Way, Room 200
Oakland, CA 94621
Attn: Larry Setow

Regional Water Quality Control Board
1111 Jackson Street, Room 6000
Oakland, CA 94607
Attn: Mr. Lester Feldman

Mr. Nicholas Molnar
January 18, 1990
Page 2

If you have any question or require additional information, please do not hesitate to contact us at (415) 222-7810.

Sincerely,

RIEDEL ENVIRONMENTAL SERVICES, INC.



Michael G. Burns
Project Manager
R.G. 4532

MGB:hav

cc: Aniko Molnar

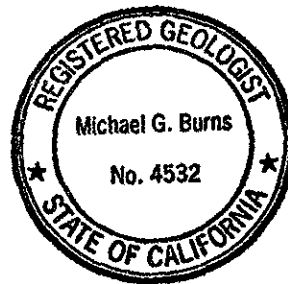


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1.0 INTRODUCTION

The purpose of this report is to provide a summary of activities to date at the Cali France Corporation (CFC) site located at 2801 MacArthur Boulevard, Oakland, California. A site vicinity map is provided as Figure 1, and a site map showing specific areas of activity is provided as Figure 2. This report is prepared in accordance with guidelines as established by the Santa Clara Valley Water District in the publication, "Investigation and Remediation at Fuel Leak Sites - Guidelines for Investigation and Technical Report Preparations," dated March 1989, and the San Francisco Regional Water Quality Control Board in the publications, "Tri-Regional Recommendations", dated June 2, 1988, and "Leaking Underground Fuel Tank Field Manual", dated March 1989. All work was performed under the direct supervision of a registered professional engineer, Sherban Duncan, California Professional Engineer 32972 and a registered geologist, Michael G. Burns, California Registered Geologist 4532.

1.1 Background

The CFC site has operated as a gasoline filling and service station since at least the 1950's. The site was purchased by the CFC in 1984 with an independent operator as lessee. In November 1988, the three underground gasoline storage tanks were pressure tested and two of the tanks failed the pressure test. The three fuel tanks and related piping were removed by Riedel Environmental Services, Inc. (RES) between May and June of 1989. The report documenting the tank removal was submitted by RES to the CFC on June 9, 1989. One soil boring (B-1) was installed adjacent to the excavation on June 12, 1989. The results of that investigation were submitted to CFC in a report dated June 20, 1989. Additional excavation beneath the gasoline tanks on July 5, 1989 revealed discolored soil with a strong petroleum hydrocarbon odor extending to a depth of at least 22 feet below ground surface.

1.2 Scope of Current Investigation

This report documents the work completed to date. This work is comprised of the following tasks:

- o Installation of Soil Borings B2 through B9 and the analyses of selected samples.
- o Removal of waste oil tank and the analysis of a soil sample.
- o Excavation of underground piping in the vicinity of the waste oil tank and the analysis of soil samples.

2.0 SOIL BORINGS

2.1 Field Investigation Activities

The soil borings were drilled at the locations shown in Figure 2. RES secured the necessary permit before drilling operations began from the Alameda County Flood Control and Water Conservation District (ACWD). A copy of the permit is contained in Appendix A. The permit requires that the results of the drilling operations be forwarded to the ACWD. This requirement may be satisfied by forwarding a copy of this report.

Prior to commencement of drilling operations, a site survey was conducted to locate underground and overhead utilities in the area of the investigation.

The boreholes were drilled using 8-inch-diameter, continuous-flight, hollow-stem augers with a truck-mounted auger drill rig. The augers and drill rods were steam-cleaned prior to use in each borehole to prevent cross-contamination between boreholes.

The boreholes were logged by a RES professional in accordance with the Unified Soil Classification System and standard geologic techniques. Soil samples for logging purposes were collected from auger return materials and from soil samples collected by driving a split-spoon sampler into the bottom of the borehole beyond the lead auger. The sampling equipment was cleaned with a non-phosphate detergent solution followed by tap and distilled water rinse prior to each use.

Soil samples for chemical analyses were collected from each borehole at a maximum of 5 foot depth intervals by driving a modified California split-spoon sampler equipped with brass sleeves into the bottom of the borehole beyond the lead auger. The sampling equipment were cleaned with a non-phosphate detergent solution followed by tap and

distilled water prior to each use. The soil samples were sealed into their brass sleeves with aluminum foil and end caps, placed in a cooler with ice packs, and delivered directly to a State-certified hazardous waste testing laboratory. Chain of custody procedures were observed.

Upon completion of the field operations, the boreholes were sealed with a cement/bentonite grout to prevent the boreholes from performing as potential conduits to groundwater.

2.2 Site Hydrogeologic Conditions

Subsurface conditions were explored to depths ranging from 35-1/2 to 51-1/2 feet below grade (bg). Soil Borings B2, B3, and B5 through B9 encountered clay with variable amounts of silt, sand, and/or gravel to the total depths explored. Soil Boring B4 encountered sandy and/or silty clay to a depth of 29-1/2 feet bg underlain by clayey sand and sand to the total depth explored. Copies of the Exploratory Boring Logs are presented in Appendix B. A copy of the ACDEH transmittal letter for the logs is presented in Appendix A.

Petroleum product odors were noted in soils collected from Borings B3, B4, and B7 at various depths ranging from 20 to 46 feet bg. Petroleum product odors were noted in soils collected from Boring B9 from 5 to 35-1/2 feet bg.

Standing groundwater was observed at depths ranging from 27 to 42 feet bg in Borings B2, B3, B5, and B7. Groundwater was not observed in Borings B4, B6, B8, and B9. Therefore, groundwater was not observed at consistent depths throughout the site. The clayey nature of subsurface soils is the probable cause of the discontinuous nature of groundwater beneath this site. There are two hydrogeologic scenarios that may cause the above-observed conditions. One possibility is that localized perched water may be present in those borings where groundwater was observed with the water table present at some unknown depth below the perched water. Another possibility is that a localized clay body located through the areas of Borings B4, B6, B8, and B9 is acting as a groundwater barrier

or aquitard to groundwater. The information currently available is insufficient to adequately characterize groundwater conditions.

2.3 Laboratory Analytical Results

Selected soil samples from the soil borings were analyzed for the presence of Total Petroleum Hydrocarbons (TPH) as gasoline, and benzene, toluene, ethyl benzene, and xylenes (BTEX) compounds by EPA Methods 5030, 8015, and 8020. Table 1 summarizes the TPH concentrations and sample depth intervals. Copies of the laboratory analytical results and chain of custody records are contained in Appendix C. Various TPH concentrations were detected in selected soil samples collected from Borings B3, B4, B7, B8, and B9. The highest TPH contamination was noted in Boring B4, whose 35 foot depth interval sample contained 5,300 milligrams per kilogram (mg/kg) or parts per million. No TPH was detected in soil samples from Borings B1, B2, B5, and B6.

Soil contamination is the highest at the locations of Borings B4, B7, and B9. Lower concentrations (TPH <100 milligrams per kilogram) extend to the location of Borings B3 and B8. The shallow contamination at Boring B9 may be due to leaks from the former waste oil tank and/or service island supply lines and/or piping discovered in the vicinity of but not associated with the waste oil tank.

Benzene was detected in soil samples collected from Borings B7 and B9 at concentrations ranging from 0.026 to 4.1 mg/kg. No benzene was detected in soil samples collected from Borings B1 through B6, and B8.

Toluene was detected in soil samples collected from Borings B7, B8, and B9 at concentrations ranging from 0.043 to 28 mg/kg. No toluene was detected in soil samples collected from Borings B1 through B6.

Ethyl benzene was detected in soil samples collected from Borings B7, B8, and B9 at concentrations ranging from 0.04 to 14 mg/kg. No ethyl benzene was detected in soil samples collected from Borings B1 through B6.

Xylenes were detected in soil samples collected from Borings B7, B8, and B9 at concentrations ranging from 0.2 to 68 mg/kg. No xylenes were detected in soil samples collected from Borings B1 through B6.

Table 2 summarizes the BTEX concentrations for those samples where BTEX was present above detection limits.

3.0 WASTE OIL TANK REMOVAL

The application for Underground Tank Closure/Modification Plans was submitted to and permit acquired from the Alameda County Health Care Services Agency, Department of Environmental Health, Hazardous Materials Division (ACDEH) on June 28, 1989. The application included the location and owner of the site, consultant and contractor information, hazardous waste haulers, disposal sites, laboratory information, a description of the tanks and their contents, a site safety plan, proof of Workman's Compensation and insurance, a site location map, a map showing the relative positioning of the tanks, and a brief site history. Appendix D contains a copy of the application/permit. Figure 2 shows the former waste oil tank location.

Tank removal operations were conducted on July 3, 1989. Prior to excavation, the tank was inerted with dry ice in accordance with state and local regulations. The tank was inerted to below 10% of the lower explosive limit to render the work area safe. RES broke up the asphalt over the tank and excavated the cover material over the tank. Upon tank exposure, RES discovered that the tank volume was 1,000 gallons, not the anticipated 500 to 550 gallons.

The tank was hauled off-site for disposal on the same day, in accordance with the City of Oakland's Fire Department regulations. The excavated tank was loaded onto a State-registered hauler and transported to a licensed tank disposal facility. Appendix D contains the copy of the Uniform Hazardous Waste Manifest and the Certificate of Disposal from the disposal facility, H&H Ship Service.

RES collected a soil sample from under the tank according to county requirements and the ACDEH inspector's direction. As the tank was partially located under the service island slab, no sample could be reached under that end of the tank. Soil sampling and analyses were performed in accordance with the ACDEH guidelines. The soil sample was collected and analyzed as per the guidelines of the State Water Resources Control Board's Leaking Underground Fuel Tank (LUFT) Field Manual, dated April 1989. Soil for sampling was retrieved from the excavation by a backhoe. The sample was collected into a new 6 inch long by 2 inch diameter brass tube. The tube was pushed by hand into the soil in the backhoe bucket. After collection, the brass sleeve was sealed with aluminum foil and plastic end caps, placed in a cooler with ice packs, and transported to a State-certified hazardous waste laboratory, along with the appropriate chain of custody documentation.

The sample was analyzed for the presence of TPH as gasoline and diesel, oil and grease, BTEX compounds, and purgeable halocarbons by EPA Methods 3550, 5030, 8010, 8015, 8020, and Standard Methods 503D and E. The laboratory analytical results indicated the presence of 27 mg/kg of TPH as gasoline; however, the laboratory indicated that the analysis also indicated hydrocarbons with higher boiling points than gasoline. No oil and grease, motor oil, diesel fuel, BTEX compounds, or purgeable halocarbons were detected. Copies of the laboratory analytical results and chain of custody records are contained in Appendix D.

4.0 EXCAVATION OF UNDERGROUND PIPING

Fuel lines to the fuel dispensers and vent lines were removed at the time of gasoline tank removal. Fuel lines encountered during waste oil tank removal were uncovered until the ends of the pipes were discovered and are shown in Figure 3. Soil samples were collected at locations shown in Figure 3 and analyzed for TPH as gasoline and BTEX compounds. Soil sampling and preservation procedures are as described in Section 3.0.

The soil samples, P-1 through P-4, were analyzed for the presence of TPH as gasoline and BTEX compounds by EPA Methods 5030, 8015, and 8020. Table 3 summarizes the analytical results. Copies of the laboratory analytical results and chain of custody records are contained in Appendix E.

5.0 SOIL STOCKPILES

Soil samples were collected from the soil stockpiles and analyzed to determine the appropriate disposal procedures. Soil sampling procedures were as described in Section 3.0. Soil Samples E-1, E-2, and E-3 were collected from Soil Stockpile II, the upper portion of the gasoline tank excavation material that was temporarily returned to the visqueen lined excavation. Soil sample S-1 was collected from Soil Stockpile I, a deeper portion of the gasoline tank excavation. Soil Samples S-2, S-3, and S-4 were collected from Soil Stockpile III, the upper portions of the gasoline tank excavation. Soil Samples S-5 and S-6 were collected from Soil Stockpile IV, the upper portion of the waste oil excavation and the excavated pipe trenching material. All piles had been placed on and covered by plastic sheeting. All soil samples were analyzed for the presence of TPH as gasoline and diesel, motor oil, total and non-polar oil and grease, and BTEX compounds by EPA Methods 3550, 5030, 8015, 8020, and Standard Methods 503 B, D, and E. Table 4 presents a summary of the analytical results. Copies of the laboratory analytical results and chain of custody records are contained in Appendix F. All stockpiled soil on the site was removed in October 1989 by another contractor.

TABLE 1

SUMMARY OF SOIL BORINGS
TOTAL PETROLEUM HYDROCARBON CONCENTRATIONS

Depth (in ft.)	Soil Borings									
	B1	B2	B3	B4	B5	B6	B7	B8	B9	
5	NA	ND	ND	ND	NA	NA	NA	NA	20 @ 6.5'	
10	NA	ND	ND	ND	NA	NA	NA	NA	ND @ 9.5'	
15	NA	ND	ND	ND	NA	NA	ND	ND	490 @ 16.5'	
20	ND	ND	ND	ND	ND	ND	ND	21	1500 @ 21.6'	
25	ND	ND	ND	ND	ND	ND	ND	ND	1100 @ 26.5'	
30	ND	ND	ND	150	ND	ND	ND	ND	79 @ 31.5'	
35	NB	ND	72	5,300	ND	ND	380 @ 33.0'	ND @ 35.5'	ND	
			ND @ 38.0'	7.9 @ 36.5'			65 @ 36.0'			
			ND @ 39.5'	ND @ 38.0'						
				71 @ 39.0'						
40	NB	NB			ND	ND				
			ND @ 41.0'							
			ND @ 42.0'	15 @ 40.5'			ND @ 41.0'			
45	NB	NB	NB	NB	ND	NB	ND @ 45.5'	ND	ND @ 45.5'	
50	NB	NB	NB	NB	NB	NB	ND @ 51.0'	ND	ND @ 51.0'	

NOTES:

Concentrations are in milligrams per kilogram or parts per million.

B1 = Analytical results from June 20, 1989 report.

ND = Not Detected; for detection limits, see analytical results, Appendix C.

NB = Not Bored

NA = Not Analyzed

TABLE 2
SUMMARY OF SOIL BORINGS
BTEX CONCENTRATIONS

Boring	Depth	Benzene	Toluene	Ethyl Benzene	Xylenes
B7	33	0.130	3	1.1	3.5
	36	ND	0.12	0.19	0.44
B8	15	ND	0.097	ND	ND
	20	ND	0.19	0.36	0.63
	25	ND	0.05	ND	ND
	35.5	ND	0.13	0.015	0.26
	40.5	ND	0.056	ND	ND
	50	ND	0.22	ND	ND
B9	6.5	0.026	0.046	0.055	0.2
	16.5	0.7	0.61	2	15
	21.0	4.1	3.4	14	62
	26.5	3	28	13	68
	31.5	0.35	0.8	0.61	2
	35.0	0.39	0.13	0.04	0.2
	40.5	ND	0.043	ND	ND
	45.5	ND	0.066	ND	ND
	51.0	0.31	0.046	ND	ND

All depths are in feet below grade.

