

ALAMEDA COUNTY
HEALTH CARE SERVICES



AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES

1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
(510) 337-9335 (FAX)

January 18, 1999
StID # 4477

REMEDIAL ACTION COMPLETION CERTIFICATION

Mr. Joseph Cotton c/o
City of Oakland
250 Frank H. Ogawa Plaza
Dalziel Bld., Suite 5301
Oakland CA 94612

RE: East Oakland Youth Development Center, 8200 E. 14th St.,
Oakland 94621

Dear Mr. Cotton:

This letter confirms the completion of site investigation and remedial action for the fifteen (15) underground tanks of unknown size and content at the above described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground tank is greatly appreciated.

Based upon the available information and with provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the underground tank releases is required.

This notice is issued pursuant to a regulation contained in Title 23, Division 3, Chapter 16, Section 2721 (e) of the California Code of Regulations.

Please contact Barney Chan at (510) 567-6765 if you have any questions regarding this matter.

Sincerely,

Mee Ling Tung
Director, Environmental Health

c: B. Chan, Hazardous Materials Division-files
Chuck Headlee, RWQCB
Mr. Dave Deaner, SWRCB Cleanup Fund
Mr. Leroy Griffin, City of Oakland OES, 505 14th St., Suite
702, Oakland CA 94612

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

November 3, 1998
StID # 4477

City of Oakland c/o
Mr. Joseph Cotton
250 Frank H. Ogawa Plaza
Dalziel Bld., Suite 5301
Oakland CA 94612

Re: Closure of Monitoring Wells at 8200 E. 14th St., CA 94621

Dear Mr. Cotton:

This letter is to inform you that in regards to the subsurface investigation of the petroleum release from the former underground storage tanks, our office has received Regional Water Quality Control Board concurrence for site closure of the above referenced site. Prior to issuing a closure letter, our office requires the proper closure of the existing four (4) monitoring wells at the above site.

Please contact Alameda County Public Works for the specific requirements for well closure. Their contact is Mr. Andreas Godfrey, who can be reached at (510) 670-5575.

Please contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files

wicE0YDC

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



98007
ENVIRONMENTAL
PROTECTION

January 19, 1999
StID# 4477

Mr. Joseph Cotton c/o
City of Oakland
250 Frank H. Ogawa Plaza
Dalziel Bld., Suite 5301
Oakland, CA 94612

CO JAN 22 PM 4:52
ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

**RE: Fuel Leak Site Case Closure, EOYDC, 8200 E. 14th St.,
Oakland, CA 94621**

Dear Mr. Cotton:

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with the Health and Safety Code, Chapter 6.75 (Article 4, Section 25299.37 h). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Alameda County Health Services, Local Oversight Program (LOP) is required to use this case closure letter. We are also enclosing the case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site.

Site Investigation and Cleanup Summary:

Please be advised that the following conditions exist at the site:

- 120 parts per billion (ppb) Total Petroleum Hydrocarbons as gasoline remain in groundwater at the site.
- 170 parts per million (ppm) Total Petroleum Hydrocarbons as gasoline, 1.4 ppm TPH as diesel, ND, 4.1, 1.3 and 3.1 ppm, BTEX, respectively remain in soil at the site.

This site should be included in the City's permit tracking system. Please contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

Mr. Joseph Cotton
8200 E. 14th St., Oakland CA 94621
StID # 4477
January 19, 1999
Page 2.

enclosures: Case Closure Letter, Case Closure Summary

c: Mr. L. Griffin, City of Oakland OES, 505 14th St., Suite
702, Oakland CA 94612
B. Chan, files (letter only)

TrLt8200E14

ICTH OK to close

CALIFORNIA REGIONAL WATER

09 14 1998

RB# 01-0538

QUALITY CONTROL
CASE CLOSURE SUMMARY

Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION

Date: September 4, 1998

Agency name: Alameda County-HazMat Address: 1131 Harbor Bay Parkway
Rm 250, Alameda CA 94502

City/State/Zip: Alameda Phone: (510) 567-6700

Responsible staff person: Barney Chan Title: Hazardous Materials Spec.

II. CASE INFORMATION

Site facility name: East Oakland Youth Development Center (EOYDC)

Site facility address: 8200 E. 14th St., Oakland CA 94621

RB LUSTIS Case No: N/A Local Case No./LOP Case No.: 4477

ULR filing date: 5/23/88 from Leak Book SWEEPS No: N/A

<u>Responsible Parties:</u>	<u>Addresses:</u>	<u>Phone Numbers:</u>
City of Oakland c/o Mr. Joseph Cotton	250 Frank H. Ogawa Plaza Dalziel Bld., Suite 5301 Oakland CA 94612	510-238-6259

<u>Tank No:</u>	<u>Size in gal.:</u>	<u>Contents:</u>	<u>Closed in-place or removed?:</u>	<u>Date:</u>
15 USTs,	unknown size	and contents	removed	approx 1976

III RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: unknown

Site characterization complete? Yes

Date approved by oversight agency:

Monitoring Wells installed? Yes Number: 4

Proper screened interval? Yes, approximately 7-18' bgs

Leaking Underground Fuel Storage Program

Highest GW depth: 6.87' bgs Lowest depth: 15.06' bgs

Flow direction: southwesterly

Most sensitive current use: commercial/industrial

Are drinking water wells affected? No Aquifer name: NA

Is surface water affected? No Nearest affected SW name: NA

Off-site beneficial use impacts (addresses/locations): NA

Report(s) on file? Yes Where is report(s)? Alameda County
 1131 Harbor Bay Parkway,
 Room 250, Alameda CA 94502-6577

Treatment and Disposal of Affected Material:

<u>Material</u>	<u>Amount (include units)</u>	<u>Action (Treatment of Disposal w/destination)</u>	<u>Date</u>
Tanks	15 USTs	disposed, unknown location ~ 1976	

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm)		Water (ppb)	
	Before	After	Before	After
TPH (Gas)	170	170	*ND	120
TPH (Diesel)	*1.4	*1.4	*65	
Oil and Grease	ND			
Volatile Organics (8240)	ND	(beyond BTEX)	*ND	
Benzene	ND	ND	*16	
Toluene	*4.1	*4.1	*17	ND
Ethylbenzene	1.3	1.3	*9.8	ND
Xylenes	3.1	3.1	*9.1	ND
MTBE				ND
Lead	6	6		
Semi-volatiles bis(2-ethylhexyl phthalate)			*88	

Comments (Depth of Remediation, etc.):

- 1 soil sample results from borings MW1-MW4
- no samples or report was issued regarding the removal of the 15 USTs
- * these results are soil and grab groundwater samples from the borings, GP-1 and GP-2 taken in June 1998.

Leaking Underground Fuel Storage Tank Program

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Undetermined

Does corrective action protect public health for current land use? YES

Site management requirements: site should be included in the City of Oakland Permit Tracking System. A site health and safety plan will be required for any subsurface work.

