



GETTLER - RYAN INC.

February 23, 2004

Mr. Bob Snodgrass
Alameda County Fire Department
835 E 14th St
San Leandro, California 94577

**Subject: Limited Subsurface Investigation Report,
Alameda County Fire Department Station #4,
20336 San Miguel Avenue,
Castro Valley, California**

Mr. Snodgrass:

This report presents the results of a limited subsurface investigation performed by Gettler-Ryan Inc. (GR) at the above referenced site. The purpose of this work is to delineate the vertical and horizontal extent of soil contamination and to determine if groundwater beneath the subject site has been impacted. The scope of work performed during this investigation was originally proposed in GR's *Work Plan for Limited Subsurface Investigation*, dated December 2, 2003, and approved by the Alameda County Environmental Health Services in a letter dated December 5, 2003. The scope of work performed included: preparing a site safety plan; obtaining a drilling permit from the Alameda County Public Works Agency-Water Resources Section (ACPWA); advancing four soil borings; collecting soil samples and grab groundwater samples from the soil borings; analyzing soil and grab groundwater samples; and preparing a report documenting the work performed.

SITE DESCRIPTION

The subject site is a fire station located at 20366 San Miguel Avenue in Castro Valley, California (Figure 1). According to information provided by Alameda County Fire Department (ACFD), a single abandoned in place 1,000-gallon diesel underground storage tank (UST) is located to the east of the fire station building. Pertinent site features and the location of the abandoned UST are shown on Figures 2 and 3.

The site is situated at approximately 180 feet above mean sea level on relatively flat topography. The closest surface water is an unnamed creek, which is located 2,640 feet east of the site. San Lorenzo Creek is located approximately 6,864 feet east of the site. Based on the topography, the regional groundwater flow direction is inferred to be to the southwest.

948207.01

PREVIOUS ENVIROMENTAL WORK

On February 13, 2003, Frye Environmental Inc. (Frye) advanced one soil boring near the 1,000-gallon diesel UST (Figure 3). One soil sample, labeled San Miguel, was collected from the soil boring and analyzed for Total Petroleum Hydrocarbon as gasoline (TPHg), Total Petroleum Hydrocarbon as diesel (TPHd), benzene, toluene, ethylbenzene, and total xylenes (BTEX), methyl tert-butyl ether (MtBE), ethyl tert-butyl ether (ETBE), di-isopropyl ether (DIPE), tert amyl methyl ether (TAME), and tert butyl alcohol (TBA). TPHg and TPHd were detected in the soil sample San Miguel at concentrations of 330 and 90 parts per million (ppm), respectively.

On May 9, 2003, Ecology Control Industries rinsed and pressure washed the UST in preparation for abandoning it in place. On May 19, 2003, R.L. Stevens Company abandoned the UST in place by filling it with concrete slurry. The tank was filled to sub grade with slurry and all caps and tank fittings were removed. Concrete was placed over the excavated areas to finish to grade. The dispensers were removed and the concrete openings were filled with concrete to finish to grade. All tank vent risers were cut off flush with grade and concrete was placed to finish to grade.

FIELD ACTIVITES

To delineate the vertical and horizontal extent of soil contamination and to determine if groundwater beneath the subject site has been impacted, GR supervised the advancement of four soil borings. Field work was performed in accordance with GR's Site Safety Plan dated January 5, 2003. A copy of GR Field Methods and Procedures is attached. Copy of permit No. W03-1170 from ACPWA is attached. Underground Service Alert was notified 48 hours prior to beginning site activities. The soil borings were advanced by Vironex Environmental Field Services (C57 #705925).

Soil borings B-1 through B-4 were advanced on January 6, 2004. Soil borings B-1, B-2 and B-4 were advanced to a depth of approximately 16 feet bgs. Soil boring B-3 was advanced to depth of approximately 15 feet bgs. Soil borings were advanced using 2-inch diameter Geoprobe direct push technology. Groundwater was encountered in the borings at depths between 6.5 and 15 feet bgs. Soil borings were continuously logged for description and preparation of a log, with soil samples collected at five-foot intervals for possible chemical analysis. Grab groundwater samples were collected from each boring for chemical analysis. Copies of boring logs are attached. Locations of the soil borings are shown on Figure 2.

The borings were abandoned by grouting with neat cement containing 5% bentonite powder to one foot below surface grade. The top one-foot of each boring was backfilled with native material. Since the soil borings were advanced using Geoprobe direct push technology, no soil cuttings or steam cleaning rinsate water was generated during this investigation.

A total of eight soil samples and four grab groundwater samples from the soil borings were submitted under chain-of-custody for chemical analysis. Chemical analyses were performed by Kiff Analytical (ELAP #2236). Copies of the laboratory report and chain-of-custody forms are attached. Soil and groundwater chemical analytical data are summarized in Tables 1 and 2.

Soil and grab groundwater samples were analyzed for TPHg, BTEX, and MtBE by EPA Method 8260B, for TPHd by EPA Method 8015 Modified and selected samples for TPHd (Si-gel) by EPA Method 8015 Modified.


RESULTS AND CONCLUSIONS

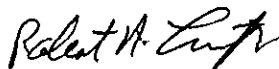
Soil samples collected from borings B-1 through B-4 and analyzed for TPHg, TPHd, BTEX and MtBE were below laboratory method detection limits for each constituent. Grab groundwater samples collected from borings B-1 through B-4 were below laboratory method detection limits for TPHg, benzene, and MtBE. Grab groundwater samples collected from boring B-1 and B-3 contained TPHd at concentrations of 110 parts per billion (ppb) and 72 ppb, respectively. Groundwater samples B-1 and B-3 containing detectable TPHd concentrations were reanalyzed using TPHd silica gel cleanup analysis. The reanalyzed results for samples B-1 and B-3 (85 ppb and less than 50 ppb, respectively) were lower than the pre-silica gel cleanup results (118 ppb and 72 ppb).

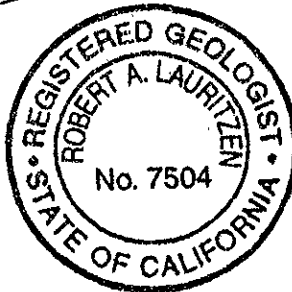
Based upon the results of this limited subsurface investigation, soil contamination in the vicinity of the former diesel UST has been delineated laterally and vertically. All four grab groundwater samples did not contain detectable concentrations of TPHg, benzene or MtBE. Two of the four grab groundwater samples contained detectable concentration of TPHd. After TPHd silica gel cleanup analysis, one grab groundwater sample was below the laboratory method detection limit and the other sample was slightly above the detection limit.

If you have any questions, please call us in our Sacramento office at (916) 631-1300.

Sincerely,
Gettler-Ryan Inc.