All concentrations are in milligrams per kilogram or parts per million.

ND = Not detected; for detection limits see analytical results, Appendix C.

TABLE 3
SUMMARY OF PIPE TRENCH
HYDROCARBON CONCENTRATIONS

Sample	TPH	Benzene	Toluene	Ethyl Benzene	Xylenes
P-1	ND	ND	0.310	0.088	0.180
P-2	ND	ND	0.160	ND	0.130
P-3	ND	ND	0.053	ND	ND
P-4	180	ND	0.420	0.660	1.800

TPH = Total Petroleum Hydrocarbons

All concentrations are in milligrams per kilogram or parts per million.

ND = Not detected; for detection limits see analytical results, Appendix E.

TABLE 4

SUMMARY OF SOIL STOCKPILES
HYDROCARBON CONCENTRATIONS

Sample	Gasoline	Diesel	Motor Oil	Benzene	Toluene	Ethyl Benzene	Xylenes	TOG	Non-Polar TOG
E-1	27	37	130	0.370	0.960	0.530	1.500	NA	NA
E-2	ND	12	130	ND	0.190	ND	ND	NA	NA
E-3	ND	11	110	ND	0.170	ND	ND	NA	NA
S-1	550	11	ND	0.064	1.500	1.200	5.200	NA	NA
S-2	25	13	ND	ND	ND	ND	ND	NA	NA
S-3	17	ND	ND	ND	ND	ND	ND	NA	NA
S-4	ND	ND	ND	ND	0.054	ND	ND	NA	NA
S-5	ND	150	370	ND	0.240	ND	ND	670	290
S-6	ND	170	380	ND	0.320	ND	ND	1,100	560

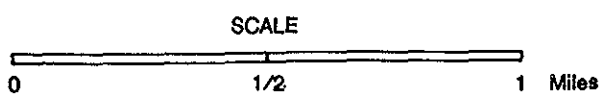
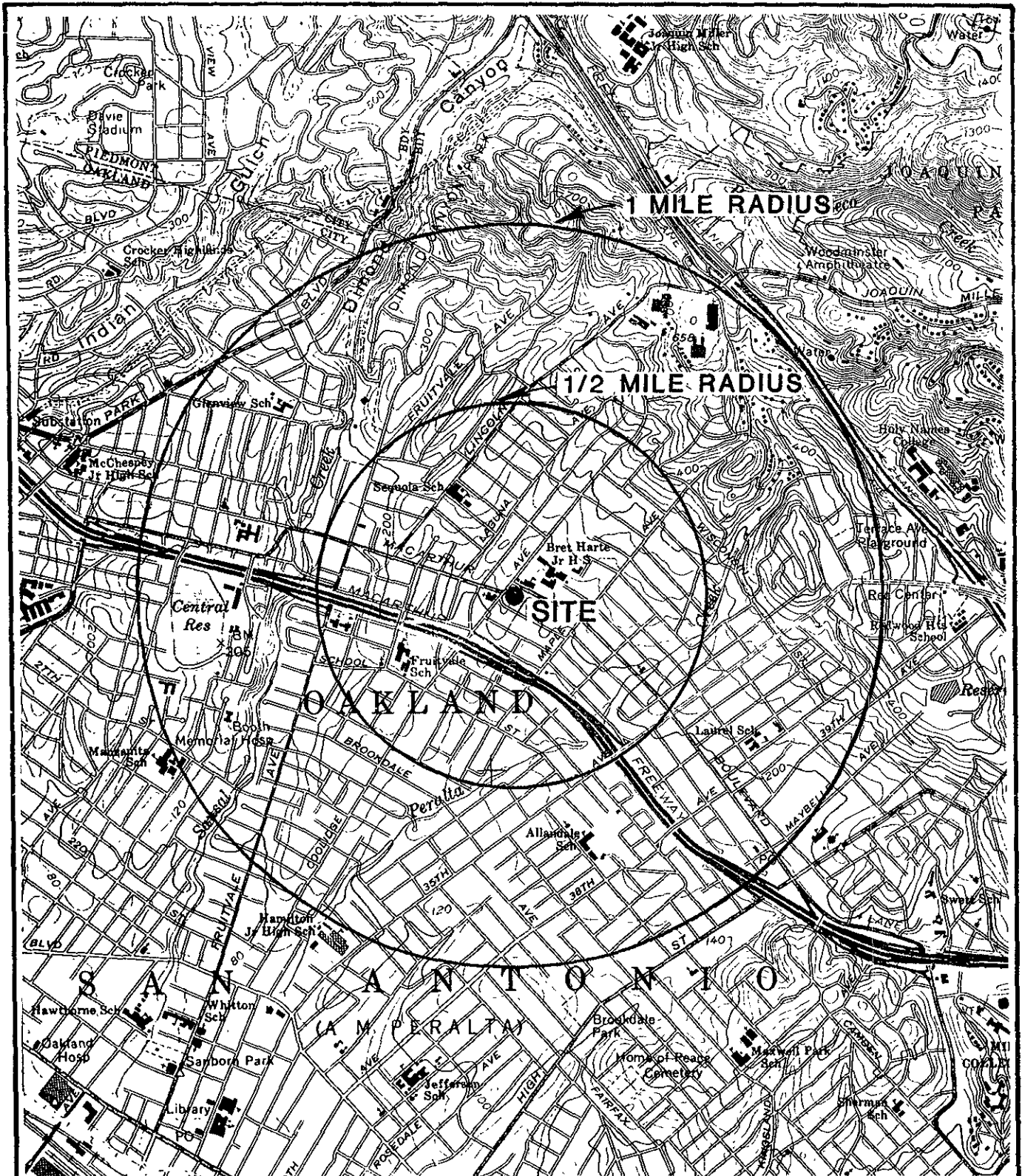
NOTES:

TOG = Total Oil and Grease.

Concentrations are in milligrams per kilogram or parts per million.

ND = Not Detected; for detection limits, see analytical results, Appendix F.

NA = Not Analyzed



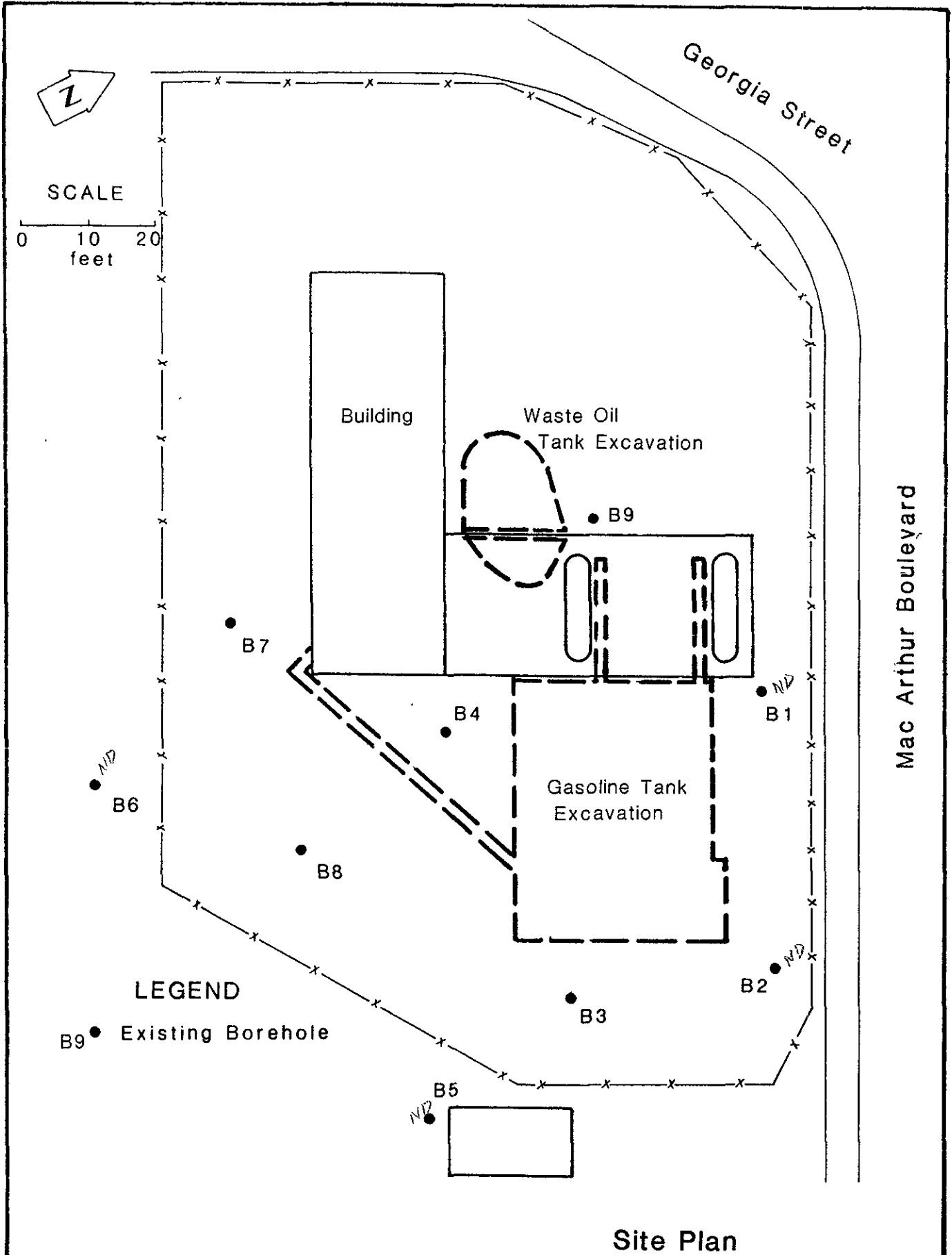
Base Map U.S. Geological Survey
 7 1/2 Minute Quadrangle
 Oakland East, 1980

Site Vicinity Map
Calli France Site
Oakland, California
 Project No. 4004



RIEDEL ENVIRONMENTAL SERVICES, INC. Richmond, California

FIGURE
 1



1/17/90



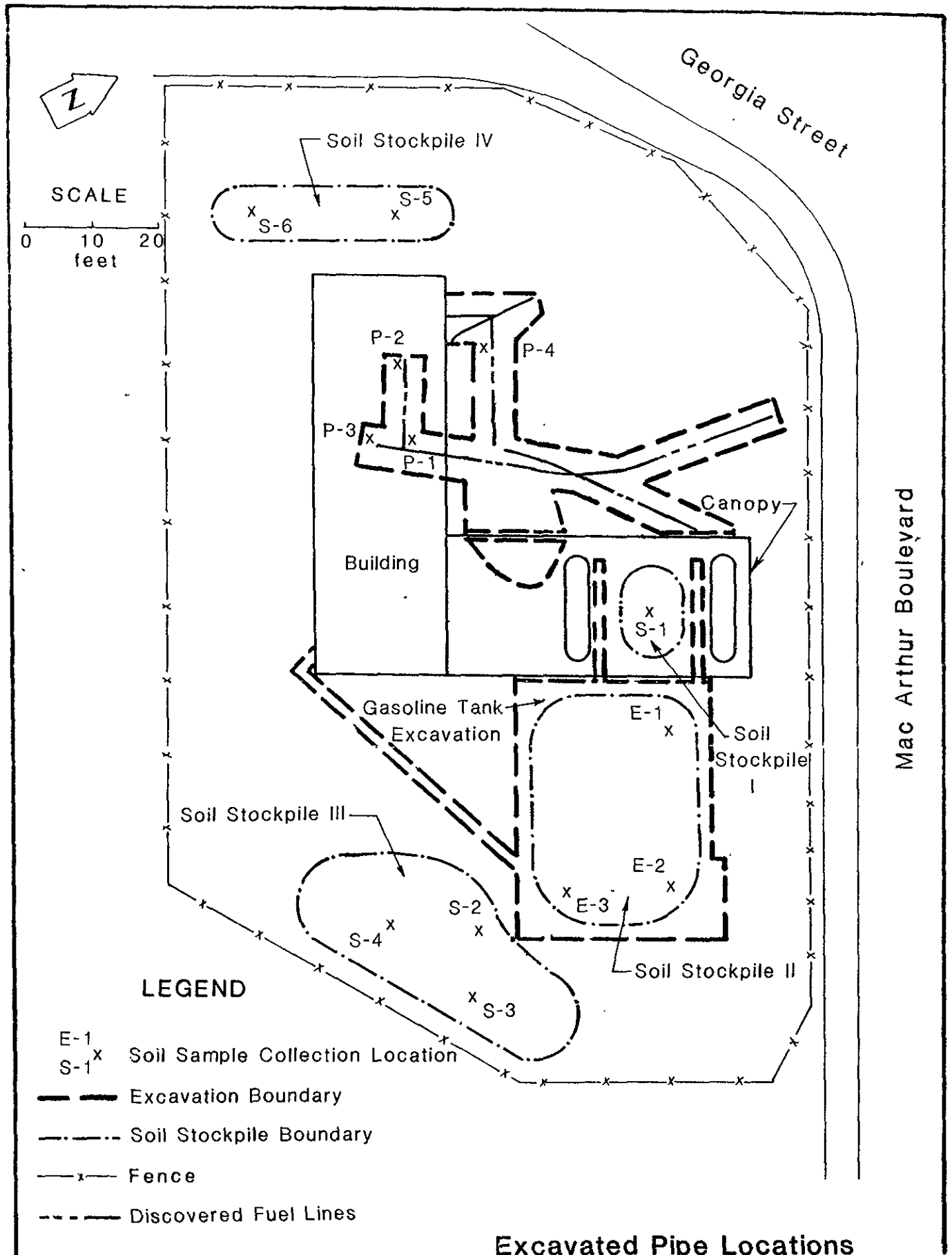
RIEDEL ENVIRONMENTAL SERVICES, INC. Richmond, California

Site Plan

Call France Corporation

Project No. 4004

FIGURE
2



SCALE
0 10 20
feet

LEGEND

- E-1 x Soil Sample Collection Location
- S-1 x Soil Sample Collection Location
- Excavation Boundary
- - - Soil Stockpile Boundary
- x - Fence
- - - Discovered Fuel Lines

Excavated Pipe Locations

Cali France Corporation

2801 Mac Arthur Blvd. Oakland, CA

10/10/89



RIEDEL ENVIRONMENTAL SERVICES, INC. Richmond, California

Mac Arthur Boulevard

APPENDIX A
DRILLING PERMITS



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94566 (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

1) LOCATION OF PROJECT 2801 MacArthur Blvd
Oakland, CA
intersection of MacArthur and Coolidge

PERMIT NUMBER 89471
LOCATION NUMBER

2) CLIENT
Name CaliFrance Corp
Address 1904 Franklin St. Phone (415) 452-4711
City Oakland, CA Zip 94612

PERMIT CONDITIONS

Circled Permit Requirements Apply

3) APPLICANT
Name Paul H. King
Riedel Environmental Services
Address 4138 Lakeside Dr. Phone (415) 222-7810
City Richmond, CA Zip 94806

A. GENERAL

- 1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

4) DESCRIPTION OF PROJECT
Water Well Construction ___ Geotechnical Investigation ___
Cathodic Protection ___ General ___
Well Destruction ___ Contamination X

B. WATER WELLS, INCLUDING PIEZOMETERS

- 1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic, irrigation, and monitoring wells unless a lesser depth is specially approved.