Should corrective action be reviewed if land use changes? Yes

Monitoring wells Decommissioned: No

Number Decommissioned: 0

Number Retained: 4

List enforcement actions taken: none

List enforcement actions rescinded: NA

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Barney M. Chan Title: Hazardous Materials Specialist

Signature: *Barney M Chan*

Date: 10/13/98

Reviewed by

Name: Tom Peacock

Title: Manager

Signature: *Tom Peacock*

Date: 10-13-98

Name: Eva Chu

Title: Hazardous Materials Specialist

Signature: *evachu*

Date: 10/7/98

VI. RWQCB NOTIFICATION

Date Submitted to RB:

RB Response: *C. Headlee*

RWQCB Staff Name: C. Headlee

Title: EG

Date: 10/16/98

Leaking Underground Fuel Storage Tank Program

VII. ADDITIONAL COMMENTS, DATA, ETC.

This site is irregularly shaped lot, located between 82nd and 83rd Ave. on East 14th St.. The area is comprised of both residential and commercial properties. See **Site Plan 1**. To the north of the site across 82nd Ave. is a Walgreen's store which was developed on another former UST site owned by the City of Oakland. To the east are residential homes and to the south and west are commercial and residential buildings.

The EOYDC consists of classrooms, offices and a gymnasium. It was constructed in early 1997. It occupies roughly 13,000 square feet. During the earthwork operations for the building, John Lowney & Associates observed the removal of 15 underground storage tanks. Apparently, no sampling was performed, nor was a tank closure report issued. Previous use of the site had apparently been as a gasoline station and a vehicle repair facility. The tanks are assumed to have been located beneath the current pad of the existing building. Since Lowney was performing field density tests for the construction of the building, it is assumed that the USTs were located within the cluster of field density readings, See **Site Plan 2**.

In 1988 Kaiser Engineers Inc. (KE) was contracted to construct underpinning repairs for the EOYDC gymnasium. During the advancement of borings, hydrocarbon contamination was encountered in the location of B-2. Subsequently, another boring, B-3, was advanced approximately 50' past B-2. This sample also encountered petroleum hydrocarbon.

On 7/20/88, the Mark Group installed four monitoring wells (MW-1 through MW-4) at this site. See **Figure 2**, boring logs for these wells and a cross-section diagram. TPHg up to 170 ppm, and BTEX up to ND, 0.7, 1.3, 3.1 ppm, respectively, were found in soil samples. Up to 1.7 mg/l TPHg and low levels of T,E and X were exhibited in the groundwater. See **Table 2** for soil samples from the monitoring well borings and **Table 1-1** for well construction details.

Groundwater monitoring continued from July 1988 to January 1991. During this time MWs 3 and 4 exhibited TPHg in the 1-2ppm range. Only MW-4 exhibited benzene at approximately 0.4 mg/l. At this time, the consultant had recommended no further action, however, the County did not respond to the request. See **Table 4-1** for a summary of these monitoring events.

In 1997, after a long absence of activity, the County met with the City of Oakland and their consultant to determine a method for closure. Because it appears that the former UST locations are beneath the existing building, no additional field data was considered possible. The residual petroleum

Leaking Underground Fuel Storage Tank Program

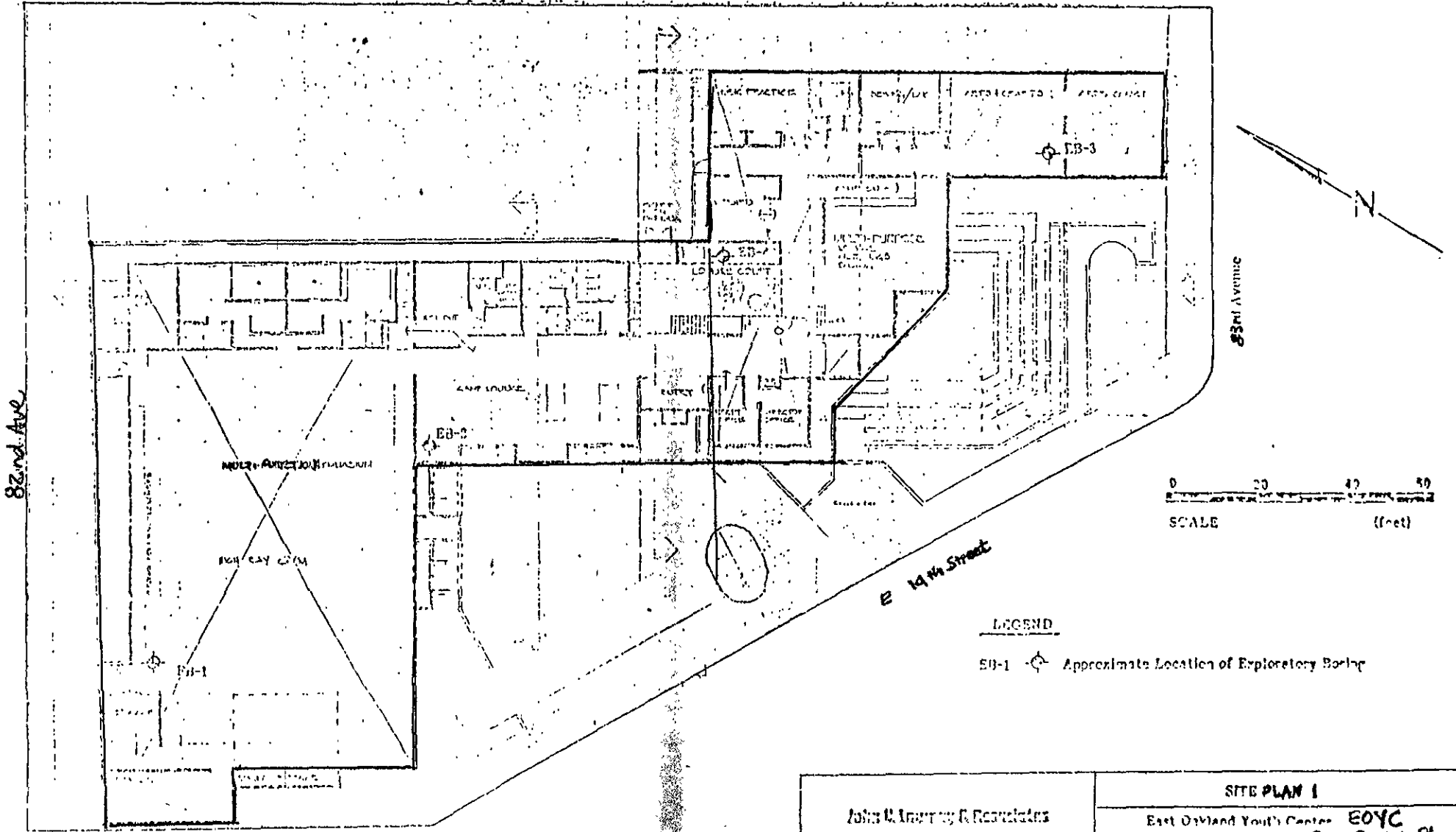
contamination did not exhibit any benzene in soil (albeit, the samples may not be within the former UST area). It was decided to redevelop the wells and continue monitoring. Groundwater monitoring was resumed and MTBE was added to the requested analytes. Two sampling events were performed in 1997. Low levels of TPHg (120ppb) and ND BTEX and MTBE concentrations were found. See **Table 3** for a summary of all monitoring events.