Geoffrey D. Risse
Project Geologist


Robert A. Lauritzen
Senior Geologist, R.G. 7504



Attachments: Table 1. Soil Chemical Analytical Results
Table 2. Groundwater Chemical Analytical Results
Figure 1. Vicinity Map
Figure 2. Site Plan
Figure 3. Site Plan – Detail Map
GR Field Methods and Procedures
Drilling Permit
Boring Logs
Analytical Reports and Chain of Custody Form

CC: Ms. Eva Chu, Alameda County Health Care Services Agency-Environmental Health Department,
1131 Harbor Bay Parkway, Suite 250, Alameda, California 94502

Table 1
Soil Chemical Analytical Results
Alamada County Fire Department Station #4
20336 San Miguel Avenue
Castro Valley, California

Sample ID	Sample Depth (ft)	Sample Date	TPHg (ppm)	TPHd (ppm)	B (ppm)	T (ppm)	E (ppm)	X (ppm)	MtBE (ppm)
B1-10	10	1/6/04	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
B1-16	16	1/6/04	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
B2-10	10	1/6/04	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
B2-16	16	1/6/04	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
B3-10	10	1/6/04	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
B3-15	15	1/6/04	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
B4-10	10	1/6/04	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
B4-16	16	1/6/04	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050

Explanation:

ft = feet

ppm = parts per million

NA = Not Analyzed

TPHg = Total Petroleum Hydrocarbons as gasoline

TPHd = Total Petroleum Hydrocarbons as diesel

B = Benzene

T = Toluene

E = Ethylbenzene

X = Total xylenes

MtBE = Methyl tert-butyl ether

Analytical Laboratory:

Kiff Analytical LLC (ELAP# 2236)

Analytical Methods:

TPHg/BTEX/MtBE by EPA Method 8260B

TPHd by EPA Method 8015 Modified

Table 2
 Groundwater Chemical Analytical Results
 Alameda County Fire Department Station #4
 20336 San Miguel Avenue
 Castro Valley, California

Sample ID	Sample Date	TPHg (ppb)	TPHd (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MtBE (ppb)
B-1	1/6/04	<50	110/85 ¹	<0.50	0.53	<0.50	0.56	<5.0
B-2	1/6/04	<50	<50	<0.50	<0.50	<0.50	<0.50	<5.0
B-3	1/6/04	<50	72/<50 ¹	<0.50	<0.50	<0.50	0.56	<5.0
B-4	1/6/04	<50	<50	<0.50	<0.50	<0.50	0.51	<5.0

Explanation:

ft = feet
 ppb = parts per billion
 NA = Not Analyzed
 TPHg = Total Petroleum Hydrocarbons as gasoline
 TPHd = Total Petroleum Hydrocarbons as diesel
 B = Benzene
 T = Toluene
 E = Ethylbenzene
 X = Total xylenes
 MtBE = Methyl tert-butyl ether

Analytical Laboratory:

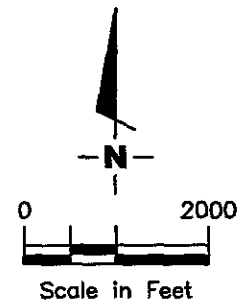
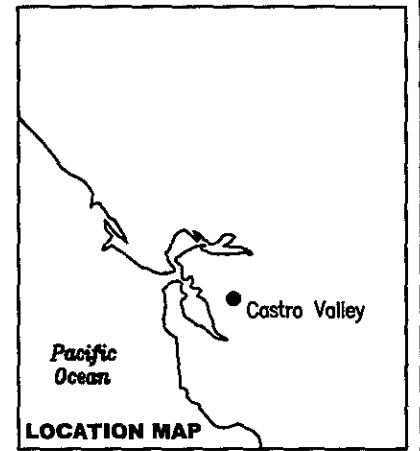
Kiff Analytical LLC (ELAP# 2236)

Analytical Methods:

TPHg/BTEX/MtBE by EPA Method 8260B
 TPHd by EPA Method 8015 Modified

Notes:

¹ Result after silica gel cleanup



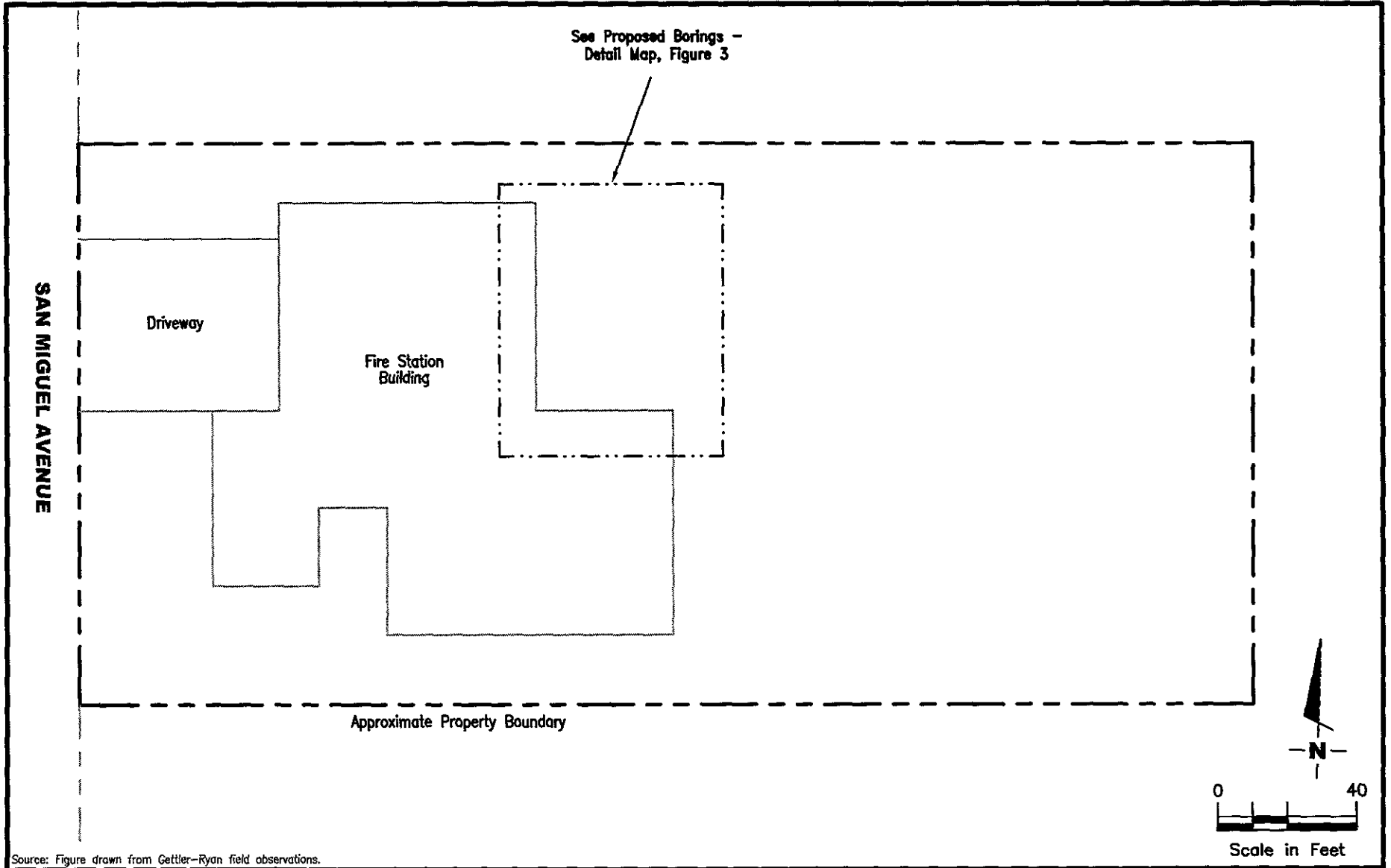
Source: National Geographic California Seamless USGS Topographic Maps on CD-ROM