5) PROPOSED WATER WELL USE
Domestic ___ Industrial ___ Irrigation ___
Municipal ___ Monitoring X Other ___

C. GEOTECHNICAL

Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

6) PROPOSED CONSTRUCTION
Drilling Method:
Mud Rotary ___ Air Rotary ___ Auger X
Cable ___ Other ___
(8" (soft borings only)
55 soil borings
3 monitoring wells)

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

DRILLER'S LICENSE NO. W

E. WELL DESTRUCTION. See attached.

WELL PROJECTS
Drill Hole Diameter 8 in. Maximum
Casing Diameter 2 in. Depth 45 ft.
Surface Seal Depth 1 ft. Number 3
min 20 ft

GEOTECHNICAL PROJECTS
Number of Borings 8 Maximum
Hole Diameter 8 in. Depth 45 ft.

7) ESTIMATED STARTING DATE 7/16/89
ESTIMATED COMPLETION DATE 7/17/89

8) I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

Approved Wyman Hong Date 15 Aug 89
Wyman Hong

APPLICANT'S SIGNATURE Paul King Date 7/14/89



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
 5997 PARKSIDE DRIVE • PLEASANTON, CALIFORNIA 94566 JUL 18 1989 REG'D 2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

(1) LOCATION OF PROJECT 7801 MacArthur Blvd
Oakland, CA
at intersection of MacArthur & Coolidge

PERMIT NUMBER 89380
 LOCATION NUMBER _____

(2) CLIENT
 Name Cali France Corp
 Address 1909 Franklin St. Phone (415) 452-4711
 City Oakland, CA Zip 94612

PERMIT CONDITIONS

Circled Permit Requirements Apply

(3) APPLICANT
 Name Paul King
Riedel Environmental Services
 Address 4138 Lakeside Dr Phone (415) 222-7810
 City Richmond Zip 94806

A. GENERAL

- ① A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
- ③ Permit is void if project not begun within 90 days of approval date.

(4) DESCRIPTION OF PROJECT
 Water Well Construction _____ Geotechnical Investigation _____
 Cathodic Protection _____ General _____
 Well Destruction _____ Contamination X

B. WATER WELLS, INCLUDING PIEZOMETERS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic, irrigation, and monitoring wells unless a lesser depth is specially approved.

(5) PROPOSED WATER WELL USE
 Domestic _____ Industrial _____ Irrigation _____
 Municipal _____ Monitoring X Other _____

- ③ GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

(6) PROPOSED CONSTRUCTION
 Drilling Method:
 Mud Rotary _____ Air Rotary _____ Auger X
 Cable _____ Other _____

- D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

DRILLER'S LICENSE NO. _____

- E. WELL DESTRUCTION. See attached.

WELL PROJECTS
 Drill Hole Diameter _____ In. Maximum _____
 Casing Diameter _____ In. Depth _____ ft.
 Surface Seal Depth _____ ft. Number _____

GEOTECHNICAL PROJECTS
 Number of Borings 3 Maximum _____
 Hole Diameter 8 In. Depth 45 ft.

(7) ESTIMATED STARTING DATE 7/13/89
 ESTIMATED COMPLETION DATE 7/14/89

(8) hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

Approved Todd N. Wendler Date 7 Jul 89
 Todd N. Wendler

APPLICANT'S SIGNATURE Paul King Date 7/17/89

RECEIVED JUL 24 1989

I spoke with Craig Mayfield who said it would be acceptable to drill and send in the permit application once the applications were received. -PK

San Francisco Region:
4138 Lakeside Drive
Richmond, California 94806
(415) 222-7810
FAX: (415) 222-6868



RIEDEL ENVIRONMENTAL
SERVICES, INC.

November 8, 1989

Alameda County Flood Control
and Water Conservation District
5997 Parkside Drive
Pleasanton, California 94566

Attention: Mr. Craig Mayfield

Subject: Investigation at 2801 MacArthur Boulevard
Oakland, California
RES Project No. 4004

Gentlemen:

As per your request, please find enclosed copies of the permit, site map, and
exploratory boring logs for work conducted at the above-referenced site.
Please be advised that no monitoring wells were constructed.

If you have any question, please do not hesitate to call me at our Richmond
office at (415) 222-7810.

Sincerely,

RIEDEL ENVIRONMENTAL SERVICES, INC.





Michael G. Burns
Project Manager

MGB:hav

Enclosures

APPENDIX B
EXPLORATORY BORING LOGS

LEGEND FOR EXPLORATORY BORING LOGS

- O Sample collected in brass tube and not preserved for laboratory analysis
- X Sample collected in brass tube and preserved for laboratory analysis
- TLV Threshold Level Value instrument readings
- OVA Organic Vapor Analyzer instrument readings
- PID Photo Ionization Detector instrument readings
-  Observed Gradational Contact
-  Observed Abrupt Contact
-  Inferred Gradational Contact
-  Inferred Abrupt Contact



Log of Exploratory Boring

Project No.: 4004
 Project Name: CALIFRANCE
 By: PHK Date: 7/13/89

Boring No.: B2
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TLV	Blows/ 1/2 Ft.	Ground water Levels	Depth in Ft. Samples	Lithographic Column	Description
				GC	ASPHALT
				GC	GRAVELLY CLAY FILL
68	6 12 20		5 O X	CL	RED SANDY CLAY (CL); fine sand, moist, hard. No Petroleum Hydrocarbon (PHC) odor.
32	6 14 21		10 O X	CL	RED SANDY CLAY (CL); fine sand, moist, hard, minor gray mottling. No PHC odor
66	10 18 23		15 O X	CL	RED SANDY CLAY (CL); fine sand, moist, hard, no gray mottling. No PHC odor.
66	10 15 25		20 O X	CL	RED SANDY CLAY (CL); fine sand, minor gravel 1/4-3/4" dia. moist, hard, no gray mottling. No PHC odor.

Drilled by 8" outside diameter hollow-stem, continuous-flight auger; samples collected with 2 1/2" outside diameter California modified split-spoon sampler. Borehole backfilled with neat cement and 5% bentonite powder grout using tremie pipe method.



RIEDEL ENVIRONMENTAL SERVICES, INC. Richmond, California

FIGURE

Log of Exploratory Boring

Project No.: 4004
 Project Name: CALIFRANCE
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Boring No.: B2
 Page 2 of 2

TLV	Blows/ 1/2 Ft.	Ground water Levels	Depth in Ft. Samples	Lithographic Column	Description
66	10 14 19		25	CL	<p>RED SANDY CLAY (CL); fine sand, trace coarse sand, moist, hard, minor to trace gray mottling, @ 24.5' coarse sandy layer 3" thick. No PHC odor.</p>
		▼ ▽			<p>Groundwater first encountered at 28' 3" at 2:53 p.m. July 13, 1989. Water observed at 27' 2" at 5:13 p.m. July 13, 1989.</p>
70	9 15 20		30	CL	<p>RED SANDY CLAY (CL); fine sand, trace fine gravel 1/4" dia. moist, hard, extensive gray mottling. No PHC odor.</p>
				CL	<p>LIGHT BROWN SANDY CLAY (CL); fine sand, minor coarse sand & fine gravel, moist, hard, minor gray mottling, @ 35.0' extensive gray mottling. No PHC odor.</p>
	7 12 19		35		



Log of Exploratory Boring

Project No.: 4004
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TLV	Blows/ 1/2 Ft.	Ground water Levels	Depth in Ft. Samples	Lithographic Column	Description
				GC	ASPHALT
				GC	GRAVELLY CLAY FILL
80	8 8 11		5 O X	CL	RED SANDY CLAY (CL); fine sand, moist, very stiff. No Petroleum Hydrocarbon (PHC) odor.
72	6 14 33		10 O X	CL	RED SANDY CLAY (CL); medium sand, moist, hard, only 12" recovery. No PHC odor.
80	7 12 18		15 O X	CL	RED SANDY CLAY (CL); coarse sand, minor gravel 1 1/4 " dia. moist, hard. No PHC odor.
100	9 18 28		20 O X	CL	RED SANDY CLAY (CL); fine sand, minor gravel 1" dia. moist, hard, gray mottling. No PHC odor.

Drilled by 8" outside diameter hollow-stem, continuous-flight auger; samples collected with 2 1/2" outside diameter California modified split-spoon sampler. Borehole backfilled with neat cement and 5% bentonite powder grout using tremie pipe method.



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FIGURE

Log of Exploratory Boring

Project No.: 4004
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 By: PHK Date: 7/13/89

Boring No.: B3
 Page 2 of 2

OVA	Blows/ 1/2 Ft.	Ground water Levels	Depth in Ft. Samples	Lithographic Column	Description
	11 21 28		25 O X	CL 	RED SANDY CLAY (CL); fine sand, trace gravel 1/4-1" dia. moist, hard. No PHC odor.
	12 25 35		30 O X		RED SANDY CLAY (CL); fine sand, trace fine gravel 1/4" dia. moist, hard. No PHC odor.
20	10 21 45 15 34		35 O X O X		RED SANDY CLAY (CL); fine sand, minor fine gravel 1/4" dia. moist, hard, 35.0' begin green discoloration. Strong PHC odor below 35.0'.
x>1000	53 13 30		X O X		RED GRAVELLY CLAY (CL); gravel 1/4-1 1/4" dia., moist, hard, green discoloration. Strong PHC odor.
20	40 12 35		X O X		Strong PHC odor.
3	41 10 31		40 X O X		Strong PHC odor.
Battery Died	11 50 23 39		X O X		Moderate to strong PHC odor.
		sz			After 41.5' no discoloration. No PHC odor.
			45		After waiting 15 minutes at 42.5', free water began to collect in borehole at 5:30 p.m. July 13, 1989.



Log of Exploratory Boring

Project No.: 4004
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 By: PHK Date: 7/14/89

Boring No.: B4
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OVA	Blows/ 1/2 Ft.	Ground water Levels	Depth in Ft. Samples	Lithographic Column	Description
				GC	ASPHALT
				GC	GRAVELLY CLAY FILL
0	7 12 13		5 X O	CL	RED SANDY CLAY (CL); fine to medium sand, moist, very stiff. No Petroleum Hydrocarbon (PHC) odor.
	7 14 20		10 X O	CL	RED SANDY CLAY (CL); fine sand, trace medium sand. moist, hard, No PHC odor.
0	8 19 24		15 X O	CL	RED SANDY CLAY (CL); fine to coarse sand, trace gravel 1/4" dia. moist, hard, vertical band of gray-green clay, @ 14.6-14.9' trace fine sand. No PHC odor.
0	11 30 36		20 X O	CL	RED SANDY CLAY (CL); fine to coarse sand, trace gravel 1" dia. moist, hard, 12" recovery. No PHC odor. BROWN SANDY CLAY (CL); fine sand, moist, very stiff, extensive gray mottling. No PHC odor.

Drilled by 8" outside diameter hollow-stem, continuous-flight auger; samples collected with 2 1/2" outside diameter California modified split-spoon sampler. Borehole backfilled with neat cement and 5% bentonite powder grout using tremie pipe method.



RIEDEL ENVIRONMENTAL SERVICES, INC. Richmond, California

FIGURE

Log of Exploratory Boring

Project No.: 4004
 Project Name: CALIFRANCE
 By: PHK Date: 7/14/89

Boring No.: B4
 Page 2 of 2

OVA	Blows/ 1/2 Ft.	Ground water Levels	Depth in Ft. Samples	Lithographic Column	Description
	8 20 28		25	CL	BROWN SANDY CLAY (CL); fine sand, moist, hard. No PHC odor.
35	10 24		30	CL	GRAY SILTY CLAY (CL); moist, hard. No to slight PHC odor.
380	37		30	SC	GRAY CLAYEY SAND (SC); fine sand, minor coarse sand & fine gravel 1/4" dia. moist, hard. Moderate PHC odor.
	26 26		35	SP	GRAY-GREEN SAND (SP); fine sand, saturated with gasoline, hard. Strong PHC odor.
x > 1000	50		35	SC	GRAY CLAYEY SAND (SC); interlayered clayey gravel & clayey sand, gravel 1/4-1" dia., moist, hard, gray & green discoloration. Moderate PHC odor.
380	10 33		35	SC	No PHC odor.
3	14 34		35	SC	Moderate PHC odor.
	50 18		40	SC	No PHC odor.
25	50		40	SC	Moderate PHC odor.
	10		40	SC	Discoloration ends @ 40.5'. Moderate PHC odor.
Battery Died	32 40		40	SC	
			45		No free groundwater encountered in borehole.



Log of Exploratory Boring

Project No.: 4004
 Project Name: CALIFRANCE
 By: PHK Date: 8/24/89

Boring No.: B5
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PID	Blows/ 1/2 Ft.	Ground water Levels	Depth in Ft Samples	Lithographic Column	Description
				GC	ASPHALT
				GC	GRAVELLY CLAY FILL
0	11 18 20		5 X	CL	RED GRAVELLY CLAY (CL); minor fine sand, gravel 1/4-2" dia. moist, hard. No Petroleum Hydrocarbon (PHC) odor.
0	7 12 16		10 X	ML	RED SANDY SILT (ML); fine to medium sand, moist, hard. No PHC odor.
0	8 15 25		15 X	CL	@ 13.5' gravel 1/2-1 1/2" dia. BROWN SILTY CLAY (CL); trace fine sand, moist, very stiff, extensive red mottling, trace black mottling. No PHC odor.
0	12 23 35		20 X	CL	RED SILTY CLAY (CL); trace fine & medium sand, moist, hard, black mottling. No PHC odor.

Drilled by 8" outside diameter hollow-stem, continuous-flight auger; samples collected with 2 1/2" outside diameter California modified split-spoon sampler. Borehole backfilled with neat cement and 5% bentonite powder grout using tremie pipe method.