There still was concern over the uncertainty of the adequacy of the site characterization. SECOR performed a records search including reviewing aerial photographs and Sandborn Fire Insurance maps. These maps, dated from 1925-1969, showed three individual areas labeled "gas and oil" where it is assumed underground tanks were located. I have included the Sandborn maps from 1925 and 1950 which show the "gas and oil" locations. In addition, **Figure 1** shows an overlay of the current building footprint and the locations of the assumed USTs. As you can see, the northernmost USTs are adjacent to MW-4 and have been adequately monitored. To complete the site investigation, on **June 19, 1998**, two borings (GP-1 and GP-2) were advanced near the other two UST pits. Both shallow soil and grab groundwater samples were collected from the borings. These soil samples were analyzed for gasoline, diesel, oil and grease, BTEX, and volatile organics. The water samples were analyzed for the same analytes plus semi-volatiles in case former waste oil USTs once existed. See **Tables 4 and 5** for these results which indicate a slight impact to soil and groundwater.


The site is recommended for closure as a low risk soil and groundwater site based upon:

1. Removal of the underground tanks;
2. Adequate site characterization of all known areas of gasoline and oil storage;
3. Lack of risk to human health posed by residual TPHg, BTEX and MTBE. No human health risk would be expected from either soil or groundwater through volatilization to indoor air. In addition, shallow groundwater in this area of Oakland is not used for drinking.
4. Lack of risk to the environment. No surface water bodies exist near this site.
5. Residual soil and groundwater contamination of this type typically biodegrades over time.

Residential



LEGEND

EB-1  Approximate Location of Exploratory Boring

John W. Amery & Associates

SITE PLAN 1

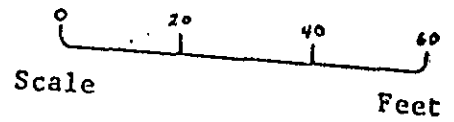
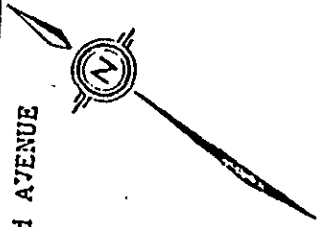
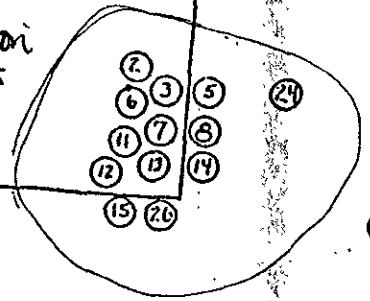
East Oakland Youth Center EOYC
Oakland, California 8200 E 14th St.

82nd AVENUE

83rd AVENUE

Assumed location of former USTs

① Building Pad



EAST 14th STREET

LEGEND

③ — Approximate Location of Field Density Test

John U. Lowrey & Associates

Foundation / Soil / Geological Engineers

SITE PLAN 1

EAST OAKLAND YOUTH CENTER
OAKLAND, CALIFORNIA

PROJECT NO.

82ND AVENUE

MW-3
(19.69)

SIDEWALK

LANDSCAPING

B-2

EB-1

MW-4
(18.75)

LANDSCAPING

B-3

GRADIENT 0.0069

EAST OAKLAND
YOUTH DEVELOPMENT CENTER

SIDEWALK
EAST 14TH STREET

MW-2
(18.54)

B-1

EB-2

MW-1
(19.59)

19.0

LEGEND:

⊕ MW-1 GROUNDWATER MONITORING WELL

● B-1 MARK GROUP BORING LOCATION (3/7/95 AND 4/4/96)

⊕ EB-1 LOWDRY & ASSOCIATES BORING LOCATION (4/19/76)

⊠ APPROXIMATE PIER LOCATION

▨ BUILDING LINE

19.0 GROUNDWATER ELEVATION CONTOUR (FEET ABOVE MEAN SEA LEVEL)

(19.59) GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)

← GRADIENT 0.0069 APPROXIMATE GROUNDWATER FLOW DIRECTION

0 30 60
APPROXIMATE SCALE FEET



SECOR
INTERNATIONAL
INCORPORATED

DRAWN	CCR
APPR	JN/RR
DATE	19SEP97
JOB NO.	70100-015-01

FIGURE 2
CITY OF OAKLAND
EAST OAKLAND YOUTH DEVELOPMENT CENTER
8200 EAST 14TH STREET
OAKLAND, CALIFORNIA
**GROUNDWATER ELEVATION CONTOUR
MAP - SEPTEMBER 4, 1997**

199709.180339 X11J08S1CITYOAK18200EIPOTEN02

LOG OF BORING No. MW-1

DATE DRILLED: 7/20/88 EQUIPMENT: B-56
 DESCRIPTION: HSA ELEVATION: 25.2'

TESTS

DRILLING CONTRACTOR Exploration Geoservices
 DRILLER Dave Yeager

BY M.L.B. DATE 8/11/88 CHK'D BY CRN

SAMPLE NO SAMPLE TYPE	BLOWS PER 6 INCHES	SPT N	INCHES DRIVEN INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG
T	9-6-5	11	18/1				
	6-8-12	20	18/12				
	5-6-9	17	18/12		5		
	6-12-18-30	24	18/18				
1 D	8-16-31	47	18/18				
2 D	7-15-22	37	18/16		10		
3 D	2-19-27	46	18/18				
4 D	2-21-27	48	18/18				
5 D	2-18-23	41	18/18		15		
6 D	6-12-15	37	18/18				
7 D	6-9-17	16	18/18				
T	7-7-11	18	18/18				
	7-9-17	26	18/18		20		
	6-12-16	28	18/12				
	35-34	4/6	12/12		25		

2" Asphalt
 10" of 1" sub-base
 Sandy SILT (ML) - Medium dense, moist, dusky yellowish brown (10YR2/2), no plasticity, fine sand
 Silty CLAY (CL) - Stiff, moist, dusky yellowish brown (10YR2/2), medium plastic, trace roots, slight rusty mottling
 CLAY (CL) - Stiff, moist, dark yellowish brown (10YR4/2), moderate plasticity, slight gray mottling, no odor
 Sandy CLAY (CL) - Stiff, moist, moderate yellowish brown (10YR5/4), low plasticity, trace roots, sand very fine to fine, gray mottling
 ▽ Water at 16.2'
 Same with minor gravels (approximately 5%), rounded 2-4 mm diameter, wet
 Grades to clayey SAND (SC) - Medium stiff, wet, moderate yellowish brown (10YR5/4). Low plasticity, very fine to fine, pockets gravelly (approximately 5-10%), no odor
 GRAVEL (GP) - In clayey sand matrix, medium dense, wet, gravel multicolored, poorly sorted, angular, multicolored, mostly cherts, fine to dense, matrix - very fine to fine sands, moderate yellowish brown (10YR5/4), low plasticity

8020
 8015
 7420

TD boring @ 23.5 ft.
 Monitoring well completed to TD per construction log.