GETTLER - RYAN INC.
 6747 Sierra Ct., Suite J
 Dublin, CA 94568 (925) 551-7555

VICINITY MAP
 Alameda County Fire Department - Station #4
 20336 San Miquel Avenue
 Castro Valley, California

FIGURE
1

PROJECT NUMBER 948207	REVIEWED BY	DATE 11/03	REVISED DATE
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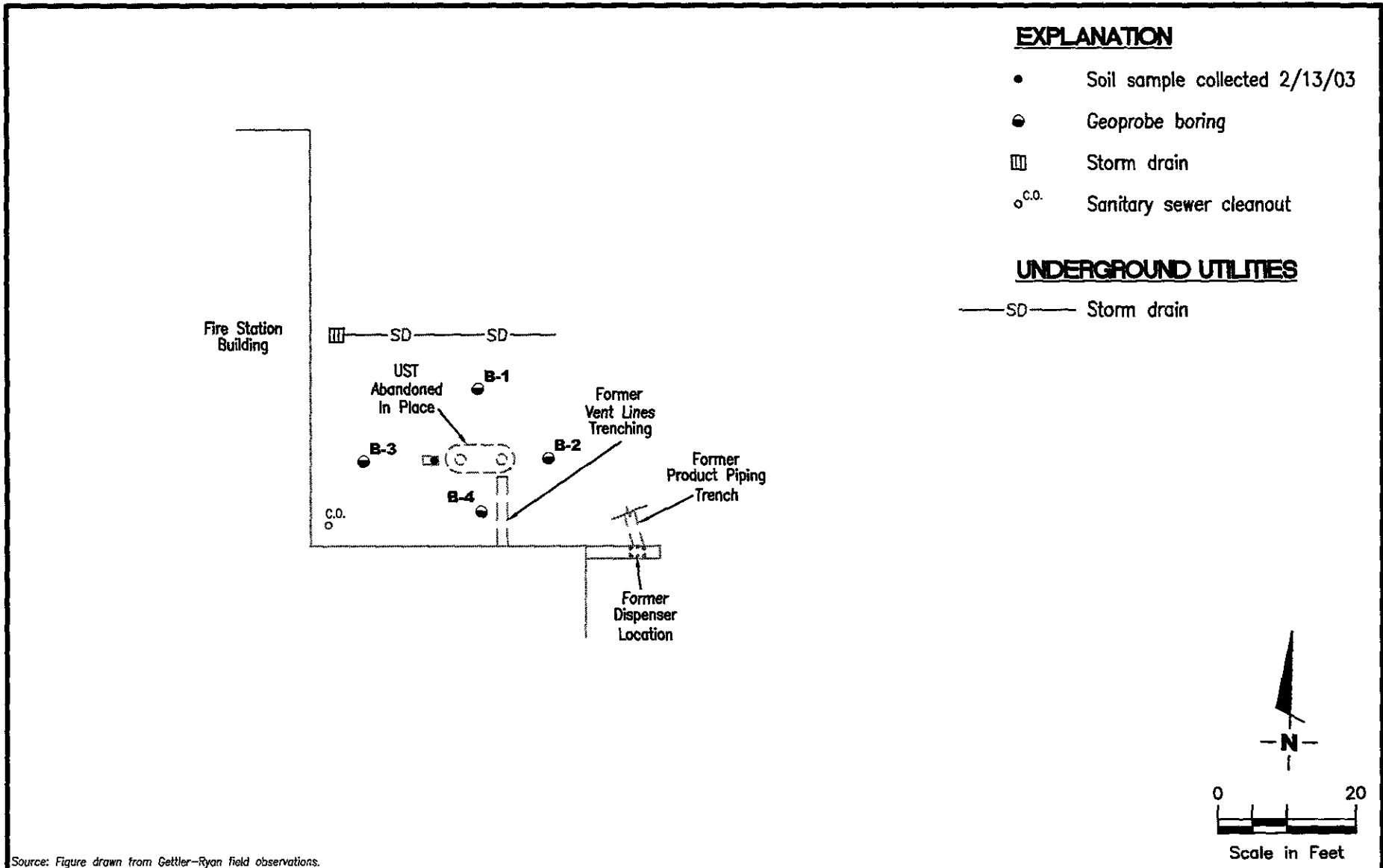


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EXTENDED SITE PLAN
 Alameda County Fire Department - Station #4
 20336 San Miguel Avenue
 Castro Valley, California

FIGURE
2

PROJECT NUMBER 948207.1	REVIEWED BY	DATE 11/03	REVISED DATE
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SITE PLAN - DETAIL MAP
 Alameda County Fire Department - Station #4
 20336 San Miquel Avenue
 Castro Valley, California

FIGURE
3

PROJECT NUMBER
 948207.1

REVIEWED BY

DATE
 1/04

REVISED DATE

GETTLER-RYAN INC.

FIELD METHODS AND PROCEDURES

Site Safety Plan

Field work performed by Gettler-Ryan Inc. (GR) is conducted in accordance with GR's Health and Safety Plan and the Site Safety Plan. GR personnel and subcontractors who perform work at the site are briefed on the contents of these plans prior to initiating site work. The GR geologist or engineer at the site when the work is performed acts as the Site Safety Officer. GR utilizes a photoionization detector (PID) to monitor ambient conditions as part of the Health and Safety Plan.

Collection of Soil Samples

Soil borings are drilled by a California-licensed well driller. A GR geologist is present to observe the drilling, collect soil samples for description, physical testing, and chemical analysis, and prepare a log of the exploratory soil boring. Soil samples obtained with a Geoprobe® rig are collected from the soil boring with a split-barrel sampling device fitted with 1.5-inch-diameter, clean brass tubes. The Geoprobe® drives the sampling device approximately 24 inches, and the filled sampler is then retrieved from the boring. The encountered soils are described using the Unified Soil Classification System (ASTM 2488-84) and the Munsell Soil Color Chart or GSA Rock Color Chart.