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FIGURE

Log of Exploratory Boring

Project No.: 4004

Boring No.: B5

Project Name: CALIFRANCE

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By: PHK

Date: 8/24/89

PID	Blows/ 1/2 Ft.	Ground water Levels	Depth in Ft Samples	Lithographic Column	Description
0	9 17 29		25 X O O O	CL	RED SILTY CLAY (CL); trace fine & medium sand moist, hard, black mottling, minor white mottling. No PHC odor.
0	12 19 35		30 X O O O	CL	BROWN SILTY CLAY (CL); trace medium sand, wet to saturated, hard, minor black mottling, extensive red mottling. No PHC odor.
0	16 33 40		35 X O O O		34.0-34.2' brown gravelly clay, gravel 1/4-3/4" dia.
0	16 29 50	w	40 X O O O		BROWN SILTY CLAY (CL); trace medium sand, trace fine gravel 1/4" dia. moist, hard, minor black mottling along fractures. No PHC odor.
0	21 27 32	w	45 X O O O		Groundwater first encountered at 40.5' at 10:00 a.m. August 25, 1989. Water observed at 38.5' at 4:05 p.m. August 25, 1989. BROWN SILTY CLAY (CL); fine to coarse sand, minor gravel 1/4-1/2" dia. moist, hard. No PHC odor.
0					BROWN SILTY CLAY (CL); trace fine sand, moist, hard, extensive red mottling, @ 45.5' red mottling not as extensive. No PHC odor.



Log of Exploratory Boring

Project No.: 4004
 Project Name: CALIFRANCE
 By: PHK Date: 8/24/89

Boring No.: B6
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PID	Blows/ 1/2 Ft.	Ground water Levels	Depth in Ft. Samples	Lithographic Column	Description
				GC	ASPHALT
				GC	GRAVELLY CLAY FILL
0	7 13 16		5 O O X	CL	RED SILTY CLAY (CL); fine to medium sand, moist, very stiff, minor black mottling. No Petroleum Hydrocarbon (PHC) odor.
0	9 19 28		10 O O X	CL	RED SILTY CLAY (CL); fine to medium sand, moist, hard, minor black mottling. No PHC odor.
0	20 45 25		15 O O X	CL	RED SILTY CLAY (CL); fine to medium sand, fine gravel 1/4-1/2" dia. moist, hard, minor black mottling. No PHC odor.
0	9 31 50		20 O O X	CL	RED SILTY CLAY (CL); fine to medium sand, moist, hard, extensive black speckles like mottling. No PHC odor.

Drilled by 8" outside diameter hollow-stem, continuous-flight auger; samples collected with 2 1/2" outside diameter California modified split-spoon sampler. Borehole backfilled with neat cement and 5% bentonite powder grout using tremie pipe method.



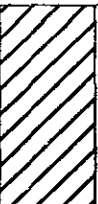
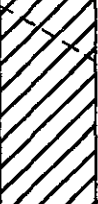



RIEDEL ENVIRONMENTAL SERVICES, INC. Richmond, California

FIGURE

Log of Exploratory Boring

Project No.: 4004
 Project Name: CALIFRANCE
 By: PHK Date: 8/24/89

Boring No.: B6
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PID	Blows/ 1/2 Ft.	Ground water Levels	Depth in Ft. Samples	Lithographic Column	Description
0	18 23 44		25 X O O X	CL 	RED SANDY CLAY (CL); fine to coarse sand, minor fine gravel 1/4" dia. moist, hard. No PHC odor.
0	9 20 27		30 O O X	CL 	RED SILTY CLAY (CL); trace fine sand, moist, hard, minor white mottling, extensive black mottling. No PHC odor.
0	5 11 16		35 O O X	CL 	RED SILTY CLAY (CL); minor fine to medium sand, minor fine gravel 1/4" dia. moist, very stiff, extensive white mottling. No PHC odor.
0	12 25 31		40 O O X	 	RED SILTY CLAY (CL); minor fine to medium sand, minor gravel 1/4-1" dia. moist, hard. No PHC odor. No free groundwater encountered in borehole.



Log of Exploratory Boring

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Boring No.: B7

Project Name: CALIFRANCE

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PID	Blows/ 1/2 Ft.	Ground water Levels	Depth in Ft. Samples	Lithographic Column	Description
				GC	ASPHALT
				CL	GRAVELLY CLAY FILL
0	11 17 29		5 X	CL	RED SANDY CLAY (CL); medium sand, minor gravel 1/4-2 1/2" dia. moist, hard. No Petroleum Hydrocarbon (PHC) odor.
0	7 17 21		10 X	CL	RED SILTY CLAY (CL); minor fine to medium sand, trace fine gravel 1/4" dia moist, hard, trace gray mottling, trace black mottling. No PHC odor.
0	10 18 26		15 X	CL	RED SILTY CLAY (CL); minor fine to medium sand, moist, hard, trace gray mottling, trace black mottling, No PHC odor.
0	10 15 26		20 X	CL	BROWN SILTY CLAY (CL); minor fine to medium sand, moist, hard, trace black mottling, extensive red mottling. No PHC odor.

Drilled by 8" outside diameter hollow-stem, continuous-flight auger; samples collected with 2 1/2" outside diameter California modified split- spoon sampler. Borehole backfilled with neat cement and 5% bentonite powder grout using tremie pipe method.



RIEDEL ENVIRONMENTAL SERVICES, INC. Richmond, California

FIGURE

Log of Exploratory Boring

Project No.: 4004
 Project Name: CALIFRANCE
 By: PHK Date: 8/25/89

Boring No.: B7
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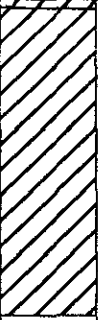
PID	Blows/ 1/2 Ft.	Ground water Levels	Depth in Ft. Samples	Lithographic Column	Description
0	24 44 37		25 X O O	CL	RED SANDY CLAY (CL); medium to fine sand, trace fine gravel 1/4-1/2" dia. very moist, hard, extensive yellow & orange mottling. No PHC odor.
0	10 15 20 11 24		30 O O X O O	CL	GRAY SILTY CLAY (CL); trace fine & medium sand, very silty, moist, hard, orange mottling. No PHC odor.
2	26 27 27		X O O		Moderate PHC odor.
15	28 11 24		X O O		Extensive orange mottling. Moderate PHC odor.
7	25 11 15		35 X O O	CL	RED SILTY CLAY (CL); fine sand, trace coarse sand, moist, hard, extensive gray-green mottling along fractures. Mild PHC odor.
10	22 14 25		X O O	CL	Groundwater first encountered at 41.5' at 12:50 p.m. August 25, 1989. Water observed at 39.0' at 2:05 p.m. August 25, 1989.
7	35 16 23		X O O		Minor gravel 1/4-1" dia. Moderate PHC odor.
5	32 38 22	▼	O O O		Minor gravel 1/4-1" dia. moderate green discoloration. Moderate PHC odor.
1	24 30 20		X O O	CL	GREEN SILTY CLAY (CL); fine to coarse sand, trace gravel 1" dia. moist, hard, 20.0-40.4' white decomposed granite cobbles, Minor PHC odor.
0	29 11 17	▼	X O O		Trace gravel 1/4" dia. Strong PHC odor.
0	29 x>50		X O		Gravel 1/4" dia. Mild PHC odor.
0	x>50 x>50		45 O O		Gravel 1/4-2" dia. Mild PHC odor.
0	x>50		X		



Log of Exploratory Boring

Project No.: 4004
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PID	Blows/ 1/2 Ft.	Ground water Levels	Depth in Ft. Samples	Lithographic Column	Description	
0	32 45 x>50 x>50 30 50 x>50		0 10 20 30 40 50 60 70 80 90 100	CL		<p>BROWN SILTY CLAY (CL); medium sand, gravel 1/4-1 1/2" dia. saturated, hard, extensive light brown mottling, no green discoloration. No PHC odor.</p> <p>No gravel. No PHC odor.</p>

Log of Exploratory Boring

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PID	Blows/ 1/2 Ft.	Ground water Levels	Depth in Ft. Samples	Lithographic Column	Description
				GC	ASPHALT
				GC	GRAVELLY CLAY FILL
0	11 19 30		5 X O O I	CL	RED SANDY CLAY (CL); fine to coarse sand, minor fine gravel 1/4" dia. moist, hard. No Petroleum Hydrocarbon (PHC) odor.
0	9 16 19		10 X O O I	CL	RED SILTY CLAY (CL); fine to medium sand, moist, hard, orange mottling. No PHC odor.
0	9 16 20		15 X O O I	CL	RED SILTY CLAY (CL); fine to medium sand, gravel 1/2-1 1/2" dia. moist, hard, orange mottling. No PHC odor.
0	11 19 24		20 X O O I	CL	RED SILTY CLAY (CL); fine to medium sand, gravel 1/2-1 1/2" dia. moist, hard, orange mottling. No PHC odor.

Drilled by 8" outside diameter hollow-stem, continuous-flight auger; samples collected with 2 1/2" outside diameter California modified split- spoon sampler. Borehole backfilled with neat cement and 5% bentonite powder grout using tremie pipe method.



RIEDEL ENVIRONMENTAL SERVICES, INC. Richmond, California

FIGURE

Log of Exploratory Boring

Project No.: 4004
 Project Name: CALIFRANCE
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Boring No.: B8
 Page 2 of 3

PID	Blows/ 1/2 Ft.	Ground water Levels	Depth in Ft. Samples	Lithographic Column	Description
0	15 17 19		25 X O O	CL	RED SILTY CLAY (CL); fine to medium sand, moist, hard, orange mottling. No PHC odor.
	12 13 21		30 X O O O O		RED SILTY CLAY (CL); fine to medium sand, moist, hard, gray mottling. No PHC odor.
	20 21 30 22 26 40 40		X O O O O O X		Fine to coarse sand, fine gravel 1/4" dia. No PHC odor.
	11 19 26 13 26 36 50		35 O O X O O O X		Fine to coarse sand, gravel 1/4-2" dia. No PHC odor.
	11 19 46		X O O X		Fine to coarse sand, minor fine gravel 1/4" dia. minor gray mottling. No PHC odor.
	11 19 46		X O O X		Fine to coarse sand, gravel 1/4-2", trace gray mottling. No PHC odor.
	11 26 40		40 O O O X		Trace coarse sand, extensive orange mottling, no gray mottling. No PHC odor.
	11 26 40		X O O X		Trace coarse sand, trace gravel 1/4" dia. extensive orange mottling, no gray mottling. No PHC odor.
0	16 20 31		45 X O O		RED SILTY CLAY (CL); fine to medium sand, trace coarse sand, trace gravel 1/4" dia. moist, hard. No PHC odor.

Log of Exploratory Boring

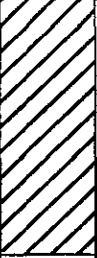
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Boring No.: B8

Project Name: CALIFRANCE

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PID	Blows/ 1/2 Ft.	Ground water Levels	Depth in Ft. Samples	Lithographic Column	Description
0	16 28 44		50 X/O	CL 	<p>RED SILTY CLAY (CL); fine to medium sand, trace coarse sand, trace gravel 1/4" dia. moist, hard. No PHC odor.</p> <p>No free groundwater encountered in borehole.</p>



RIEDEL ENVIRONMENTAL SERVICES, INC. Richmond, California

FIGURE

Log of Exploratory Boring

Project No.: 4004
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Boring No.: B9
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PID	Blows/ 1/2 Ft.	Ground water Levels	Depth in Ft. Samples	Lithographic Column	Description
				GC	SURFACE GRAVELLY CLAY FILL No Petroleum Hydrocarbon (PHC) odor.
5	12 19 30 32		5	CL	RED SILTY CLAY (CL); fine to medium sand, trace gravel 1/4" dia. moist, hard, minor light green mottling. Moderate PHC odor.
10			10		10.0-15.0' Sampled using a 5' continuous core split barrel sampler. Only 2' recovery.
3	14 20 24		15		RED SILTY CLAY (CL); fine to medium sand, minor gravel 1 1/2" dia. moist, hard. Minor PHC odor.
7			16.5		RED SILTY CLAY (CL); fine to medium sand, minor gravel 1" dia. moist, hard. Moderate PHC odor.
15	12 20 27 14 24 28		20		16.5-20.0' Sampled using a 5' continuous core split barrel sampler. Only 18" recovery. Trace green mottling. Moderate PHC odor.
120					Trace gray mottling. Strong to moderate PHC odor.
					Extensive gray mottling, minor orange mottling. Strong PHC odor.

Borehole was started 1.5' below grade in a trench. Drilled by 8" outside diameter hollow-stem, continuous-flight auger; samples collected with 2 1/2" outside diameter California modified split-spoon sampler. Borehole backfilled with neat cement and 5% bentonite powder grout using tremie pipe method.



RIEDEL ENVIRONMENTAL SERVICES, INC. Richmond, California

FIGURE

Log of Exploratory Boring

Project No.: 4004
 Project Name: CALIFRANCE
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Boring No.: B9
 Page 2 of 3

PID	Blows/ 1/2 Ft.	Ground water Levels	Depth in Ft. Samples	Lithographic Column	Description
50	50		X	CL	RED SILTY CLAY (CL); fine to medium sand, trace gravel 1/4" dia. moist, hard, extensive gray mottling. Strong PHC odor.
	17		O		
	24		O		
70	26		X	CL	GRAY SILTY CLAY (CL); fine to medium sand, moist, hard, minor orange mottling. Strong PHC odor.
	20		O		
	30		O		
	35		O		
100	40		X	CL	27.0-28.5' fine to coarse sand, gravel 1/4-1/2" dia. Strong PHC odor.
	22		O		
	26		O		
130	50		X	CL	Fine to coarse sand. Strong PHC odor.
	20		O		
	26		O		
	32		O		
100	40		X	CL	RED SILTY CLAY (CL); fine to coarse sand, gravel 1/4" dia. moist, hard, extensive gray mottling, minor green mottling. Strong PHC odor. Moderate PHC odor.
	14		O		
	35		O		
75	47		X		
	14		O		
	28		O		
	34		O		
4	44		X	CL	Orange mottling. Mild PHC odor.
	20		O		
	30		O		
0	37		X	CL	BROWN GRAVELLY CLAY (CL); fine sand, gravel 1/4-2" dia. moist, hard. No PHC odor.
	30		O		
	38		O		
	x > 50		O		
15	50 for 2'		X		
	30		O		
	50		O		
2	68		X	CL	No PHC odor. RED SILTY CLAY (CL); fine to coarse sand, gravel 1/4-2" dia. moist, hard, orange mottling, trace green mottling. No PHC odor.
	31		O		
	53		O		
	65		O		
0.6	80		X	CL	RED SILTY CLAY (CL); fine to medium sand, trace gravel 1/4" dia. moist, hard, moderate gray and orange mottling. No PHC odor.
	14		O		
	30		O		
180	32		X		
	14		O		
	25		O		
	40		O		
5	50		X	CL	No gray mottling. No PHC odor. 8" recovery. No gray mottling. No PHC odor.
	14		O		
	25		O		
	40		X		



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Project Name: CALIFRANCE

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By: PHK Date: 8/28/89

PID	Blows/ 1/2 Ft.	Ground water Levels	Depth in Ft. Samples	Lithographic Column	Description
3	13		O	CL	RED SILTY CLAY (CL); fine to medium sand, trace gravel 1/4" dia. moist, hard, orange mottling. No PHC odor.
	24		O		
	41		O		
10	47		X	CL	No PHC odor.
	15		O		
	22		O		
1	38		X	CL	No PHC odor. No free groundwater encountered in borehole.
	13		O		
	18		O		
	30		O		
	50		X		



APPENDIX C

**LABORATORY ANALYTICAL RESULTS AND
CHAIN OF CUSTODY DOCUMENTATION FOR
SOIL BORINGS B2 THROUGH B9**



SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Riedel Environmental Services
4138 Lakeside Drive
Richmond, CA 94806
Attention: Paul King

Client Project ID: #4004, Call-France
Matrix Descript: Soil
Analysis Method: EPA 5030/8015/8020
First Sample #: 907-1532 A

Sampled: 7/12-7/14/89
Received: Jul 17, 1989
Analyzed: 7/21-24/89
Reported: Jul 25, 1989

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
9071532 A	#1, B-2-5.0	N.D.	N.D.	N.D.	N.D.	N.D.
9071533 A	#2, B-2-10.0	N.D.	N.D.	N.D.	N.D.	N.D.
9071534 A	#3, B-2-15.0	N.D.	N.D.	N.D.	N.D.	N.D.
9071535 A	#4, B-2-20.0	N.D.	N.D.	N.D.	N.D.	N.D.
9071536 A	#5, B-2-25.0	N.D.	N.D.	N.D.	N.D.	N.D.
9071537 A	#6, B-2-30.0	N.D.	N.D.	N.D.	N.D.	N.D.
9071538 A	#7, B-2-35.0	N.D.	N.D.	N.D.	N.D.	N.D.
9071539 A	#8, B-3-5.0	N.D.	N.D.	N.D.	N.D.	N.D.
9071540 A	#9, B-3-10.0	N.D.	N.D.	N.D.	N.D.	N.D.
9071541 A	#10, B-3-15.0	N.D.	N.D.	N.D.	N.D.	N.D.