11.5-21.5

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF ACTUAL CONDITIONS ENCOUNTERED.

LOG OF BORING No. MW-2

DATE DRILLED: 7/20/88

EQUIPMENT: B-56

DESCRIPTION: 8" KSA

ELEVATION: 23.7'

DRILLING CONTRACTOR
 Exploration Geoservices
 DRILLER
 Dave Yeager

BY
 M.B.
 DATE 8/11/88
 CHK'D BY
 CRN

SAMPLE NO	BLOWS PER 6 INCHES	SPT N	INCHES DRIVEN	INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG
T	2-3-3	6	18/10					
	6-9-12	21	18/13					
	6-9-12	21	18/					
	8-11-16	27	18/18			5		
	7-12-14	26	18/12					
	9-9-12	21	18/18					
1 D	8-3-9	32	18/18			10		
2 D	7-13-27	40	18/14					
3 D	18-22-24	46	18/18					
4 D	12-14-17	31	18/18			15		
5 D	19-12-18	30	18/18					
T	7-10-12	22	18/18					
						20		

Clayey SILT (ML) - medium stiff, dry, mottled blacks and browns, very low plasticity

CLAY (CH) - medium stiff, moist, dusky yellowish brown (10YR2/2), high plasticity, trace roots, no odor

Silty CLAY (CH) - moderate olive brown (5Y4/4), very stiff, moist, high plasticity

Same with trace angular gravel and rounded black nodules (approximately 1 mm)

Rust stains

Sandy CLAY (CL) - very stiff, moist, dark yellowish brown (10YR4/2), low plasticity, sand very fine to fine, minor gravels (angular) approximately 5%

Same - gravel approximately 30%, rust stains

Sandy GRAVEL (GP) - medium dense, wet, moderate yellowish brown (10YR5/4), angular, poorly sorted, trace clay

Clayey SILT (ML) - very stiff, wet, moderate yellowish brown (10YR5/4), low plasticity, very fine sand 10 - 20%

TESTS
 OVM= 20
 (back-ground)
 OVM= 6.9
 B.G. 8020
 8015
 7420
 OVM 4.4= B.G.

TD boring @ 18 ft.

Monitoring well completed to 18' per construction log.
 No OVM readings above background.
 No HC odors detected.

8-18

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF ACTUAL CONDITIONS ENCOUNTERED.

PROJECT NO
88-01142.38

LOG OF BORING No. MW-4

DATE DRILLED: 7/21/88 EQUIPMENT: B-56
 DESCRIPTION: 8" HSA ELEVATION: 22.1'

DRILLING CONTRACTOR Exploration Geoservices
 DRILLER Dave Yaeger

BY M.L.B. DATE 8/11/88 CHK'D BY CRN

SAMPLE NO	SAMPLE TYPE	BLOWS PER 6 INCHES	SPT.N	INCHES DRIVEN	INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG	TESTS
T	4-6	6/6		12/3					6" concrete	OVM
	6-13-20	23		18/12					6" sub base	
	8-12-16	28		18/14					Silty CLAY (CH) - medium stiff, dry, black (M1), high plasticity, no odor	0.0
	7-14-21	35		18/18			5		Silty CLAY (CL) - very stiff to stiff, moist, moderate olive brown (5Y4/4), low plasticity, no odor	0.0
	5-8-10	48		18/18					Silty CLAY (CL) - very stiff, moist, moderate yellowish brown (10YR4/2) and dark gray mottled, low plasticity, very slight HC odor	0.06
1	D 15-25-33	58		18/18					Same - dark yellowish brown (10YR4/2)	1.3
2	D 17-23-33	56		18/18			10		Clayey SAND (SC) - stiff, moist, dark greenish gray (5G4/1), low plasticity, sand very fine to fine, gravel approximately 10%, angular, 2-15 mm, HC odor	37.7 8020 8015 7420
3	D 32-37-35	72		18/18					GRAVEL (GP) - dense, moist, dark greenish gray (5G4/1), coarse, angular	6.7
4	D 18-26-33	59		18/8					Silty SAND (SP) - dense, wet, dark greenish gray, fine to medium, poorly sorted	2.7
	T 2-4-7	11		18/18					GRAVEL in clayey sand matrix (GP) - wet, medium dense, dark greenish gray (5G4/1), coarse, angular, HC odor	8020 8015 7420
	3-7-10	17		18/18			15		Clayey SAND & SILT (SC-ML) - stiff, wet, dark greenish gray (5GY4/1), low plasticity, sand very fine	0.0
	6-8-13	21		18/18					Silty CLAY (CL) - stiff, wet, dark greenish gray (5GY4/1), moderate plasticity	0.0
	19-27	27/6"		12/12			20		Clayey SAND (SC) - 3"	0.0
									Silty SAND (SM) - dense, wet, moderate yellowish brown (10YR5/4), fine to coarse, angular, poorly sorted.	
									TD boring @ 19 ft.	

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF ACTUAL CONDITIONS ENCOUNTERED.



