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ENVIRONMENTAL
PROTECTION

00 JUL 19 AM 9:41

July 5, 2000

BSK Job No. 07400249

Ms. Deborah David
c/o Lebovits and David
1880 Century Park East, Suite 900
Los Angeles, California 90067

Subject: Report
Groundwater Sampling and Analysis
106-110 Hegenberger Road
Oakland, California
STID No. 4240

Dear Ms. David:

In response to your request and the letter sent to you from Barney Chan of Alameda County Department of Environmental Health (ACDEH), BSK & Associates is pleased to present this Report for the well sampling and analysis of groundwater located at 106-110 Hegenberger Road in Oakland, California. The work was performed in accordance with BSK Proposal 07400249, dated May 24, 2000. The site and well locations are shown on Figure 1, Vicinity Map and Figure 2, Site Plan, respectively.

Field Work

Groundwater sampling of the three wells was performed on June 13, 2000. Prior to sampling, the wells were purged of at least four well volumes with a disposable Teflon bailer. Water temperature, pH and conductivity were measured after removal of each well volume. The purge water was placed in a 55 gallon drum which was stored at the site subsequent to sampling.

Prior to purging, the depth to water in each well was measured using a Solinst electric sounding tape. Each well was subsequently examined for floating and sinking immiscible product layers and for sheen and odor, using a Teflon bailer. The Well Field Logs are presented on Figures 4 through 6.

The samples were obtained using a disposable Teflon bailer. The samples were labeled, refrigerated and packaged for shipping to our State-certified analytical laboratory for chemical analysis.

Equipment used during purging and sampling activities were cleaned by non-phosphate detergent wash, and rinsed prior to usage at each well location.

Chemical Analysis

As requested by Barney Chan of ACDEH samples from each well were analyzed for methyl tert butyl ether (MTBE) using EPA method 8020. The laboratory data sheets and chain-of-custody documentation are presented in Appendix A.

Chemical Test Results

A summary of the results of the analyses of the groundwater samples is presented in Table 1 below.

TABLE 1 SUMMARY OF CHEMICAL TEST RESULTS All units in ug/l (ppb), unless otherwise indicated	
WELL DESIGNATION	MTBE
Detection Limit	5
MW-1	ND
MW-2	ND
MW-3	ND

ND = None Detected

Findings

As indicated in Table 1 above, MTBE was not present at detectable concentrations in the groundwater samples during this monitoring event.

Groundwater depths were measured in each well prior to sampling. Depths were measured relative to the top of each well casing. Groundwater depths in each well were subtracted from the elevation of that wellhead to establish a groundwater elevation.

On the basis of groundwater measurements on June 13, 2000, groundwater appears to flow to the southwest with a surface gradient of 0.005 ft/ft. Figure 3 presents a groundwater contour map for the monitoring event.

Report Distribution

Copies of this report should be submitted to Barney Chan of ACDEH. An extra copy of this report has been provided for submittal to ACDEH.

Limitations

The findings and conclusions presented in this report are based on field review and observations, and from the limited testing program described herein. This report has been prepared in accordance with generally accepted methodologies and standards of practice in the area. No other warranties, expressed or implied, are made as to the findings included in the report.

The findings of this report are valid as of the present. The passage of time, natural processes or human intervention on the property or adjacent property can cause changed conditions which can invalidate the findings presented in this report.

BSK & Associates is pleased to have been of service to you on this project. If you have questions concerning the contents of this report, please do not hesitate to contact us.

Respectfully submitted,
BSK & Associates



Martin B. Cline, C.E.G.
Project Geologist
C.E.G. #2084

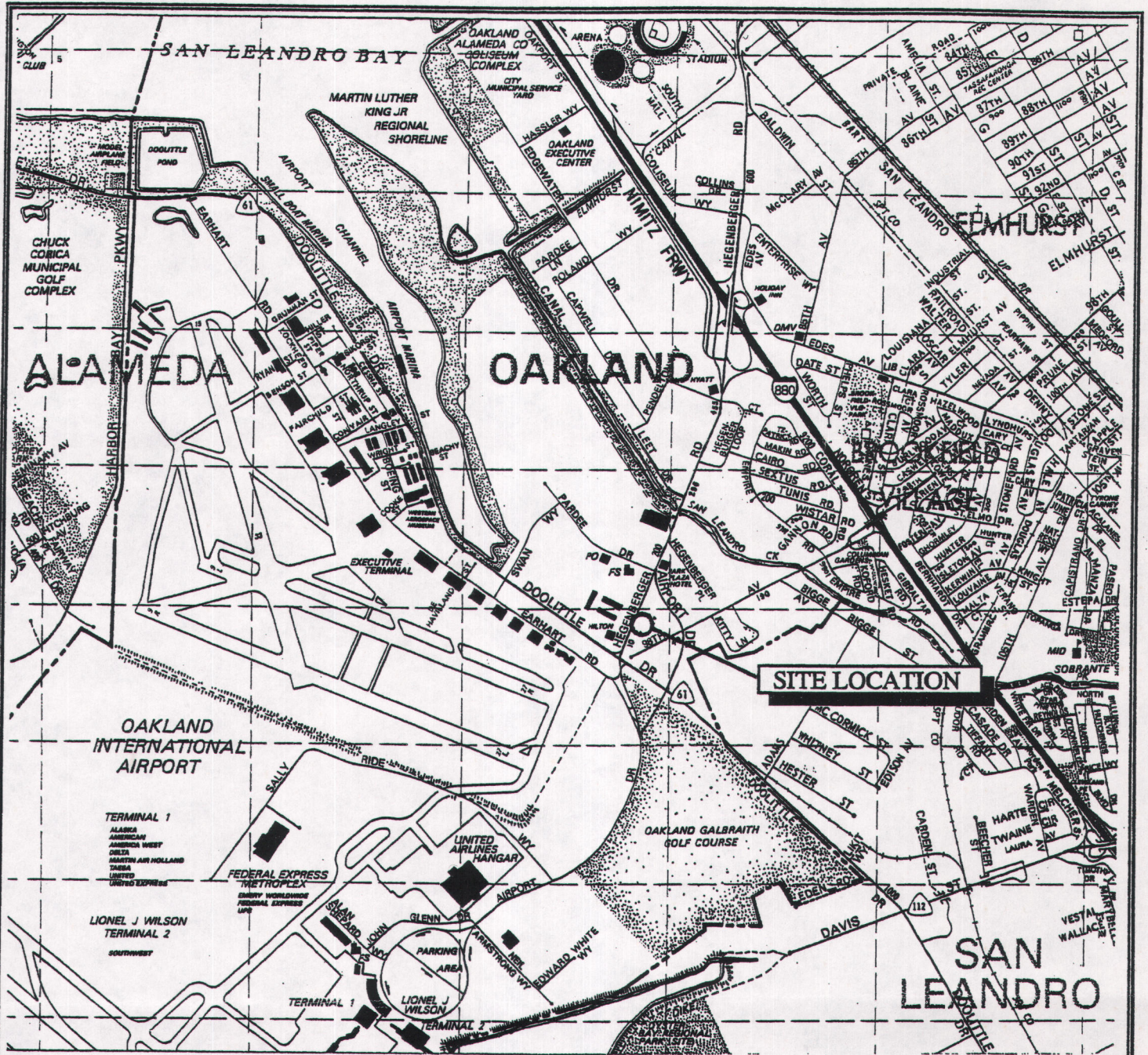
MBC:mc

(G:\Environmental\Open Projects\07400249\water_samp_rep.wpd)

Distribution: Deborah David (3 copies)

Attachments:

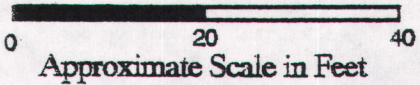
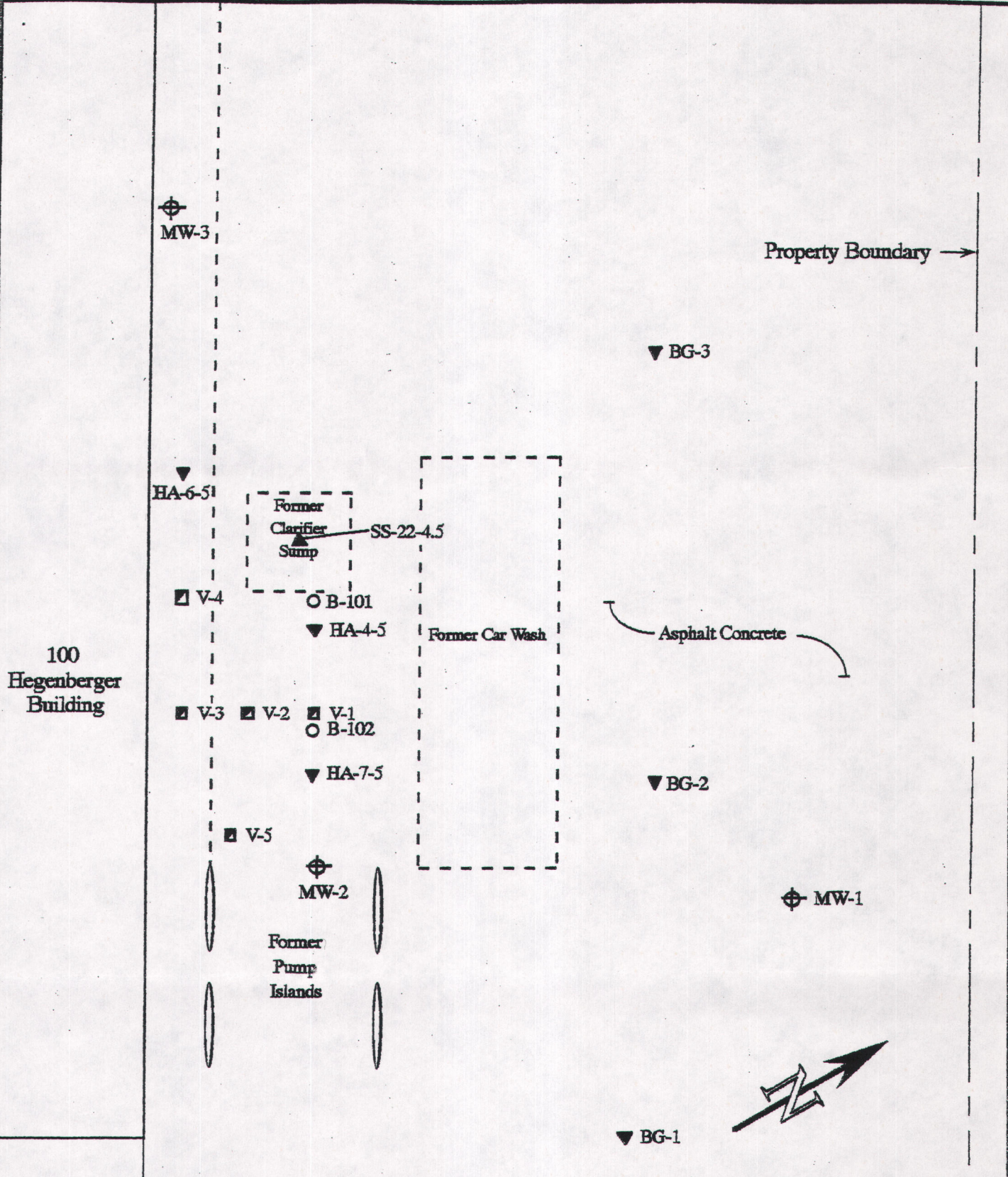
FIGURE 1	Vicinity Map
FIGURE 2	Site Plan
FIGURE 3	Groundwater Contour Map
FIGURES 4 to 6	Well Field Logs
APPENDIX A	Laboratory Test Data Sheets And Chain-Of-Custody Document



David Property
 106/110 Hegenberger Road
 Oakland, California

Job No. 07400249
 VICINITY MAP
 FIGURE 1

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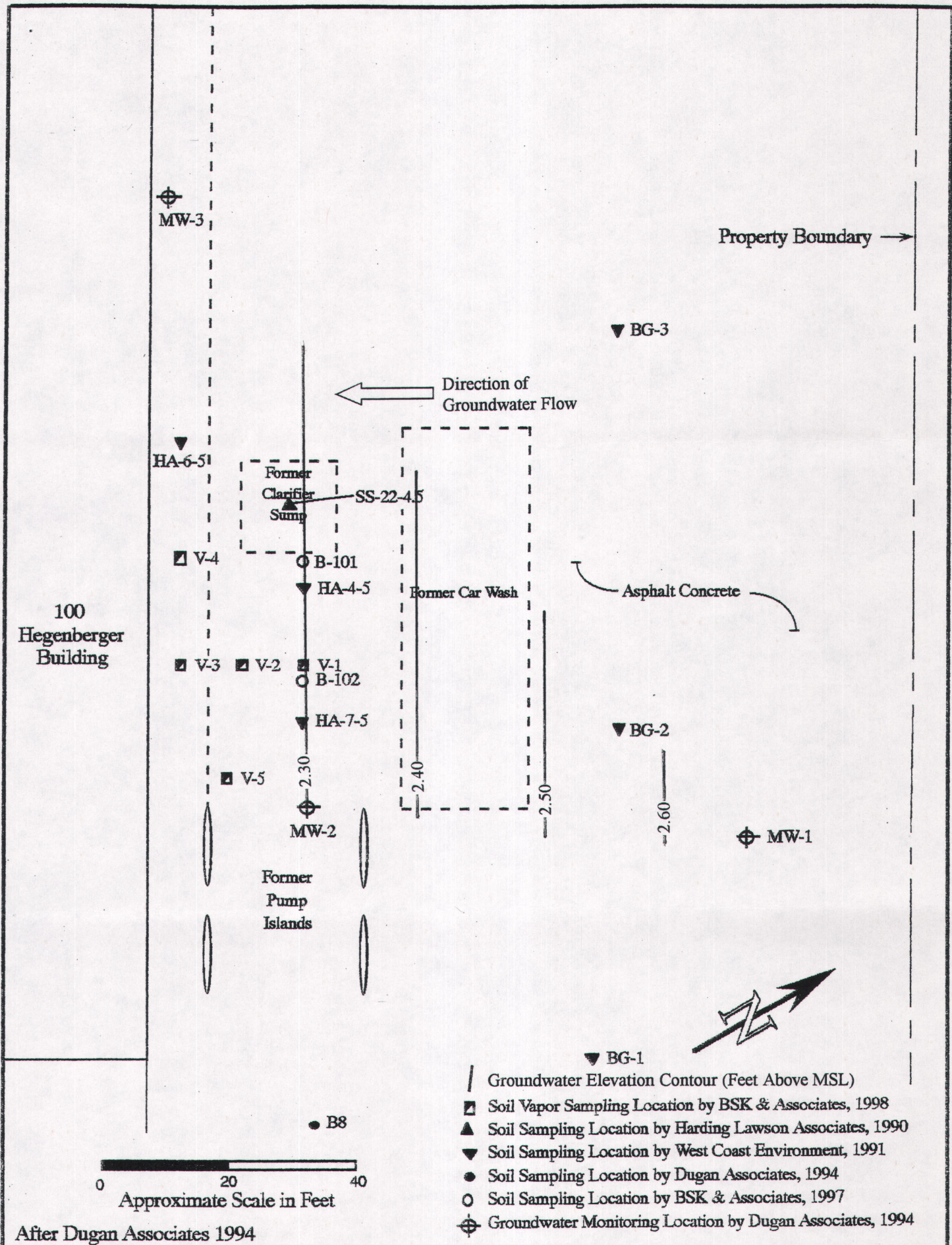
After Dugan Associates 1994

- Soil Vapor Sampling Location by BSK & Associates, 1998
- ▲ Soil Sampling Location by Harding Lawson Associates, 1990
- ▼ Soil Sampling Location by West Coast Environment, 1991
- Soil Sampling Location by Dugan Associates, 1994
- Soil Sampling Location by BSK & Associates, 1997
- ⊕ Groundwater Monitoring Location by Dugan Associates, 1994

David Property
106/110 Hegenberger Road
Oakland, California

Job No. 07400249
SITE PLAN
FIGURE 2

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David Property
 106/110 Hegenberger Road
 Oakland, California

Job No. 07400249
 GROUNDWATER CONTOUR MAP
 FIGURE 3

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WELL FIELD LOG

Project Name/Location: David Property, Oakland, CA
Personnel: MBC
Weather: Clear, Warm

Job No.: 07400249
Date: 6/13/00
FIGURE 4

WELL INFORMATION

Well Number	MW-1	Date Purged	6/13/00
Depth to Water - feet(TOC)	7.82	Purge Method	Bailer
Well Depth (feet)	20.5		
Water Volume (gallons)	2.66	Purge Begin	10:52
Reference Elevation - feet(TOC)	10.48	Purge End	11:21
Groundwater Elevation (feet)	2.66	Purge Rate	0.3 gpm
Measurement Technique	Solinst Electric Well Sounder		

IMMISCIBLE LAYERS

Top:	None Observed, No Odor
Bottom:	None Observed, No Odor
Detection Method:	Visual, Olfactory
Collection Method:	Bailer

MEASURED PARAMETERS

TIME	VOLUME REMOVED (gallons)	ELECTRICAL CONDUCTIVITY (uS/cm) ⁽¹⁾	pH	TEMP. (F°)	REMARKS
11:01	2.5	10280	6.32	72.4	
11:05	5.0	16530	6.83	69.9	
11:11	7.5	16910	7.05	69.6	
11:21	10.0	16700	7.15	69.8	

SAMPLE COLLECTION DATA

TIME	ANALYSIS	AMOUNT/CONTAINER USED	SAMPLE INTERVAL
12:25	MTBE	2- 40ml VOAs with HCl	8'

SAMPLING EQUIPMENT: Bailer

MISCELLANEOUS DATA

DRUMS FILLED/USED:	55-gallon DOT E/H Drum
SAMPLE STORAGE:	Cooler with blue ice

(1)-MicroSiemen/cm ~

WELL FIELD LOG

Project Name/Location: David Property, Oakland, CA

Job No.: 07400249

Personnel: MBC

Date: 6/13/00

Weather: Clear, Warm

FIGURE 5

WELL INFORMATION

Well Number	MW-2	Date Purged	6/13/00
Depth to Water - feet(TOC)	7.89	Purge Method	Bailer
Well Depth (feet)	22		
Water Volume (gallons)	2.4	Purge Begin	10:52
Reference Elevation - feet(TOC)	10.19	Purge End	11:21
Groundwater Elevation (feet)	2.30	Purge Rate	0.3 gpm
Measurement Technique	Solinst Electric Well Sounder		

IMMISCIBLE LAYERS

Top:	None Observed, No Odor
Bottom:	None Observed, No Odor
Detection Method:	Visual, Olfactory
Collection Method:	Bailer

MEASURED PARAMETERS

TIME	VOLUME REMOVED (gallons)	ELECTRICAL CONDUCTIVITY (uS/cm) ⁽¹⁾	pH	TEMP. (F°)	REMARKS
11:01	2.5	10280	6.32	72.4	
11:05	5.0	16530	6.83	69.9	
11:11	7.5	16910	7.05	69.6	
11:21	10.0	16700	7.15	69.8	

SAMPLE COLLECTION DATA

TIME	ANALYSIS	AMOUNT/CONTAINER USED	SAMPLE INTERVAL
12:25	MTBE	2- 40ml VOAs with HCl	8'

SAMPLING EQUIPMENT: Bailer

MISCELLANEOUS DATA

DRUMS FILLED/USED:	55-gallon DOT E/H Drum
SAMPLE STORAGE:	Cooler with blue ice

(1)-MicroSiemen/cm

WELL FIELD LOG

Project Name/Location: David Property, Oakland, CA
Personnel: MBC
Weather: Clear, Warm

Job No.: 04400228
Date: 6/13/00
FIGURE 6

WELL INFORMATION

Well Number	MW-3	Date Purged	6/13/00
Depth to Water - feet(TOC)	7.40	Purge Method	Bailer
Well Depth (feet)	29.5		
Water Volume (gallons)	3.6	Purge Begin	13:14
Reference Elevation - feet(TOC)	9.58	Purge End	13:35
Groundwater Elevation (feet)	2.18	Purge Rate	0.7 gpm
Measurement Technique	Solinst Electric Well Sounder		

IMMISCIBLE LAYERS

Top:	None Observed, No Odor
Bottom:	None Observed, No Odor
Detection Method:	Visual, Olfactory
Collection Method:	Clear Acrylic Bailer

MEASURED PARAMETERS

TIME	VOLUME REMOVED (gallons)	ELECTRICAL CONDUCTIVITY (uS/cm) ⁽¹⁾	pH	TEMP. (F°)	REMARKS
13:18	3.5	4240	7.37	73.1	
13:25	7.0	4130	7.34	72.8	
13:29	10.5	4110	7.30	72.5	
13:35	14.0	3980	7.21	72.3	

SAMPLE COLLECTION DATA

TIME	ANALYSIS	AMOUNT/CONTAINER USED	SAMPLE INTERVAL
13:45	MTBE	2- 40ml VOAs with HCl	8'

SAMPLING EQUIPMENT: Bailer

MISCELLANEOUS DATA

DRUMS FILLED/USED:	55-gallon DOT E/H Drum
SAMPLE STORAGE:	Cooler with blue ice

(1)-MicroSiemen/cm

APPENDIX A
Laboratory Test Data Sheets
Chain-Of-Custody Document

BSK ANALYTICAL LABORATORIES

Martin Cline
BSK and Associates - Sacramento
3140 Gold Camp Drive Suite 160
Rancho Cordova, CA 95670

Certificate of Analysis

Report Issue Date: 06/29/2000

BSK Submission #: 2000060536

BSK Sample ID #: 46137

Project ID: 07400249

Project Desc: Deborah David

Submission Comments:

Sample Type: Liquid

Date Sampled: 06/13/2000

Sample Description: MW-2

Time Sampled: 1225

Sample Comments:

Date Received: 06/15/2000

Organics

Analyte	Method	Result	Units	PQL	Dilution	DLR	Prep Date	Analysis Date
Methyl-t-Butyl Ether	EPA 8015/8020	ND	µg/L	5	1	5	06/27/2000	06/27/2000

mg/L: milligrams/liter (ppm)
mg/Kg: milligrams/kilogram (ppm)
µg/L: micrograms/liter (ppb)
µg/Kg: micrograms/kilogram (ppb)
%Rec: percent recovered (surrogates)

PQL: practical quantitation limit
DLR: detection limit for reporting
: PQL x Dilution
ND: none detected at DLR

H: analyzed outside of hold time
P: preliminary result
S: suspect result. See Cover Letter for comments

BSK ANALYTICAL LABORATORIES

Martin Cline
BSK and Associates - Sacramento
3140 Gold Camp Drive Suite 160
Rancho Cordova, CA 95670

Certificate of Analysis

Report Issue Date: 06/29/2000

BSK Submission #: 2000060536

BSK Sample ID #: 46138

Project ID: 07400249

Project Desc: Deborah David

Submission Comments:

Sample Type: Liquid

Date Sampled: 06/13/2000

Sample Description: MW-1

Time Sampled: 1245

Sample Comments:

Date Received: 06/15/2000

Organics

Analyte	Method	Result	Units	PQL	Dilution	DLR	Prep Date	Analysis Date
Methyl-t-Butyl Ether	EPA 8015/8020	ND	µg/L	5	1	5	06/27/2000	06/27/2000

mg/L: milligrams/liter (ppm)
mg/Kg: milligrams/kilogram (ppm)
µg/L: micrograms/liter (ppb)
µg/Kg: micrograms/kilogram (ppb)
%Rec: percent recovered (surrogates)

PQL: practical quantitation limit
DLR: detection limit for reporting
: PQL x Dilution
ND: none detected at DLR

H: analyzed outside of hold time
P: preliminary result
S: suspect result. See Cover Letter for comments

BSK ANALYTICAL LABORATORIES

Martin Cline
 BSK and Associates - Sacramento
 3140 Gold Camp Drive Suite 160
 Rancho Cordova, CA 95670

Certificate of Analysis

Report Issue Date: 06/29/2000

BSK Submission #: 2000060536

BSK Sample ID #: 46139

Project ID: 07400249

Project Desc: Deborah David

Submission Comments:

Sample Type: Liquid

Date Sampled: 06/13/2000

Sample Description: MW-3

Time Sampled: 1345

Sample Comments:

Date Received: 06/15/2000

Organics

Analyte	Method	Result	Units	PQL	Dilution	DLR	Prep Date	Analysis Date
Methyl-t-Butyl Ether	EPA 8015/8020	ND	µg/L	5	1	5	06/27/2000	06/27/2000

mg/L: milligrams/liter (ppm)
 mg/Kg: milligrams/kilogram (ppm)
 µg/L: micrograms/liter (ppb)
 µg/Kg: micrograms/kilogram (ppb)
 %Rec: percent recovered (surrogates)

PQL: practical quantitation limit
 DLR: detection limit for reporting
 : PQL x Dilution
 ND: none detected at DLR

H: analyzed outside of hold time
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