Detection Limits:	1.0	0.05	0.1	0.1	0.1
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Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Arthur G. Burton
Laboratory Director



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Riedel Environmental Services
4138 Lakeside Drive
Richmond, CA 94806
Attention: Paul King

Client Project ID: #4004, Cali-France
Matrix Descript: Soil
Analysis Method: EPA 5030/8015/8020
First Sample #: 907-1542 A

Sampled: 7/12-7/14/89
Received: Jul 17, 1989
Analyzed: 7/21-24/89
Reported: Jul 25, 1989

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
9071542 A	#11, B-3-20.0	N.D.	N.D.	N.D.	N.D.	N.D.
9071543 A	#12, B-3-25.0	N.D.	N.D.	N.D.	N.D.	N.D.
9071544 A	#13, B-3-30.0	N.D.	N.D.	N.D.	N.D.	N.D.
9071545 A	#14, B-3-35.0	72	N.D.	N.D.	N.D.	N.D.
9071547 A	#16, B-3-38.0	N.D.	N.D.	N.D.	N.D.	N.D.
9071548 A	#17, B-3-39.5	N.D.	N.D.	N.D.	N.D.	N.D.
9071549 A	#18, B-3-41.0	N.D.	N.D.	N.D.	N.D.	N.D.
9071550 A	#19, B-3-42.0	N.D.	N.D.	N.D.	N.D.	N.D.
9071551 A	#20, B-4-5.0	N.D.	N.D.	N.D.	N.D.	N.D.

Detection Limits:	1.0	0.05	0.1	0.1	0.1
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Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Arthur G. Burton
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9071532.RIE <2>



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Riedel Environmental Services
4138 Lakeside Drive
Richmond, CA 94806
Attention: Paul King

Client Project ID: #4004, Cali-France
Matrix Descript: Soil
Analysis Method: EPA 5030/8015/8020
First Sample #: 907-1552 A

Sampled: 7/12-7/14/89
Received: Jul 17, 1989
Analyzed: 7/21-24/89
Reported: Jul 25, 1989

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
9071552 A	#21, B-4-10.0	N.D.	N.D.	N.D.	N.D.	N.D.
9071553 A	#22, B-4-15.0	N.D.	N.D.	N.D.	N.D.	N.D.
9071554 A	#23, B-4-20.0	N.D.	N.D.	N.D.	N.D.	N.D.
9071555 A	#24, B-4-25.0	N.D.	N.D.	N.D.	N.D.	N.D.
9071558 A	#27, B-4-36.5	7.9	N.D.	N.D.	N.D.	N.D.
9071559 A	#28, B-4-38.0	N.D.	N.D.	N.D.	N.D.	N.D.
9071561 A	#30, B-4-40.5	15	N.D.	N.D.	N.D.	N.D.

Detection Limits:

1.0

0.05

0.1

0.1

0.1

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Arthur G. Burton
Laboratory Director



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(415) 364-9600 • FAX (415) 364-9233

Riedel Environmental Services
4138 Lakeside Drive
Richmond, CA 94806
Attention: Paul King

Client Project ID: #4004, Cali-France
Matrix Descript: Soil
Analysis Method: EPA 5030/8015/8020
First Sample #: 907-1556 A

Sampled: 7/12-7/14/89
Received: Jul 17, 1989
Analyzed: 7/21-24/89
Reported: Jul 25, 1989

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
9071556 A	#25,B-4-30.0	150	N.D.	N.D.	N.D.	N.D.
9071560 A	#29, B-4-39.0	71	N.D.	N.D.	N.D.	N.D.

Detection Limits:

5.0

0.25

0.50

0.50

0.50

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Arthur G. Burton
Laboratory Director



SEQUOIA ANALYTICAL

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Riedel Environmental Services	Client Project ID: #4004, Call-France	Sampled: 7/12-7/14/89
4138 Lakeside Drive	Sample Descript.: Soil, #26, B-4-35.0	Received: Jul 17, 1989
Richmond, CA 94806	Analysis Method: EPA 5030/8015/8020	Analyzed: 7/21-24/89
Attention: Paul King	Lab Number: 907-1557 A	Reported: Jul 25, 1989

TOTAL PETROLEUM FUEL HYDROCARBONS WITH BTEX DISTINCTION (EPA 8015/8020)

Analyte	Detection Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
Low to Medium Boiling Point Hydrocarbons	100.0	5,300
Benzene	5.0	N.D.
Toluene	10.0	N.D.
Ethyl Benzene	10.0	N.D.
Xylenes	10.0	N.D.

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Arthur G. Burton
Laboratory Director

Please Note:
Amended Report dated: 9/7/89



KEY TO ABBREVIATIONS and METHOD REFERENCES

Abbreviations

- mean : Average; sum of measurements divided by number of measurements.
- mg/Kg (ppm) : Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
- mg/L : Concentration in units of milligrams of analyte per liter of sample.
- mL/L/hr : Milliliters per liter per hour.
- MPN/100 mL : Most probable number of bacteria per one hundred milliliters of sample.
- N/A : Not applicable.
- NA : Not analyzed.
- ND : Not detected; the analyte concentration is less than applicable listed reporting limit.
- NR : Not requested.
- NTU : Nephelometric turbidity units.
- RPD : Relative percent difference, $100 \text{ [Value 1 - Value 2] / mean value}$.
- SNA : Standard not available.
- ug/Kg (ppb) : Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
- ug/L : Concentration in units of micrograms of analyte per liter of sample.
- unhos/cm : Microrhos per centimeter.

Method References

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

- * Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated reporting limits by the dilution factor.



SAMPLE DESCRIPTION: #4 B-5-20 08-24-89 1045
LAB NO.: (-34154)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-06-89	
METHOD GC FID/5030 as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	ND	ug/Kg
Xylenes, total	75	ND	ug/Kg

SAMPLE DESCRIPTION: #5 B-5-25 08-24-89 1100
LAB NO.: (-34155)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-06-89	
METHOD GC FID/5030 as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	ND	ug/Kg
Xylenes, total	75	ND	ug/Kg



SAMPLE DESCRIPTION: #6 B-5-30 08-24-89 1120
LAB NO.: (-34156)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-06-89	
METHOD GC FID/5030 as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	ND	ug/Kg
Xylenes, total	75	ND	ug/Kg

SAMPLE DESCRIPTION: #7 B-5-35 08-24-89 1150
LAB NO.: (-34157)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-06-89	
METHOD GC FID/5030 as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	ND	ug/Kg
Xylenes, total	75	ND	ug/Kg



SAMPLE DESCRIPTION: #8 B-5-40 08-24-89 1300
LAB NO.: (-34158)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-06-89	
METHOD GC FID/5030 as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	ND	ug/Kg
Xylenes, total	75	ND	ug/Kg

SAMPLE DESCRIPTION: #9 B-5-45 08-24-89 1315
LAB NO.: (-34159)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-06-89	
METHOD GC FID/5030 as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	ND	ug/Kg
Xylenes, total	75	ND	ug/Kg



SAMPLE DESCRIPTION: #13 B-6-20 08-24-89 1505
LAB NO.: (-34163)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-06-89	
METHOD GC FID/5030			
as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	ND	ug/Kg
Xylenes, total	75	ND	ug/Kg

SAMPLE DESCRIPTION: #14 B-6-25 08-24-89 1525
LAB NO.: (-34164)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-06-89	
METHOD GC FID/5030			
as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	ND	ug/Kg
Xylenes, total	75	ND	ug/Kg



SAMPLE DESCRIPTION: #15 B-6-30 08-24-89 1545
LAB NO.: (-34165)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-06-89	
METHOD GC FID/5030 as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	ND	ug/Kg
Xylenes, total	75	ND	ug/Kg

SAMPLE DESCRIPTION: #16 B-6-35 08-24-89 1600
LAB NO.: (-34166)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-06-89	
METHOD GC FID/5030 as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	ND	ug/Kg
Xylenes, total	75	ND	ug/Kg



SAMPLE DESCRIPTION: #17 B-6-40 08-24-89 1615
LAB NO.: (-34167)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-06-89	
METHOD GC FID/5030 as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	ND	ug/Kg
Xylenes, total	75	ND	ug/Kg

SAMPLE DESCRIPTION: #20 B-7-15 08-25-89 0945
LAB NO.: (-34170)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-06-89	
METHOD GC FID/5030 as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	ND	ug/Kg
Xylenes, total	75	ND	ug/Kg



SAMPLE DESCRIPTION: #21 B-7-20 08-25-89 1000
LAB NO.: (-34171)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-06-89	
METHOD GC FID/5030 as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	ND	ug/Kg
Xylenes, total	75	ND	ug/Kg

SAMPLE DESCRIPTION: #22 B-7-25 08-25-89 1030
LAB NO.: (-34172)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-07-89	
METHOD GC FID/5030 as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	ND	ug/Kg
Xylenes, total	75	ND	ug/Kg



SAMPLE DESCRIPTION: #23 B-7-30 08-25-89 1045
LAB NO.: (-34173)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-07-89	
METHOD GC FID/5030 as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	ND	ug/Kg
Xylenes, total	75	ND	ug/Kg

SAMPLE DESCRIPTION: #25 B-7-33 08-25-89 1125
LAB NO.: (-34175)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		50	
DATE ANALYZED		09-07-89	
METHOD GC FID/5030 as Gasoline	10	380	mg/Kg
METHOD 8020			
Benzene	25	130	ug/Kg
Ethylbenzene	75	1,100	ug/Kg
Toluene	25	3,000	ug/Kg
Xylenes, total	75	3,500	ug/Kg



SAMPLE DESCRIPTION: #27 B-7-36 08-25-89 1155
LAB NO.: (-34177)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-06-89	
METHOD GC FID/5030 as Gasoline	10	65	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	190	ug/Kg
Toluene	25	120	ug/Kg
Xylenes, total	75	440	ug/Kg

SAMPLE DESCRIPTION: #30 B-7-41 08-25-89 1245
LAB NO.: (-34180)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-08-89	
METHOD GC FID/5030 as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	ND	ug/Kg
Xylenes, total	75	ND	ug/Kg



SAMPLE DESCRIPTION: #33 B-7-45.5 08-25-89 1720
LAB NO.: (-34183)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-08-89	
METHOD GC FID/5030 as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	ND	ug/Kg
Xylenes, total	75	ND	ug/Kg

SAMPLE DESCRIPTION: #35 B-7-51.0 08-28-89 1130
LAB NO.: (-34185)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-08-89	
METHOD GC FID/5030 as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	ND	ug/Kg
Xylenes, total	75	ND	ug/Kg



SAMPLE DESCRIPTION: #38 B-8-15 08-28-89 1250
LAB NO.: (-34188)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-08-89	
METHOD GC FID/5030 as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	97	ug/Kg
Xylenes, total	75	ND	ug/Kg

SAMPLE DESCRIPTION: #39 B-8-20 08-28-89 1305
LAB NO.: (-34189)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-11-89	
METHOD GC FID/5030 as Gasoline	10	21	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	360	ug/Kg
Toluene	25	190	ug/Kg
Xylenes, total	75	630	ug/Kg



SAMPLE DESCRIPTION: #40 B-8-25 08-28-89 1325
LAB NO.: (-34190)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-08-89	
METHOD GC FID/5030 as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	50	ug/Kg
Xylenes, total	75	ND	ug/Kg

SAMPLE DESCRIPTION: #41 B-8-30 08-28-89 1340
LAB NO.: (-34191)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-08-89	
METHOD GC FID/5030 as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	ND	ug/Kg
Xylenes, total	75	ND	ug/Kg



SAMPLE DESCRIPTION: #44 B-8-35.5 08-28-89 1430
LAB NO.: (-34194)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-11-89	
METHOD GC FID/5030			
as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	150	ug/Kg
Toluene	25	130	ug/Kg
Xylenes, total	75	260	ug/Kg

SAMPLE DESCRIPTION: #47 B-8-40.5 08-28-89 1505
LAB NO.: (-34197)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-11-89	
METHOD GC FID/5030			
as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	56	ug/Kg
Xylenes, total	75	ND	ug/Kg



SAMPLE DESCRIPTION: #48 B-8-45 08-28-89 1520
LAB NO.: (-34198)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-08-89	
METHOD GC FID/5030 as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	ND	ug/Kg
Xylenes, total	75	ND	ug/Kg

SAMPLE DESCRIPTION: #49 B-8-50 08-28-89 1540
LAB NO.: (-34199)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-08-89	
METHOD GC FID/5030 as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	220	ug/Kg
Xylenes, total	75	ND	ug/Kg



NET Pacific, Inc.