Kaiser Engineers
 East Oakland Youth Development Center
 Oakland, California

9-18

PROJECT NO
 88-01142.38

DRAWING NO
 9

EAST OAKLAND YOUTH CENTER SOIL CROSS SECTION

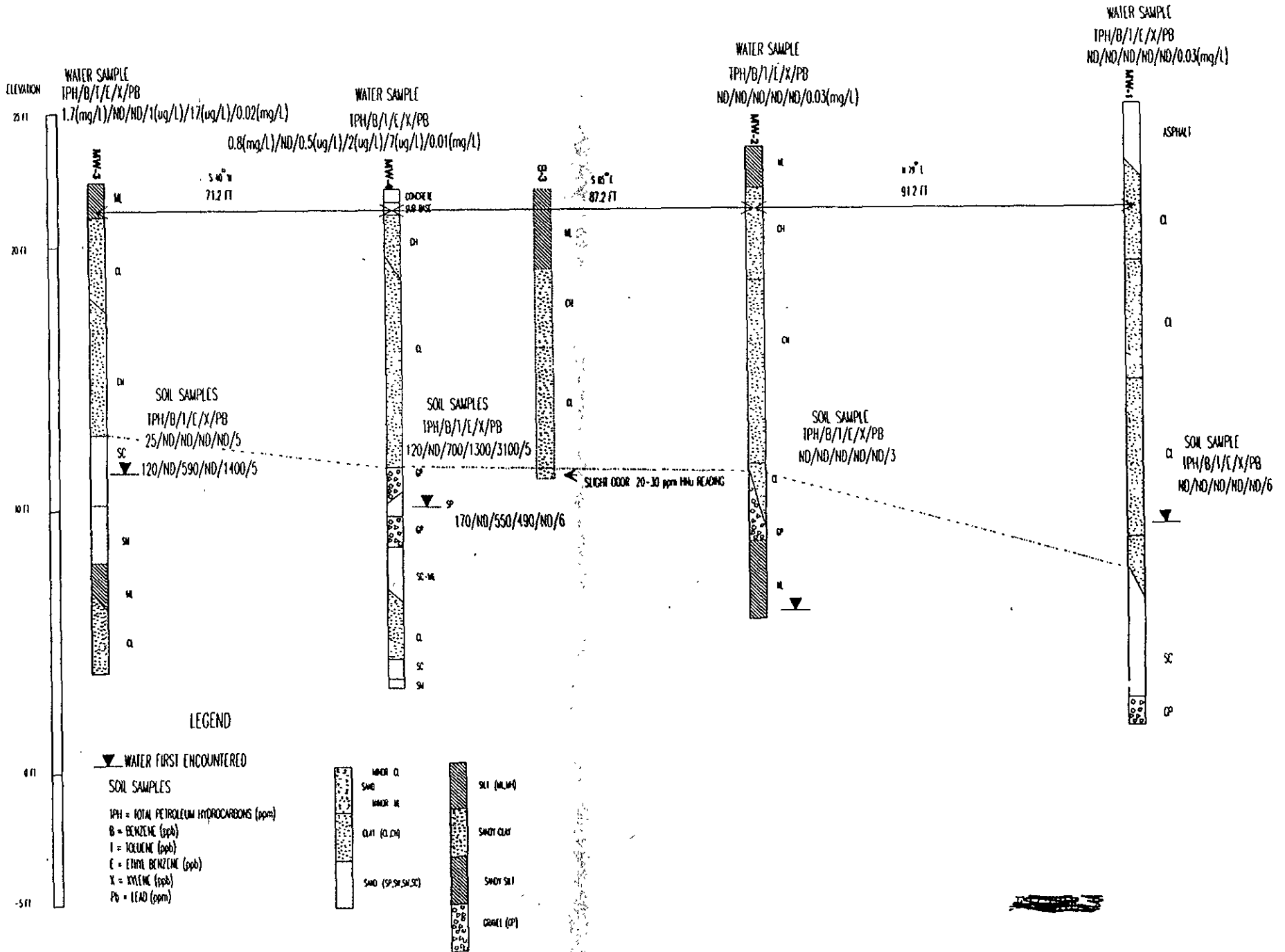


TABLE 2
ANALYTICAL RESULTS FOR SOIL SAMPLES

Sample Identification Client	Lab No.	Benzene (ug/kg)	Toluene (ug/kg)	Ethylbenzene (ug/kg)	Total Xylenes (ug/kg)	Total Petroleum Hydrocarbons As Gasoline (mg/kg)	Lead (mg/kg)
MW-3 1D, 10-10.5'	01A	ND(200)	ND(200)	ND(200)	ND(600)	25	5
MW-3 2D, 11-11.5'	02A	ND(400)	590	ND(400)	1,400	120	5
MW-4 2D, 10-10.5'	03A	ND(400)	700	1,300	3,100	120	5
MW-4 4D, 13-13.5'	04A	ND(400)	550	490	ND(1200)	170	6
MW-1 5D, 14.5-15'	05A	ND	ND	ND	ND	ND	6
MW-2 2D, 11.5-12'	06A	ND	ND	ND	ND	ND	3

Detection Limit *

1

1

1

3

0.1

1

* Unless otherwise indicated in parentheses

ND = Not Detected

Monitoring well construction details are contained in Table 1-1. The wells are located as shown on Drawing 1-2.

TABLE 1-1: Monitoring Well Construction Details

<u>Location</u>	<u>TOPC⁽¹⁾ Elevation (feet MSL)</u>	<u>Casing Diameter (inches)</u>	<u>Total Depth (feet below grade)</u>	<u>Screened Interval (feet below grade)</u>	<u>Date Installed</u>
MW-1	31.26 ⁽²⁾	2	23.5	11.5-21.5	7-20-88
MW-2	31.04 ⁽³⁾	2	18.0	8.0-18.0	7-20-88
MW-3	30.11 ⁽³⁾	2	18.5	8.5-18.5	7-21-88
MW-4	27.96 ⁽²⁾	2	19.0	7.0-17.0	7-21-88

- (1) Top of Protective Casing
(2) Christy Box
(3) Steel Casing

TABLE 4-1: Groundwater Quality Analyses

Sample ID	Date	Concentrations (mg/l)						Comment
		Benzene	Toluene	Xylene	Ethyl Benzene	TPH	Lead	
MW-1	July 1988	<0.0005	<0.0005	<0.002	<0.0005	<0.1	0.03	
MW-1	August 1989	<0.0005	<0.0005	<0.002	<0.0005	<0.1	0.02	
MW-1	December 1989	<0.0005	<0.0005	<0.002	<0.0005	<0.1	<0.01	
MW-1	March 1990	<0.0005	<0.0005	<0.002	<0.0005	<0.1	<0.01	
MW-1	June 1990	<0.0003	<0.0003	<0.001	<0.0003	<0.05	<0.05	
MW-1	October 1990	<0.0003	<0.0003	<0.001	<0.0003	<0.05	<0.03	
MW-1	January 1991	<0.0003	<0.0003	<0.001	<0.0003	<0.05	0.03	
MW-2	July 1988	<0.0005	<0.0005	<0.002	<0.0005	<0.1	0.03	
MW-2	August 1989	<0.0005	<0.0005	<0.002	<0.0005	<0.1	0.01	
MW-2	December 1989	<0.0005	<0.0005	<0.002	<0.0005	<0.1	<0.01	
MW-2	March 1990	<0.0005	<0.0005	<0.002	<0.0005	<0.1	<0.01	
MW-2	June 1990	<0.0003	<0.0003	<0.001	<0.0003	<0.05	<0.05	
MW-2	October 1990	<0.0003	<0.0003	<0.001	<0.0003	0.3	0.04	
MW-2	January 1991	0.0002	<0.0003	<0.001	<0.0003	0.3	0.03	
MW-3	July 1988	<0.002	<0.005	0.017	0.001	1.7	0.02	(1)
MW-3*	July 1988	<0.003	<0.005	0.015	0.001	1.3	<0.01	(1)
MW-3	August 1989	0.007	0.001	0.004	0.012	1.2	0.03	
MW-3	December 1989	<0.0005	0.006	0.004	0.020	2.4	<0.01	
MW-3	March 1990	<0.0005	<0.0005	0.004	0.033	3.2	<0.01	
MW-3	June 1990	<0.0003	<0.0003	0.0003	0.026	2.7	<0.05	
MW-3*	June 1990	<0.0003	<0.0003	0.003	0.027	1.6	<0.05	
MW-3	October 1990	<0.0003	<0.0003	<0.001	0.004	0.4	<0.03	
MW-3*	October 1990	0.001	<0.0003	<0.001	0.003	0.3	<0.03	
MW-3	January 1991	0.007	<0.0003	0.020	0.012	1.5	<0.03	