After removal from the sampling device, soil samples for chemical analysis are covered on both ends with teflon sheeting, capped, labeled, and placed in a cooler with blue ice for preservation. A chain-of-custody form is initiated in the field and accompanies the selected soil samples to the analytical laboratory. Samples are selected for chemical analysis based on:

- a. depth relative to underground storage tanks and existing ground surface
- b. depth relative to known or suspected groundwater
- c. presence or absence of contaminant migration pathways
- d. presence or absence of discoloration or staining
- e. presence or absence of obvious gasoline hydrocarbon odors
- f. presence or absence of organic vapors detected by headspace analysis

Field Screening of Soil Samples

A PID is used to perform head-space analysis in the field for the presence of organic vapors from the soil sample. This test procedure involves placing a plastic cap over the end of the tube and allowing the sample to sit for several minutes. The PID probe is then inserted through a hole in the cap and the atmosphere within tested. Head-space screening results are recorded on the boring log. Head-space screening procedures are performed and results recorded as reconnaissance data. GR does not consider field screening techniques to be verification of the presence or absence of hydrocarbons.

Grab Groundwater Sampling

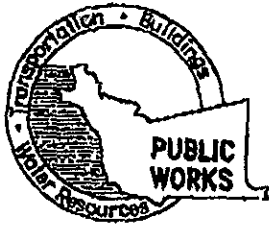
Grab samples of groundwater are collected from the boring using a peristaltic pump or micro-bailer. With the peristaltic pump, new Tygon® tubing is placed in the pump prior to collection of each sample. The tubing is

lowered into the boring through the GeoProbe equipment after groundwater has been allowed to collect. The peristaltic pump is used to evacuate water from the boring where it is discharged to laboratory-supplied containers appropriate for the anticipated analyses. With the micro-bailer, the cleaned bailer is lowered through the GeoProbe equipment into the groundwater. The bailer is allowed to fill, then is brought to the surface where the water is decanted into the sample container. The micro-bailer may also consist of a clean piece of tubing with a check valve at the bottom. The tubing is pumped up and down to bring the water sample to the surface and discharge the sample to the appropriate container.

Following collection of the groundwater sample, the sample bottles are then labeled and placed in chilled storage for transport to the analytical laboratory. A chain-of-custody form is initiated in the field and accompanies the groundwater samples to the analytical laboratory.

Soil Vapor Sampling

Soil vapor samples are collected by advancing the Geoprobe® to a discrete depth. Once the desired depth is attained, a 1/4-inch polyethylene tubing is threaded through the inside diameter of the drive rods and connected either to a tedlar bag or summa canister. The bottom portion of the drive rod is retracted and a vacuum is induced to purge a soil vapor sample. Used tubing is discarded after each sample.



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 670-5554
FAX (510)782-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 20336 SAN Miguel Ave, Castro Valley, CA (Alameda County, Fire Department - station #4)

CLIENT Name Alameda County Fire Department
Address 835 E. 14th St Phone (510) 693-3438
City SAN LEANITO Zip 94577

APPLICANT Name Gettler-Ryan Inc
Address 3140 Gold Camp Rd Phone (916) 631-1300
City RANCHO CORDOVA Zip 95670

TYPE OF PROJECT

Well Construction	<input type="checkbox"/>	Geotechnical Investigation	<input type="checkbox"/>
Cathodic Protection	<input type="checkbox"/>	General	<input checked="" type="checkbox"/>
Water Supply	<input type="checkbox"/>	Contamination	<input checked="" type="checkbox"/>
Monitoring	<input type="checkbox"/>	Well Destruction	<input type="checkbox"/>

PROPOSED WATER SUPPLY WELL USE

New Domestic	<input type="checkbox"/>	Replacement Domestic	<input type="checkbox"/>
Municipal	<input type="checkbox"/>	Irrigation	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	Other	<input type="checkbox"/>

DRILLING METHOD:

Mud Rotary	<input type="checkbox"/>	Air Rotary	<input type="checkbox"/>	Auger	<input type="checkbox"/>
Cable	<input type="checkbox"/>	Other	<input checked="" type="checkbox"/>	<u>Geoprobe</u>	

DRILLER'S NAME VIRONEX

DRILLER'S LICENSE NO. 705927

WELL PROJECTS

Drill Hole Diameter	_____ in.	Maximum	_____
Casing Diameter	_____ in.	Depth	_____ ft.
Surface Seal Depth	_____ ft.	Owner's Well Number	_____

GEOTECHNICAL PROJECTS

Number of Borings	<u>4</u>	Maximum	_____
Hole Diameter	<u>2</u> in.	Depth	<u>15</u> ft.

ESTIMATED STARTING DATE 1/6/04

ESTIMATED COMPLETION DATE 1/6/04

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

APPLICANT'S SIGNATURE Geoffrey D. Risse DATE 12/17/03

PLEASE PRINT NAME Geoffrey D. Risse Rev.5-13-00

FOR OFFICE USE

PERMIT NUMBER W03-1170
WELL NUMBER _____
APN _____

PERMIT CONDITIONS

Circled Permit Requirements Apply

A. GENERAL

1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources-Well Completion Report.
3. Permit is void if project not begun within 90 days of approval date

B. WATER SUPPLY WELLS

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 and irrigation wells unless a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D **GEOTECHNICAL/contamination**
Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

E. CATHODIC

Fill hole anode zone with concrete placed by tremie.

F. WELL DESTRUCTION

Send a map of work site. A separate permit is required for wells deeper than 45 feet.

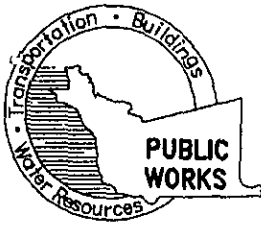
G **SPECIAL CONDITIONS** BA-1 Attached

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

APPROVED

DATE

1-2-03



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION

399 ELMHURST ST. HAYWARD, CA. 94544-1395

PHONE (510) 670-6633 James Yoo FAX (510) 782-1939

PERMIT NO. W03-1170





WATER RESOURCES SECTION GROUNDWATER PROTECTION ORDINANCE

B#1-GENERAL CONDITIONS: GEOTECHNICAL & CONTAMINATION BOREHOLES

1. Prior to any drilling activities shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that Federal, State, County or to the City and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained.
2. Boreholes shall not be left open for a period of more than **24 hours**. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
3. Permitte, permittee's, contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statues regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on-or off site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.
4. Permit is valid only for the purpose specified herein **January 6 to January 6, 2004**. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.
5. Drilling Permit(s) can be voided/ canceled only in writing. It is the applicants responsibilities to notify Alameda County Public Works Agency, Water Resources Section in writing for an extension or to cancel the drilling permit application. No drilling permit application(s) shall be extended beyond ninety (90) days from the original start date. Applicants may not cancel a drilling permit application after the completion date of the permit issued has passed.
6. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