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SAMPLE DESCRIPTION: #50 B-9-6.5 08-30-89 0900
LAB NO.: (-34200)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-08-89	
METHOD GC FID/5030			
as Gasoline	10	20	mg/Kg
METHOD 8020			
Benzene	25	26	ug/Kg
Ethylbenzene	75	55	ug/Kg
Toluene	25	46	ug/Kg
Xylenes, total	75	200	ug/Kg

SAMPLE DESCRIPTION: #51 B-9-9.5 08-30-89 0925
LAB NO.: (-34201)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-08-89	
METHOD GC FID/5030			
as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	ND	ug/Kg
Xylenes, total	75	ND	ug/Kg



SAMPLE DESCRIPTION: #53 B-9-16.5 08-30-89 1010
LAB NO.: (-34203)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		10	
DATE ANALYZED		09-09-89	
METHOD GC FID/5030 as Gasoline	10	490	mg/Kg
METHOD 8020			
Benzene	25	700	ug/Kg
Ethylbenzene	75	2,000	ug/Kg
Toluene	25	610	ug/Kg
Xylenes, total	75	15,000	ug/Kg

SAMPLE DESCRIPTION: #55 B-9-21.0 08-30-89 1100
LAB NO.: (-34205)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		20	
DATE ANALYZED		09-09-89	
METHOD GC FID/5030 as Gasoline	10	1,500	mg/Kg
METHOD 8020			
Benzene	25	4,100	ug/Kg
Ethylbenzene	75	14,000	ug/Kg
Toluene	25	3,400	ug/Kg
Xylenes, total	75	62,000	ug/Kg



SAMPLE DESCRIPTION: #58 B-9-26.5 08-30-89 1145
LAB NO.: (-34208)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		50	
DATE ANALYZED		09-09-89	
METHOD GC FID/5030 as Gasoline	10	1,100	mg/Kg
METHOD 8020			
Benzene	25	3,000	ug/Kg
Ethylbenzene	75	13,000	ug/Kg
Toluene	25	28,000	ug/Kg
Xylenes, total	75	68,000	ug/Kg

SAMPLE DESCRIPTION: #61 B-9-31.5 08-30-89 1220
LAB NO.: (-34211)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-08-89	
METHOD GC FID/5030 as Gasoline	10	79	mg/Kg
METHOD 8020			
Benzene	25	350	ug/Kg
Ethylbenzene	75	610	ug/Kg
Toluene	25	800	ug/Kg
Xylenes, total	75	2,000	ug/Kg



SAMPLE DESCRIPTION: #63 B-9-35.0 08-30-89 1345
LAB NO.: (-34213)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-08-89	
METHOD GC FID/5030 as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	390	ug/Kg
Ethylbenzene	75	40	ug/Kg
Toluene	25	130	ug/Kg
Xylenes, total	75	200	ug/Kg

SAMPLE DESCRIPTION: #66 B-9-40.5 08-30-89 1430
LAB NO.: (-34216)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-08-89	
METHOD GC FID/5030 as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	43	ug/Kg
Xylenes, total	75	ND	ug/Kg



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SAMPLE DESCRIPTION: #69 B-9-45.5 08-30-89 1505
LAB NO.: (-34219)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-09-89	
METHOD GC FID/5030			
as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	66	ug/Kg
Xylenes, total	75	ND	ug/Kg

SAMPLE DESCRIPTION: #72 B-9-51.0 08-30-89 1555
LAB NO.: (-34222)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-11-89	
METHOD GC FID/5030			
as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	310	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	46	ug/Kg
Xylenes, total	75	ND	ug/Kg



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San Francisco Division
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P 1 of 3

CHAIN OF CUSTODY RECORD

Project No: ~~4003~~ 4004
Project Name: Cali France
Location: 2801. McArthur Blvd, Oakland
SAMPLERS: (Signature) Paul King

SAMPLE NUMBER	STATION NAME	DATE	TIME	SAMPLE		NO. CONT.	CONTAINER TYPE	ANALYSIS REQUIRED
				TYPE	PRES.			
1	B-2-5.0	7/13/89	10:15	Grab	Ice	1	Brass sleeve	TPH Gasoline BTEX
2	B-2-10.0	"	10:30	"	"	1	"	"
3	B-2-15.0	"	10:55	"	"	1	"	"
4	B-2-20.0	"	11:10	"	"	1	"	"
5	B-2-25.0	"	11:30	"	"	1	"	"
6	B-2-30.0	"	11:45	"	"	1	"	"
7	B-2-35.0	"	12:15	"	"	1	"	"
8	B-3-5.0	"	1:30	"	"	1	"	"
9	B-3-10.0	"	2:00	"	"	1	"	"
10	B-3-15.0	"	2:15	"	"	1	"	"
11	B-3-20.0	"	2:30	"	"	1	"	"
12	B-3-25.0	"	2:45	"	"	1	"	"
13	B-3-30.0	"	3:00	"	"	1	"	"
14	B-3-35.0	"	3:40	"	"	1	"	"

Relinquished By: Paul King
Received By: Ben Proucek
Date/Time: 7/14/89 5:10

Relinquished By:
Received By:
Date/Time:

Relinquished By:
Received By:
Laboratory:
Date/Time:

Laboratory: Segnoira Analytical
Redwood City, CA

Project Manager: Paul King
Report to: same
Phone: (415) 222-7810

TURNAROUND TIME: 5 day rush
Samples:



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CHAIN OF CUSTODY RECORD

Project No: 4004
Project Name: California
Location: ZSC1 ~~at~~ MacArthur Blvd. Oakland
SAMPLERS: Paul King (Signature)

SAMPLE NUMBER	STATION NAME	DATE	TIME	SAMPLE TYPE	PRES.	NO. CONT.	CONTAINER TYPE	ANALYSIS REQUIRED
15	B-3-36.5	7/13/89	3:50	Grab	Ice	1	Brass sleeve	TPH 2-BTEX
16	B-3-38.0	"	4:20	"	"	1	"	"
17	B-3-39.5	"	4:50	"	"	1	"	"
18	B-3-41.0	"	5:30	"	"	1	"	"
19	B-3-42.0	"	6:15	"	"	1	"	"
20	B-4-5.0	7/14/89	9:00	"	"	1	"	"
21	B-4-10.0	"	9:15	"	"	1	"	"
22	B-4-15.0	"	9:30	"	"	1	"	"
23	B-4-20.0	"	9:45	"	"	1	"	"
24	B-4-25.0	"	10:00	"	"	1	"	"
25	B-4-30.0	"	10:30	"	"	1	"	"
26	B-4-35.0	"	11:00	"	"	1	"	"
27	B-4-36.5	"	11:20	"	"	1	"	"
28	B-4-38.0	"	11:40	"	"	1	"	"

Relinquished By: Paul King	Received By: Ben Bonard	Date/Time 7/14/89 5:00
Relinquished By: Ben Bonard	Received By:	Date/Time
Relinquished By:	Received By: Laboratory:	Date/Time

Laboratory: Segnor's Analytical
Richmond City, CA

Project Manager: Paul King
Report to: same
Phone: (415) 222-7810

TURNAROUND TIME: 5 day rush
Samples:



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P 3 of 3

CHAIN OF CUSTODY RECORD

Project No: 42004				SAMPLERS:				
Project Name: Cali France				(Signature) Paul King				
Location: 2801 MacArthur Blvd, Oakland								
SAMPLE NUMBER	STATION NAME	DATE	TIME	SAMPLE TYPE	PRES.	NO. CONT.	CONTAINER TYPE	ANALYSIS REQUIRED
29	B-4-39.0	7/14/89	12:00	Grab	Ice	1	Blassskete	TPH Gas & BTEX
30	B-4-40.5	"	1:00	"	"	1	"	"
31	East End Trench	7/12/89	0825	"	"	1	"	"
32	East side Pile	"	0930	Comp	"	5	"	"
	South Top Pile	"	0935	"	"		"	
	West Side Pile	"	0940	"	"		"	
	North End Pile	"	0945	"	"		"	
	North Top Pile	"	0950	"	"		"	
Relinquished By:				Received By:				Date/Time
Paul King				Ben Ponowat				7-14-89 5:10
Relinquished By:				Received By:				Date/Time
Ben Ponowat 7-14-89								
Relinquished By:				Received By:				Date/Time
				Laboratory:				

Laboratory: Sequoia Analytical
Redwood City, CA 94539

Project Manager: Paul King
Report to: Same
Phone: (415) 222-7810

TURNAROUND TIME: 5 day rush Samples:



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CHAIN OF CUSTODY RECORD

7618

Project No: 4004
Project Name: Cali France
Location: Oakland
SAMPLERS: (Signature) Paul King

SAMPLE NUMBER	STATION NAME	DATE	TIME	SAMPLE TYPE	PRES.	NO. CONT.	CONTAINER TYPE	ANALYSIS REQUIRED
1	B-5-5	8/24/89	1000	Grab		1	2 1/2 x 6" brass screw	TPH as gas & STEK
2	B-5-10	8/24/89	1015	"		"	"	"
3	B-5-15	"	1025	"		"	"	"
4	B-5-20	"	1045	"		"	"	"
5	B-5-25	"	1100	"		"	"	"
6	B-5-30	"	1120	"		"	"	"
7	B-5-35	"	1150	"		"	"	"
8	B-5-40	"	1300	"		"	"	"
9	B-5-45	"	1315	"		"	"	"
10	B-6-5	"	1410	"		"	"	"
11	B-6-10	"	1430	"		"	"	"
12	B-6-15	"	1445	"		"	"	"
13	B-6-20	"	1505	"		"	"	"
14	B-6-25	"	1525	"		"	"	"

Relinquished By: Paul King
Received By: B. Cunningham
Date/Time: 9/1/89 7:15 PM

Relinquished By: [Signature]
Received By: Fred Studd
Date/Time: 9-1-89 2:30

Relinquished By: (via NCSL)
Received By: Laboratory: Kemple
Date/Time: 9-1-89 2:39

Laboratory: NET

Project Manager: Paul King
Report to: Paul King
Phone: (415) 222-7810

* indicates run, all others on hold
TURNAROUND TIME: 10 Day
per PICKO BC to RT 9/6 Samples:



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CHAIN OF CUSTODY RECORD

7618

Project No: 4004				SAMPLERS:			
Project Name: Cali France				(Signature) Paul King			
Location: Oakland							

SAMPLE NUMBER	STATION NAME	DATE	TIME	SAMPLE TYPE	PRES.	NO. CONT.	CONTAINER TYPE	ANALYSIS REQUIRED
15	B-6 - 30.0	8/24/89	15:45	Grab		1	2 1/2" x 6" brass sleeve	TPH as gas & BTEX
16	B-6 - 35.0	"	16:00	"		1	"	"
17	B-6 - 40.0	"	16:15	"		1	"	"
18	B-7 - 5.0	8/25/89	9:15	"		1	"	"
19	B-7 - 10.0	"	9:25	"		1	"	"
20	B-7 - 15.0	"	9:45	"		1	"	"
21	B-7 - 20.0	"	10:00	"		1	"	"
22	B-7 - 25.0	"	10:30	"		1	"	"
23	B-7 - 30.0	"	10:45	"		1	"	"
24	B-7 - 31.5	"	11:10	"		1	"	"
25	B-7 - 33.0	"	11:25	"		1	"	"
26	B-7 - 34.5	"	11:40	"		1	"	"
27	B-7 - 36.0	"	11:55	"		1	"	"
28	B-7 - 37.5	"	12:15	"		1	"	"

Relinquished By: <i>N/A</i>	Received By: <i>B. C...</i>	Date/Time: 9/1/89 7:15pm
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Relinquished By: <i>[Signature]</i>	Received By: <i>[Signature]</i>	Date/Time: 9-1-89 2:30
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Relinquished By: <i>(COMPANIES)</i>	Received By: <i>[Signature]</i>	Date/Time: 9-1-89 23:57
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Laboratory: *MT Pacific*

Project Manager:
Report to:
Phone:

* indicates run, all others on hold
pu PK to BC to RT 9/10

TURNAROUND TIME: Samples:



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CHAIN OF CUSTODY RECORD

7610

Project No: 41004
Project Name: Cali France
Location: Oakland
SAMPLERS:
(Signature) Paul King

SAMPLE NUMBER	STATION NAME	DATE	TIME	SAMPLE TYPE	PRES.	NO. CONT.	CONTAINER TYPE	ANALYSIS REQUIRED
29	B-7-39.5	8/25/89	12:30	Grab		1	2 1/2" x 6" brass sleeve	TPH as gas & BTX
30	B-7-41.0	"	12:45	"		1	"	"
31	B-7-42.5	"	13:10	"		1	"	"
32	B-7-44.0	"	13:25	"		1	"	"
33	B-7-45.5	"	17:20	"		1	"	"
34	B-7-47.5	8/25/89	17:45	"		1	"	"
35	B-7-51.0	8/28/89	11:30	"		1	"	"
36	B-8-5.0	8/28/89	12:30	"		1	"	"
37	B-8-10.0	"	12:40	"		1	"	"
38	B-8-15.0	"	12:50	"		1	"	"
39	B-8-20.0	"	13:05	"		1	"	"
40	B-8-25.0	"	13:25	"		1	"	"
41	B-8-30.0	"	13:40	"		1	"	"
42	B-8-32.0	"	14:00	"		1	"	"

Relinquished By: Paul King	Received By: B. C. [Signature]	Date/Time 9/1/89 7:15pm
Relinquished By: [Signature]	Received By: Fred Elrod	Date/Time 9-1-89 2:30
Relinquished By: [Signature]	Received By: [Signature]	Date/Time 9-1-89 2:33p

Laboratory: MIT R. 46

Project Manager:
Report to:
Phone:

* indicates run, all others on hold
TURNAROUND TIME: [Signature] Samples:



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7618

CHAIN OF CUSTODY RECORD

Project No: 4004				SAMPLERS:					
Project Name: Cali France				(Signature)					
Location: Oakland				Paul King					
SAMPLE NUMBER	STATION NAME	DATE	TIME	SAMPLE TYPE	PRES.	NO. CONT.	CONTAINER TYPE	ANALYSIS REQUIRED	
43	B-8-34.0	8/28/89	14:10	Grab		1	2 1/2" x 6" brass sleeve	PH as gas & BTEX	
44	B-8-35.5	"	14:30	"		1	"	"	
45	B-8-37.5	"	14:45	"		1	"	"	
46	B-8-39.0	"	14:55	"		1	"	"	
47	B-8-40.5	"	15:05	"		1	"	"	
48	B-8-45.0	"	15:20	"		1	"	"	
49	B-8-50.0	"	15:40	"		1	"	"	
50	B-9-6.5	8/30/89	0900	"		1	"	"	
51	B-9-9.5	"	0925	"		1	"	"	
52	B-9-14.5	"	0945	"		1	"	"	
53	B-9-18.5	"	10:10	"		1	"	"	
54	B-9-19.5	"	10:45	"		1	"	"	
55	B-9-21.0	"	11:00	"		1	"	"	
56	B-9-23.0	"	11:20	"		1	"	"	
Relinquished By: Paul King				Received By: B. Cunningham				Date/Time: 9/1/89 7:10	
Relinquished By: [Signature]				Received By: Fred Elrod				Date/Time: 9-1-89 2:30	
Relinquished By: (VIA NCSI)				Received By: [Signature]				Date/Time: 9-1-89 2:35	

Laboratory: NOT PRESENT

Project Manager:
Report to:
Phone:

* indicates run, all others on hold

TURNAROUND TIME: per PK to BC to let 4/4 Samples:



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4138 Lakeside Drive
Richmond CA 94806
(415) 222 7810

7618

CHAIN OF CUSTODY RECORD

Project No: 41004				SAMPLERS:				
Project Name: Cali France				(Signature) Paul King.				
Location: Oakland								
SAMPLE NUMBER	STATION NAME	DATE	TIME	SAMPLE TYPE	PRES.	NO. CONT.	CONTAINER TYPE	ANALYSIS REQUIRED
57	B-9-24.5	8/30/89	11:35	Grab		1	2 1/2" x 6" brass sleeve	FP H ₂ S gas RITEX
58	B-9-26.5	"	11:45	"		1	"	"
59	B-9-28.0	"	11:55	"		1	"	"
60	B-9-30.0	"	12:15	"		1	"	"
61	B-9-31.5	"	12:20	"		1	"	"
62	B-9-33.5	"	13:25	"		1	"	"
63	B-9-35.0	"	13:45	"		1	"	"
64	B-9-37.0	"	13:55	"		1	"	"
65	B-9-38.5	"	14:15	"		1	"	"
66	B-9-40.5	"	14:30	"		1	"	"
67	B-9-42.0	"	14:40	"		1	"	"
68	B-9-44.0	"	14:55	"		1	"	"
69	B-9-45.5	"	15:05	"		1	"	"
70	B-9-47.5	8/30/89	15:25	"		1	"	"
Relinquished By: Paul King				Received By: B. ... 9/1/89 7:15p				
Relinquished By: [Signature]				Received By: Fred Elrod 9-1-89 2:30				
Relinquished By: CUIA NCS				Received By: Laboratory: [Signature] 9-1-89 2339				

Laboratory: NOT Pacific

Project Manager:
Report to:
Phone:

* indicates run, all others on hold
per PIC to BC to 6/9/6
TURNAROUND TIME: Samples:



RIEDEL
ENVIRONMENTAL SERVICES, INC.