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TABLE 4-1: Groundwater Quality Analyses (continued)

Sample ID	Date	Concentrations (mg/l)						Comment
		Benzene	Toluene	Xylene	Ethyl Benzene	TPH	Lead	
MW-4	July 1988	<0.001	0.005	0.007	0.002	1.8	0.01	(1)
MW-4	August 1989	0.055	0.005	0.012	0.008	0.7	<0.01	
MW-4*	August 1989	0.053	0.005	0.010	0.007	0.6	<0.01	
MW-4	December 1989	0.010	<0.0005	<0.002	<0.0005	0.2	<0.01	
MW-4*	December 1989	0.013	<0.0005	<0.002	0.0008	0.2	<0.01	
MW-4	March 1990	0.016	0.002	0.009	0.005	3.6	<0.01	
MW-4*	March 1990	0.021	0.001	0.007	0.006	1.5	0.01	
MW-4	June 1990	0.025	0.001	0.005	0.008	1.1	<0.05	
MW-4	October 1990	0.044	<0.0003	0.001	0.008	0.8	<0.03	
MW-4	January 1991	0.360	0.018	0.015	0.083	1.2	<0.03	
MW-4*	January 1991	0.370	0.018	0.016	0.086	1.3	<0.03	
MW-4	January 1991	0.480	0.027	0.020	0.100	2.0	-	
MW-4	March 1991	0.380	0.020	0.020	0.110	2.0	-	

EXPLANATION

- mg/l: Milligrams per liter
- TPH: Total extractable petroleum hydrocarbons
- (1): Reporting limit for benzene raised due to matrix interference
- *: Duplicate sample of preceding sample using pseudonym MW-5 for laboratory report

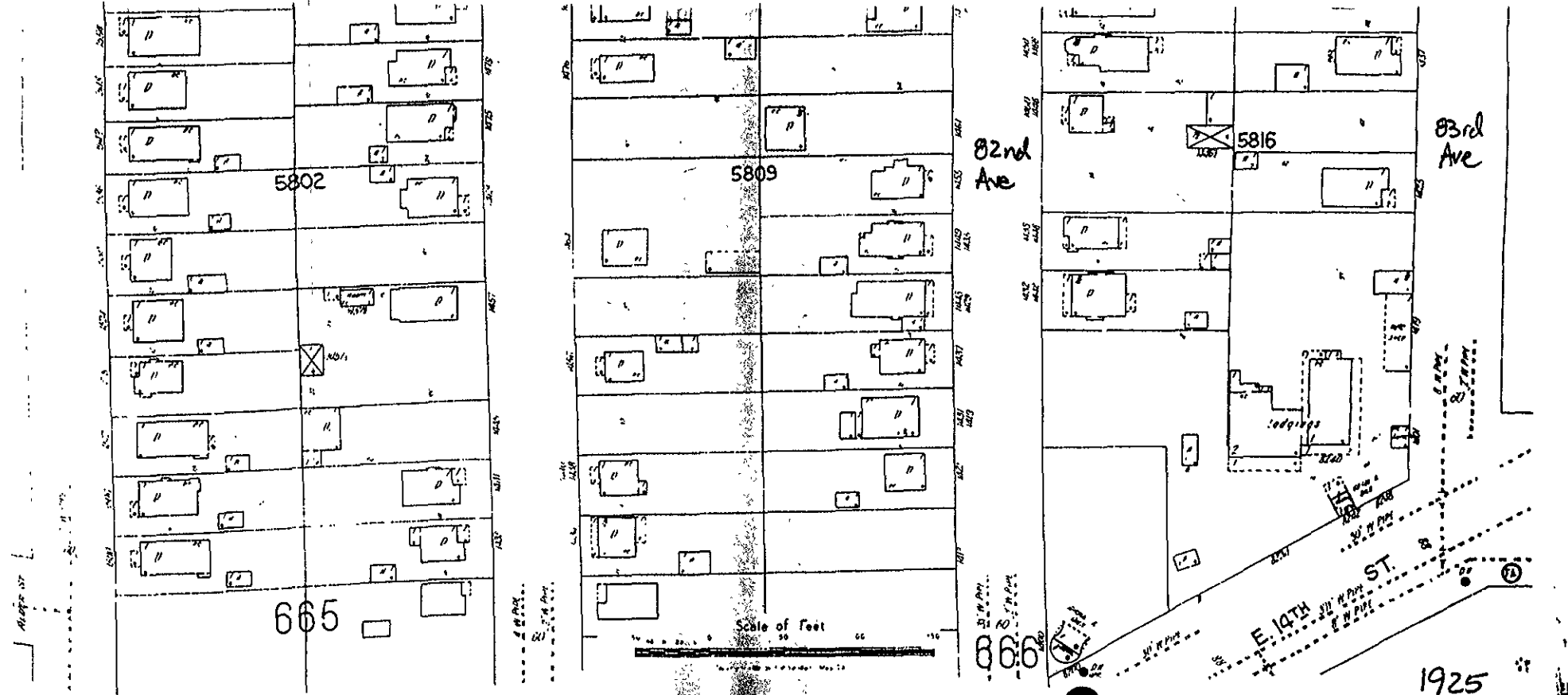
Table 13
 Summary of Groundwater Analytical Results
 East Oakland Youth Development Center
 8200 East 14th Street
 Oakland, California