MAJOR DIVISIONS		TYPICAL NAMES	
COARSE-GRAINED SOILS MORE THAN HALF IS COARSER THAN NO. 200 SIEVE	GRAVELS MORE THAN HALF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE SIZE	CLEAN GRAVELS WITH LITTLE OR NO FINES	GW Well graded gravels with or without sand, little or no fines
			GP Poorly graded gravels with or without sand, little or no fines
		GRAVELS WITH OVER 15% FINES	GM Silty gravels, silty gravels with sand
			GC Clayey gravels, clayey gravels with sand
	SANDS MORE THAN HALF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE SIZE	CLEAN SANDS WITH LITTLE OR NO FINES	SW Well graded sands with or without gravel, little or no fines
			SP Poorly graded sands with or without gravel, little or no fines
		SANDS WITH OVER 15% FINES	SM Silty sands with or without gravel
			SC Clayey sands with or without gravel
FINE-GRAINED SOILS MORE THAN HALF IS FINER THAN NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT 50% OR LESS	ML Inorganic silts and very fine sands, rock flour, silts with sands and gravels	
		CL Inorganic clays of low to medium plasticity, clays with sands and gravels, lean clays	
		OL Organic silts or clays of low plasticity	
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50%	MH Inorganic silts, micaceous or diatomaceous, fine sandy or silty soils, elastic silts	
		CH Inorganic clays of high plasticity, fat clays	
		OH Organic silts or clays of medium to high plasticity	
HIGHLY ORGANIC SOILS	PT Peat and other highly organic soils		

PID Volatile vapors in ppm
 bgs below ground surface
 (2.5YR 6/2) Soil color according to Munsell Soil Color Charts (1993 Edition)
 BLOWS/FT. Sample drive hammer weight - 140 pounds falling 30 inches. Blows required to drive sampler 1 foot are indicated on the logs.

— Observed geologic contact
 - - - Inferred geologic contact
 No soil sample recovered
 "Undisturbed" sample
 First encountered groundwater level
 Static groundwater level

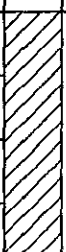

 **GETTLER - RYAN INC.**
 6747 Sierra Ct., Suite J
 Dublin, CA 94568 (925) 551-7555

UNIFIED SOIL CLASSIFICATION
 ASTM D 2488-85
 AND
 KEY TO SAMPLING DATA

Gettler-Ryan, Inc.

Log of Boring B-1

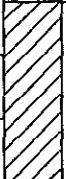



PROJECT: <i>Alameda County Fire Department Station #4</i>	LOCATION: <i>20336 San Miguel Avenue, Castro Valley, CA</i>
GR PROJECT NO.: <i>948207.1</i>	SURFACE ELEVATION:
DATE STARTED: <i>01/06/04</i>	WL (ft. bgs): <i>15</i> DATE: <i>01/06/04</i> TIME: <i>09:27</i>
DATE FINISHED: <i>01/06/04</i>	WL (ft. bgs): DATE: TIME:
DRILLING METHOD: <i>2 in. Geoprobe (direct push)</i>	TOTAL DEPTH: <i>16 feet</i>
DRILLING COMPANY: <i>Vironex Drilling</i>	GEOLOGIST: <i>Geoffrey Risse</i>

DEPTH (feet)	PID (ppm)	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	REMARKS
						Concrete - 6 inches thick.	
						Gravel - 6 inches thick.	
3					CL	CLAY WITH SILT (CL) - dark brown (7.5YR 3/2), moist, low plasticity; 80% clay, 15% silt, 5% fine sand.	Boring backfilled with neat cement from the bottom to ground surface
6	0	B1-5				At 5 feet color changes to brown (7.5YR 4/2).	
9						CLAY WITH SAND (CL) - brown (7.5YR 4/2), moist; 80% clay, 15% fine sand, 5% silt.	
12							
15	0	B1-16 B-1			SM	SILTY SAND (SM) - brown (7.5YR 4/2), saturated; 80% fine to medium sand, 20% silt.	Grab groundwater sample B-1.
18						Bottom of boring at 16 feet bgs.	
21							

Gettler-Ryan, Inc.

Log of Boring B-2

PROJECT: <i>Alameda County Fire Department Station #4</i>	LOCATION: <i>20336 San Miguel Avenue, Castro Valley, CA</i>
GR PROJECT NO. : <i>948207.1</i>	SURFACE ELEVATION:
DATE STARTED: <i>01/06/04</i>	WL (ft. bgs): <i>6.5</i> DATE: <i>01/06/04</i> TIME: <i>10:10</i>
DATE FINISHED: <i>01/06/04</i>	WL (ft. bgs): DATE: TIME:
DRILLING METHOD: <i>2 in. Geoprobe (direct push)</i>	TOTAL DEPTH: <i>16 feet</i>
DRILLING COMPANY: <i>Vironex Drilling</i>	GEOLOGIST: <i>Geoffrey Risse</i>

DEPTH (feet)	PID (ppm)	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	REMARKS
						Concrete - 8 inches thick.	
						Gravel - 6 inches thick.	
3					CL	CLAY (CL) - black (7.5YR 2.5/1), moist; 90% clay, 10% silt.	Boring backfilled with neat cement from the bottom to ground surface.
6	0	B2-5			SM	SILTY SAND (SM) - very dark brown (7.5YR 2.5/3), moist; 80% fine to medium sand, 20% silt.	
9	0	B2-10			CL	CLAY (CL) - gray (7.5YR 6/1), saturated; 80% clay, 10% silt, 10% fine sand.	
15	0	B2-16 B-2			SC	CLAYEY SAND (SC) - brown (7.5YR 4/3), saturated; 80% fine to medium sand, 20% clay.	
18						Bottom of boring at 16 feet bgs.	Grab groundwater sample B-2
21							

Gettler-Ryan, Inc.

Log of Boring B-3

PROJECT: *Alameda County Fire Department Station #4*

LOCATION: *20336 San Miguel Avenue, Castro Valley, CA*

GR PROJECT NO.: *948207.1*

SURFACE ELEVATION:

DATE STARTED: *01/06/04*

WL (ft. bgs): *11* DATE: *01/06/04* TIME: *10:55*

DATE FINISHED: *01/06/04*


WL (ft. bgs): DATE: TIME:

DRILLING METHOD: *2 in. Geoprobe (direct push)*

TOTAL DEPTH: *15 feet*

DRILLING COMPANY: *Vironex Drilling*

GEOLOGIST: *Geoffrey Risse*

DEPTH (feet)	PID (ppm)	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	REMARKS
						Concrete - 6 inches thick.	
						Gravel - 6 inches thick.	
3					CL	CLAY (CL) - black (7.5YR 2.5/1), moist; 90% clay, 10% silt.	Boring backfilled with neat cement from the bottom to ground surface
6	0	B3-5				CLAY WITH SAND (CL) - brown (7.5YR 4/2), moist; 80% clay, 20% fine sand.	
9						Color changes to brown (7.5YR 4/3), becomes saturated; 70% clay, 30% fine sand.	
12	0	B3-10			SC	CLAYEY SAND (SC) - brown (7.5YR 4/4), saturated; 80% fine to medium sand, 20% clay.	
15	0	B3-15 B-3				Bottom of boring at 15 feet bgs.	Grab groundwater sample B-3.
18							
21							

Gettler-Ryan, Inc.

Log of Boring B-4

PROJECT: <i>Alameda County Fire Department Station #4</i>	LOCATION: <i>20336 San Miguel Avenue, Castro Valley, CA</i>
GR PROJECT NO.: <i>948207.1</i>	SURFACE ELEVATION:
DATE STARTED: <i>01/06/04</i>	WL (ft. bgs): <i>12</i> DATE: <i>01/06/04</i> TIME: <i>11:45</i>
DATE FINISHED: <i>01/06/04</i>	WL (ft. bgs): DATE: TIME:
DRILLING METHOD: <i>2 in. Geoprobe (direct push)</i>	TOTAL DEPTH: <i>16 feet</i>
DRILLING COMPANY: <i>Vironex Drilling</i>	GEOLOGIST: <i>Geoffrey Risse</i>

DEPTH (feet)	PID (ppm)	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	REMARKS
						Concrete - 6 inches thick.	
						Gravel - 6 inches thick.	
3					CL	CLAY (CL) - black (7.5YR 2.5/1), moist; 90% clay, 10% silt.	Boring backfilled with neat cement from the bottom to ground surface.
6	0	B4-5				CLAY WITH SAND (CL) - brown (7.5YR 4/2), moist; 85% clay, 15% fine sand.	
9							
12	0	B4-10				∇ Becomes saturated.	
15	0	B4-16 B-4			SC	CLAYEY SAND (SC) - brown (7.5YR 4/4), saturated; 80% fine to medium sand, 20% clay.	Grab groundwater sample B-4.
18						Bottom of boring at 16 feet bgs.	
21							



Report Number : 36579

Date : 1/16/2004

Geoffrey Risse
Gettler-Ryan Inc.
3140 Gold Camp Dr. Suite 170
Rancho Cordova, CA 95670

Subject : 8 Soil Samples and 4 Water Samples
Project Name : ACFD Station #4
Project Number : 948207.01
P.O. Number : 948207.01

Dear Mr. Risse,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeff Dahl", is written over the typed name.

Jeff Dahl



Report Number : 36579

Date : 1/16/2004

Project Name : **ACFD Station #4**

Project Number : **948207.01**

Sample : **B1-10**

Matrix : Soil

Lab Number : 36579-02

Sample Date :1/6/2004

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/8/2004
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/8/2004
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/8/2004
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/8/2004
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/8/2004
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	1/8/2004
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	1/8/2004
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	1/8/2004
TPH as Diesel	< 1.0	1.0	mg/Kg	M EPA 8015	1/9/2004
1-Chlorooctadecane (Diesel Surrogate)	89.4		% Recovery	M EPA 8015	1/9/2004

Sample : **B1-16**

Matrix : Soil

Lab Number : 36579-03

Sample Date :1/6/2004

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/10/2004
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/10/2004
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/10/2004
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/10/2004
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/10/2004
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	1/10/2004
Toluene - d8 (Surr)	104		% Recovery	EPA 8260B	1/10/2004
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	1/10/2004
TPH as Diesel	< 1.0	1.0	mg/Kg	M EPA 8015	1/9/2004
1-Chlorooctadecane (Diesel Surrogate)	99.8		% Recovery	M EPA 8015	1/9/2004

Approved By: 



Report Number : 36579

Date : 1/16/2004

Project Name : **ACFD Station #4**

Project Number : **948207.01**

Sample : **B-1**

Matrix : Water

Lab Number : 36579-04

Sample Date :1/6/2004

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	1/11/2004
Toluene	0.53	0.50	ug/L	EPA 8260B	1/11/2004
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	1/11/2004
Total Xylenes	0.56	0.50	ug/L	EPA 8260B	1/11/2004
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	1/11/2004
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	1/11/2004
Toluene - d8 (Surr)	95.6		% Recovery	EPA 8260B	1/11/2004
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	1/11/2004
TPH as Diesel	110	50	ug/L	M EPA 8015	1/8/2004
TPH as Diesel (Silica Gel)	85	50	ug/L	M EPA 8015	1/16/2004
Octacosane (Diesel Surrogate)	108		% Recovery	M EPA 8015	1/8/2004

Sample : **B2-10**

Matrix : Soil

Lab Number : 36579-06

Sample Date :1/6/2004

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/11/2004
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/11/2004
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/11/2004
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/11/2004
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/11/2004
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	1/11/2004
Toluene - d8 (Surr)	95.7		% Recovery	EPA 8260B	1/11/2004
4-Bromofluorobenzene (Surr)	104		% Recovery	EPA 8260B	1/11/2004
TPH as Diesel	< 1.0	1.0	mg/Kg	M EPA 8015	1/9/2004
1-Chlorooctadecane (Diesel Surrogate)	92.4		% Recovery	M EPA 8015	1/9/2004

Approved By:  Jeff Dahl



Report Number : 36579

Date : 1/16/2004

Project Name : **ACFD Station #4**

Project Number : **948207.01**

Sample : **B2-16**

Matrix : Soil

Lab Number : 36579-07

Sample Date :1/6/2004

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/11/2004
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/11/2004
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/11/2004
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/11/2004
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/11/2004
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	1/11/2004
Toluene - d8 (Surr)	96.8		% Recovery	EPA 8260B	1/11/2004
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	1/11/2004
TPH as Diesel	< 1.0	1.0	mg/Kg	M EPA 8015	1/9/2004
1-Chlorooctadecane (Diesel Surrogate)	93.2		% Recovery	M EPA 8015	1/9/2004

Sample : **B-2**

Matrix : Water

Lab Number : 36579-08

Sample Date :1/6/2004

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	1/11/2004
Toluene	< 0.50	0.50	ug/L	EPA 8260B	1/11/2004
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	1/11/2004
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	1/11/2004
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	1/11/2004
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	1/11/2004
Toluene - d8 (Surr)	95.4		% Recovery	EPA 8260B	1/11/2004
4-Bromofluorobenzene (Surr)	97.9		% Recovery	EPA 8260B	1/11/2004
TPH as Diesel	< 50	50	ug/L	M EPA 8015	1/10/2004
Octacosane (Diesel Surrogate)	71.8		% Recovery	M EPA 8015	1/10/2004

Approved By: 



Report Number : 36579

Date : 1/16/2004

Project Name : **ACFD Station #4**

Project Number : **948207.01**

Sample : **B3-10**

Matrix : Soil

Lab Number : 36579-10

Sample Date :1/6/2004

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/10/2004
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/10/2004
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/10/2004
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/10/2004
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/10/2004
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	1/10/2004
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	1/10/2004
4-Bromofluorobenzene (Surr)	99.1		% Recovery	EPA 8260B	1/10/2004
TPH as Diesel	< 1.0	1.0	mg/Kg	M EPA 8015	1/9/2004
1-Chlorooctadecane (Diesel Surrogate)	90.3		% Recovery	M EPA 8015	1/9/2004

Sample : **B3-15**

Matrix : Soil

Lab Number : 36579-11

Sample Date :1/6/2004

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/10/2004
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/10/2004
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/10/2004
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/10/2004
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/10/2004
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	1/10/2004
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	1/10/2004
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	1/10/2004
TPH as Diesel	< 1.0	1.0	mg/Kg	M EPA 8015	1/9/2004
1-Chlorooctadecane (Diesel Surrogate)	92.0		% Recovery	M EPA 8015	1/9/2004

Approved By: 

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800



Report Number : 36579

Date : 1/16/2004

Project Name : **ACFD Station #4**Project Number : **948207.01**Sample : **B-3**

Matrix : Water

Lab Number : 36579-12

Sample Date :1/6/2004

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	1/11/2004
Toluene	< 0.50	0.50	ug/L	EPA 8260B	1/11/2004
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	1/11/2004
Total Xylenes	0.56	0.50	ug/L	EPA 8260B	1/11/2004
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	1/11/2004
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	1/11/2004
Toluene - d8 (Surr)	95.2		% Recovery	EPA 8260B	1/11/2004
4-Bromofluorobenzene (Surr)	98.8		% Recovery	EPA 8260B	1/11/2004
TPH as Diesel	72	50	ug/L	M EPA 8015	1/8/2004
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	1/16/2004
Octacosane (Diesel Surrogate)	106		% Recovery	M EPA 8015	1/8/2004

Sample : **B4-10**

Matrix : Soil

Lab Number : 36579-14

Sample Date :1/6/2004

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/10/2004
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/10/2004
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/10/2004
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/10/2004
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/10/2004
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	1/10/2004
Toluene - d8 (Surr)	107		% Recovery	EPA 8260B	1/10/2004
4-Bromofluorobenzene (Surr)	99.3		% Recovery	EPA 8260B	1/10/2004
TPH as Diesel	< 1.0	1.0	mg/Kg	M EPA 8015	1/9/2004
1-Chlorooctadecane (Diesel Surrogate)	88.7		% Recovery	M EPA 8015	1/9/2004

Approved By: 

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800



Report Number : 36579

Date : 1/16/2004

Project Name : **ACFD Station #4**

Project Number : **948207.01**

Sample : **B4-16**

Matrix : Soil

Lab Number : 36579-15

Sample Date :1/6/2004

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/10/2004
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/10/2004
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/10/2004
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/10/2004
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/10/2004
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	1/10/2004
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	1/10/2004
4-Bromofluorobenzene (Surr)	98.4		% Recovery	EPA 8260B	1/10/2004
TPH as Diesel	< 1.0	1.0	mg/Kg	M EPA 8015	1/10/2004
1-Chlorooctadecane (Diesel Surrogate)	90.4		% Recovery	M EPA 8015	1/10/2004

Sample : **B-4**

Matrix : Water

Lab Number : 36579-16

Sample Date :1/6/2004

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	1/11/2004
Toluene	< 0.50	0.50	ug/L	EPA 8260B	1/11/2004
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	1/11/2004
Total Xylenes	0.51	0.50	ug/L	EPA 8260B	1/11/2004
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	1/11/2004
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	1/11/2004
Toluene - d8 (Surr)	96.0		% Recovery	EPA 8260B	1/11/2004
4-Bromofluorobenzene (Surr)	100		% Recovery	EPA 8260B	1/11/2004
TPH as Diesel	< 50	50	ug/L	M EPA 8015	1/10/2004
Octacosane (Diesel Surrogate)	76.5		% Recovery	M EPA 8015	1/10/2004

Approved By: 

Report Number : 36579

Date : 1/16/2004

QC Report : Method Blank Data

Project Name : **ACFD Station #4**

Project Number : **948207.01**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	< 1.0	1.0	mg/Kg	M EPA 8015	1/9/2004
1-Chlorooctadecane (Diesel Surrogate)	98.1		%	M EPA 8015	1/9/2004
TPH as Diesel	< 50	50	ug/L	M EPA 8015	1/8/2004
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	1/8/2004
Octacosane (Diesel Surrogate)	87.2		%	M EPA 8015	1/8/2004
TPH as Diesel	< 50	50	ug/L	M EPA 8015	1/10/2004
Octacosane (Diesel Surrogate)	76.5		%	M EPA 8015	1/10/2004
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/8/2004
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/8/2004
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/8/2004
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/8/2004
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	1/8/2004
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	1/8/2004
Toluene - d8 (Surr)	105		%	EPA 8260B	1/8/2004
4-Bromofluorobenzene (Surr)	101		%	EPA 8260B	1/8/2004
Benzene	< 0.50	0.50	ug/L	EPA 8260B	1/11/2004
Toluene	< 0.50	0.50	ug/L	EPA 8260B	1/11/2004
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	1/11/2004
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	1/11/2004
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	1/11/2004
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	1/11/2004
Toluene - d8 (Surr)	94.8		%	EPA 8260B	1/11/2004
4-Bromofluorobenzene (Surr)	100		%	EPA 8260B	1/11/2004

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	1/8/2004
Toluene	< 0.50	0.50	ug/L	EPA 8260B	1/8/2004
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	1/8/2004
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	1/8/2004
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	1/8/2004
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	1/8/2004
Toluene - d8 (Surr)	116		%	EPA 8260B	1/8/2004
4-Bromofluorobenzene (Surr)	92.5		%	EPA 8260B	1/8/2004

Approved By:  Jeff Dahl

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 36579

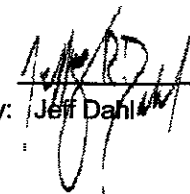
Date : 1/16/2004

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : **ACFD Station #4**

Project Number : **948207.01**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	36579-02	<0.0050	0.0400	0.0398	0.0373	0.0346	mg/Kg	EPA 8260B	1/9/04	93.2	86.8	7.12	70-130	25
Toluene	36579-02	<0.0050	0.0400	0.0398	0.0387	0.0362	mg/Kg	EPA 8260B	1/9/04	96.8	91.0	6.26	70-130	25
Tert-Butanol	36579-02	<0.0050	0.200	0.199	0.195	0.197	mg/Kg	EPA 8260B	1/9/04	97.6	98.7	1.17	70-130	25
Methyl-t-Butyl Ether	36579-02	<0.0050	0.0400	0.0398	0.0403	0.0354	mg/Kg	EPA 8260B	1/9/04	101	88.9	12.5	70-130	25
Benzene	36579-08	<0.50	39.6	40.0	37.1	37.2	ug/L	EPA 8260B	1/11/04	93.6	93.1	0.562	70-130	25
Toluene	36579-08	<0.50	39.6	40.0	35.9	35.9	ug/L	EPA 8260B	1/11/04	90.6	89.8	0.914	70-130	25
Tert-Butanol	36579-08	<5.0	198	200	175	186	ug/L	EPA 8260B	1/11/04	88.4	92.8	4.95	70-130	25
Methyl-t-Butyl Ether	36579-08	<0.50	39.6	40.0	38.2	38.7	ug/L	EPA 8260B	1/11/04	96.4	96.8	0.440	70-130	25
Benzene	36584-01	<0.50	40.0	40.0	37.8	38.3	ug/L	EPA 8260B	1/8/04	94.6	95.8	1.29	70-130	25
Toluene	36584-01	<0.50	40.0	40.0	38.1	38.2	ug/L	EPA 8260B	1/8/04	95.4	95.4	0.0262	70-130	25
Tert-Butanol	36584-01	<5.0	200	200	194	196	ug/L	EPA 8260B	1/8/04	97.0	97.8	0.852	70-130	25
Methyl-t-Butyl Ether	36584-01	1.5	40.0	40.0	40.2	39.9	ug/L	EPA 8260B	1/8/04	96.6	96.0	0.649	70-130	25
TPH as Diesel	36579-03	<1.0	20.0	20.0	21.5	20.9	mg/Kg	M EPA 8015	1/9/04	107	104	2.62	60-140	25
TPH as Diesel	Blank	<50	1000	1000	1120	1100	ug/L	M EPA 8015	1/8/04	112	110	2.58	70-130	25
TPH as Diesel	Blank	<50	1000	1000	918	918	ug/L	M EPA 8015	1/10/04	91.8	91.8	0.0408	70-130	25

Approved By:  Jeff Dahl

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

QC Report : Laboratory Control Sample (LCS)

Project Name : **ACFD Station #4**Project Number : **948207.01**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	0.0400	mg/Kg	EPA 8260B	1/8/04	85.4	70-130
Toluene	0.0400	mg/Kg	EPA 8260B	1/8/04	93.9	70-130
Tert-Butanol	0.200	mg/Kg	EPA 8260B	1/8/04	99.2	70-130
Methyl-t-Butyl Ether	0.0400	mg/Kg	EPA 8260B	1/8/04	99.2	70-130
Benzene	40.0	ug/L	EPA 8260B	1/11/04	92.7	70-130
Toluene	40.0	ug/L	EPA 8260B	1/11/04	88.7	70-130
Tert-Butanol	200	ug/L	EPA 8260B	1/11/04	95.0	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	1/11/04	96.8	70-130
Benzene	40.0	ug/L	EPA 8260B	1/8/04	95.4	70-130
Toluene	40.0	ug/L	EPA 8260B	1/8/04	99.8	70-130
Tert-Butanol	200	ug/L	EPA 8260B	1/8/04	96.1	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	1/8/04	97.6	70-130
TPH as Diesel	20.0	mg/Kg	M EPA 8015	1/9/04	109	70-130

KIFF ANALYTICAL, LLC

Approved By:  Jeff Dahn

Project Contact (Hardcopy or PDF To): Geoffrey D. Risse California EDF Report? Yes No

Company/Address: Gettier-Ryan Inc 3140 Gold Camp Dr. Ste 170 Rancho Cordova, CA 95670 Recommended but not mandatory to complete this section:
 Sampling Company Log Code: _____

Phone No.: (916) 631-1300 FAX No.: (916) 631-1317 Global ID: _____
 Project Number: 948207.01 P.O. No.: 948207.01 EDF Deliverable To (Email Address): _____

Project Name: ACFD Station #4 Sampler Signature: Geoffrey D. Risse

Project Address: 20336 San Miguel Ave Castro Valley, CA

Sample Designation	Sampling		Container		Preservative				Matrix		BTEX (8021B)	BTEX/TPH Gas/MTBE (8021B/M8015)	TPH as Diesel (M8015)	TPH as Motor Oil (M8015)	TPH Gas/BTEX/MTBE (8260B)	5 Oxygenates/TPH Gas/BTEX (8260B)	7 Oxygenates/TPH Gas/BTEX (8260B)	5 Oxygenates (8260B)	7 Oxygenates (8260B)	Lead Scav. (1,2 DCA & 1,2 EDB - 8260B)	EPA 8260B (Full List)	Volatile Halocarbons (EPA 8260B)	Lead (7421239.2) TOTAL (X) W.E.T. (X)	TAT	For Lab Use Only
	Date	Time	40 ml VOA	SLEEVE	HCl	HNO ₃	ICE	NONE	WATER	SOIL															
B1-5	1/6/04	910	1				X			X	X												X	01	
B1-10	1/6/04	915	1				X			X	X												X	02	
B1-16	1/6/04	927	1				X			X	X												X	03	
B-1	1/6/04	938	4		X		X		X	X	X												X	04	
B2-5	1/6/04	1005	1				X			X	X												X	05	
B2-10	1/6/04	1012	1				X			X	X												X	06	
B2-16	1/6/04	1017	1				X			X	X												X	07	
B-2	1/6/04	1029	4		X		X		X	X	X												X	08	
B3-5	1/6/04	1050	1				X			X	X												X	09	
B3-10	1/6/04	1055	1				X			X	X												X	10	

Relinquished by: <u>Geoffrey D. Risse</u>	Date: <u>1/7/04</u>	Time: <u>1044</u>	Received by: _____	Remarks:
Relinquished by: _____	Date: _____	Time: _____	Received by: _____	
Relinquished by: _____	Date: <u>010704</u>	Time: <u>0411</u>	Received by Laboratory: <u>KIFF ANALYTICAL</u> <u>NATHAN SPROSS</u>	

Project Contact (Hardcopy or PDF To):
Geoffrey V. Risse

Company/Address:
**Gettler-Ryan Inc 3140 Gold Camp Dr.
 ste 170 Rancho Cordova, CA 95670**

Phone No.: **(916) 631-1300** FAX No.: **(916) 631-1317**

Project Number: **948207.01** P.O. No.: **948207.01**


Project Name:
ACFD station #4

California EDF Report? Yes No

Recommended but not mandatory to complete this section:
 Sampling Company Log Code:


Global ID:

EDF Deliverable To (Email Address):

Sampler Signature:


Chain-of-Custody Record and Analysis Request

Sample Designation	Sampling		Container		Preservative				Matrix		Analysis Request										TAT	For Lab Use Only					
	Date	Time	40 ml VOA	SLEEVE	HCl	HNO ₃	ICE	NONE	WATER	SOIL	BTEX (8021B)	BTEX/TPH Gas/MTBE (8021B/M8015)	TPH as Diesel (M8015)	TPH as Motor Oil (M8015)	TPH Gas/BTEX/MTBE (8260B)	5 Oxygenates/TPH Gas/BTEX (8260B)	7 Oxygenates/TPH Gas/BTEX (8260B)	5 Oxygenates (8260B)	7 Oxygenates (8260B)	Lead Scav. (1,2 DCA & 1,2 EDB - 8260B)			EPA 8260B (Full List)	Volatile Halocarbons (EPA 8260B)	Lead (7421/238-2) TOTAL (X) W.E.T. (X)		
B3-15	1/6/04	1100	1							X	X	X														X	11
B-3	1/6/04	1113	4		X	X				X	X	X														X	12
B4-5	1/6/04	1133	1				X				X	X														X	13
B4-10	1/6/04	1141	1				X				X	X														X	14
B4-16	1/6/04	1149	1				X				X	X														X	15
B-4	1/6/04	1159	4		X	X				X	X	X														X	16

Relinquished by:  Date: **1/7/04** Time: **1041**

Received by: _____

Remarks:

Relinquished by: _____ Date: _____ Time: _____

Received by: _____

Relinquished by: _____ Date: **01/07/04** Time: **1041**

Received by Laboratory: **KIFF ANALYTICAL** to: **NATHAN SPROSS**