San Francisco Division
4138 Lakeside Drive
Richmond CA 94806
(415) 222 7810

P 605 7

71018

CHAIN OF CUSTODY RECORD

Project No: 4004				SAMPLERS:				
Project Name: Cali France				(Signature) <i>Paul King</i>				
Location: Oakland								
SAMPLE NUMBER	STATION NAME	DATE	TIME	SAMPLE TYPE	PRES.	NO. CONT.	CONTAINER TYPE	ANALYSIS REQUIRED
1	B-9-49.0	8/30/89	1535	Grab		1	2 1/2" x 6" brass sleeve	TPH as gas & BTEX
2	B-9-51.0	8/30/89	1535	"		1	"	"
3	P-1	8/30/89	1445	"		1	"	"
4	P-2	"	1450	"		1	"	"
5	P-3	"	1455	"		1	"	"
6	P-4	8/31/89	1155	"		1	2" x 6" brass sleeve	"
7	E-1	"	1205	"		1		gas, BTX & diesel + MO - add
8	E-2	"	1215	"		1		TPH as gas, diesel motor oil & BTEX
9	E-3	"	1300	"		1		"
10	S-1	"	1330	"		1		"
81	S-2	"	1340	"		1		"
82	S-3	"	1350	"		1		"
83	S-4	"	1355	"		1		"
84	S-5	"	1425	"		1		"
Relinquished By: <i>Paul King</i>				Received By: <i>B. A. King</i>				Date/Time: 9/1/89 7:15
Relinquished By: <i>[Signature]</i>				Received By: <i>Fred Elrod</i>				Date/Time: 9-1-89 2130
Relinquished By: <i>[Signature]</i>				Received By: <i>[Signature]</i>				Date/Time: 9-1-89 2339

5/10/89
7/10/89
+ BTX - per PK to BC

Laboratory: NCT Pacific

Project Manager:
Report to:
Phone:

* indicates run, all others on hold
TURNAROUND TIME: per PK to BC to let 9/10 Samples:

APPENDIX D
WASTE OIL TANK DOCUMENTS

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY
 DEPARTMENT OF ENVIRONMENTAL HEALTH
 HAZARDOUS MATERIALS DIVISION
 80 SWAN WAY, ROOM 200
 OAKLAND, CA 94621
 PHONE NO. 415/271-4320

ACCEPTED
 in elev #13
 C.S.

DEPARTMENT OF ENVIRONMENTAL HEALTH
 470 - 27th Street, Third Floor
 Oakland, CA 94612
 Telephone: (415) 874-7237

These plans have been reviewed and found to be acceptable and assisting in the requirements of State and local health laws. Care has to be taken to insure that all local health laws are followed with State and local health laws. The permit and to insure compliance with State and local health laws. The permit and to insure compliance with State and local health laws.

The permit and to insure compliance with State and local health laws. The permit and to insure compliance with State and local health laws. The permit and to insure compliance with State and local health laws.

Any change or alterations of these plans and specifications must be submitted to this Department and to the Fire and Building Inspector. Department is to determine if such changes meet the requirements of State and local laws. The permit and to insure compliance with State and local health laws.

Following required inspections:
 Removal of Tank and Piping
 Sampling
 Final Inspection

Issuance of a permit to operate is dependent on compliance with accepted plans and all applicable laws and regulations.

THERE IS A FINANCIAL PENALTY FOR NOT OBTAINING THESE INSPECTIONS.

UNDERGROUND TANK CLOSURE/MODIFICATION PLANS

- Business Name CALI FRENCH CORPORATION
 Business Owner SAME
- Site Address 2801 MacArthur Blvd.
 City Oakland zip 94602 Phone None
- Mailing Address 1904 Franklin Street, Suite 501
 City Oakland Zip 94612 Phone (415) 452-4711
- Land Owner Cali French Corporation
 Address 1904 Franklin St.-Suite 501 City, State Oakland, CA Zip 94612
- EPA I.D. No. CAC 000 165 349
- Contractor Riedel Environmental Services, Inc.
 Address 4138 Lakeside Dr.
 City Richmond, CA 94805 Phone (415) 221-7870
 License Type A ID# 433436
- Consultant Same as above
 Address _____
 City _____ Phone _____

6.000.00
 \$333.00

8. Contact Person for Investigation

Name Michael G. Burns Title Project Manager

Phone (415) 222-7810

9. Total No. of Tanks at facility 1 WASTE OIL TANK

10. Have permit applications for all tanks been submitted to this office?
Yes No

11. State Registered Hazardous Waste Transporters/Facilities

a) Product/Waste Tranporter

Name Riedel Environmental Services EPA I.D. No. CA0981389125

Address 4138 Lakeside Drive

City Richmond State CA Zip 94806

b) Rinsate Transporter

Name Riedel Environmental Services EPA I.D. No. CA0981389125

Address 4138 Lakeside Dr.

City Richmond State CA Zip 94806

c) Tank Transporter

Name Riedel Environmental Services EPA I.D. No. CA0981389125

Address 4138 Lakeside Dr.

City Richmond State CA Zip 94806

d) Tank Disposal Site

Name Erickson, Inc. EPA I.D. No. CAD009466392

Address 255 Parr Blvd

City Richmond State CA Zip 94801

e) Contaminated Soil Transporter

Name Stamco, Inc. EPA I.D. No. CA1063517096

Address 1247 Llagos avenue

City San Martin State CA Zip 95051

12. Sample Collector

Name Michael Falk or Daniel Brennan

Company Riedel Environmental Services

Address 4138 Lakeside Drive

City Richmond State CA Zip 94806 Phone (415) 222-7810

13. Sampling Information for each tank or area

Tank or Area		Material sampled	Location & Depth
Capacity	Historic Contents (past 5 years)		
500	WASTE OIL	soil and ground water if present	tank end One sample minimum under fill pipe. If the tank appears pitted, corroded or leaking, or soil is discolored, two samples must be taken.

14. Have tanks or pipes leaked in the past? Yes [] No [] Unknown []
If yes, describe. _____

15. NFPA methods used for rendering tank inert? Yes [X] No []
If yes, describe. RES will inert tanks by adding dry ice at the rate
of 1.5 lbs. per 100 gallons of tank volume.

An explosion proof combustible gas meter shall be used to verify tank inertness.

16. Laboratories

Name Inatec Laboratories

Address 125 [unclear] Circle

City Santa Rosa State CA Zip 95401

State Certification No. 178

17. Chemical Methods to be used for Analyzing Samples

Contaminant Sought	EPA, DHS, or Other Sample Preparation Method Number	EPA, DHS, or Other Analysis Number
TOTAL PETROLEUM Hydrocarbons	<i>DHS Extraction Method</i>	EPA 8015
<i>Volatile Organic Compounds</i>	EPA 5030	EPA 8020, 8010
<i>Total Oil & Grease</i>	→	<i>SM 503 D & E</i>

18. Submit Site Safety Plan attached

19. Workman's Compensation: Yes No

Copy of Certificate enclosed? Yes No

Name of Insurer National Union Fire Insurance Co.

20. Plot Plan submitted? Yes No

21. Deposit enclosed? Yes No

22. Please forward to this office the following information within 60 days after receipt of sample results.

- a) Chain of Custody Sheets
- b) Original Signed Laboratory Reports
- c) TSD to Generator copies of wastes shipped and received
- d) Attachment A summarizing laboratory results

I declare that to the best of my knowledge and belief the statements and information provided above are correct and true. I understand that information in addition to that provided above may be needed in order to obtain an approval from the Department of Environmental Health and that no work is to begin on this project until this plan is approved.

I understand that any changes in design, materials or equipment will void this plan if prior approval is not obtained.

I understand that all work performed during this project will be done in compliance with all applicable OSHA (Occupational Safety and Health Administration) requirements concerning personnel and safety.

I will notify the Department of Environmental Health at least two (2) working days (48 hours) after approval of this closure plan in advance to schedule any required inspections. I understand that site and worker safety are solely the responsibility of the property owner or his agent and that this responsibility is not shared nor assumed by the County of Alameda.

Signature of Contractor

Name (please type) Peter Rasco

Signature Peter Rasco

Date 4/10/89

Signature of Site Owner or Operator

Name (please type) Nicholas Molinar

Signature Nicholas Molinar

Date 4/10/89

CERTIFICATE OF DISPOSAL

JULY 10, 1989

H & H Ship Service Company hereby certifies to RIEDEL ENVIRONMENTAL that:

1. The storage tank(s), size(s) ONE (1) 1,000 GALLON TANK
removed from the CALI FRENCH CORPORATION
facility at 1904 FRANKLIN
OAKLAND, CALIFORNIA

were transported to H & H Ship Service Company, 220 China Basin St., San Francisco, California 94107.

2. The following tank(s), H & H Job Number 0691
have been steamed cleaned, cut with approximately 2' X 2' holes,
rendered harmless and disposed of as scrap metal.
3. Disposal site: LEVIN METALS CORPORATION, RICHMOND, CALIFORNIA.
4. The foregoing method of destruction/disposal is suitable for the
materials involved, and fully complies with all applicable
regulatory and permit requirements.
5. Should you require further information, please call
(415) 543-4836.

Very Truly Yours,



Cleveland Walrey
Q. A. & Safety Coordinator





KEY TO ABBREVIATIONS and METHOD REFERENCES

Abbreviations

- mean : Average; sum of measurements divided by number of measurements.
- mg/Kg (ppm) : Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
- mg/L : Concentration in units of milligrams of analyte per liter of sample.
- mL/L/hr : Milliliters per liter per hour.
- MPN/100 mL : Most probable number of bacteria per one hundred milliliters of sample.
- N/A : Not applicable.
- NA : Not analyzed.
- ND : Not detected; the analyte concentration is less than applicable listed reporting limit.
- NR : Not requested.
- NTU : Nephelometric turbidity units.
- RPD : Relative percent difference, $100 \frac{|\text{Value 1} - \text{Value 2}|}{\text{mean value}}$.
- SNA : Standard not available.
- ug/Kg (ppb) : Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
- ug/L : Concentration in units of micrograms of analyte per liter of sample.
- umhos/cm : Micromhos per centimeter.

Method References

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

* Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated reporting limits by the dilution factor.



Parameter	Reporting Limit (mg/Kg)	Descriptor, Lab No. and Results (mg/Kg)	
		WasteOil Vt	
Oil & grease (total)	50	07-03-89	ND
Oil & Grease (non-polar)	100	1600	ND
		(-30295)	
PETROLEUM HYDROCARBONS			
Volatile, as Gasoline	10	27 ^a	
DATE ANALYZED		07-07-89	
Extractable, as Motor Oil	10	ND	
as Diesel Fuel	10	ND	
DATE ANALYZED		07-10-89	
DATE EXTRACTED		07-05-89	

- a. Sample contains higher boiling hydrocarbons not characteristic of gasoline.



<u>Parameter</u>	<u>Reporting Limit (ug/Kg)</u>	<u>Descriptor, Lab No. and Results (ug/Kg)</u>
		WasteOil Vt 07-03-89 1600 (-30295)
PURGEABLE AROMATICS		
Benzene	2.5	ND
Ethylbenzene	3.0	ND
Toluene	2.5	ND
Xylenes, total	3.0	ND
DATE ANALYZED		07-07-89



Parameter	Reporting Limit (ug/Kg)	Descriptor, Lab No. and Results (ug/Kg)
		WasteOil Vt 07-03-89 1600 (-30295)
PURGEABLE HALOCARBONS		
Bromodichloromethane	2.0	ND
Bromoform	2.0	ND
Bromomethane	2.0	ND
Carbon tetrachloride	2.0	ND
Chlorobenzene	2.0	ND
Chloroethane	2.0	ND
2-Chloroethylvinyl ether	5.0	ND
Chloroform	2.0	ND
Chloromethane	2.0	ND
Dibromochloromethane	2.0	ND
1,2-Dichlorobenzene	2.0	ND
1,3-Dichlorobenzene	2.0	ND
1,4-Dichlorobenzene	2.0	ND
Dichlorodifluoromethane	2.0	ND
1,1-Dichloroethane	2.0	ND
1,2-Dichloroethane	2.0	ND
1,1-Dichloroethene	2.0	ND
trans-1,2-Dichloroethene	2.0	ND
1,2-Dichloropropane	2.0	ND
cis-1,3-Dichloropropene	2.0	ND
trans-1,3-Dichloropropene	2.0	ND
Methylene chloride	50	ND
1,1,2-Tetrachloroethane	2.0	ND
Tetrachloroethene	2.0	ND
1,1,1-Trichloroethane	2.0	ND
1,1,2-Trichloroethane	2.0	ND
Trichloroethene	2.0	ND
Trichlorofluoromethane	2.0	ND
Vinyl chloride	2.0	ND
DATE ANALYZED		07-07-89

APPENDIX E
PIPE TRENCHING LABORATORY ANALYTICAL RESULTS
AND
CHAIN OF CUSTODY RECORDS

KEY TO ABBREVIATIONS and METHOD REFERENCESAbbreviations

- mean : Average; sum of measurements divided by number of measurements.
- mg/Kg (ppm) : Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
- mg/L : Concentration in units of milligrams of analyte per liter of sample.
- mL/L/hr : Milliliters per liter per hour.
- MPN/100 mL : Most probable number of bacteria per one hundred milliliters of sample.
- N/A : Not applicable.
- NA : Not analyzed.
- ND : Not detected; the analyte concentration is less than applicable listed reporting limit.
- NR : Not requested.
- NTU : Nephelometric turbidity units.
- RPD : Relative percent difference, $100 \text{ [Value 1 - Value 2] / mean value}$.
- SNA : Standard not available.
- ug/Kg (ppb) : Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
- ug/L : Concentration in units of micrograms of analyte per liter of sample.
- umhos/cm : Micromhos per centimeter.