Well No.	Sampling Date	TPHg (ug/l)	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Lead (ug/l)	MTBE (ug/l)	
MW-1	07-88	<100	<0.50	<0.50	<0.50	<2	30		
	08-89	<100	<0.50	<0.50	<0.50	<2	20		
	12-89	<100	<0.50	<0.50	<0.50	<2	<10		
	03-90	<100	<0.50	<0.50	<0.50	<2	<10		
	06-90	<50	<0.30	<0.30	<0.30	<1	<50		
	10-90	<50	<0.30	<0.30	<0.30	<1	<30		
	01-91	<50	<0.30	<0.30	<0.30	<1	30		
	03-97	<50	<0.50	<0.50	<0.50	<0.50	<50 **	<5.0	
	09-97	<50	<0.50	<0.50	<0.50	<0.50			
MW-2	07-88	<100	<0.50	<0.50	<0.50	<2	30		
	08-89	<100	<0.50	<0.50	<0.50	<2	10		
	12-89	<100	<0.50	<0.50	<0.50	<2	<10		
	03-90	<100	<0.50	<0.50	<0.50	<2	<10		
	06-90	<50	<0.30	<0.30	<0.30	<1	<50		
	10-90	<300	<0.30	<0.30	<0.30	<1	40		
	01-91	<300	0.20	<0.30	<0.30	<1	30		
	03-97	95	<0.50	<0.50	<0.50	<0.50	50 **	<5.0	
	09-97	<50	<0.50	<0.50	<0.50	<0.50			
MW-3	07-88	1700	<2	<5	1	17	20		
	07-88*	1300	<3	<5	1	15	<10		
	08-89	1200	7	1	12	4	30		
	12-89	2400	<0.50	6	20	4	<10		
	03-90	3200	<0.50	<0.50	33	4	<10		
	06-90	2700	<0.30	<0.30	26	0.30	<50		
	06-90*	1600	<0.30	<0.30	27	3	<50		
	10-90	400	<0.30	<0.30	4	<1	<30		
	10-90*	300	1	<0.30	3	<1	<30		
	01-91	1500	7	<0.30	12	20	<30		
	01-97	<50	<0.50	<0.50	<0.50	<0.50			
	09-97	<50	<0.50	<0.50	<0.50	<0.50			
	MW-4	07-88	1800	<1	5	2	7	10	<5.0
		08-89	700	55	5	8	12	<10	
08-89*		600	53	5	7	10	<10		
12-89		200	10	<0.50	<0.50	<0.20	<10		
12-89*		200	13	<0.50	0.80	<0.20	<10		
03-90		3600	16	2	5	9	<10		
03-90*		1500	21	1	6	7	10		
06-90		1100	25	1	8	5	<50		
10-90		800	44	<0.30	8	1	<30		
01-91		1200	360	18	83	15	<30		
01-91		1300	370	18	86	16	<30		
01-91*		2000	480	27	100	20			
03-91		2000	380	20	110	20			
03-97		<50	<0.50	<0.50	<0.50	<0.50	<50 **	<5.0	
09-97	120	<0.50	<0.50	<0.50	<0.50				

Notes:

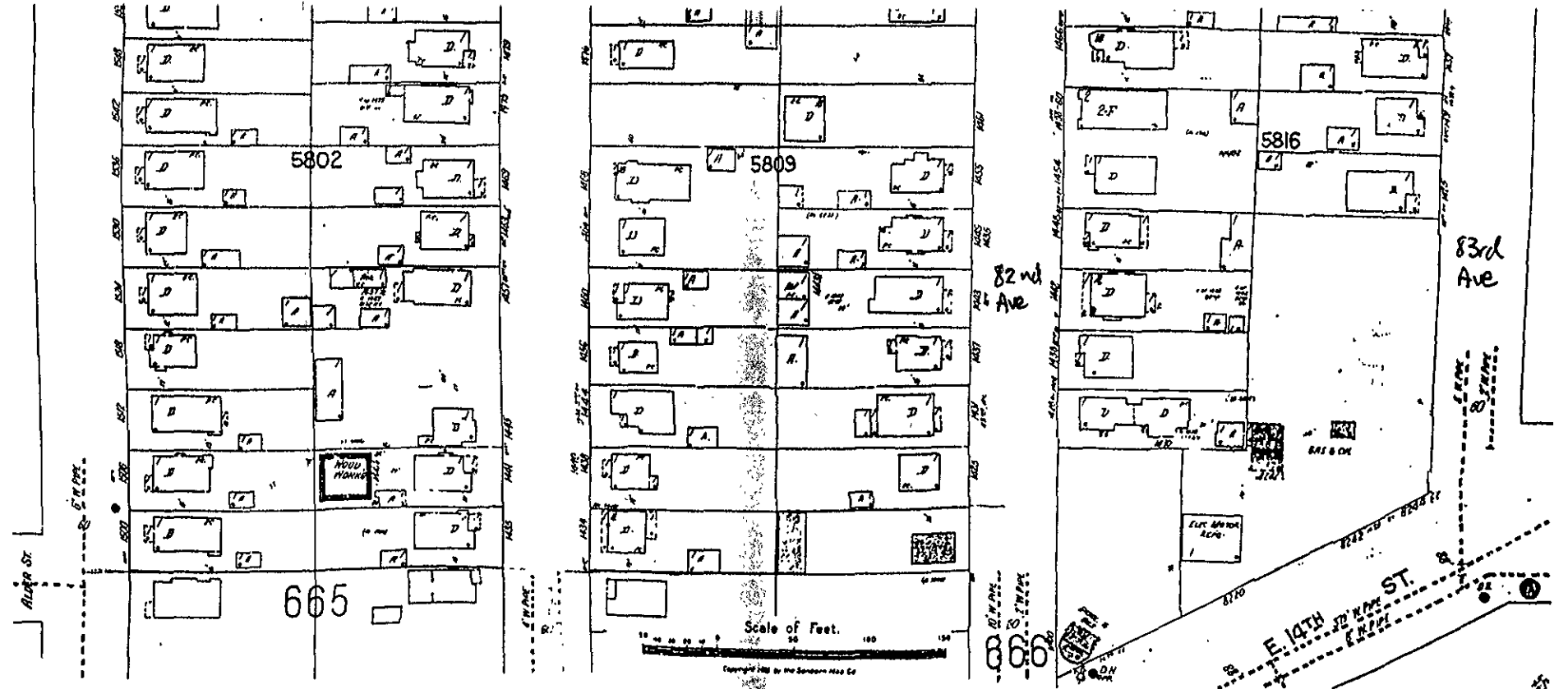
- <50 Indicates analyte not detected at or above the laboratory Method Reporting Limit.
- Indicates analysis not performed on this sample.
- * Duplicate sample of preceding sample using pseudonym MW-5 for laboratory report.
- ** Result for tetra-ethyl lead.

TPHg = total petroleum hydrocarbons as gasoline
 MTBE = methyl tertiary butyl ether
 ug/l = micrograms per liter

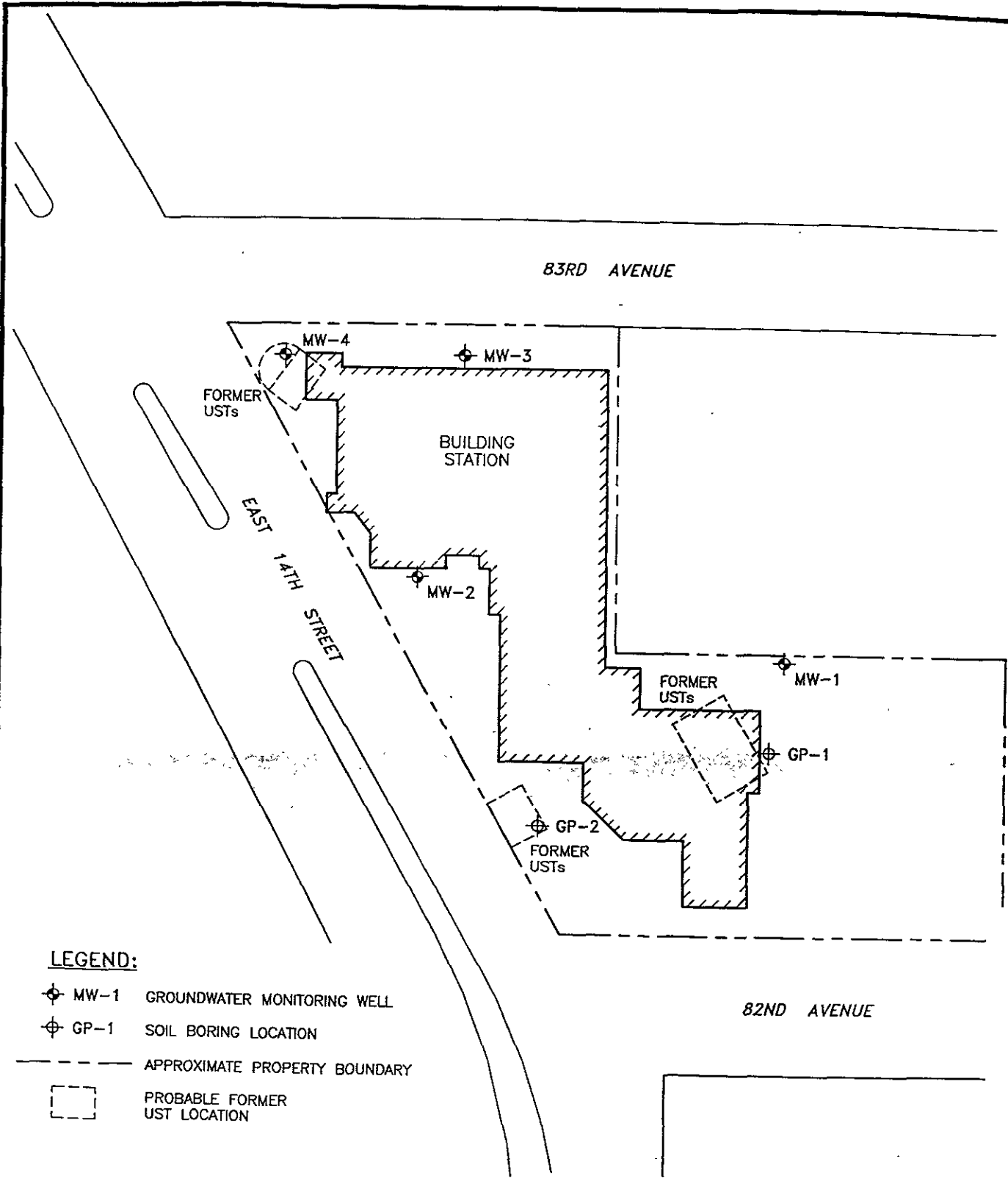


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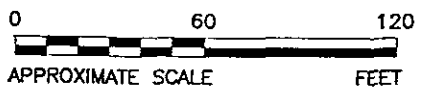
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LEGEND:

- ⊕ MW-1 GROUNDWATER MONITORING WELL
- ⊕ GP-1 SOIL BORING LOCATION
- - - - - APPROXIMATE PROPERTY BOUNDARY
- PROBABLE FORMER UST LOCATION

REFERENCE: THIS FIGURE IS BASED ON A "SITE PLAN" PROVIDED BY SANBORN FIRE INSURANCE MAPS, AND IS INTENDED FOR ILLUSTRATION ONLY.



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DRAWN	CCR
APPR	JN/RR
DATE	22JUN98
JOB NO.	70100 015 01

FIGURE 1
CITY OF OAKLAND
EAST OAKLAND YOUTH DEVELOPMENT CENTER
8200 EAST 14TH STREET
OAKLAND, CALIFORNIA
SITE PLAN

TABLE 4

**Summary of Soil Sample Analytical Results
June 19, 1998**

East Oakland Youth Development Center
8200 East 14th Street
Oakland, California

Sample Name	Sample Depth (feet bgs)	Total Petroleum Hydrocarbons - as -		Total Oil and Grease (mg/kg)	BTEX by EPA 8020* (mg/kg)	BTEX by EPA 8240 (mg/kg)	VOC's by EPA 8240** (mg/kg)
		Gasoline (mg/kg)	Diesel (mg/kg)				
GP-1, 8'	8	<1.0	1.4	<50	<0.005	<0.005	<0.005
GP-1, 15'	15	<1.0	<1.0	<50	<0.005	<0.005	<0.005
GP-2, 10'	10	<1.0	5.9	<50	<0.005	<0.005	<0.005
GP-2, 13'	13	<1.0	<1.0	<50	T = 4.1, X = 2.0	<0.005	<0.005
GP-2, 16.5	16.5	<1.0	6.4	<50	B = 0.035, T = 0.046, E = 0.048, X = 0.095	<0.005	<0.005

Notes:

feet bgs = feet below ground surface.

mg/kg = milligrams per kilogram

BTEX = Benzene, Toluene, Ethylbenzene, Total Xylenes

VOC's = Volatile Organic Compounds

* = Although no BTEX compounds were detected in the GC/MS (EPA Method 8240) analysis, several compounds were detected in the GC only (EPA Method 8020) analysis. For a detailed discussion of the result, please refer to the text of this report.

** = Only detected compounds are specified in this summary table. For a complete list of analytes refer to the laboratory report.

TABLE 15

**Summary of Groundwater Grab Sample Analytical Results
June 19, 1998**

East Oakland Youth Development Center
8200 East 14th Street
Oakland, California

Sample Name	Total Petroleum Hydrocarbons - as -		Benzene (ug/l)	Toluene (ug/l)	Ethyl-benzene (ug/l)	Total Xylenes (ug/l)	bis(2-ethylhexyl) Phthalate* (ug/l)	Other VOC's by EPA 8240* (ug/l)	VOC's by EPA 8270* (ug/l)
	Gasoline (ug/l)	Diesel (ug/l)							
GP-1	<50	65	<0.5	<0.5	<0.5	<0.5	88	ND	ND
GP-2	<50	<50	16	17	9.8	9.1	<5	ND	ND

Notes:

ug/l = micrograms per liter

* = Only detected VOC compounds are specified in this summary table. For a complete list of VOC analytes refer to the laboratory report.