Method References

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

* Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated reporting limits by the dilution factor.



SAMPLE DESCRIPTION: #73 P-1 08-30-89 1445
LAB NO.: (-34223)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-11-89	
METHOD GC FID/5030 as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	88	ug/Kg
Toluene	25	310	ug/Kg
Xylenes, total	75	180	ug/Kg

SAMPLE DESCRIPTION: #74 P-2 08-30-89 1450
LAB NO.: (-34224)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-11-89	
METHOD GC FID/5030 as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	160	ug/Kg
Xylenes, total	75	130	ug/Kg



SAMPLE DESCRIPTION: #75 P-3 08-30-89 1455
LAB NO.: (-34225)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-11-89	
METHOD GC FID/5030 as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	53	ug/Kg
Xylenes, total	75	ND	ug/Kg

SAMPLE DESCRIPTION: #76 P-4 08-31-89 1155
LAB NO.: (-34226)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-11-89	
METHOD GC FID/5030 as Gasoline	10	180	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	660	ug/Kg
Toluene	25	420	ug/Kg
Xylenes, total	75	1,800	ug/Kg

Original C-O-C in log 7618

P 605 - 7



RIEDEL ENVIRONMENTAL SERVICES, INC.

San Francisco Division
4138 Lakeside Drive
Richmond CA 94806
(415) 222 7810

7618

CHAIN OF CUSTODY RECORD

Project No: 4804 Project Name: Colli France Location: Oakland				SAMPLERS: (Signature) <i>Paul King</i>					
SAMPLE NUMBER	STATION NAME	DATE	TIME	SAMPLE TYPE	PRES.	NO. CONT.	CONTAINER TYPE	ANALYSIS REQUIRED	
71	B-9-49.0	8/30/89	1535	Grab		1	2 1/2" x 6" brass sleeve	TPH as gas & BTEX	
72	B-9-57.0	8/30/89	1535	"		1	"	"	
73	P-1	8/30/89	1445	"		1	"	"	
74	P-2	"	1450	"		1	"	"	
75	P-3	"	1455	"		1	"	"	
76	P-4	8/31/89	1155	"		1	2" x 6" brass sleeve	"	
77	E-1	"	1205	"		1	"	"	
78	E-2	"	1215	"		1	"	TPH as gas, diesel motor oil & BTEX	
79	E-3	"	1300	"		1	"	"	
80	S-1	"	1330	"		1	"	"	
81	S-2	"	1340	"		1	"	"	
82	S-3	"	1350	"		1	"	"	
83	S-4	"	1355	"		1	"	"	
84	S-5	"	1425	"		1	"	TPH added per PIC	
Relinquished By: <i>Paul King</i>				Received By: <i>B. C. [Signature]</i>			Date/Time: <i>9/1/89 7:15</i>		
Relinquished By: <i>B. C. [Signature]</i>				Received By: <i>Fred Elrod</i>			Date/Time: <i>9-1-89 2:30</i>		
Relinquished By: <i>[Signature]</i>				Received By: <i>[Signature]</i>			Date/Time: <i>9-1-89 2:33</i>		

Laboratory: *Met Pacific*

Project Manager:
Report to:
Phone:

TURNAROUND TIME:

Samples:

APPENDIX F

**SOIL STOCKPILE LABORATORY
ANALYTICAL RESULTS AND
CHAIN OF CUSTODY RECORDS**



KEY TO ABBREVIATIONS and METHOD REFERENCES

Abbreviations

- mean : Average; sum of measurements divided by number of measurements.
- mg/Kg (ppm) : Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
- mg/L : Concentration in units of milligrams of analyte per liter of sample.
- mL/L/hr : Milliliters per liter per hour.
- MPN/100 mL : Most probable number of bacteria per one hundred milliliters of sample.
- N/A : Not applicable.
- NA : Not analyzed.
- ND : Not detected; the analyte concentration is less than applicable listed reporting limit.
- NR : Not requested.
- NTU : Nephelometric turbidity units.
- RPD : Relative percent difference, $100 \frac{|\text{Value 1} - \text{Value 2}|}{\text{mean value}}$.
- SNA : Standard not available.
- ug/Kg (ppb) : Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
- ug/L : Concentration in units of micrograms of analyte per liter of sample.
- umhos/cm : Micromhos per centimeter.

Method References

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

* Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated reporting limits by the dilution factor.



NET Pacific, Inc.

493/

LOG NO 7618

- 24 -

September 19, 1989

SAMPLE DESCRIPTION: #77 E-1 08-31-89 1205
LAB NO.: (-34227)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-11-89	
METHOD GC FID/5030 as Gasoline	10	27	mg/Kg
METHOD 8020			
Benzene	25	370	ug/Kg
Ethylbenzene	75	530	ug/Kg
Toluene	25	960	ug/Kg
Xylenes, total	75	1,500	ug/Kg
PETROLEUM HYDROCARBONS EXTRACTABLE (SOIL)			
DILUTION FACTOR *		1	
DATE EXTRACTED		09-08-89	
DATE ANALYZED		09-11-89	
METHOD GC FID/3550 as Diesel	10	37	mg/Kg
as Motor Oil	10	130	mg/Kg



SAMPLE DESCRIPTION: #78 E-2 08-31-89 1215
LAB NO.: (-34122)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-06-89	
METHOD GC FID/5030 as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	190	ug/Kg
Xylenes, total	75	ND	ug/Kg
PETROLEUM HYDROCARBONS EXTRACTABLE (SOIL)			
DILUTION FACTOR *		1	
DATE EXTRACTED		09-05-89	
DATE ANALYZED		09-08-89	
METHOD GC FID/3550 as Diesel	10	12	mg/Kg
as Motor Oil	10	130	mg/Kg



SAMPLE DESCRIPTION: #79 E-3 08-31-89 1300
LAB NO.: (-34123)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-06-89	
METHOD GC FID/5030 as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	170	ug/Kg
Xylenes, total	75	ND	ug/Kg
PETROLEUM HYDROCARBONS EXTRACTABLE (SOIL)			
DILUTION FACTOR *		1	
DATE EXTRACTED		09-05-89	
DATE ANALYZED		09-08-89	
METHOD GC FID/3550 as Diesel	10	11	mg/Kg
as Motor Oil	10	110	mg/Kg



SAMPLE DESCRIPTION: #80 S-1 08-31-89 1330
LAB NO.: (-34124)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		5	
DATE ANALYZED		09-08-89	
METHOD GC FID/5030 as Gasoline	10	550	mg/Kg
METHOD 8020			
Benzene	25	64	ug/Kg
Ethylbenzene	75	1,200	ug/Kg
Toluene	25	1,500	ug/Kg
Xylenes, total	75	5,200	ug/Kg
PETROLEUM HYDROCARBONS EXTRACTABLE (SOIL)			
DILUTION FACTOR *		1	
DATE EXTRACTED		09-05-89	
DATE ANALYZED		09-08-89	
METHOD GC FID/3550 as Diesel	10	11	mg/Kg
as Motor Oil	10	ND	mg/Kg



SAMPLE DESCRIPTION: #81 S-2 08-31-89 1340
LAB NO.: (-34125)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-06-89	
METHOD GC FID/5030 as Gasoline	10	25	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	ND	ug/Kg
Xylenes, total	75	ND	ug/Kg
PETROLEUM HYDROCARBONS EXTRACTABLE (SOIL)			
DILUTION FACTOR *		1	
DATE EXTRACTED		09-05-89	
DATE ANALYZED		09-08-89	
METHOD GC FID/3550 as Diesel	10	13	mg/Kg
as Motor Oil	10	ND	mg/Kg



SAMPLE DESCRIPTION: #82 S-3 08-31-89 1350
LAB NO.: (-34126)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-06-89	
METHOD GC FID/5030 as Gasoline	10	17	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	ND	ug/Kg
Xylenes, total	75	ND	ug/Kg
PETROLEUM HYDROCARBONS EXTRACTABLE (SOIL)			
DILUTION FACTOR *		1	
DATE EXTRACTED		09-05-89	
DATE ANALYZED		09-08-89	
METHOD GC FID/3550 as Diesel	10	ND	mg/Kg
as Motor Oil	10	ND	mg/Kg



SAMPLE DESCRIPTION: #83 S-4 08-31-89 1355
LAB NO.: (-34127)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-06-89	
METHOD GC FID/5030			
as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	54	ug/Kg
Xylenes, total	75	ND	ug/Kg
PETROLEUM HYDROCARBONS EXTRACTABLE (SOIL)			
DILUTION FACTOR *		1	
DATE EXTRACTED		09-05-89	
DATE ANALYZED		09-08-89	
METHOD GC FID/3550			
as Diesel	10	ND	mg/Kg
as Motor Oil	10	ND	mg/Kg



SAMPLE DESCRIPTION: #84 S-5 08-31-89 1425
LAB NO.: (-34128)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
Oil & Grease (total) PETROLEUM HYDROCARBONS VOLATILE (SOIL)	50	670	mg/Kg
DILUTION FACTOR *		1	
DATE ANALYZED		09-06-89	
METHOD GC FID/5030 as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	240	ug/Kg
Xylenes, total	75	ND	ug/Kg
PETROLEUM HYDROCARBONS EXTRACTABLE (SOIL)			
DILUTION FACTOR *		1	
DATE EXTRACTED		09-05-89	
DATE ANALYZED		09-08-89	
METHOD GC FID/3550 as Diesel	10	150	mg/Kg
as Motor Oil	10	370	mg/Kg



SAMPLE DESCRIPTION: #85 S-6 08-31-89 1430
LAB NO.: (-34129)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
Oil & Grease (total)	50	1100	mg/Kg
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		09-08-89	
METHOD GC FID/5030 as Gasoline	10	ND	mg/Kg
METHOD 8020			
Benzene	25	ND	ug/Kg
Ethylbenzene	75	ND	ug/Kg
Toluene	25	320	ug/Kg
Xylenes, total	75	ND	ug/Kg
PETROLEUM HYDROCARBONS EXTRACTABLE (SOIL)			
DILUTION FACTOR *		1	
DATE EXTRACTED		09-05-89	
DATE ANALYZED		09-08-89	
METHOD GC FID/3550 as Diesel	10	170	mg/Kg
as Motor Oil	10	380	mg/Kg



SAMPLE DESCRIPTION: #84 S-5 08-31-89 1425
LAB NO.: (-34907)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
METHOD 503 B, D, E Oil & Grease (non-polar)IR	100	290	mg/Kg

SAMPLE DESCRIPTION: #85 S-6 08-31-89 1430
LAB NO.: (-34908)

<u>Parameter</u>	<u>Reporting Limit</u>	<u>Results</u>	<u>Units</u>
METHOD 503 B, D, E Oil & Grease (non-polar)IR	100	560	mg/Kg

Original C-O-C in log 7618

P 608 7



RIEDEL ENVIRONMENTAL SERVICES, INC.

San Francisco Division
4138 Lakeside Drive
Richmond CA 94806
(415) 222 7810

7618

CHAIN OF CUSTODY RECORD

Project No: 4804				SAMPLERS: (Signature) <i>Paul King</i>					
Project Name: Cali France									
Location: Okland									
SAMPLE NUMBER	STATION NAME	DATE	TIME	SAMPLE TYPE	PRES.	NO. CONT.	CONTAINER TYPE	ANALYSIS REQUIRED	
71	B-9-49.0	8/30/89	1535	Grab		1	2 1/2" x 6" brass sleeve	TPH as gas & BTEX	
72	B-9-57.0	8/30/89	1535	"		1	"	"	
73	P-1	8/30/89	1445	"		1	"	"	
74	P-2	"	1450	"		1	"	"	
75	P-3	"	1455	"		1	"	"	
76	P-4	8/31/89	1155	"		1	2" x 6" brass sleeve	"	
77	E-1	"	1205	"		1	"	"	
78	E-2	"	1215	"		1	"	TPH as gas, diesel motor oil & BTEX	
79	E-3	"	1300	"		1	"	"	
80	S-1	"	1330	"		1	"	"	
81	S-2	"	1340	"		1	"	"	
82	S-3	"	1350	"		1	"	"	
83	S-4	"	1355	"		1	"	"	
84	S-5	"	1425	"		1	"	note added per PK to BC	
Relinquished By: <i>Paul King</i>				Received By: <i>B. Campbell</i>				Date/Time: <i>9/1/89 7:15</i>	
Relinquished By: <i>A.C. [unclear]</i>				Received By: <i>Fred Elrod</i>				Date/Time: <i>9-1-89 2130</i>	
Relinquished By: <i>[unclear]</i>				Received By: <i>[unclear]</i>				Date/Time: <i>9-1-89 2339</i>	

Laboratory: *NAT Pacific*

Project Manager:
Report to:
Phone:

TURNAROUND TIME:

Samples:

P 705

San Francisco Division
4138 Lakeside Drive
Richmond CA 94806
(415) 222 7810



RIEDEL
ENVIRONMENTAL SERVICES, INC.

7/10/89

CHAIN OF CUSTODY RECORD

Project No: 4004			SAMPLERS: (Signature) <i>Paul King</i>				
Project Name: Cali France							
Location: Oakland							

SAMPLE NUMBER	STATION NAME	DATE	TIME	SAMPLE		NO. CONT.	CONTAINER TYPE	ANALYSIS REQUIRED
				TYPE	PRES.			
5	S-6	8/31/89	1430	Grab		1	6"x2" brass sleeve	TPH as gas BTX TPH as diesel, motor oil ↑ O/G added per PK to BC 9/15/89

5day
TAT
76
1450

Relinquished By: <i>Paul King</i>	Received By: <i>B. Cunningham</i>	Date/Time 9/1/89 7:15 PM
Relinquished By: <i>B. Cunningham</i>	Received By: <i>Fred Schrod</i>	Date/Time 9-1-89 2:30
Relinquished By: <i>(via mail)</i>	Received By Laboratory: <i>Lejamp le</i>	Date/Time 9-1-89 2:39

Laboratory: *NET P...*

Project Manager:
Report to:
Phone:

TURNAROUND TIME:

Samples: