

## Environmental Documents

**Request 13: Documents given to  
contractors regarding environmental issues  
at West Los Angeles**



81. Soil Investigation Report by Locus (Nov 21, 2000)



Report

## Soil Investigation Report

**Brentwood School Athletic Fields  
Grading Project and Recreation  
Facility Development  
Los Angeles, California**

Prepared by:

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Approved by:

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Facility Development  
Los Angeles, California

**Locus**  
INCORPORATED

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# SOIL INVESTIGATION REPORT

## BRENTWOOD SCHOOL ATHLETIC FIELDS GRADING PROJECT AND RECREATION FACILITY DEVELOPMENT

### LOS ANGELES, CALIFORNIA

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#### 1. INTRODUCTION

This Soil Investigation Report (Report) has been prepared by Locus Technologies (Locus) under contract to Coastal Safety and Health Services, Inc. of Hermosa Beach, California (Coastal) on behalf of the Veterans Administration Greater Los Angeles Healthcare System (GLAHS) in Los Angeles, California. The GLAHS is located at 11301 Wilshire Boulevard in the City of Los Angeles, California (Figure 1).

The purpose of the soil investigation was to provide additional characterization for a portion of the GLAHS property known as the Brentwood School Lease Area (Lease Area). The Lease Area is located at the northwest corner of the GLAHS Property and is approximately 20 acres in size (Figure 2). The Lease Area is being developed into athletic facilities, which will be used by the adjacent Brentwood School.

An Environmental Assessment (EA) was prepared by Locus under contract to Coastal on behalf of the GLAHS on 23 October 2000 (Locus, 2000a). The EA concluded that no significant impacts to the human environment were present at the Lease Area. One of the recommended mitigation measures was confirmatory soil sampling to document whether any significant impacts exist due to apparent medical incinerator ash, reported diesel fuel in soil, and construction debris.

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A Sampling and Analysis Plan (SAP) was prepared by Locus under contract to Coastal on behalf of the GLAHS on 11 October 2000 (Locus, 2000b). Sampling activities were performed in accordance with the procedures described in the SAP.

Chapter 2 of this document discusses the soil sampling field activities. Chapter 3 discusses the soil sampling analytical results. Surveyed coordinates for soil borings at the Lease Area are included as Appendix A. Soil boring logs are included as Appendix B. The health and safety plan for the soil investigation is included as Appendix C. The laboratory analytical data sheets are included as Appendix D. Historical Metals and Total Petroleum Hydrocarbons (TPH) as Diesel Chemical Concentrations in Discrete Soil Samples are summarized in Appendix E. The Asbestos-Containing Material Survey is included as Appendix F. Asbestos laboratory analytical data sheets are included as Appendix G. Field notes are included as Appendix H.



## 2. SOIL SAMPLING FIELD ACTIVITIES

Confirmatory soil samples were collected to determine whether any significant impacts exist due to reported diesel fuel in soil, apparent medical incinerator ash, and construction debris. As discussed in the SAP (Locus, 2000b), soil samples were collected from near surface soils to document baseline conditions of fill materials that were placed within the Lease Area. The Lease Area is divided into an upper terrace (upper bench) and a lower terrace (lower bench).

A single soil sample was planned to be collected from each of sixty shallow soil borings arranged in a grid pattern on the lower bench only. The GLAHS site superintendent decided to relocate twenty of the soil borings from the lower bench to the upper bench in order to characterize the entire Lease Area (Figure 3). At the time of the soil sampling investigation, grading activities for construction of the athletic facilities was ongoing. Consequently, some of the soil borings had to be relocated due to interference with utility trenches or stockpiles of construction materials. At the direction of the GLAHS site superintendent, proposed soil borings locations within the footprint of the tennis and basketball courts were also relocated to other areas. Figure 3 shows the final soil boring locations at the Lease Area.

Soil samples were collected at a depth of approximately three feet below ground surface (bgs). Two discrete soil samples collected from adjacent soil borings, as much as possible, were combined into a single composite soil sample. A total of thirty composite soil samples collected from near surface soils were analyzed for TPH as diesel using EPA Method 8015.

Apparent medical incinerator ash was encountered during grading operations at the upper bench (Locus, 2000a). The ash was excavated and stockpiled with unacceptable fill material outside the Lease Area on GLAHS property during prior grading operations associated with construction of the athletic facilities. In order to confirm that ash was removed from the upper bench, six soil borings were drilled at the upper bench (see Inset A, Figure 3). A single soil sample was collected from each of six soil borings at the

interface between fill and native material, which was approximately eleven feet bgs. These six soil samples were analyzed for CAM 17 Metals using EPA Method 7000 series.

Construction debris was observed on the west bank of the former arroyo on GLAHS property, immediately south of the Lease Area. Nine samples of this debris were collected and analyzed for the presence of asbestos.

All sixty-six soil boring locations were surveyed by a licensed surveyor. The coordinates for the soil borings are included as Appendix A.

Soil samples were collected by using a Geoprobe drill rig. The lithology of the upper three feet for each soil boring was recorded on a boring log. The soil boring logs are included as Appendix B.

All field activities were performed in accordance with the health and safety practices described in the Site Specific Health and Safety Plan (HSP). The HSP is included as Appendix C.

The drill rig was decontaminated between each soil boring, in accordance with Section 5.4 of the SAP (Locus, 2000b). Decontamination fluids were collected and stored in a closed top drum. TPH as diesel and metals were not detected in the decontamination fluids; consequently, the decontamination fluids were disposed at an off-site disposal facility as non-hazardous waste.

### 3. SOIL SAMPLING ANALYTICAL RESULTS

Confirmatory composite soil samples were collected from sixty soil borings at the Lease Area and were analyzed for TPH as Diesel. Discrete confirmatory soil samples were collected from six soil borings located at the upper bench where apparent medical incinerator ash was encountered during prior grading operations. Samples of construction debris located on GLAHS property, immediately adjacent to the Lease Area, were collected and analyzed for asbestos. The results of these analyses are discussed below.

#### 3.1. Total Petroleum Hydrocarbon as Diesel Analytical Results

Thirty composite soil samples were collected from near surface soils and were analyzed for TPH as diesel using EPA Method 8015. TPH as diesel was detected in three composite soil samples at concentrations ranging from 10.6 milligrams per kilogram (mg/kg) to 20.5 mg/kg (Table 1). The three composite soil samples were collected from the following three pairs of soil borings: a) SB21/SB25; b) SB29/SB30; and c) SB44/SB51. All six of these soil borings are located in the lower bench. These detected concentrations of TPH as diesel are consistent with TPH as diesel analytical data for soil samples collected by others at the Lease Area and the surrounding areas in September 1999 (Appendix E). None of the soil samples exhibited visible staining or odors indicative of diesel fuel. Based on the detected concentrations of TPH as diesel, no further action is warranted.

#### 3.2. CAM 17 Metals Analytical Results

Six soil borings were drilled at the location where apparent medical incinerator ash was encountered during prior grading operations. These six soil borings were located at the direction of the GLAHS site superintendent. A soil sample was collected from each soil boring at the interface between native soil and fill material. These soil samples were analyzed for CAM 17 metals using EPA Method 7000 series. The detected metals concentrations are reported in Table 2. All of the detected metals concentrations were less than approximately three percent of the respective Total Threshold Limit Concentrations (TTL). TTL

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are found in the California Code of Regulations, Title 22, Section 66261.24. TTLC is the threshold concentration at which point the State of California considers a waste to be hazardous, and must be handled as such. TTLCs do not apply in this situation, but provide a reference standard for comparison purposes. These detected metals concentrations are consistent with metals concentrations detected in soil samples collected by others at the Lease Area and surrounding areas in September 1999 (Appendix E). Based on the detected concentrations of metals in these six soil samples, no further action is warranted where apparent medical incinerator ash was previously encountered during prior grading operations.

### 3.3. Asbestos Analytical Results

Nine samples of construction debris were collected from the debris pile located on the west bank of the arroyo, immediately south of the Lease Area. Two samples contained detectable levels of asbestos; however, the debris is not in a friable state. One of the samples with detectable asbestos was a 10-inch diameter concrete pipe. The majority of the pipe is buried in the bank of the arroyo and approximately one foot of the end of the pipe juts out of the bank. The other sample with detectable asbestos was a piece of white floor tile. The samples were collected by a certified asbestos consultant, and his opinion is that none of the materials sampled have the potential to significantly expose users of the athletic facilities located north of the debris pile. The Asbestos-Containing Material Survey is included as Appendix F. The asbestos laboratory data sheets are included as Appendix G.

## REFERENCES

- Locus Technologies, 2000a, "Environmental Assessment, Brentwood School Athletic Fields, Grading Project and Recreation Facility Development, Los Angeles, California," prepared for Veterans Administration Medical Center, 23 October.
- Locus Technologies, 2000b, "Sampling and Analysis Plan, Brentwood School Athletic Fields, Grading Project and Recreation Facility Development, Los Angeles, California," prepared for Veterans Administration Medical Center, 11 October.

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TABLE 1

TOTAL PETROLEUM HYDROCARBONS AS DIESEL CONCENTRATIONS IN COMPOSITE SOIL SAMPLES  
 VETERANS ADMINISTRATION GREATER LOS ANGELES HEALTHCARE SYSTEM  
 LOS ANGELES, CALIFORNIA

Date Sampled	Discrete Sample No. 1	Discrete Sample No. 2	SAMPLE TYPE	SAMPLE LOCATION	Total Petroleum Hydrocarbons as Diesel (mg/kg)
26-Oct-00	SB1	SB3	COMPOSITE PAIR	UPPER BENCH	<10
26-Oct-00	SB4	SB5	COMPOSITE PAIR	UPPER BENCH	<10
26-Oct-00	SB6	SB7	COMPOSITE PAIR	UPPER BENCH	<10
26-Oct-00	SB8	SB9	COMPOSITE PAIR	UPPER BENCH	<10
26-Oct-00	SB10	SB11	COMPOSITE PAIR	UPPER BENCH	<10
26-Oct-00	SB12	SB13	COMPOSITE PAIR	UPPER BENCH	<10
26-Oct-00	SB14	SB15	COMPOSITE PAIR	UPPER BENCH	<10
26-Oct-00	SB16	SB17	COMPOSITE PAIR	UPPER BENCH	<10
26-Oct-00	SB18	SB19	COMPOSITE PAIR	UPPER BENCH	<10
26-Oct-00	SB20	SB2	COMPOSITE PAIR	UPPER BENCH	<10

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TABLE 1

TOTAL PETROLEUM HYDROCARBONS AS DIESEL CONCENTRATIONS IN COMPOSITE SOIL SAMPLES  
 VETERANS ADMINISTRATION GREATER LOS ANGELES HEALTHCARE SYSTEM  
 LOS ANGELES, CALIFORNIA

Date Sampled	Discrete Sample No. 1	Discrete Sample No. 2	SAMPLE TYPE	SAMPLE LOCATION	Total Petroleum Hydrocarbons as Diesel (mg/kg)
26-Oct-00	SB21	SB25	COMPOSITE PAIR	LOWER BENCH	20.5
26-Oct-00	SB22	SB23	COMPOSITE PAIR	LOWER BENCH	<10
26-Oct-00	SB24	SB31	COMPOSITE PAIR	LOWER BENCH	<10
26-Oct-00	SB27	SB28	COMPOSITE PAIR	LOWER BENCH	<10
26-Oct-00	SB29	SB30	COMPOSITE PAIR	LOWER BENCH	10.6
27-Oct-00	SB26	SB32	COMPOSITE PAIR	LOWER BENCH	<10
27-Oct-00	SB33	SB34	COMPOSITE PAIR	LOWER BENCH	<10
27-Oct-00	SB35	SB36	COMPOSITE PAIR	LOWER BENCH	<10
27-Oct-00	SB37	SB38	COMPOSITE PAIR	LOWER BENCH	<10
27-Oct-00	SB39	SB40	COMPOSITE PAIR	LOWER BENCH	<10
27-Oct-00	SB41	SB42	COMPOSITE PAIR	LOWER BENCH	<10
27-Oct-00	SB43	SB50	COMPOSITE PAIR	LOWER BENCH	<10
27-Oct-00	SB44	SB51	COMPOSITE PAIR	LOWER BENCH	16.2
27-Oct-00	SB45	SB52	COMPOSITE PAIR	LOWER BENCH	<10
27-Oct-00	SB46	SB47	COMPOSITE PAIR	LOWER BENCH	<10
27-Oct-00	SB48	SB49	COMPOSITE PAIR	LOWER BENCH	<10
27-Oct-00	SB53	SB54	COMPOSITE PAIR	LOWER BENCH	<10
27-Oct-00	SB55	SB56	COMPOSITE PAIR	LOWER BENCH	<10
27-Oct-00	SB57	SB58	COMPOSITE PAIR	LOWER BENCH	<10
27-Oct-00	SB59	SB60	COMPOSITE PAIR	LOWER BENCH	<10

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TABLE 1

TOTAL PETROLEUM HYDROCARBONS AS DIESEL CONCENTRATIONS IN COMPOSITE SOIL SAMPLES  
 VETERANS ADMINISTRATION GREATER LOS ANGELES HEALTHCARE SYSTEM  
 LOS ANGELES, CALIFORNIA

Date Sampled	Discrete Sample No. 1	Discrete Sample No. 2	SAMPLE TYPE	SAMPLE LOCATION	Total Petroleum Hydrocarbons as Diesel (mg/kg)
26-Oct-00	SB61	-	DISCRETE SAMPLE	UPPER BENCH	<10
26-Oct-00	SB62	-	DISCRETE SAMPLE	UPPER BENCH	<10
26-Oct-00	SB63	-	DISCRETE SAMPLE	UPPER BENCH	<10
26-Oct-00	SB64	-	DISCRETE SAMPLE	UPPER BENCH	<10
26-Oct-00	SB65	-	DISCRETE SAMPLE	UPPER BENCH	<10
26-Oct-00	SB66	-	DISCRETE SAMPLE	UPPER BENCH	<10

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TABLE 2





METALS CONCENTRATIONS IN DISCRETE SOIL SAMPLES AT THE FORMER ASH PIT  
 VETERANS ADMINISTRATION GREATER LOS ANGELES HEALTHCARE SYSTEM  
 LOS ANGELES, CALIFORNIA

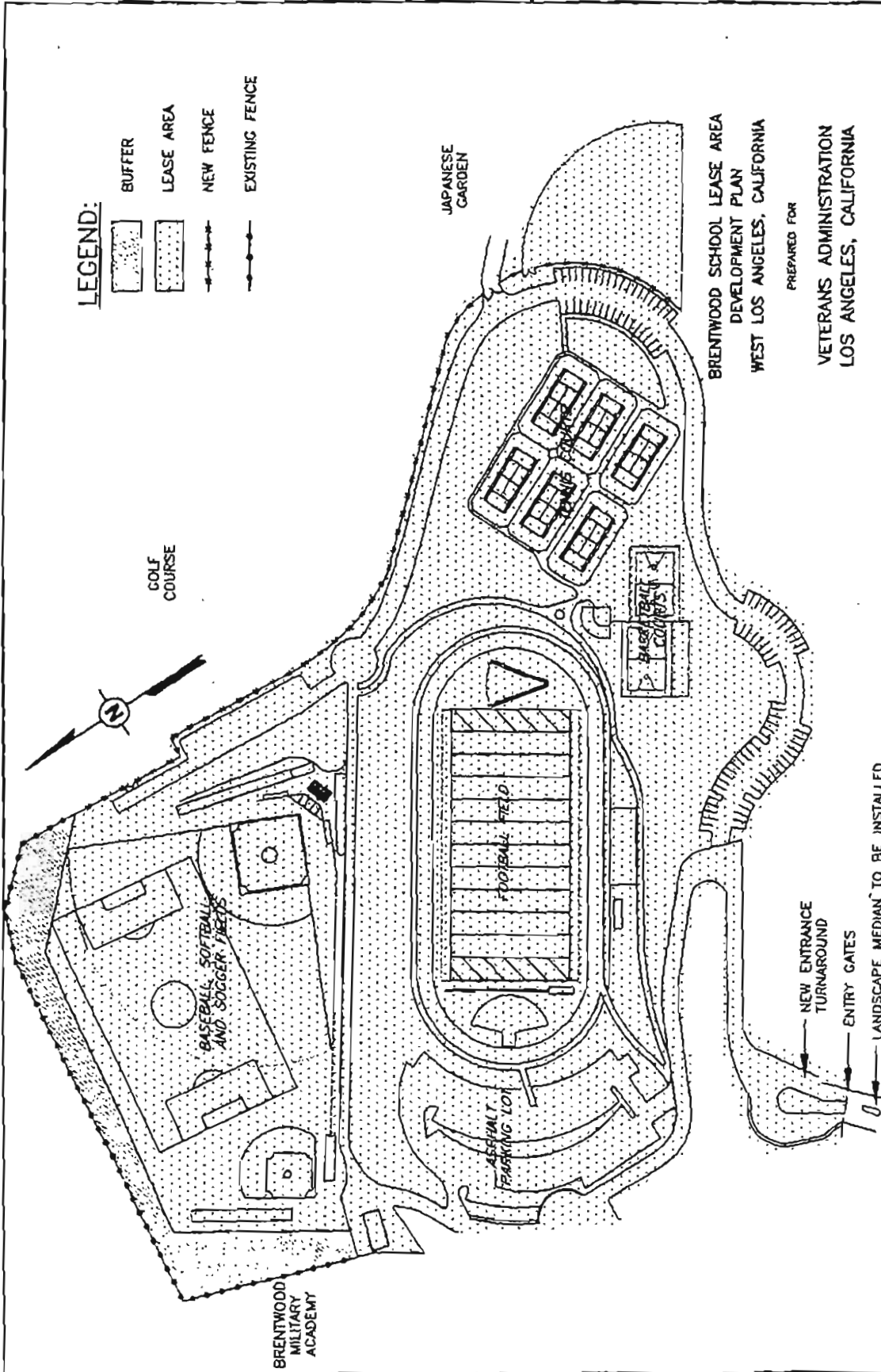
Date Sampled	CAM 17 Metals	Total Threshold Limit Concentration (mg/kg)	Average Concentration (mg/kg)	Lab ID No. AI10114-31 SB-61	Lab ID No. AI10114-32 SB-62	Lab ID No. AI10114-33 SB-63	Lab ID No. AI10114-34 SB-64	Lab ID No. AI10114-35 SB-65	Lab ID No. AI10114-36 SB-66
26-Oct-00	Antimony	500	14	14	17	15	13	11	14
26-Oct-00	Arsenic	500	2	2	4	2	1	1	2
26-Oct-00	Barium	10,000	106	126	139	176	58	69	68
26-Oct-00	Beryllium	75	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
26-Oct-00	Cadmium	100	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
26-Oct-00	Chromium	2,500	33	37	31	32	28	30	37
26-Oct-00	Cobalt	8,000	6	5	7	9	6	3	9
26-Oct-00	Copper	2,500	18	18	28	22	14	11	17
26-Oct-00	Lead	1,000	15	6	61	7	4	3	9
26-Oct-00	Mercury	20	0	<0.03	0	<0.03	<0.03	0	0
26-Oct-00	Molybdenum	3,500	<5	<5	<5	<5	<5	<5	<5
26-Oct-00	Nickel	2,000	15	15	16	20	12	8	21
26-Oct-00	Selenium	100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
26-Oct-00	Silver	500	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
26-Oct-00	Thallium	700	13	8	12	11	6	<2.5	15
26-Oct-00	Vanadium	2,400	42	51	45	53	36	36	32
26-Oct-00	Zinc	5,000	45	42	98	37	38	23	33

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**LEGEND:**

-  BUFFER
-  LEASE AREA
-  NEW FENCE
-  EXISTING FENCE



BRENTWOOD SCHOOL LEASE AREA  
DEVELOPMENT PLAN  
WEST LOS ANGELES, CALIFORNIA

PREPARED FOR  
VETERANS ADMINISTRATION  
LOS ANGELES, CALIFORNIA

**Locus**  
TECHNOLOGIES

Drawing No. 20-013-A2  
FIGURE 2

6/1/80-01/10/80 E.T. 807 00

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	DATE	DWN. BY/CK'D BY/AP'D BY
	ISSUE / REVISION	

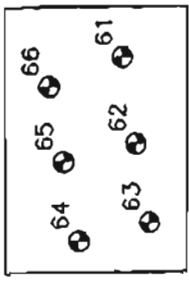
81-18

**LEGEND:**

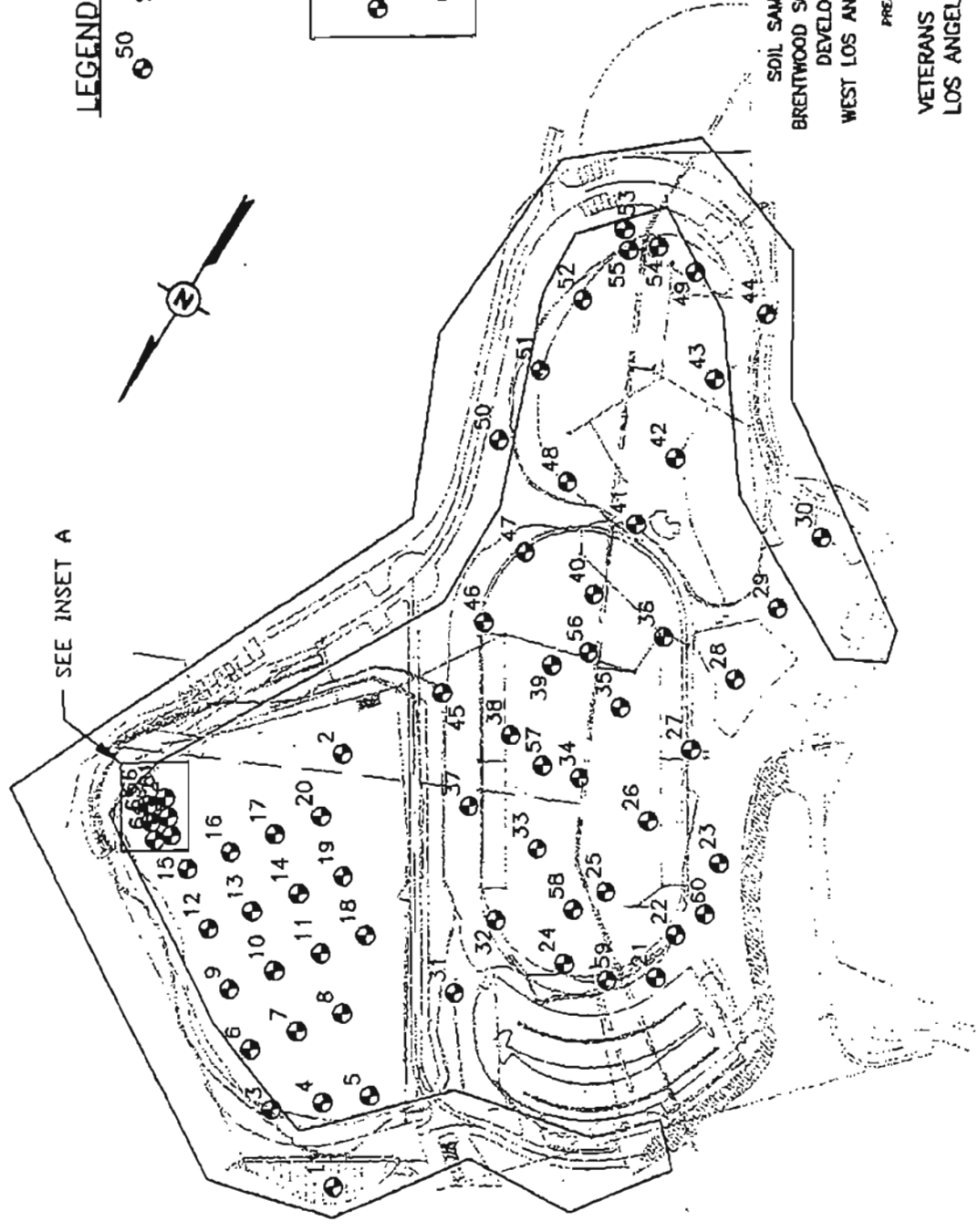
50 SOIL BORING LOCATION



SEE INSET A

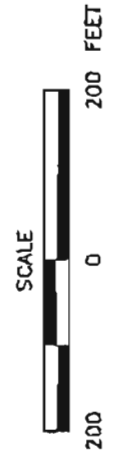


INSET A



SOIL SAMPLE LOCATION  
 BRENTWOOD SCHOOL LEASE AREA  
 DEVELOPMENT PLAN  
 WEST LOS ANGELES, CALIFORNIA

PREPARED FOR  
 VETERANS ADMINISTRATION  
 LOS ANGELES, CALIFORNIA



20-013-A1

FIGURE 3

17-1001-00

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No.	DATE	ISSUE / REVISION	DWR. CHECK'D BY/APP'D BY

81-19

# Surveying & Drafting Services

434 North Vista Street, Los Angeles, CA 90036

Tel: [REDACTED] Fax: [REDACTED]

Ofer Shapira

State Licensed Land Surveyor

B.A. Geodesy & Cartography

## FAX COVER SHEET

Total pages transmitted including cover page : 3

Date: October 26, 2000

To: Matt

Fax: [REDACTED]

From: Ofer Shapira

### Comments:

Attached is the list of coordinates of the soil borings at Brentwood School lease area.  
If you have any questions please call me at [REDACTED]

Sincerely,

Ofer Shapira

PL 20

# Surveying & Drafting Services

434 N. Vista Street, Los Angeles, CA 90036

Tel: [REDACTED] Fax: [REDACTED]

Ofer Shapira

State Licensed Land Surveyor

E.A. Geodesy & Cartography

October 26, 2000

## SOIL BORINGS LOCATION AT BRENTWOOD SCHOOL LEASE AREA

Date of survey: October 25, 2000

Boring	Northing	Easting	Ground Elevation
UPPER BENCH			
1	4136960.10	4146517.88	487.34
2	4136490.19	4146789.58	487.77
3	4136915.50	4146633.14	471.41
4	4136876.69	4146584.06	471.12
5	4136839.75	4146536.94	470.80
6	4136864.91	4146695.30	470.87
7	4136816.90	4146657.58	470.53
8	4136769.87	4146620.48	470.23
9	4136814.43	4146757.15	470.57
10	4136766.90	4146720.02	470.19
11	4136719.05	4146682.45	469.65
12	4136763.88	4146819.19	470.26
13	4136716.77	4146782.30	470.33
14	4136669.40	4146744.98	469.45
15	4136713.45	4146881.34	469.71
16	4136666.42	4146844.57	469.28
17	4136819.29	4146808.12	468.92
18	4136671.96	4146645.60	469.22
19	4136622.44	4146707.99	468.88
20	4136572.09	4146771.49	468.42
LOWER BENCH			
21	4136522.94	4146293.86	433.75
22	4136465.00	4146300.00	430.47
23	4136360.00	4146300.00	445.86
24	4136570.00	4146405.00	431.00
25	4136465.00	4146405.00	431.29
26	4136360.00	4146405.00	431.17
27	4136255.00	4146405.00	433.81

28	4136150.00	4146405.00	441.97
29	4136045.00	4146405.00	437.37
30	4135940.00	4146405.00	443.12
31	4136675.00	4146510.00	449.06
32	4136570.00	4146510.00	430.93
33	4136465.00	4146510.00	431.42
34	4136360.00	4146510.00	431.73
35	4136255.00	4146510.00	431.48
36	4136150.00	4146510.00	430.49
37	4136465.00	4146615.00	436.28
38	4136360.00	4146615.00	430.97
39	4136255.00	4146615.00	431.49
40	4136150.00	4146615.00	431.13
41	4136045.00	4146615.00	426.78
42	4135946.71	4146616.95	424.97
43	4135834.77	4146627.40	424.29
44	4135730.00	4146615.00	422.88
45	4136380.00	4146720.00	455.69
46	4136255.00	4146720.00	431.14
47	4136150.00	4146720.00	431.02
48	4136045.00	4146720.00	427.64
49	4135730.00	4146720.00	428.03
50	4136045.00	4146825.00	448.57
51	4135940.00	4146825.00	425.95
52	4135835.00	4146825.00	426.34
53	4135730.00	4146825.00	425.83
54	4135726.70	4146777.05	428.29
55	4135749.81	4146807.00	425.90
56	4136216.86	4146582.45	431.42
57	4136370.72	4146558.76	431.36
58	4136505.85	4146430.07	431.27
59	4136558.62	4146346.42	430.75
60	4136423.39	4146282.11	437.00

ASH PIT

61	4136651.16	4146952.34	468.90
62	4136670.25	4146935.92	469.35
63	4136687.55	4146920.57	469.36
64	4136702.65	4146935.37	469.35
65	4136685.64	4146951.11	469.48
66	4136669.29	4146965.89	469.12

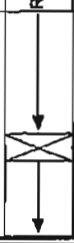







<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-2-UB	
<b>BORING LOC:</b> (N) 4136490.19 (E) 4146789.58			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/26/00	<b>END DATE:</b> 10/28/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-2-3'		NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobbles and coarse and fine gravel	Soil contained no unusual objects
4								
5								
6								
7								
8								
9								
10								
11								
12								
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14								
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26								

<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-3-UB	
<b>BORING LOC:</b> (N) 4138915.50 (E) 4148633.14			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/26/00	<b>END DATE:</b> 10/26/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-3-3'		NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel	Soil contained small amount of brick
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<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-4-UB	
<b>BORING LOC:</b> (N) 4136876.69 (E) 4146584.06			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/28/00	<b>END DATE:</b> 10/26/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-4-3'		NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel	Soil contained no unusual objects
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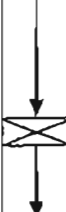

<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-5-UB	
<b>BORING LOC:</b> (N) 4136839.75 (E) 4146536.94			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/26/00	<b>END DATE:</b> 10/26/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-5-3'		NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel	Soil contained no unusual objects
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<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-6-UB	
<b>BORING LOC:</b> (N) 4136864.91 (E) 4146695.30			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/26/00	<b>END DATE:</b> 10/26/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA			SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS		
1							
2							
3	SB-6-3'		NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel  Soil contained no unusual objects
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<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-7-UB	
<b>BORING LOC:</b> (N) 4136818.90 (E) 4148657.58			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/26/00	<b>END DATE:</b> 10/28/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	


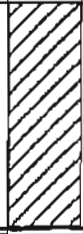
DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-7-3'		NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel	Soil contained no unusual objects
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81-29

<b>PROJECT:</b> 21387 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-8-UB	
<b>BORING LOC:</b> (N) 4136769.87 (E) 4146620.48			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/28/00	<b>END DATE:</b> 10/28/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-8-3'		NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel	Soil contained no unusual objects
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<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-9-UB	
<b>BORING LOC:</b> (N) 4136814.43 (E) 4146757.15			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/28/00	<b>END DATE:</b> 10/28/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	



DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	P/D (ppm)	USCS	SYMBOL		
1								
2								
3	SB-9-3'		NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble, and coarse and fine gravel	Soil contained no unusual objects
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<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-10-UB	
<b>BORING LOC:</b> (N) 4138766.90 (E) 4146720.02			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/25/00	<b>END DATE:</b> 10/26/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-10-3	↓ X ↓	NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel	Soil contained small amount of brick
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<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-11-UB	
<b>BORING LOC:</b> (N) 4136719.06 (E) 4146662.45			
<b>DRILLING CONTRACTOR:</b> Vitronex		<b>START DATE:</b> 10/26/00	<b>END DATE:</b> 10/26/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-11-3		NA	0	CL		Clay: Dense clay, mottled color, (brown, red), trace sand, cobble and coarse and fine gravel	Soil contained no unusual objects
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<b>PROJECT:</b> 21387 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-12-UB	
<b>BORING LOC:</b> (N) 4136763.88 (E) 4146819.19			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/26/00	<b>END DATE:</b> 10/26/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 6'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-12-3	↓ X ↓	NA	0	CL		Clay: Dense clay, mottled color, (brown, red), trace sand, cobble and coarse and fine gravel	Soil contained small amount of brick
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<b>PROJECT:</b> 21397 VA Hospital	<b>LOG OF BOREHOLE:</b> SB-13-UB	
<b>BORING LOC:</b> (N) 4138718.77 (E) 4146782.30		
<b>DRILLING CONTRACTOR:</b> Vironex	<b>START DATE:</b> 10/26/00	<b>END DATE:</b> 10/26/00
<b>DRILLING METHOD:</b> Geoprobe	<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe	<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner	<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA	<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA			SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS		
1							
2							
3	SB-13-3		NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel  Soil contained small amount of brick
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<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-14-UB	
<b>BORING LOC:</b> (N) 4138889.40 (E) 4146744.98			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/26/00	<b>END DATE:</b> 10/28/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-14-3		NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), trace sand, cobble and coarse and fine gravel	Soil contained small amount of brick
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<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-15-UB	
<b>BORING LOC:</b> (N) 4136713.45 (E) 4146881.34			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/28/00	<b>END DATE:</b> 10/26/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-15-3		NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel	Soil contained no unusual objects
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<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-16-UB	
<b>BORING LOC:</b> (N) 413666.42 (E) 4148844.57			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/26/00	<b>END DATE:</b> 10/26/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	



DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-16-3	↓ X ↓	NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel	Soil contained small amount of brick and had a strong organic decomposition smell
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<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-17-UB	
<b>BORING LOC:</b> (N) 4136519.29 (E) 4146808.12			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/26/00	<b>END DATE:</b> 10/26/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-17-3	↓ X ↓	NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel	Soil contained small amount of brick
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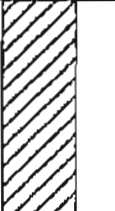
<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-18-UB	
<b>BORING LOC:</b> (N) 4136671.96 (E) 4148645.60			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/28/00	<b>END DATE:</b> 10/28/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-18-3		NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), trace sand cobble and coarse and fine gravel	Soil contained small amount of brick
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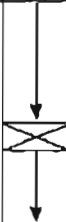

<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-19-J8	
<b>BORING LOC:</b> (N) 4136622.44 (E) 4146707.99			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/26/00	<b>END DATE:</b> 10/26/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-19-3	↓ X ↓	NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel	Soil contained small amount of brick
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<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-20-UB	
<b>BORING LOC:</b> (N) 4136572.09 (E) 4146771.49			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/26/00	<b>END DATE:</b> 10/26/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-20-3		NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel	Soil contained small amount of brick
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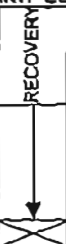
PROJECT: 21397 VA Hospital		LOG OF BOREHOLE: SB-21-LB	
BORING LOC: (N) 4136522.94 (E) 4146293.86			
DRILLING CONTRACTOR: Vironex		START DATE: 10/26/00	END DATE: 10/26/00
DRILLING METHOD: Geoprobe		TOTAL DEPTH: 5'	
DRILLING EQUIPMENT: Truck Mounted Geoprobe		DEPTH TO WATER: NA	
SAMPLING METHOD: Acrylic Liner		LOGGED BY: Matt Eyer	
HAMMER WEIGHT and FALL: NA		RESPONSIBLE PROFESSIONAL: JD	

DEPTH (feet)	SAMPLE DATA			SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS		
1							
2							
3	SB-21-3		NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel, trace silt  Soil contained no unusual objects
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<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-22-LB	
<b>BORING LOC:</b> (N) 4136465.00 (E) 4146300.00			
<b>DRILLING CONTRACTOR:</b> Vironax		<b>START DATE:</b> 10/28/00	<b>END DATE:</b> 10/26/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	P/D (ppm)	USCS	SYMBOL		
1								
2								
3	SB-22-3	↓ X ↓	NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel, trace sand	Soil contained no unusual objects
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<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-23-LB	
<b>BORING LOC:</b> (N) 4138360.00 (E) 4148300.00			
<b>DRILLING CONTRACTOR:</b> AEI		<b>START DATE:</b> 10/26/00	<b>END DATE:</b> 10/26/00
<b>DRILLING METHOD:</b> Hand Auger		<b>TOTAL DEPTH:</b> 3'	
<b>DRILLING EQUIPMENT:</b> 4" Diameter Hand Auger		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Brass Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA			SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS		
1			NA	0	CL	Clay: Loose clay, mottled color, (brown, red), cobble trace silt	Soil contained no unusual objects
2							
3	SB-23-3'						
4							
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6							
7							
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<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-24-LB	
<b>BORING LOC:</b> (N) 4136570.00 (E) 4146405.00			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/26/00	<b>END DATE:</b> 10/26/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 6'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-24-3		NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel	Soil contained no unusual objects
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<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-25-LB	
<b>BORING LOC:</b> (N) 4136465.00 (E) 4146405.00			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/26/00	<b>END DATE:</b> 10/26/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	


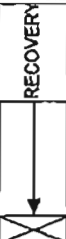
DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-25-3		NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel, small silty component	Soil contained small amount of clear glass Glass appeared to be new, possibly from a soda bottle
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<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-26-LB	
<b>BORING LOC:</b> (N) 4136306.00 (E) 4148405.00			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/27/00	<b>END DATE:</b> 10/27/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-26-3	↓ X ↓	NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel	Soil contained small amount of brick
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<b>PROJECT:</b> 21387 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-27-LB	
<b>BORING LOC:</b> (N) 4136265.00 (E) 4146405.00			
<b>DRILLING CONTRACTOR:</b> AEI		<b>START DATE:</b> 10/28/00	<b>END DATE:</b> 10/28/00
<b>DRILLING METHOD:</b> Hand Auger		<b>TOTAL DEPTH:</b> 3'	
<b>DRILLING EQUIPMENT:</b> 4" Diameter Hand Auger		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Brass Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	FID (ppm)	USCS	SYMBOL		
1			NA	0	CL		Clay: Loose clay, mottled color, (brown, red), cobble trace silt	Soil contained no unusual objects
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3	SB-27-3'							
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<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-28-LB	
<b>BORING LOC:</b> (N) 4136150.00 (E) 4146405.00			
<b>DRILLING CONTRACTOR:</b> AEI		<b>START DATE:</b> 10/28/00	<b>END DATE:</b> 10/26/00
<b>DRILLING METHOD:</b> Hand Auger		<b>TOTAL DEPTH:</b> 3'	
<b>DRILLING EQUIPMENT:</b> 4" Diameter Hand Auger		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Brass Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1			NA	0	CL		Clay: Loose clay, mottled color, (brown, red), cobble trace silt	Soil contained no unusual objects
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3	SB-28-3'							
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<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-29-LB	
<b>BORING LOC:</b> (N) 4136045.00 (E) 4148405.00			
<b>DRILLING CONTRACTOR:</b> AEI		<b>START DATE:</b> 10/26/00	<b>END DATE:</b> 10/26/00
<b>DRILLING METHOD:</b> Hand Auger		<b>TOTAL DEPTH:</b> 3'	
<b>DRILLING EQUIPMENT:</b> 4' Diameter Hand Auger		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Brass Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS	
	SAMPLE NUMBER	RECOVERY	BLOWS	PI/D (ppm)	USCS	SYMBOL			
1			NA	0	CL		Clay: Loose clay, mottled color, (brown, red), cobble trace silt	Soil contained no unusual objects	
2									
3	SB-29-3'								
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<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-30-LB	
<b>BORING LOC:</b> (N) 4135940.00 (E) 4146405.00			
<b>DRILLING CONTRACTOR:</b> AEI		<b>START DATE:</b> 10/26/00	<b>END DATE:</b> 10/28/00
<b>DRILLING METHOD:</b> Hand Auger		<b>TOTAL DEPTH:</b> 3'	
<b>DRILLING EQUIPMENT:</b> 4" Diameter Hand Auger		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Brass Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PI/D (ppm)	USCS	SYMBOL		
1			NA	0	CL		Clay: Loose clay, mottled color, (brown, red), cobble trace silt	Soil contained no unusual objects
2								
3	SB-30-3'							
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<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-31-LB	
<b>BORING LOC:</b> (N) 4136675.00 (E) 4146510.00			
<b>DRILLING CONTRACTOR:</b> AEI		<b>START DATE:</b> 10/25/00	<b>END DATE:</b> 10/26/00
<b>DRILLING METHOD:</b> Hand Auger		<b>TOTAL DEPTH:</b> 3'	
<b>DRILLING EQUIPMENT:</b> 4' Diameter Hand Auger		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Brass Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1			NA	0	CL		Clay: Loose clay, mottled color, (brown, red), cobble trace silt	Soil contained no unusual objects
2								
3	SB-31-3'							
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26								

<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-32-LB	
<b>BORING LOC:</b> (N) 4136570.00 (E) 4146510.00			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/27/00	<b>END DATE:</b> 10/27/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	



DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-32-3		NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel, small silty component	Soil contained no unusual objects
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<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-33-LB	
<b>BORING LOC:</b> (N) 4136465.00 (E) 4146510.00			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/27/00	<b>END DATE:</b> 10/27/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyar	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	



DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-33-3		NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel	Soil contained no unusual objects
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<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-34-LB	
<b>BORING LOC:</b> (N) 4136360.00 (E) 4146510.00			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/27/00	<b>END DATE:</b> 10/27/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-34-3		NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel	Soil contained small amount of uncharted word
4								
5								
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7								
8								
9								
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11								
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26								

<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-35-LB	
<b>BORING LOC:</b> (N) 4136255.00 (E) 4146510.00			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/27/00	<b>END DATE:</b> 10/27/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-35-3		NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel	Soil contained small amount of concrete
4								
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<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-36-LB	
<b>BORING LOC:</b> (N) 4138150.00 (E) 4146510.00			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/27/00	<b>END DATE:</b> 10/27/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	



DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-36-3		NA	0	CL		Clay: Dense clay, mottled color, (brown, red), cobble and coarse and fine gravel	Soil contained no unusual objects
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81-58

<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-37-LB	
<b>BORING LOC:</b> (N) 4136465.00 (E) 4146615.00			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/27/00	<b>END DATE:</b> 10/27/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-37-3	↓ X ↓	NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel, trace silt	Soil contained no unusual objects
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<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-38-LB	
<b>BORING LOC:</b> (N) 4138360.00 (E) 4148615.00			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/27/00	<b>END DATE:</b> 10/27/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyar	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	



DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-38-3		NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel, trace sand	Soil contained no unusual objects
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<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-39-LB	
<b>BORING LOC:</b> (N) 4136255.00 (E) 4148615.00			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/27/00	<b>END DATE:</b> 10/27/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PLD (ppm)	USCS	SYMBOL		
1								
2								
3	SB-39-3	X	NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel	Soil contained no unusual objects
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81-61

PROJECT: 21397 VA Hospital		LOG OF BOREHOLE: SB-40-LB	
BORING LOC: (N) 4138150.00 (E) 4148615.00			
DRILLING CONTRACTOR: Vironex		START DATE: 10/27/00	END DATE: 10/27/00
DRILLING METHOD: Geoprobe		TOTAL DEPTH: 5'	
DRILLING EQUIPMENT: Truck Mounted Geoprobe		DEPTH TO WATER: NA	
SAMPLING METHOD: Acrylic Liner		LOGGED BY: Matt Eyer	
HAMMER WEIGHT and FALL: NA		RESPONSIBLE PROFESSIONAL: JD	

DEPTH (feet)	SAMPLE DATA			SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS		
1							
2							
3	SB-40-3		NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel, trace silt component  Soil contained small amount of uncharred wood
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5							
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81-62

<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-41-LB	
<b>BORING LOC:</b> (N) 4138045.00 (E) 4146615.00			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/27/00	<b>END DATE:</b> 10/27/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-41-3		NA	0	CL		Clay: Dense clay, mottled color, (brown, red), cobble and coarse and fine gravel	Soil contained no unusual objects
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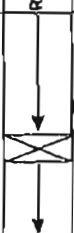

<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-42-LB	
<b>BORING LOC:</b> (N) 4135946.71 (E) 4146616.95			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/27/00	<b>END DATE:</b> 10/27/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-42-3		NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel, small silty component	Soil contained no unusual objects
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<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-43-LB	
<b>BORING LOC:</b> (N) 4135834.77 (E) 4146627.40			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/26/00	<b>END DATE:</b> 10/26/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	



DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-43-3		NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel, trace sand	Soil contained no unusual objects
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<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-44-LB	
<b>BORING LOC:</b> (N) 4135730.00 (E) 4146615.00			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/27/00	<b>END DATE:</b> 10/27/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-44-3		NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel	Soil contained small amount of concrete
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81-6

PROJECT: 21397 VA Hospital		LOG OF BOREHOLE: SB-45-LB	
BORING LOC: (N) 4136360.00 (E) 4146720.00			
DRILLING CONTRACTOR: Vironex		START DATE: 10/27/00	END DATE: 10/27/00
DRILLING METHOD: Geoprobe		TOTAL DEPTH: 5'	
DRILLING EQUIPMENT: Truck Mounted Geoprobe		DEPTH TO WATER: NA	
SAMPLING METHOD: Acrylic Liner		LOGGED BY: Matt Eyer	
HAMMER WEIGHT and FALL: NA		RESPONSIBLE PROFESSIONAL: JD	


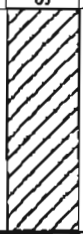
DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-45-3		NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobbles and coarse and fine gravel	Soil contained no unusual material
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81-6



<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-46-LB	
<b>BORING LOC:</b> (N) 4136255.00 (E) 4146720.00			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/27/00	<b>END DATE:</b> 10/27/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-48-3		NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel, dark organic vein	Soil contained no unusual objects
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<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-47-LB	
<b>BORING LOC:</b> (N) 4138150.00 (E) 4146720.00			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/27/00	<b>END DATE:</b> 10/27/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-47-3		NA	0	CL		Clay: Dense clay, mottled color, (brown, red), cobble and coarse and fine gravel	Soil contained small amount of brick
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<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-48-LB	
<b>BORING LOC:</b> (N) 4136045.00 (E) 4146720.00			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/27/00	<b>END DATE:</b> 10/27/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA			SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS		
1							
2							
3	SB-48-3		NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel  Soil contained no unusual objects
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<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-49-LB	
<b>BORING LOC:</b> (N) 4135730.00 (E) 4146720.00			
<b>DRILLING CONTRACTOR:</b> AEI		<b>START DATE:</b> 10/27/00	<b>END DATE:</b> 10/27/00
<b>DRILLING METHOD:</b> Hand Auger		<b>TOTAL DEPTH:</b> 3'	
<b>DRILLING EQUIPMENT:</b> 4" Diameter Hand Auger		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Brass Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	



DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PI D (ppm)	USCS	SYMBOL		
1			NA	0	CL		Clay: Loose clay, mottled color, (brown, red), cobble trace silt	Soil contained no unusual objects
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3	SB-49-3'							
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81-71







<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-51-LB	
<b>BORING LOC:</b> (N) 4135940.00 (E) 4148825.00			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/27/00	<b>END DATE:</b> 10/27/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-51-3		NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel	Soil contained no unusual objects
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81-73

<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-52-LB	
<b>BORING LOC:</b> (N) 4135835.00 (E) 4146825.00			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/27/00	<b>END DATE:</b> 10/27/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-52-3		NA	0	CL		Clay: Dense clay, mottled color, (brown, red); cobble and coarse and fine gravel	Soil contained no unusual objects
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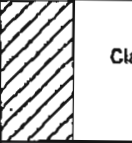

81-74

<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-53-LB	
<b>BORING LOC:</b> (N) 4135730.00 (E) 4146825.00			
<b>DRILLING CONTRACTOR:</b> AEI		<b>START DATE:</b> 10/27/00	<b>END DATE:</b> 10/27/00
<b>DRILLING METHOD:</b> Hand Auger		<b>TOTAL DEPTH:</b> 3'	
<b>DRILLING EQUIPMENT:</b> 4" Diameter Hand Auger		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Brass Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	



DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1			NA	0	CL	[Hatched Symbol]	Clay: Loose clay, mottled color, (brown, red), cobble trace silt	Soil contained no unusual objects
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3	SB-53-3'	[Symbol]						
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81-75

<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-54-LB	
<b>BORING LOC:</b> (N) 4135728.70 (E) 4146777.05			
<b>DRILLING CONTRACTOR:</b> AEI		<b>START DATE:</b> 10/27/00	<b>END DATE:</b> 10/27/00
<b>DRILLING METHOD:</b> Hand Auger		<b>TOTAL DEPTH:</b> 3'	
<b>DRILLING EQUIPMENT:</b> 4" Diameter Hand Auger		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Brass Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1			NA	0	CL		Clay: Loose clay, mottled color, (brown, red), cobble trace silt	Soil contained no unusual objects
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3	SB-54-3'							
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<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-55-LB	
<b>BORING LOC:</b> (N) 4135749.81 (E) 4146807.00			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/27/00	<b>END DATE:</b> 10/27/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 6'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-55-3		NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel	Soil contained no unusual objects
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<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-56-LB	
<b>BORING LOC:</b> (N) 4136216.86 (E) 4146582.45			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/27/00	<b>END DATE:</b> 10/27/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-56-3		NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel	Soil contained namall amount of brick
4								
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6								
7								
8								
9								
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26								

<b>PROJECT:</b> 21387 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-57-LB	
<b>BORING LOC:</b> (N) 4136370.72 (E) 4146558.76			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/27/00	<b>END DATE:</b> 10/27/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	



DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-57-3	↓ X ↓	NA	0	CL	/	Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel, dark organic vein	Soil contained small amount of brick
4								
5								
6								
7								
8								
9								
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26								



<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-58-LB	
<b>BORING LOC:</b> (N) 4138505.85 (E) 4148430.07			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/27/00	<b>END DATE:</b> 10/27/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	



DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-58-3	↓ X ↓	NA	0	CL	/	Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel	Soil contained nsmall amount of green glass Glass appeared to be new, possibly from a soda bottle
4								
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26								

<b>PROJECT:</b> 21387 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-59-LB	
<b>BORING LOC:</b> (N) 4136558.62 (E) 4146346.42			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/27/00	<b>END DATE:</b> 10/27/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	


DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-59-3		NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel	Soil contained no unusual objects
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
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24								
25								
26								

81-81

<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-60-LB	
<b>BORING LOC:</b> (N) 4136423.39 (E) 4146282.11			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/27/00	<b>END DATE:</b> 10/27/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 5'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	



DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3	SB-60-3		NA	0	CL		Clay: Dense clay, mottled color, (brown, gray, red), cobble and coarse and fine gravel	Soil contained no unusual objects
4								
5								
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7								
8								
9								
10								
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23								
24								
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26								

<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-61-AP	
<b>BORING LOC:</b> (N) 4136651.16 (E) 4146952.34			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/26/00	<b>END DATE:</b> 10/26/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 13'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PI D (ppm)	USCS	SYMBOL		
1								
2								
3								
4								
5								
6								
7								
8								
9							Clay: Medium dense clay, mottled color (brown, gray, red), little cobble	Soil contained no unusual objects
10								
11	SB-61-11		NA	0	CL		Clay: Loose gray and brown clay, cobble and coarse and fine gravel, very unconsolidated	Soil contained no unusual objects
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								



81-83

<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-62-AP	
<b>BORING LOC:</b> (N) 4138670.25 (E) 4146935.92			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/28/00	<b>END DATE:</b> 10/26/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 13'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	



DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3								
4								
5								
6								
7								
8								
9								
10							Clay: Medium dense clay, mottled color (brown, gray, red), little cobble	Soil contained no unusual objects
11	SB-62-11		NA	0	CL		Clay: Loose gray and brown clay, cobble and coarse and fine gravel, very unconsolidated	Soil contained no unusual objects
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								

81-84

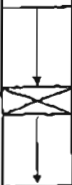
<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-63-AP	
<b>BORING LOC:</b> (N) 4136687.56 (E) 4146920.57			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/26/00	<b>END DATE:</b> 10/28/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 13'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11	SB-63-11		NA	0	CL		Clay: Medium dense clay, mottled color (brown, gray, red), little cobble	Soil contained no unusual objects
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								

<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-84-AP	
<b>BORING LOC:</b> (N) 4136702.65 (E) 4146935.37			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/26/00	<b>END DATE:</b> 10/26/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 13'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	



DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11	SB-84-11		NA	0	CL		Clay: Medium dense clay, mottled color (brown, gray, red), little cobble	Soil contained no unusual objects
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								

<b>PROJECT:</b> 21397 VA Hospital	<b>LOG OF BOREHOLE:</b> SB-65-AP	
<b>BORING LOC:</b> (N) 4136685.64 (E) 4148951.11		
<b>DRILLING CONTRACTOR:</b> Vironex	<b>START DATE:</b> 10/26/00	<b>END DATE:</b> 10/26/00
<b>DRILLING METHOD:</b> Geoprobe	<b>TOTAL DEPTH:</b> 13'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe	<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner	<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA	<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	P/D (ppm)	USCS	SYMBOL		
1								
2								
3								
4								
5								
6								
7								
8								
9								
10							Clay: Dense clay, mottled color, (brown, gray, red), little cobble	Soil contained no unusual objects
11	SB-65-11		NA	0	CL		Clay: Loose gray and brown clay, cobble and coarse and fine gravel, very unconsolidated	Soil contained no unusual objects
12								
13								
14								
15								
16								
17								
18								
19								
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21								
22								
23								
24								
25								
26								



<b>PROJECT:</b> 21397 VA Hospital		<b>LOG OF BOREHOLE:</b> SB-66-AP	
<b>BORING LOC:</b> (N) 4136689.29 (E) 4148965.89			
<b>DRILLING CONTRACTOR:</b> Vironex		<b>START DATE:</b> 10/26/00	<b>END DATE:</b> 10/26/00
<b>DRILLING METHOD:</b> Geoprobe		<b>TOTAL DEPTH:</b> 13'	
<b>DRILLING EQUIPMENT:</b> Truck Mounted Geoprobe		<b>DEPTH TO WATER:</b> NA	
<b>SAMPLING METHOD:</b> Acrylic Liner		<b>LOGGED BY:</b> Matt Eyer	
<b>HAMMER WEIGHT and FALL:</b> NA		<b>RESPONSIBLE PROFESSIONAL:</b> JD	

DEPTH (feet)	SAMPLE DATA				SOIL TYPE		SOIL DESCRIPTION	REMARKS
	SAMPLE NUMBER	RECOVERY	BLOWS	PID (ppm)	USCS	SYMBOL		
1								
2								
3								
4								
5								
6								
7								
8								
9								
10							Clay: Medium dense clay, mottled color (brown, gray, red), little cobble	Soil contained no unusual objects
11	SB-66-11		NA	0	CL		Clay: Loose gray and brown clay, cobble and coarse and fine gravel, very unconsolidated	Soil contained no unusual objects
12								
13								
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24								
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26								

**HEALTH AND SAFETY PLAN**

Prepared for:

Subsurface Investigation  
at  
Playing Field Constuction Area  
VA Hospital  
11301 Wilshire Boulevard  
Los Angeles, California

A. INTRODUCTION

This Site Specific Health and Safety Plan is written for the Subsurface Investigation located at 11301 Wilshire Boulevard in Los Angeles, California. All job site personnel will follow CAL OSHA safe operating practices as outlined in 29 CFR 1910 and 1926, as well as established guidelines set forth by AEI or their respective companies.

B. WORK DESCRIPTION

Prepared by: Matt Eyer

Site Manager: Matt Eyer

Address: 11301 Wilshire Boulevard  
Los Angeles, California

The purpose of this investigation is to confirm the absence or presence of Diesel contaminants and CAM 17 Metals in the subsurface. AEI will advance 60 soil borings to 5 feet below ground surface and 6 soil borings to approximately 15 feet below ground surface. AEI's sampling procedures conform to the requirements of the State Regional Water Quality Control Board and the US EPA. All of the samples collected will be analyzed by a state certified laboratory and the entire project will be performed under the responsible charge of a registered professional civil engineer.

C. SITE/WASTE CHARACTERISTICS

Hazard Level:            Serious:                            Low:  
   Moderate: XXX                            Unknown:

Waste Type:            Solid: XXX  
   Sludge:  
   Liquid: XXX  
   Gas: XXX

Hazard Characteristics:            Toxic, moving machinery and sharps hazard

There will be a three-foot boundary surrounding the work area. The area within this boundary is considered an exclusion zone and only qualified personnel will be allowed to enter. All personnel arriving or departing the site should log in before entering the exclusion zone. All activities on site must be cleared through the Site Manager.

## D. HAZARD EVALUATION

Potential chemical hazards include skin and eye contact or inhalation exposure to potentially toxic concentrations of vapors. The potential toxic compounds that may exist at the site are listed below with descriptions of specific health effects of each. The list includes the primary potential toxic constituents that may be found at sites previously handling petroleum hydrocarbons, including home heating diesel fuel.

### 1. Benzene

- a. Colorless to light yellow, flammable liquid with an aromatic odor.
- b. Toxic hazard by **inhalation, adsorption, ingestion and skin and/or eye contact.**
- c. Exposure may irritate eyes, nose and respiratory system and may cause acute restlessness, convulsions, nausea, or depression. Benzene is carcinogenic.\*
- d. Permissible exposure level (PEL) for a time weighted average (TWA) over an eight hour period is 1.0 ppm.

### 2. tert-Butylbenzene

- a. Colorless liquid.
- b. Toxic hazard by **inhalation and skin and/or eye contact.**
- c. Exposure may irritate eyes, nose and respiratory system and may cause acute restlessness, convulsions, nausea, or depression. Tert-Butylbenzene is carcinogenic.\*
- d. Permissible exposure level (PEL) for a time-weighted average (TWA) over an eight-hour period is 25.0 ppm.

### 3. Tetrachloroethylene

- a. Colorless liquid with a mild, chloroform-like odor.
- b. Toxic hazard by **inhalation, adsorption, ingestion and skin and/or eye contact.**
- c. Exposure may irritate eyes, nose, throat; create nausea, dizziness, flush face and neck; ingestion may cause liver damage; carcinogenic\*
- d. Permissible exposure level (PEL) for a time-weighted average (TWA) over an eight-hour period is 25.0 ppm.

### 4. Trichloroethylene

- a. Colorless liquid with a sweet, chloroform-like odor.
- b. Toxic hazard by **inhalation, adsorption, ingestion and skin and/or eye contact.**
- c. Exposure may irritate nose and eyes and may cause depression of the Central Nervous System; carcinogenic\*.
- d. Permissible exposure level (PEL) for a time-weighted average (TWA) over an eight-hour period is 10.0 ppm.

### 5. 1,2,4-Trimethylbenzene

- a. Colorless, flammable liquid.
- b. Toxic hazard by **inhalation, adsorption, ingestion and skin and/or eye contact.**
- c. Exposure may cause headache, fatigue and drowsiness. May irritate the nose, throat, and skin and may cause anemia.

- d. Permissible exposure level (PEL) for a time-weighted average (TWA) over an eight-hour period is 1.0 ppm.

6. 1,3,5-Trimethylbenzene

- a. Colorless, flammable liquid.
- b. Toxic hazard by **inhalation, adsorption, ingestion and skin and/or eye contact.**
- c. Exposure may cause headache, fatigue and drowsiness. May irritate the nose, throat, and skin and may cause anemia.
- d. Permissible exposure level (PEL) for a time-weighted average (TWA) over an eight-hour period is 1.0 ppm.

7. Antimony

- a. A silvery-white solid.
- b. Toxic hazard by **inhalation and skin and/or eye contact.**
- c. Exposure may cause irritation of the nose, throat, and mouth. May cause dizziness, nausea, diarrhea, cramps, and insomnia.
- d. Permissible exposure level (PEL) for a time weighted average (TWA) over a ten-hour period is 0.5 mg/m<sup>3</sup>.

8. Arsenic

- a. Appearance and odor vary.
- b. Toxic hazard by **inhalation, adsorption, ingestion and skin and/or eye contact.**
- c. Exposure may cause ulceration of nasal septum, dermatitis, gastrointestinal disturbances, respiratory irritation, hyper-pigmentation of skin. Arsenic is carcinogenic.\*
- d. Permissible exposure level (PEL) for a time weighted average (TWA) over an eight-hour period is 10 mg/m<sup>3</sup>.

9. Barium

- a. Appearance and odor vary depending upon specific compound.
- b. Toxic hazard by **inhalation, ingestion, and skin and/or eye contact.**
- c. Exposure may cause upper respiratory irritation, muscle spasms, slow pulse, irritation of eyes, and skin burns.
- d. Permissible exposure level (PEL) for a time weighted average (TWA) over an eight-hour period is 0.5 mg/m<sup>3</sup>.

10. Beryllium

- a. Appearance and odor vary.
- b. Toxic hazard by **inhalation.**
- c. Exposure may cause respiratory symptoms, fatigue, and weight loss. Beryllium is carcinogenic.\*
- d. Permissible exposure level (PEL) for a time weighted average (TWA) over an eight-hour period is 2.0 mg/m<sup>3</sup>.

#### 11. Cadmium

- a. Properties vary depending upon specific compound.
- b. Toxic hazard by **inhalation** and **ingestion**.
- c. Exposure may cause dyspnea, coughing, substernal pain, headache, shills, muscle aches, nausea, diarrhea, anosmia, emphysema, and anemia. Cadmium is carcinogenic.\*
- d. Permissible exposure level (PEL) for a time weighted average (TWA) over an eight-hour period is 0.2 mg/m<sup>3</sup>.

#### 12. Chromium

- a. Properties vary depending upon specific compound.
- b. Toxic hazard by **inhalation** and **ingestion**.
- c. Exposure may cause histologic fibrosis of lungs. Chromium is carcinogenic.\*
- d. Permissible exposure level (PEL) for a time weighted average (TWA) over an eight-hour period is 1 mg/m<sup>3</sup>.

#### 13. Lead

- a. A heavy ductile soft gray metal.
- b. Toxic hazard by **inhalation**, **ingestion**, and **skin and/or eye contact**.
- c. Exposure may cause weakness, nausea, lassitude, diarrhea, insomnia, anorexia, inflamed mucous membranes and abdominal pains. Lead is carcinogenic.\*
- d. Permissible exposure level (PEL) for a time-weighted average (TWA) over an eight-hour period is .05 ppb (in vapor).

#### 14. Mercury

- a. Silvery, mobile odorless liquid.
- b. Toxic hazard by **inhalation**, **absorption**, and **skin and/or eye contact**.
- c. Exposure may cause coughing, dyspnea, bronchial pneumonia, insomnia, headache, fatigue, and irritation of the eyes and skin.
- d. Permissible exposure level (PEL) for a time-weighted average (TWA) over an eight-hour period is 0.05 mg/m<sup>3</sup>.

#### 15. Molybdenum

- a. Appearance and odor vary depending upon specific compound.
- b. Toxic hazard by **inhalation**, **ingestion**, and **skin and/or eye contact**.
- c. Exposure to animals may cause loss of appetite, incoordination, irritation of eyes, nose and throat, dyspnea, and anemia.
- d. Permissible exposure level (PEL) for a time-weighted average (TWA) over an eight-hour period is 10 mg/m<sup>3</sup>.

#### 16. Nickel

- a. Appearance and odor vary depending upon specific compound.
- b. Toxic hazard by **inhalation**, **ingestion**, and **skin and/or eye contact**.
- c. Exposure may cause asthma, and pneumonitis. Nickel is carcinogenic.\*
- d. Permissible exposure level (PEL) for a time-weighted average (TWA) over an eight-hour period is 1 mg/m<sup>3</sup>.

17. Selenium

- a. Appearance and odor vary depending upon specific compound.
- b. Toxic hazard by **inhalation, absorption, ingestion, and skin and/or eye contact.**
- c. Exposure may cause irritation of the eyes, nose and throat, headache, chills, fever, dyspnea, and bronchitis.
- d. Permissible exposure level (PEL) for a time weighted average (TWA) over an eight-hour period is 0.2 mg/m<sup>3</sup>.

18. Silver

- a. Appearance and odor vary depending upon specific compound.
- b. Toxic hazard by **inhalation, ingestion, and skin and/or eye contact.**
- c. Exposure may cause blue-gray eyes, irritation of nasal septum, throat and skin, and ulceration.
- d. Permissible exposure level (PEL) for a time-weighted average (TWA) over an eight-hour period is 0.01 mg/m<sup>3</sup>.

19. Thallium

- a. Appearance and odor vary depending upon specific compound.
- b. Toxic hazard by **inhalation, absorption, ingestion, and skin and/or eye contact.**
- c. Exposure may cause nausea, diarrhea, and abdominal pain.
- d. Permissible exposure level (PEL) for a time weighted average (TWA) over an eight-hour period is 0.1 mg/m<sup>3</sup>.

20. Vanadium

- a. Yellow-orange powder or dark gray flakes, odorless.
- b. Toxic hazard by **inhalation, ingestion, and skin and/or eye contact.**
- c. Exposure may cause dermatitis.
- d. Permissible exposure level (PEL) for a time weighted average (TWA) over an eight-hour period is 0.1 mg/m<sup>3</sup>.

21. Zinc

- a. White fume.
- b. Toxic hazard by **inhalation.**
- c. Exposure may cause dry throat, coughing, chills, fever, tight chest, dyspnea, back pain, nausea, vomiting, and fatigue.
- d. Permissible exposure level (PEL) for a time weighted average (TWA) over an eight-hour period is 1 mg/m<sup>3</sup>.

\* **Known to the State of California to cause cancer.**

Additional hazards include heavy construction machinery in operation on-site and a sharps hazard associated with medical waste.

Matt Eyer has been designated to coordinate access control and security on site. All work will strictly follow OSHA guidelines. A safe perimeter has been established at a three feet radius surrounding the site. These boundaries are identified by yellow caution tape and orange safety cones.

A FIRST AID KIT AND A 40 POUND BC FIRE EXTINGUISHER WILL BE AVAILABLE ON SITE.

EMERGENCY SERVICES ARE AVAILABLE BY DIALING 911 ON THE TELEPHONE LOCATED IN THE SITE MANAGER'S VEHICLE. THIS VEHICLE WILL BE ON SITE AT ALL TIMES.

#### E. PERSONAL PROTECTIVE CLOTHING

Based on evaluation of potential hazards, level "D" protective clothing has been designated as the appropriate protection for this project. The level of protective clothing will be upgraded if the organic vapor levels in the operator's breathing zone exceed 5 ppm above background levels continuously for more than five minutes, or if any single reading exceeds 25 ppm. If this occurs then level C protection will be used. If the organic concentration in the operator's breathing zone exceeds 200 ppm for 5 minutes and/or the organic vapor concentration two feet above the excavation exceeds 1,000 ppm or 10% of the lower explosive limit, then the equipment will be shut down and the site evacuated. If organic vapor concentrations exceed 200 ppm and work continues then level B protection will be required.

"EPA Standard Operating Safety Guidelines" defines the levels of protective clothing as follows:

##### LEVEL A:

Fully encapsulating suit / SCBA / Hard hat / Steel toe boots / Safety gloves.

##### LEVEL B:

Splash resistant suit / SCBA / Hard Hat / Steel toe boots / Safety gloves.

##### LEVEL C:

Half face respirator / Hard hat / Safety glasses / Steel toe boots / Coveralls / Gloves.

##### LEVEL D:

Coveralls / Hardhat / Safety Glasses / Steel toe boots / Gloves.

If air purifying respirators are authorized, organic vapor w-filter is the appropriate canister for use with the involved substances and concentrations. A competent individual has determined that all criteria for using this type of respiratory protection have been met.

NO CHANGES TO THE SPECIFIED LEVELS OF PROTECTION SHALL BE MADE WITHOUT THE APPROVAL OF THE COMPANY SAFETY OFFICER, J.P. DERHAKE.



F. MONITORING INSTRUMENTS

A photo ionization detector and continuous VOC sampling will be used to monitor contaminant concentration.

G. EMERGENCY HOSPITAL

The closest hospital with an emergency room is:

**Veterans Affairs Medical Hospital**  
11301 Wilshire Boulevard  
Los Angeles, California 90073

~~XXXXXXXXXXXXXXXXXXXX~~

**Emergency**

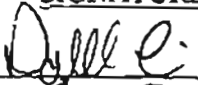


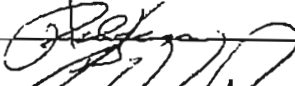
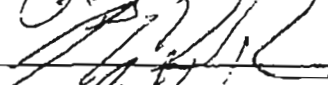
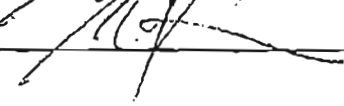
**911**

**Total Distance: 0.5 miles**

**Total Estimated Time: 3 minutes**

H. READ AND SIGN

The work party was briefed on the contents of this plan on 10/26 - 11/27 at 8:00 am. All site personnel have read the above plan and are familiar with its provisions.

<u>NAME:</u>	<u>SIGNATURE:</u>	<u>COMPANY NAME:</u>
Darrell Lewis		Vidovex
MICHAEL LEVIN		VIDOVEX
MAH. Eyer		AET
Paul Kerza		AET
Joe Reduke		AET
PAUL HINCKSON		AET



Southland Technical Services, Inc.  
Environmental Laboratories

7301 Telegraph Road, Suite L  
Montebello, CA 90640

Phone [REDACTED]  
Fax [REDACTED]

11-03-2000

Mr. Matt Eyer  
AEI Consultants  
2309 Pacific Coast Hwy., Suite 206  
Hermosa Beach, CA 90254

Project: 21397  
Project Site: VA Hospital  
Sample Date: 10-26-2000  
Lab Job No.: AI010114

Dear Mr. Eyer:

Enclosed please find the analytical report for the sample(s) received by STS Environmental Laboratories on 10-30-2000 and analyzed by the following EPA methods:

EPA 8015M (Diesel)  
EPA 7000 Series for Cam-17 Metals

All analyses have met the QA/QC criteria of this laboratory.

The sample(s) arrived in good conditions (i.e., chilled, intact) and with a chain of custody record attached.

STS Environmental Laboratory is certified by the CA DHS (Certificate Number 1986). Thank you for giving us the opportunity to serve you. Please feel free to call me at [REDACTED] if our laboratory can be of further service to you.

Sincerely,

Roger Wang, Ph. D.  
Laboratory Director

Enclosures

This cover letter is an integral part of this analytical report.



**Southland Technical Services, Inc.**  
Environmental Laboratories

7301 Telegraph Road, Suite L  
Montebello, CA 90640

Phone [REDACTED]  
Fax [REDACTED]

11-03-2000

Client: AEI Consultants  
Project: 21397  
Project Site: VA Hospital  
Matrix: Soil  
Digestion Method: EPA 3050B  
Batch No.: 1031-M1

Lab Job No.: A1010114  
Date Sampled: 10-26-2000  
Date Received: 10-30-2000  
Date Digested: 10-30-2000  
Date Analyzed: 10-31-2000

**Cam-17 Metals (ITLC)**  
Reporting Units: mg/kg (ppm)

Element	EPA Method	Method Blank	A110114-	A110114-	A110114-	A110114-	A110114-	A110114-	Reporting Limit
			31 SB61	32 SB62	33 SB63	34 SB64	35 SB65	36 SB66	
Antimony (Sb)	7040	ND	14.4	16.9	15.1	12.7	11	13.8	10
Arsenic (As)	7060	ND	1.71	4.18	2.16	1.41	0.96	1.51	0.5
Barium (Ba)	7080	ND	126	139	176	57.5	69.4	67.7	10
Beryllium (Be)	7090	ND	ND	ND	ND	ND	ND	ND	2.5
Cadmium (Cd)	7130	ND	ND	ND	ND	ND	ND	ND	2.5
Chromium (Cr)	7190	ND	37.4	31.3	31.8	27.8	29.8	37.2	2.5
Cobalt (Co)	7200	ND	4.5	6.8	8.6	5.8	3.2	9.0	2.5
Copper (Cu)	7210	ND	18.2	27.8	21.7	13.9	11	17.3	2.5
Lead (Pb)	7420	ND	5.7	60.8	7.2	4.4	2.6	9.2	2.5
Mercury (Hg)	7471	ND	ND	0.065	ND	ND	0.065	0.065	0.03
Molybdenum (Mo)	7480	ND	ND	ND	ND	ND	ND	ND	5
Nickel (Ni)	7520	ND	14.5	16	19.8	12.0	8.4	21.4	2.5
Selenium (Se)	7740	ND	ND	ND	ND	ND	ND	ND	0.5
Silver (Ag)	7760	ND	ND	ND	ND	ND	ND	ND	2.5
Thallium (Tl)	7840	ND	7.93	12.2	11.3	5.8	ND	15.4	2.5
Vanadium (V)	7910	ND	50.6	44.6	53.2	35.9	36	32.3	10
Zinc (Zn)	7950	ND	41.5	98.3	37.2	38.1	22.6	33.2	1.0

ND: Not Detected (at the specified limit).



Southland Technical Services, Inc.  
Environmental Laboratories

7501 Telegraph Road, Suite L  
Montecito, CA 90640

Phone (805) 600-0720  
Fax (805) 600-0720

11-03-2000

Client: AEI Consultants  
Project: 21397  
Project Site: VA Hospital  
Matrix: Water  
Digestion Method: EPA 3010  
Batch No.: 1101-M1

Lab Job No.: A1010114  
Date Sampled: 10-26-2000  
Date Received: 10-30-2000  
Date Digested: 10-30-2000  
Date Analyzed: 11-01-2000

Cam-17 Metals (TTLC)  
Reporting Units: mg/L (ppm)

Element	EPA Method	Method Blank	A11014-	Reporting Limit
			37 Rinsate	
Antimony (Sb)	7040	ND	ND	0.5
Arsenic (As)	7060	ND	ND	0.01
Barium (Ba)	7080	ND	ND	0.5
Beryllium (Be)	7090	ND	ND	0.05
Cadmium (Cd)	7130	ND	ND	0.05
Chromium (Cr)	7190	ND	ND	0.1
Cobalt (Co)	7200	ND	ND	0.1
Copper (Cu)	7210	ND	ND	0.05
Lead (Pb)	7420	ND	ND	0.1
Mercury (Hg)	7471	ND	ND	0.001
Molybdenum (Mo)	7480	ND	ND	0.4
Nickel (Ni)	7520	ND	ND	0.1
Selenium (Se)	7740	ND	ND	0.01
Silver (Ag)	7760	ND	ND	0.05
Thallium (Tl)	7840	ND	ND	0.2
Vanadium (V)	7910	ND	ND	0.5
Zinc (Zn)	7950	ND	ND	0.05

ND: Not Detected (at the specified limit).



Southland Technical Services, Inc.  
Environmental Laboratories

301 Telegraph Road, Suite L  
Montebello, CA 90640

Phone [REDACTED]  
Fax [REDACTED]

11-03-2000

Client: AEI Consultants  
Project: 21397  
Project Site: VA Hospital  
Matrix: Soil  
Batch No: EJ30-DS1

Lab Job No.: AI010114  
Date Sampled: 10-26-2000  
Date Received: 10-30-2000  
Date Analyzed: 10-30-2000

EPA 8015M (Diesel)  
Reporting Units: mg/kg (ppm)

Sample ID	Lab ID	DF	Diesel (C10-C23)	Reporting Limit
Method Blank		1	ND	10
SB1-3' & SB3-3'	AI10114-1	1	ND	10
SB4-3' & SB5-3'	AI10114-2	1	ND	10
SB6-3' & SB7-3'	AI10114-3	1	ND	10
SB8-3' & SB9-3'	AI10114-4	1	ND	10
SB10-3' & SB11-3'	AI10114-5	1	ND	10
SB12 & SB13	AI10114-6	1	ND	10
SB14 & SB15	AI10114-7	1	ND	10
SB16 & SB17	AI10114-8	1	ND	10
SB18 & SB19	AI10114-9	1	ND	10
SB20 & SB2	AI10114-10	1	ND	10
SB21-3' & SB25-3'	AI10114-11	1	20.5	10
SB22-3' & SB23-3'	AI10114-12	1	ND	10
SB24-3' & SB31-3'	AI10114-13	1	ND	10
SB27-3' & SB28-3'	AI10114-14	1	ND	10
SB29-3' & SB30-3'	AI10114-15	1	10.6	10
SB26-3' & SB32-3'	AI10114-16	1	ND	10
SB33-3' & SB34-3'	AI10114-17	1	ND	10
SB35-3' & SB36-3'	AI10114-18	1	ND	10

ND: Not Detected (at the specified limit).



Southland Technical Services, Inc.  
Environmental Laboratories

7801 Telegraph Road, Suite L  
Montebello, CA 90640

Phone: [REDACTED]  
Fax: [REDACTED]

11-03-2000

Client: AEI Consultants  
Project: 21397  
Project Site: VA Hospital  
Matrix: Soil & water  
Batch No: EJ31-DS1

Lab Job No.: A1010114  
Date Sampled: 10-26-2000  
Date Received: 10-30-2000  
Date Analyzed: 10-31-2000

EPA 8015M (Diesel)  
Reporting Units: mg/kg (ppm)

Sample ID	Lab ID	DF	Diesel	Reporting Limit
Method Blank		1	ND	10
SB37-3' & SB38-3'	A110114-19	1	ND	10
SB39-3' & SB40-3'	A110114-20	1	ND	10
SB41-3' & SB42-3'	A110114-21	1	ND	10
SB43-3' & SB50-3'	A110114-22	1	ND	10
SB44-3' & SB51-3'	A110114-23	1	16.2	10
SB45-3' & SB52-3'	A110114-24	1	ND	10
SB46-3' & SB47-3'	A110114-25	1	ND	10
SB48 & SB49	A110114-26	1	ND	10
SB53 & SB54	A110114-27	1	ND	10
SB55 & SB56	A110114-28	1	ND	10
SB57 & SB58	A110114-29	1	ND	10
SB59 & SB60	A110114-30	1	ND	10
SB61	A110114-31	1	ND	10
SB62	A110114-32	1	ND	10
SB63	A110114-33	1	ND	10
SB64	A110114-34	1	ND	10
SB65	A110114-35	1	ND	10
SB66	A110114-36	1	ND	10
Rinsate (water)	A110114-37	1	ND	0.5 mg/L

ND: Not Detected (at the specified limit).



Southland Technical Services, Inc.  
Environmental Laboratories

7801 Telegraph Road, Suite L  
Montebello, CA 90640

Phone [REDACTED]  
Fax [REDACTED]

11-03-2000

EPA 8015M (TPH)  
Batch QA/QC Report

Client: AEI Consultants  
Project: 21397  
Matrix: Soil  
Batch No.: EJ30-DS1

Lab Job No.: A1010114  
Lab Sample ID: A110114-14  
Date Analyzed: 10-30-2000

I. MS/MSD Report  
Unit: ppm

Analyte	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
TPH	ND	200	231	235	115.5	117.5	1.7	30	70-130

II. LCS Result  
Unit: ppm

Compound	LCS Report Value	True Value	Rec.%	%Rec Accept. Limit
TPH	224	200	112.0	80-120

ND: Not Detected (at the specified limit).





**Southland Technical Services, Inc.**  
Environmental Laboratories

7801 Telegraph Road, Suite L  
Montebello, CA 90640

Phone [REDACTED]  
Fax [REDACTED]

11-03-2000

**EPA 8015M (TPH)  
Batch QA/QC Report**

Client: AEI Consultants  
Project: 21397  
Matrix: Soil  
Batch No.: EJ31-DS1

Lab Job No.: AI010114  
Lab Sample ID: Q10123-1  
Date Analyzed: 10-31-2000

**I. MS/MSD Report  
Unit: ppm**

Analyte	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
TPH	ND	200	224	232	112.0	116.0	3.5	30	70-130

**II. LCS Result  
Unit: ppm**

Compound	LCS Report Value	True Value	Rec.%	%Rec Accept. Limit
TPH	225	200	112.5	80-120

ND: Not Detected (at the specified limit).

CHAIN OF CUSTODY RECORD

Lab Job Number A12/0114

Client Name	Address	Phone #	Fax #	Project Site	Sample Collection		Matrix Type	Sample Preserve	No., type & size of container	Analyses Requested				Turn Around Time Requested		
					Date	Time				602/8020 (BTEX)	8015M (Gasoline)	8015M (Diesel)	418.1	CPM 17 Metals	Rush B 12 24 Hours	2-3 days
Client				UP	11/21/01	8:05	S&L	ICE	1	1	X					
Client				UP	11/21/01	8:25			1							
Client				UP	11/21/01	8:40			1							
Client				UP	11/21/01	8:45			1							
Client				UP	11/21/01	9:00			1							
Client				UP	11/21/01	9:15			1							
Client				UP	11/21/01	9:30			1							
Client				UP	11/21/01	9:45			1							
Client				UP	11/21/01	10:10			1							
Client				UP	11/21/01				1							

Received By: *Maryann Presnell* Company: *Company*  
 Date: *11/21/01* Time: *8:05 AM*  
 Received By: \_\_\_\_\_ Company: \_\_\_\_\_  
 Date: \_\_\_\_\_ Time: \_\_\_\_\_

Southland Tech. Services, Inc.  
 7801 Telegraph Road, Suite L & K  
 Montebello, CA 90640

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.  
 Distribution: WHITE with report, PINK to courier.

\*Sample Container Types:  
 A=Air Bag  
 B=Brass Tube  
 G=Glass Container  
 P=Plastic Bottle  
 ST=Steel Tube  
 V=VDA Bottle

CHAIN OF CUSTODY RECORD

Lab Job Number ALC1014

Client Name <u>ACE</u>	Address <u>2507 Mission Street, San Jose, CA</u>	Report Attention <u>John Doe</u>	Phone # <u>408-253-1234</u>	Fax # <u>408-253-5678</u>	Sampled By <u>JD</u>	Project No./Name <u>2001</u>	Project Site <u>1000 Highway</u>	Sample Collection		Matrix Type	Sample Preserve	No., type & size of container	Analyses Requested				Turn Around Time Requested	
								Date	Time				602/8020 (BTEX)	8015M (Gasoline)	8015M (Diesel)	418.1	Rush 8 12 24 Hours	2-3 days
Client Sample ID																		
								10/26/01	10:30	Soil	ICE	1 Plastic						
								10/26	10:45									
								10/25	11:55									
								11/10	11:10									
								11/20	11:20									
								11/25	11:35									
								10/25	10:45									
								10/25	10:55									
								2/10	2:10									
								2/25	2:25									
Requisitioned By <u>JD</u>	Company <u>ACE</u>	Date <u>5/15/01</u>	Time <u>9:00 AM</u>	Received By <u>Shirley Presnell</u>	Company <u>ACE</u>	Date	Time	*Sample Container Types: A=Air Bag G=Glass Container ST=Steel Tube B=Brass Tube P=Plastic Bottle V=VOA Bottle										

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.  
Distribution: WHITE with report, PINK to courier.

Southland Tech. Services, Inc.  
7801 Telegraph Road, Suite L & K  
Montebello, CA 90640

CHAIN OF CUSTODY RECORD

Lab Job Number AL010114

Client Name <u>AEI Consultants</u>		Turn Around Time Requested <input type="checkbox"/> Rush 8 12 24 Hours <input type="checkbox"/> 2-3 days <input checked="" type="checkbox"/> Normal		
Address <u>2300 Pacific Coast Hwy #206</u>		Sample Receipt Conditions <input type="checkbox"/> Chilled <input type="checkbox"/> Intact <input type="checkbox"/> Sample Seals		
Report Attention <u>North Elysia</u>		Lab Sample ID		
Phone # <u>[redacted]</u> # <u>206</u>		Remarks		
Fax # <u>[redacted]</u>				
Project No./Name <u>21397</u>				
Project Site <u>VA HOSPITAL</u>				
Client Sample ID	Sample Collection Date	Matrix Type	Sample Preserve	No., type* & size of container
	Time			
SA 21 -3'	10/26/00 2:50p	Soil	ICE	Airbag (1)
SB 25 -3'	3:00p			
Composite				
SB 22 -3'	3:10p			
SB 23 -3'	3:20p			
Composite				
SB 24 -3'	3:30p			
SB 31 -3'	3:40p			
Composite				
SB 27 -3'	3:50p			
SB 28 -3'	4:00p			
Composite				
SB 29 -3'	4:10p			
SB 30 -3'	4:20p			
Composite				
Requisitioned By <u>[redacted]</u>	Company <u>AEI</u>	Date <u>12/19/00</u>	Time <u>8:00M</u>	Received By <u>[redacted]</u>
Requisitioned By	Company	Date	Time	Received By
		*Sample Container Types: A=Air Bag G=Glass Container ST=Steel Tube		B=Brass Tube P=Plastic Bottle V=VOA Bottle

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.  
Distribution: WHITE with report, PINK to counter.

Southland Tech. Services, Inc.  
7801 Telegraph Road, Suite L & K  
Montebello, CA 90640



Tel: [redacted]  
Fax: [redacted]

CHAIN OF CUSTODY RECORD

Lab Job Number A1010114

Client Name <u>AIEF Consultants</u>				Analyses Requested				Turn Around Time Requested			
Address <u>23-A Pacific Coast Hwy #206</u>				Report Attention <u>[Redacted]</u>				<input type="checkbox"/> Rush 8 12 24 Hours <input checked="" type="checkbox"/> 2-3 days <input type="checkbox"/> Normal			
Phone # <u>[Redacted]</u>				Sampled By <u>ME</u>				Sample Receipt Conditions			
Project No./Name <u>21397</u>				Project Site <u>VA Hospital</u>				<input type="checkbox"/> Chilled <input type="checkbox"/> Sample Seals <input type="checkbox"/> Intact			
Client Sample ID	Sample Collection Date	Time	Matrix Type	Sample Preserve	No., type & size of container	8015M (Gasoline)		8015M (Diesel)		Lab Sample ID	Remarks
						502/8020 (BTEX)	Company	Company	Company		
SB 26 -3	10/22/00	9:55	S.S.S.	ILS	Aluminum (1)						
SB 27 -3	10/25							X		A1010114-16	
SB 28 -3	10/25							X		-17	
SB 29 -3	10/25							X		-18	
SB 30 -3	10/25							X		-19	
SB 31 -3	11/02							X		-20	
SB 32 -3	11/02										
SB 33 -3	11/02										
SB 34 -3	11/02										
SB 35 -3	11/02										
SB 36 -3	11/02										
SB 37 -3	11/02										
SB 38 -3	11/02										
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SB 134 -3	11/02										
SB 135 -3	11/02										
SB 136 -3	11/02										
SB 137 -3	11/02										
SB 138 -3	11/02										
SB 139 -3	11/02										
SB 140 -3	11/02										
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SB 164 -3	11/02										
SB 165 -3	11/02										
SB 166 -3	11/02										
SB 167 -3	11/02										
SB 168 -3	11/02										
SB 169 -3	11/02										
SB 170 -3	11/02										

CHAIN OF CUSTODY RECORD

Lab Job Number A101014

Client Name AET Consultants		Address 2300 Pacific MVA Ely		Phone #	Sampled By ME	Analyses Requested				Turn Around Time Requested		
Project No/Name 21397		Project Site VA Highway		Fax #		602/8020 (BTEX)	8015M (Gasoline)	8015M (Diesel)	418.1			<input type="checkbox"/> Rush 8 12 24 Hours <input type="checkbox"/> 2-3 days <input checked="" type="checkbox"/> Normal
Client Sample ID	Sample Collection Date	Time	Matrix Type	Sample Preserve	No. type & size of container					Lab Sample ID	Remarks	<input type="checkbox"/> Chilled <input type="checkbox"/> Intact <input type="checkbox"/> Sample Seals
SB11 -3'	12/21/00	12:15	Soil	ICE	Aluminum (A)							
SB12 -3'		12:25										
(Composite)												
SB13 -3'		12:35										
SB14 -3'		12:45										
(Composite)												
SB15 -3'		1:05										
SB16 -3'		1:15										
(Composite)												
SB17 -3'		1:25										
SB18 -3'		1:35										
(Composite)												
SB19 -3'		1:45										
SB20 -3'		1:55										
(Composite)												
Requisitioned By MVA	Company AET	Date 12/21/00	Time 5pm	Received By Mary Kay Johnson	Company AET							*Sample Container Types: A=Air Bag G=Glass Container ST=Steel Tube B=Brass Tube P=Plastic Bottle V=VOA Bottle

Southland Tech. Services, Inc.  
7801 Telegraph Road, Suite L & K  
Montebello, CA 90640

Tel: [Redacted]  
Fax: [Redacted]

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.  
Distribution: WHITE with report, PINK to courier.

607-18

CHAIN OF CUSTODY RECORD

Lab Job Number AL01014

Client Name AEE Consultants		Address 2309 Pacific Coast Hwy #206 MHA Escondido Project No./Name 21317 VA HSR, etc		Phone # [Redacted]	Fax # [Redacted]	Sampled By ME	Analyses Requested		Turn Around Time Requested									
Client Sample ID	Sample Collection Date	Time	Matrix Type	Sample Preserve	No., type & size of container	602/8020 (BTEX)			8015M (Gasoline)			8015M (Diesel)			418.1			
						Chilled	Sample Seals	Intact	Lab Sample ID	Remarks	Rush 8 12 24 Hours	2-3 days	Normal	Sample Receipt Conditions				
SB 48	10/27/01	2:10	SOIL	ICE	ACRYLIC (.)													
SB 49		2:20						X										
SB 53		2:30						X										
SB 54		2:45						X										
SB 55		2:55						X										
SB 56		3:05						X										
SB 57		3:15						X										
SB 58		3:25						X										
SB 59		3:35						X										
SB 60		3:45						X										
COMP SITE																		

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.  
Distribution: WHITE with report, PINK to courier.

Received By  
[Signature]  
Company  
AEE  
Received By  
[Signature]  
Company  
The Xinyi Presnell Company

Southland Tech. Services, Inc.  
7801 Telegraph Road, Suite L & K.  
Montebello, CA 90640  
Tel: [Redacted]  
Fax: [Redacted]

011-18

CHAIN OF CUSTODY RECORD

Lab Job Number A1010114

Client Name		Address		Report Attention		Project No./Name		Sample Collection		Matrix Type		Sample Preserve		No., type & size of container		Analyses Requested					Turn Around Time Requested				
AES CONSULTANTS		230A Tropicana #256		Phone # [redacted] Fax # [redacted]		VA HOSPITAL		Date Time		Soil		ICE		ACRYLIC (1)		602/8020 (BTEX) 8015M (Gasoline) 8015M (Diesel) 418.1 As 7 Metals					<input type="checkbox"/> Rush 8 12 24 Hours <input type="checkbox"/> 2-3 days <input checked="" type="checkbox"/> Normal Sample Receipt Conditions <input type="checkbox"/> Chilled <input type="checkbox"/> Intact <input type="checkbox"/> Sample Seals Lab Sample ID Remarks				
Sample ID	SB61	10/28/10	11:45		Soil		ICE		ACRYLIC (1)		X											A10114-31			
Sample ID	SB62		12:00								X												-32		
Sample ID	SB63		12:15								X												-33		
Sample ID	SB64		12:30								X												-34		
Sample ID	SB65		12:45								X												-35		
Sample ID	SB66		1:00								X												-36		
Sample ID	Residue	10/29/10	5:45		Waste		ICE		VOA (2)		X												-37		
Relinquished By	M. Lynn	Company	AES	Date	10/28/10	Time	8AM	Received By	Shirley Presnell	Company															
Relinquished By		Company		Date		Time		Received By		Company															

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.  
 Distribution: WHITE with report, PINK to courier.

Southland Tech. Services, Inc.  
 7801 Telegraph Road, Suite L & K  
 Montebello, CA 90640

Tel: [redacted]  
 Fax: [redacted]



APPENDIX E

HISTORICAL METALS AND  
 TOTAL PETROLEUM HYDROCARBONS AS DIESEL CONCENTRATIONS  
 IN DISCRETE SOIL SAMPLES COLLECTED BY OTHERS  
 VETERANS ADMINISTRATION GREATER LOS ANGELES HEALTHCARE SYSTEM  
 LOS ANGELES, CALIFORNIA

Date Sampled	Sample ID No.	Copper (mg/kg)	Lead (mg/kg)	Total Petroleum Hydrocarbons as Gasoline (mg/kg)	Unknown Petroleum Hydrocarbon Gasoline Range (mg/kg)	Benzene (mg/kg)	Ethylbenzene (mg/kg)	Methyl tert-butyl ether (mg/kg)	Toluene (mg/kg)	Total Xylenes (mg/kg)	Total Petroleum Hydrocarbons as Diesel (mg/kg)	Unknown Petroleum Hydrocarbon Diesel Range (mg/kg)
26-Aug-99	HELL-1A	31.6	10.3	<1	<1	<5	<5	<5	<5	<15	<10	<10
26-Aug-99	HELL-1B	31.0	12.4	<1	<1	<5	<5	<5	<5	<15	<10	<10
26-Aug-99	HELL-2A	31.0	6.2	<1	<1	<5	<5	<5	<5	<15	<10	<10
26-Aug-99	HELL-2B	30.4	7.0	<1	<1	<5	<5	<5	<5	<15	<10	<10
26-Aug-99	HELL-3A	29.2	13.7	<1	<1	<5	<5	<5	<5	<15	<10	<10
26-Aug-99	HELL-3B	29.0	15.5	<1	<1	<5	<5	<5	<5	<15	<10	<10
26-Aug-99	HELL-4A	30.6	14.5	<1	<1	<5	<5	<5	<5	<15	<10	16
26-Aug-99	HELL-4B	31.2	9.9	<1	<1	<5	<5	<5	<5	<15	<10	15
26-Aug-99	HELL-5A	31.9	8.7	<1	<1	<5	<5	<5	<5	<15	<10	17
26-Aug-99	HELL-5B	28.5	8.7	<1	<1	<5	<5	<5	<5	<15	<10	<10
26-Aug-99	HELL-6A	29.5	10.4	<1	<1	<5	<5	<5	<5	<15	<10	<10
26-Aug-99	HELL-6B	29.9	10.8	<1	<1	<5	<5	<5	<5	<15	<10	<10
26-Aug-99	HELL-7A	26.9	15.2	<1	<1	<5	<5	<5	<5	<15	<10	<10
26-Aug-99	HELL-7B	31.9	14.4	<1	<1	<5	<5	<5	<5	<15	<10	<10
26-Aug-99	HELL-8A	31.5	8.8	<1	<1	<5	<5	<5	<5	<15	<10	<10
26-Aug-99	HELL-8B	30.7	10.9	<1	<1	<5	<5	<5	<5	<15	<10	<10
26-Aug-99	HELL-9A	29.5	7.1	<1	<1	<5	<5	<5	<5	<15	<10	<10
26-Aug-99	HELL-9B	31.3	9.8	<1	<1	<5	<5	<5	<5	<15	<10	<10
26-Aug-99	HELL-10A	31.1	9.5	<1	<1	<5	<5	<5	<5	<15	<10	14
26-Aug-99	HELL-10B	30.6	7.2	<1	<1	<5	<5	<5	<5	<15	<10	12

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APPENDIX E

HISTORICAL METALS AND  
 TOTAL PETROLEUM HYDROCARBONS AS DIESEL CONCENTRATIONS  
 IN DISCRETE SOIL SAMPLES COLLECTED BY OTHERS  
 VETERANS ADMINISTRATION GREATER LOS ANGELES HEALTHCARE SYSTEM  
 LOS ANGELES, CALIFORNIA

Date Sampled	Sample ID No.	Copper (mg/kg)	Lead (mg/kg)	Total Petroleum Hydrocarbons as Gasoline (mg/kg)	Unknown Petroleum Hydrocarbon Gasoline Range (mg/kg)	Benzene (mg/kg)	Ethylbenzene (mg/kg)	Methyl tert-butyl ether (mg/kg)	Toluene (mg/kg)	Total Xylenes (mg/kg)	Total Petroleum Hydrocarbons as Diesel (mg/kg)	Unknown Petroleum Hydrocarbon Diesel Range (mg/kg)
02-Sep-99	ARYO-1	32.6	17.6	<1	<1	<5	<5	<5	<5	<15	<10	21
02-Sep-99	ARYO-2	32.0	8.1	<1	<1	<5	<5	<5	<5	<15	<10	<10
02-Sep-99	ARYO-3	33.1	9.5	<1	<1	<5	<5	<5	<5	<15	<10	<10
02-Sep-99	ARYO-4	46.4	28.3	<1	<1	<5	<5	<5	<5	<15	<10	61
02-Sep-99	ARYO-5	17.0	6.6	<1	<1	<5	<5	<5	<5	<15	<10	<10
02-Sep-99	ARYO-6	33.0	12.5	<1	<1	<5	<5	<5	<5	<15	<10	<10
02-Sep-99	ARYO-7	34.9	8.3	<1	<1	<5	<5	<5	<5	<15	<10	<10
02-Sep-99	ARYO-8	33.1	14.4	<1	<1	<5	<5	<5	<5	<15	<10	<10
02-Sep-99	ARYO-9	29.7	6.5	<1	<1	<5	<5	<5	<5	<15	<10	<10
02-Sep-99	ARYO-10	35.6	11.7	<1	<1	<5	<5	<5	<5	<15	<10	<10
02-Sep-99	ARYO-11	33.7	22.6	<1	<1	<5	<5	<5	<5	<15	<10	20
02-Sep-99	ARYO-12	35.9	19.1	<1	<1	<5	<5	<5	<5	<15	<10	<10
02-Sep-99	ARYO-13	31.5	8.6	<1	<1	<5	<5	<5	<5	<15	<10	<10
02-Sep-99	ARYO-14	30.5	16.6	<1	<1	<5	<5	<5	<5	<15	<10	26
02-Sep-99	ARYO-15	41.2	7.0	<1	<1	<5	<5	<5	<5	<15	<10	<10
02-Sep-99	ARYO-16	34.3	16.1	<1	<1	<5	<5	<5	<5	<15	<10	19
02-Sep-99	ARYO-17	34.8	26.1	<1	<1	<5	<5	<5	<5	<15	<10	20

APPENDIX E

HISTORICAL METALS AND  
 TOTAL PETROLEUM HYDROCARBONS AS DIESEL CONCENTRATIONS  
 IN DISCRETE SOIL SAMPLES COLLECTED BY OTHERS  
 VETERANS ADMINISTRATION GREATER LOS ANGELES HEALTHCARE SYSTEM  
 LOS ANGELES, CALIFORNIA

Date Sampled	Sample ID No.	Copper (mg/kg)	Lead (mg/kg)	Total Petroleum Hydrocarbons as Gasoline (mg/kg)	Unknown Petroleum Hydrocarbon Gasoline Range (mg/kg)	Benzene (mg/kg)	Ethylbenzene (mg/kg)	Methyl tert-butyl ether (mg/kg)	Toluene (mg/kg)	Total Xylenes (mg/kg)	Total Petroleum Hydrocarbons as Diesel (mg/kg)	Unknown Petroleum Hydrocarbon Diesel Range (mg/kg)
08-Sep-99	ARYO-N1	29.0	13.1	<1	<1	<5	<5	<5	<5	<15	<10	40
08-Sep-99	ARYO-N2	33.6	21.9	<1	<1	<5	<5	<5	<5	<15	<10	61
08-Sep-99	ARYO-N3	30.4	18.7	<1	<1	<5	<5	<5	<5	<15	<10	55
08-Sep-99	ARYO-N4	19.3	5.2	<1	<1	<5	<5	<5	<5	<15	<10	25
08-Sep-99	ARYO-N5	29.8	10.3	<1	<1	<5	<5	<5	<5	<15	<10	11
08-Sep-99	ARYO-N6	35.9	21.5	<1	<1	<5	<5	<5	<5	<15	<10	35
08-Sep-99	ARYO-N7	30.9	8.7	<1	<1	<5	<5	<5	<5	<15	<10	47
08-Sep-99	ARYO-N8	23.5	6.7	<1	<1	<5	<5	<5	<5	<15	<10	32
08-Sep-99	ARYO-N9	29.1	8.5	<1	<1	<5	<5	<5	<5	<15	<10	42
08-Sep-99	ARYO-N10	28.3	19.8	<1	<1	<5	<5	<5	<5	<15	<10	63
08-Sep-99	ARYO-N11	37.0	15.2	<1	<1	<5	<5	<5	<5	<15	<10	47
08-Sep-99	ARYO-N12	26.0	33.0	<1	<1	<5	<5	<5	<5	<15	<10	39
08-Sep-99	ARYO-N13	24.1	8.6	<1	<1	<5	<5	<5	<5	<15	<10	31
08-Sep-99	ARYO-N14	26.0	8.7	<1	<1	<5	<5	<5	<5	<15	<10	30
08-Sep-99	ARYO-N15	35.0	19.9	<1	<1	<5	<5	<5	<5	<15	<10	63
08-Sep-99	ARYO-N16	29.1	13.9	<1	<1	<5	<5	<5	<5	<15	<10	61
08-Sep-99	ARYO-N17	28.1	8.9	<1	<1	<5	<5	<5	<5	<15	<10	34

81-113

November 6, 2000

**ASBESTOS-CONTAINING MATERIAL  
SURVEY**

11301 Wilshire Boulevard  
Santa Monica, California

Project No. 21397

Prepared For



Prepared By

AEI Consultants  
2309 Pacific Coast Highway, Suite 206  
Hermosa Beach, CA 90254  
[REDACTED]

**AEI**

81-114

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1.0 SCOPE OF WORK .....	1
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5.0 CONCLUSIONS AND RECOMMENDATIONS .....	5
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### APPENDICES

- A CHAIN-OF-CUSTODY
- B LABORATORY RESULTS

## 1.0 SCOPE OF WORK

This report documents the methods and findings of an asbestos-containing material survey on a pile of rubble located at the 11301 Wilshire Boulevard in the City of Santa Monica, California. The pile of rubble was formerly part of the old hospital.

The purpose of this asbestos survey was to collect a limited number of samples to try to determine if the building materials could be a source of airborne asbestos contamination to the users of the athletic fields to the north of the pile of rubble.

On October 26, 2000, Joseph P. Derhake, a Certified Asbestos Consultant, conducted a comprehensive survey for the presence of asbestos-containing materials (ACM) in the demolition debris at the subject site. The survey consisted of a visual inspection and the collection of bulk samples using non-destructive techniques. The scope of AEI's services is summarized below:

- An initial investigation of all accessible areas to identify suspect ACM;
- Physical assessment of suspect materials;
- The collection of samples from suspect materials;
- Analyzed and collected nine bulk samples and three soil samples; and
- Prepare the results in a written report, including survey methods, findings, and recommendations.

**AEI**

## 2.0 SITE DESCRIPTION

### 2.1 Site Location and Description

The rubble pile is located on United States Veterans Administration Property on the west side of Los Angeles. The property is located to the southeast of the intersection of Sunset Boulevard and Barrington Avenue. An area of the Veterans Administration property north of the rubble pile is currently undergoing grading for the construction of playing fields and playing courts.

The building materials surveyed were located south of the athletic fields between the athletic fields and the wetlands. Please refer to Figure 1 for a Vicinity Map. These materials are the remains of the old hospital that was demolished. The building materials are all in rubble on the side of an embankment. The rubble pile is now overgrown with trees and bushes.

**AEI**

## 3.0 METHODOLOGY

### 3.1 Material Sampling

The demolition debris was visually inspected and potential ACMs were identified. The potential ACMs were then grouped into homogeneous materials; materials that share the same texture, color, use, and appear to have been applied at approximately the same time. Once the homogeneous materials had been identified, representative bulk samples were collected and then submitted to Scientific Laboratories in Carson, California, under proper chain of custody, and analyzed for asbestos content using Polarized Light Microscopy (PLM).

### 3.2 Analytical Methods

All bulk samples were analyzed using PLM/DS in accordance with the Environmental Protection Agency's (EPA) "Interim Method of Determination of Asbestos in Bulk Insulation Samples" (EPA-600-R-93-116, July, 1993). California Department of Occupational Safety and Health regulations defines asbestos-containing materials as those materials having an asbestos content greater than one tenth of one percent ( $>0.1\%$ ). There is currently no scientifically approved or technologically reliable method for the quantification of asbestos content below one percent ( $<1\%$ ).

When "None Detected" (ND) appears in this report, it's interpreted as meaning no asbestos was observed in the sample above the reliable limit of detection for the PLM method ( $1\%$ ). When "Trace" appears in this report, it's interpreted as meaning asbestos was observed in the sample below the reliable limit of detection for the PLM method ( $<1\%$ ).

### 3.3 Inaccessible Areas

AEI was only able to partially sample the demolition debris as the large majority of the debris is buried. AEI was granted full and complete access to the subject property.

The survey was limited by the number of samples as well as the access to materials. There was no attempt made to sample building materials higher up on the embankment.



## 4.0 FINDINGS

Suspect asbestos-containing materials sampled included concrete piping, structural concrete, insulation pipe wrap, white floor tile and soil.

Analytical results for sampled materials indicated that asbestos is present in three of the materials sampled. The following tables summarize the results:

**Summary Table – Building 1**

Sample #	Material	Location	Asbestos Content (%)	Friable
AEI-CP-1	Concrete pipe	Construction debris pile	ND	No
AEI-CP-2	Concrete pipe	Construction debris pile	ND	No
AEI-CP-3	Concrete pipe	Construction debris pile	10% Chrysotile, 4% Crocidolite	No
AEI-SC-4	Structural concrete	Construction debris pile	ND	No
AEI-SC-5	Structural concrete	Construction debris pile	ND	No
AEI-SC-6	Structural concrete	Construction debris pile	ND	No
AEI-S-7	Soil	Construction debris pile	ND	NA
AEI-S-8	Soil	Construction debris pile	ND	NA
AEI-S-9	Soil	Construction debris pile	ND	NA
AEI-PW-10	Insulation wrap	Construction debris pile	ND	No
AEI-PW-12	Insulation wrap	Construction debris pile	ND	No
AEI-T-11	White floor tile	Construction debris pile	5% Chrysotile	No

ND = Non-Detect

The white floor tile as well as one concrete pipe were found to contain detectable levels of asbestos.

**AEI**

## 5.0 CONCLUSIONS AND RECOMMENDATIONS

AEI Consultants (AEI) has performed this asbestos survey, in conformance with the guidelines provided by AHERA, for the demolition debris located south of the athletic fields at the 11301 Wilshire Boulevard in the City of Los Angeles, California.

The white floor tile as well as the concrete pipe were found to contain detectable levels of asbestos. Neither of these materials are friable.

The majority of the building materials observed were structural concrete, brick, and rebar. There was very little floor tile visible and there was only one pipe exhibiting the same physical appearance as the pipe found to contain asbestos. There are likely other materials within the debris pile that contain asbestos, but the vast majority of the materials in the debris pile do not appear to contain asbestos.

In AEI's opinion, none of the materials sampled have the potential to significantly expose users of the athletic fields to the north of the debris piles.

**AEI**

## 6.0 SIGNATURE OF ENVIRONMENTAL PROFESSIONALS

AEI Consultants (AEI) has performed this asbestos-containing materials survey, in conformance with the guidelines provided by AHERA, for the demolition debris pile located at 11301 Wilshire Boulevard in the City of Los Angeles, California.

### Prepared by:

Joseph P. Derhake, PE, CAC  
Principal

### Reviewed by:

Bryan Harvey  
Project Manager

**AEI**



**SCIENTIFIC LABORATORIES  
OF CALIFORNIA, INC.**

24416 SOUTH MAIN STREET • SUITE 308  
CARSON, CA 90745  
TEL: [REDACTED] • FAX: [REDACTED]

### PLM Bulk Asbestos Report

All Environmental, Inc.  
Attn: Mauricio Escobar  
2309 Pacific Coast Highway  
Suite 206  
Hermosa Beach, CA 90254

Date Received 10/27/2000 SciLab Job No. 900101658  
Date Examined 10/29/2000 P.O. # 21379  
Page 2 of 3  
RE: 21379; VH Medical Center

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
BS-SC-6	900101658-06	No	NAD

Location: Concrete

Description: Off-white, Homogeneous, Cementitious, Bulk Material  
Asbestos Types:  
Other Material: Non-fibrous 100. %

BS-S-7	900101658-07	No	NAD <sup>1</sup>
--------	--------------	----	------------------

Location: Soil/Soil

Description: Brown, Heterogeneous, Bulk Material  
Asbestos Types:  
Other Material: Non-fibrous 100. %

BS-S-8	900101658-08	No	NAD <sup>1</sup>
--------	--------------	----	------------------

Location: Soil/Soil

Description: Light Brown, Heterogeneous, Bulk Material  
Asbestos Types:  
Other Material: Non-fibrous 100. %

BS-S-9	900101658-09	No	NAD <sup>1</sup>
--------	--------------	----	------------------

Location: Soil/soil

Description: Brown, Heterogeneous, Bulk Material  
Asbestos Types:  
Other Material: Non-fibrous 100. %

BS-PW-10	900101658-10	No	NAD
----------	--------------	----	-----

Location: Pipe Way/Insulation Wrap

Description: Beige, Homogeneous, Bulk Material  
Asbestos Types:  
Other Material: Cellulose 30. %, Non-fibrous 70. %



**SCIENTIFIC LABORATORIES  
OF CALIFORNIA, INC.**

24418 SOUTH MAIN STREET • SUITE 308  
CARSON, CA 90746  
TEL: [REDACTED] FAX: [REDACTED]

**PLM Bulk Asbestos Report**

All Environmental, Inc.  
Attn: Mauricio Escobar  
2309 Pacific Coast Highway  
Suite 206  
Hermosa Beach, CA 90254

Date Received 10/27/2000 SciLab Job No. 900101658  
Date Examined 10/29/2000 P.O. # 21379  
Page 1 of 3  
RE: 21379; VH Medical Center

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
BS-CP-1	900101658-01	No	NAD
Location: Concrete/Concrete Pipe (1)			
Description: Grey, Homogeneous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100. %			
BS-CP-2	900101658-02	No	NAD
Location: Concrete/Concrete Pipe (1)			
Description: Grey, Homogeneous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100. %			
BS-CP-3	900101658-03	Yes	20 %
Location: Concrete/Pipe (2)			
Description: Grey, Homogeneous, Cementitious, Bulk Material			
Asbestos Types: Chrysotile 16. %, Crocidolite 4. %			
Other Material: Non-fibrous 80. %			
BS-SC-4	900101658-04	No	NAD
Location: Concrete/Structural Concrete			
Description: Black/White, Heterogeneous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100. %			
BS-SC-5	900101658-05	No	NAD
Location: Concrete/Structural Concrete			
Description: Grey, Homogeneous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100. %			



SCIENTIFIC LABORATORIES OF CALIFORNIA, INC.

24416 SOUTH MAIN STREET • SUITE 308 CARSON, CA 90746

TEL: [REDACTED] • FAX: [REDACTED]

PLM Bulk Asbestos Report

All Environmental, Inc.
Attn: Mauricio Escobar
2309 Pacific Coast Highway
Suite 206
Hermosa Beach, CA 90254

Date Received 10/27/2000 SciLab Job No. 900101658
Date Examined 10/29/2000 P.O. # 21379
RE: 21379; VH Medical Center
Page 3 of 3

Table with 4 columns: Client No. / HGA, Lab No., Asbestos Present, Total % Asbestos. Contains three rows of data for samples BS-T-11, BS-T-11, and BS-PW-12, including location, description, and asbestos types.

Reporting Notes:

(1) High variability may be exhibited by soil samples due to wide variations in particle and aggregate size relationships. TEM analysis is recommended for low level or negative PLM samples since only TEM can resolve fiber diameters below 0.25 microns.

Analyzed by: Fred D. Chapplear [Signature]

\*NAD/NSD = no asbestos/structures detected; NA = not analyzed; Bulk Asbestos Analysis per 40 CFR 763, Subpart F, Appendix A for friable bulk insulation samples (EPA-600/M-82-020 with current EPA clarifications) or EPA/600/R-93/116 when appropriate for other samples. Note: Inherent limitations of PLM and matrix interference render PLM as not consistently reliable in detecting low levels of asbestos in some sample types such as floor coverings and similar non-friable organically bound materials, spray-on insulation and plaster samples (see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94).

National Institute of Standards and Technology accreditation requirements mandate that this report must not be reproduced except in full with the approval of the laboratory. This report relates ONLY to the items tested.

Reviewed By: \_\_\_\_\_

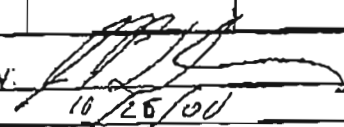
**ALL ENVIRONMENTAL, INC.**

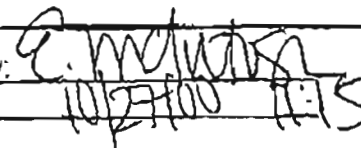
Environmental Engineering & Construction  
 2200 Pacific Coast Highway, Suite 217  
 Hermosa Beach, CA 90254

400101150

Job Number: ~~0127100~~ 21379  
 Site Contact: Joe DeLeon  
 Site Location: Vt Medical Center  
 Date: 10/26/00

Sample Number	Material Type	Sample Location Description
BS-CP-1	Concrete	Concrete Pipe (1)
BS-CP-2	↓	" (1)
BS-CP-3	↓	" (2)
BS-SC-4	↓	Structural Concrete
BS-SC-5	↓	Structural Concrete
BS-SC-6	↓	
BS-S-7	Soil	Soil
BS-S-8	Soil	
BS-S-9	Soil	↓
BS-PIV-11	Pipe wrap	Insulation wrap
BS-T-11	Tile	White floor tile
BS-PW-12	Pipe wrap	Insulation wrap
BS-		
BS-		
BS-		
BS-		
BS-		
BS-		
BS-		
BS-		
BS-		
BS-		

Relinquished By:   
 Date/Time: 10/26/00

Received By:   
 Date/Time: 10/27/00 11:15

PLM -  2HR  24HR  
 Ext.  P.C. 435

TEM Bulk Qualitative  
 TEM Bulk Quantitative  
 TEM Water

Results Needed: 10/31/00

72 HR  


AEI Consultants  
Field Notes

Date: 10/25/00

Job Number: 21397

Location: VA HOSPITAL

Personnel: MIA EYER JOE DEBNAKE

Notes:

Met Survey Team AT 8AM  
JOE, ALAN LUI AND JOHN SMETS ON SITE. DELEGATE AMY PET.  
DISCUSSED WITH ALAN AND JOHN MOVING BORING LOCATIONS  
- 2<sup>nd</sup> MOVED FROM LOWER BENCH TO UPPER BENCH  
- BORINGS UNDER PROPOSED CONCRETE OR ASPHALT  
AREAS MOVED AS PER JOHN  
SURVEY TEAM BRIEFED AS TO HAZARDS AND BUREAU  
LOCATION CHANGES ~ 9AM  
9AM - 11AM LOWER BENCH SURVEYED. CONCRETE BORINGS  
RELOCATED UNDER DIRECTION OF ALAN  
1:30 PM - 4:30 PM UPPER BENCH SURVEYED. BUREAU LOCATIONS  
PLACED AS PER ALAN  
4:30 PM ALL PERSONNEL LEFT SITE



AEI Consultants  
Field Notes

Date: 10/26/00

Job Number: 21397

Location: VA HOSPITAL

Personnel: MOH EVER, JOE DEHAWE, PAUL HENKSTON

Notes:

7:30 AM ARRIVE AT SITE  
7:45 AM MEET DRILLER  
8:00 AM DELIVER HEALTH AND SAFETY BRIEF, INSTRUCT  
DRILLER TO KEEP EYES OPEN FOR DEBRIS (SPECIAL'S POTENTIAL  
GLASS ETC.)  
8:45 AM JOE CONDUCTS ASBESTOS SURVEY OF CONSTRUCTION  
DEBRIS  
8:55 AM DRILLING BEGINS ON UPPER BENCH  
~12PM DRILLER BEGINS IN MAIN PIT  
~1:45PM MORE DRILLING TO LOWER BENCH  
3:45PM END DRILLING  
4:00 PM ALL PERSONNEL LEAVE SITE

- DEBRIS

NO DEBRIS OF NOTE FOUND ON SURFACE OR  
IN BOREHOLE  
SOME BRICK FOUND IN BOREHOLE BUT SMALL AMOUNTS  
ASH PER HAS DISTINCTIVE LAYER AT ~11 FEET DEEP,  
FILL MATERIAL WITH UNCONSOLIDATED CLAY + SILEX DEBRIS  
BROKEN GREEN + WHITE GLASS FOUND ON LOWER BENCH  
NEAR NORTHWEST CORNER OF RUMBLE TRACK

AEI Consultants  
Field Notes

Date: 10/28/00

Job Number: 21397

Location: VA HOSPITAL

Personnel: MATT EYER PAUL KERZA

Notes:

7:45 AM RAIN LAST NIGHT MADE LOWER BENCH AREA MUDDY, AFTER EXAMINING BENCH WITH DRILLER WE DECIDED TO PROCEED

8:45 AM SAFETY BRIEF DELIVERED

9:00 AM FIRST BORING DIFFICULT MOVING AROUND SITE

9:30 AM POTTERY FRAGS NEAR SOUTHWEST CORNER OF RUNNING QUAIL

10:25 AM SYNBRIC WITH NO NEEDLE FOUND IN SOUTHWEST TRENCH AREA OF FOOTBALL FIELD

10:30 AM HAND AUGURING BEGINS ON SLOPE

11:00 AM DRILLER LEAVES

3:00 PM HAND AUGURING COMPLETED

3:45 PM RENSATE SAMPLED FOR ANALYSIS

4:20 PM ALL PERSONNEL LEAVE SITE

DEBRIS -

Synbric w/ needle

CRACKING - BLUE AND WHITE

TRASH -

IT APPEARS THAT RAIN HAS CAUSED DEBRIS JUST

BELOW SURFACE TO RISE TO SURFACE.

RENSATE STORED IN 40 GALLON DRUM AWAITING

LAB ANALYSIS

DISCARDED SAMPLE TUBES AWAITING DISPOSAL PER

LAB ANALYSIS

Report

## **Environmental Assessment**

**Brentwood School Athletic Fields  
Grading Project and Recreation  
Facility Development  
Los Angeles, California**

Prepared for:

**Veterans Administration Greater  
Los Angeles Healthcare System**

23 October 2000

Project No. 20-013

# **LOCUS**



Report

## Environmental Assessment

Brentwood School Athletic Fields  
Grading Project and Recreation  
Facility Development  
Los Angeles, California

Prepared by:

Alan Lui, P.E.

Approved by:

John Schweizer, P.E.



1333 N. California Blvd., Suite 540  
Walnut Creek, California 94596

Ph. [REDACTED]

Fax [REDACTED]

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# ENVIRONMENTAL ASSESSMENT BRENTWOOD SCHOOL ATHLETIC FIELDS GRADING PROJECT AND RECREATION FACILITY DEVELOPMENT

---

## EXECUTIVE SUMMARY

The project being assessed by this report consists of grading, development, and construction of athletic facilities (Project) on a portion of the Veterans Administration Greater Los Angeles Healthcare System (GLAHS). The Project area is to be leased to the Brentwood School. The construction of athletic facilities at the Project area is the culmination of a series of projects that began with the extension of the City of Los Angeles Storm Drain (Phase I). The new storm drain extension was installed at the bottom of the former arroyo (Figure 3). Approximately 100,000 cubic yards of soil was placed in the arroyo as cover material for the new storm drain extension (Phase II). Construction of the athletic facilities constitutes Phase III.

The Project area is divided into two parts: an upper bench and a lower bench. The upper bench is located east of the former arroyo and will contain the planned baseball, softball and soccer fields. The lower bench was formed by the placement of fill in the former arroyo, which was filled to cover the City of Los Angeles storm drain extension. The lower bench will be the site of a planned football field, basketball courts and tennis courts.

This assessment identified potential impacts to the human environment from several sources. These include:

- ◆ Solid wastes including household debris and medical debris
- ◆ Medical waste including low-level radioactive materials
- ◆ Physical hazards



---

# ENVIRONMENTAL ASSESSMENT BRENTWOOD SCHOOL ATHLETIC FIELDS GRADING PROJECT AND RECREATION FACILITY DEVELOPMENT

---

## 1. INTRODUCTION

This Environmental Assessment (EA) report has been prepared by Locus Technologies (Locus) under contract to Coastal Safety and Health Services, Inc. of Hermosa Beach, California, (Coastal) on behalf of the Veterans Administration Greater Los Angeles Healthcare System (GLAHS) in Los Angeles, California. This EA assesses a project consisting of grading, development, and construction of athletic facilities (Project) on a portion of the GLAHS and develop it as additional recreational facilities for the Brentwood School.

The primary purpose of an EA is to determine whether a project is likely to have a significant effect on the quality of the human environment. To achieve this purpose effectively and efficiently, this EA examines information developed during a recent project to extend a storm drain from its previous outlet structure in the northern portion of the GLAHS property approximately 2,500 lineal feet to the south through an arroyo, including associated cut and fill activities accomplished to cover the storm drain pipe and reduce the slope of the arroyo sides. The available information for the storm drain extension project includes an EA prepared by Jack K. Bryant Engineers (JKB) on behalf of the GLAHS (JKB, 1995).

In addition, this EA also incorporates information presented in the URS Greiner Woodward-Clyde Phase I Environmental Site Assessment (ESA) prepared for the Brentwood School Lease Area (URS, 1999). The Phase I ESA identified low-level radiological waste, solvents, asbestos-containing material and medical debris as potential areas of concern. With the exception of medical debris, all of these potential hazards described in the Phase I ESA were reported to be buried outside the Project area in adjacent GLAHS property.

federal regulation would be followed to the letter, if RCRA wastes were encountered. RCRA wastes were not uncovered during grading operations at the Project area (Shirtz, 2000).

Locus has prepared this EA in conformance with our proposal to Coastal, in accordance with GLAHS policies implementing the National Environmental Policy Act (NEPA), and in accord with California Environmental Quality Act (CEQA) guidelines. Where achieving our goal of effectiveness and efficiency has been enhanced by summarizing and referencing the EA prepared by JKB, we have done so.

## 2. PROJECT DESCRIPTION

The Project is situated in the northwest area of Los Angeles (Figure 1). When developed, the site will be leased by the GLAHS to the Brentwood School. Portions of the Project are located within areas that have been partially developed for a storm drain extension project. Project location, Project background, Project objectives, analysis of the alternatives to the Project, Project implementation and the completed Project characteristics for the Brentwood School lease area are described in the sections that follow.

### 2.1. Project Location

The Project occupies 20 acres of the northwest corner of the 450-acre GLAHS property. The GLAHS is located at 11301 Wilshire Boulevard in the City of Los Angeles, California, on the west side of the 405 Freeway. The Project area is bordered by the Brentwood School to the north, the remainder of the GLAHS facilities to the east and south, and the Barrington Recreational Center to the west (Figure 2).

### 2.2. Project Background

A recently completed project to extend a storm sewer through an arroyo in the northern area of the GLAHS forms the background in which the grading and additional recreation facility development project will be accomplished. The storm sewer extension project was accomplished to eliminate erosion and other damage to property and potential threats to human life, health and welfare caused by flooding and erosion events in the arroyo. The storm drain installation has involved trenching in the bottom of the arroyo; extension of a storm drain pipe approximately 2,500 linear feet in a southerly direction from an existing storm drain outlet toward an existing inlet structure at the neck of the arroyo; placement of approximately 50,000 cubic yards of soil in the upstream (northern portion) of the arroyo to cover the drain pipe; grading, construction of catch basins at approximate intervals of 300 feet, and planting to provide positive drainage and reduce the accumulation of trash in the arroyo; and construction of three acres of wetlands at the southern reach of the storm drain extension. The source of the fill earth was a

area conducted on the behalf of the GLAHS; and c) a property transaction environmental site assessment. The individual from the neighborhood who entered the site was present during the period of backfill operations to cover the drainage pipe. This individual complained of diesel odors in the stockpile of soil that was being used as the source of backfill material (Shirtz, 2000). Subsequently, a limited soil sampling program was accomplished in the lower bench area (URS 10/1999) to investigate the condition and quality of the soil being used in the arroyo as fill to cover the storm drain pipe and in the second phase of backfill work to further improve the site. Soil was investigated to a depth of 30 feet below ground surface in limited areas. In addition, a site walkdown inspection occurred as part of the ESA prepared for the Brentwood School Lease Area (URS, 12/1999). During this site walkdown inspection, demolition debris was observed on the west side of the arroyo on the GLAHS property near where it abuts the Barrington Park property (Figure 2).

### 2.3. Project Objectives

The primary objectives of this Project are to convert previously unproductive property to productive use, and to improve the sports and recreation facilities available to the children of the community served by the Brentwood School. Secondary objectives include further improvement of erosion and drainage control in the northern portion of the GLAHS property; further reduction of the potential for trash and residential debris to accumulate in undeveloped areas of the site and newly constructed wetland areas; and further improvement of the conditions at the site relative to past disposal practices. These objectives are accomplished in several ways as described in the sections that follow.

#### 2.3.1. Placement of Additional Fill and Grading

Placement of additional fill in the arroyo above fill that has been used to cover the storm drain pipeline that was installed to eliminate environmental damage being caused by increased erosion will bring the elevations of the site to suitable levels for further development of the land. The additional fill and associated rough grading, flattens the areas at suitable elevations so they can be used for constructing fields and courts. This grading also acts to reduce the slope of the arroyo banks thereby reducing erosion and further improving drainage. The fill increases the already substantial barrier between the land surface, trash and medical debris known to be buried in the arroyo. Grading exposes near-surface hazards or

use could meet all of the secondary objectives of the Project. However, because of the site location, public use would likely be limited to residents of the immediate neighborhood adjacent to the GLAHS, unless there were significant development of the site and surrounding areas of the property for parking, access roads, and other public facilities.

#### ***2.4.3. Develop the Site for Residential or Other Commercial Use***

Because of the site location, developing the site for residential or commercial use would be less likely to meet the primary objective of creating an attractive lease use for the site, and would not meet the objective of improving the facilities for the Brentwood School. The secondary objectives could be met by such a development. However, development of the site for residential or other commercial use would result in building out one of the few remaining areas of urban open space suitable for large playing fields and other sports and recreation facilities.

### **2.5. Project Implementation**

The construction of athletic facilities at the Project area is the culmination of a series of projects that began with the extension of the City of Los Angeles Storm Drain (Phase I). The new storm drain extension was installed in the bottom of the arroyo located at the northwest corner of the GLAHS property. Approximately 100,000 cubic yards of soil was placed in the arroyo as cover material for the new storm drain extension (Phase II). The fill material was taken from a soil stockpile located at the southern end of the GLAHS property where a basement had been excavated for a new hospital. Construction of the athletic facilities constitutes Phase III.

Each of the three phases of work is discussed below in further detail. Discussion of Phase I and II is included only for reference purposes. Phase III is the scope of work for the purposes of this EA.

#### ***2.5.1. Installation of Storm Drain Extension***

The Los Angeles County storm drain terminated and discharged into the north end of the former arroyo. Stormwater discharge was causing continuing erosion problems, which were impacting the Barrington Recreational Center located along the west side of the arroyo. The Los Angeles County Department of

According to Mr. John Shirtz, CIH, the onsite Health and Safety Coordinator, the medical debris was encountered just prior to the completion of excavation operations at the upper bench. Excavated soil from the upper bench area, which passed visual screening, was transported to the lower bench for use as fill material. After a sufficient quantity of soil was excavated from the upper bench to satisfy the quantity of fill material required in the lower bench area, approximately 20,000 cubic yards of imported fill material will be placed at the upper bench area. Imported fill material is being used at this stage of construction because on-site sources of fill material were exhausted during construction of the lower bench area.

### **2.5.3. Development of Recreation Facilities**

A conceptual plan of the recreational facilities after construction is completed is shown on Figure 4. A soccer field will occupy the center of the upper bench. A softball field will be installed at the north end of the upper bench, and a baseball diamond will be located at the south end of the upper bench.

The entrance to the recreational facilities is located at the northwest corner of the Project area. The first parking lot will be placed at the northern most end of the lower bench, opposite the entrance. A football field surrounded by a running track will occupy the northern half of the lower bench. Basketball courts and tennis courts will be placed at the southern half of the lower bench. The second parking lot is located opposite the basketball courts along the western perimeter. The third parking lot is located adjacent to the tennis courts at the southern end of the lower bench.

## **2.6. Site Characteristics Subsequent to Project Completion**

After completion of the Project, the site will have the following characteristics:

- ◆ The site will have been brought to final grade elevations by placement of clean fill, topsoil, and finish grading.
- ◆ Drainage will be controlled by a series of catch basins located at intervals of approximately 300 feet, which discharge to the extended storm drain beneath the site.

## 3. ENVIRONMENTAL IMPACT ANALYSIS

### 3.1. Solid Waste

Solid wastes have been documented to be present in the northwest area of the site and in the arroyo. Solid wastes were also encountered during installation of the storm drain extension. During the period 1960-1968, medical wastes consisting of papers and rags, syringes, labware, plachets, small animal carcasses and excreta, scintillation media and vials were buried on the northwest area of the GLAHS property where it abuts the Barrington Park property (Figure 2). Construction debris and soil from the demolition of the GLAHS Wadsworth Hospital was spread over unused areas of the GLAHS property in 1971, including the area abutting what is now Barrington Park. (EIR, 1983; URS 12/1999).

Other Historic solid waste debris consisting of glass and ceramic fragments was discovered at three places on the banks of the arroyo (Figure 2) during a field survey conducted in February 1995 (JKB, 1995). In addition; residential refuse, plastics, metal pipes, brick, headstones, asphalt, rebar, bottles, toys and hospital syringes were encountered during installation of the storm drain pipe in the bottom of the arroyo (URS, 12/1999). The location of the storm drain under the Brentwood School lease is shown on Figure 3. Construction debris was also observed to be protruding from the west slope of the arroyo in the vicinity of Barrington Park (URS, 12/1999) as shown on Figure 2. In addition, three bags of medical debris and an old ash pit were uncovered during grading operations (Shirtz, 2000) on the upper bench area of the portion of the property that will become the Brentwood School lease area. The locations where these materials were unearthed are shown on Figure 3.

#### 3.1.1. Mitigation Measures

Solid wastes present in the footprint of the Brentwood School lease area will be covered by sufficient clean fill, topsoil, and/or pavement, or will be removed from the site for off-site disposal in accordance with applicable regulations. Wastes present in the arroyo are overlain by up to 30-40 feet of soil that was used to cover the storm drain and decrease the slope of the arroyo banks. Bags of medical debris, ash, and soil unsuitable for backfill encountered during grading of the upper bench was stockpiled near the south

### **3.2.2. Apparent Medical Incinerator Ash**

Ash that was uncovered in the upper bench area (Shirtz, 2000) could be medical incinerator ash. Medical incinerator ash may contain regulated metals, and other contaminants if the ash originated from "open pit" burning, which can result in incomplete combustion of the waste (Skinner, 2000).

#### **3.2.2.1. Mitigation Measures**

Medical incinerator ash was removed and stockpiled with unacceptable fill material outside the Project Area on GLAHS property. The stockpile will be disposed in accordance with regulations at an offsite, permitted disposal facility. Confirmatory soil sampling will be conducted in the area where the ash pit was uncovered to confirm that the ash was removed from the upper bench.

### **3.2.3. Potential Asbestos-containing Construction Debris**

Construction debris, including concrete and rebar, is protruding from the ground surface near the southern junction of the roads that roughly parallel the east and west sides of the arroyo. This debris is likely the result of demolition of the GLAHS Wadsworth Hospital, subsequent to the San Fernando Earthquake in 1971. By implication, demolition debris from this source could contain asbestos (URS, 12/1999).

#### **3.2.3.1. Mitigation Measures**

Any construction debris found within the footprint of the Brentwood School lease area during grading will be removed and disposed off-site in accordance with applicable regulations. Construction debris protruding from the ground surface near the southern junction of the roads that parallel the east and west sides of the arroyo will be inspected and tested. If the construction debris contains asbestos, it will be removed and disposed off-site at a permitted facility. These mitigating measures will be in accordance with regulations that govern the operations and maintenance (O&M) of asbestos-containing materials, and/or the handling, transportation, and disposal of asbestos-containing wastes.

### **3.2.4. Low-level Radioactive Medical Waste and Carrier Solvents**

Three former low-level radioactive medical waste burial pits are located in the vicinity of the Project area. These three burial pits are located between GLAHS Parking Lot No. 38 and the Barrington Recreational



toluene and p-dioxane. Radioisotopes were not detected by either the NRC inspection team or the radiochemist from UCLA, consequently, additional testing is not required.

### 3.2.5. Reported Diesel Fuel Issue

During installation of the storm sewer extension, a resident of the neighborhood entered the GLAHS property and made a complaint about diesel odors in the soil stockpile being used as the source of fill to cover the pipeline (Shirtz, 2000). Although there have been no known underground storage tanks located at the GLAHS site, diesel fuel was used historically to clean storage containers, and the stockpile of fill resulted from a basement excavation of one of the buildings (URS, 12/1999; JKB, 1995; EIR, 1983). In September 1999 a limited soil investigation was conducted to evaluate shallow soil conditions to depths of up to 30 feet in areas where fill had been placed within the arroyo (URS 10/1999). A single soil sample from this study contained hydrocarbons at a concentration less than 30 milligrams per kilogram (mg/kg). Other soil samples taken from the fill in the arroyo and from the stockpile used as the source of fill have contained no detectable hydrocarbons (URS, 12/1999).

#### 3.2.5.1. Mitigation Measures

The soil data available for the site are consistent with the fill in the arroyo not being contaminated by diesel fuel to levels requiring further action. However, because of the limited nature of the soil investigation to date, characterization of the near surface fill in the arroyo is incomplete. Shallow soil in the fill within the Brentwood School Lease Area footprint will be sampled with a statistically significant number of soil samples in order to confirm the acceptable condition of the fill. Shallow soil that could be disturbed by future activities at the site will be sampled. If soil with diesel concentrations at or above levels requiring further action is encountered, it will be removed and disposed off-site in accordance with applicable regulations.

### 3.3. Air Resources

The Project area is located within the South Coast Air Basin. The South Coast Air Basin has been designated by the United States Environmental Protection Agency as a non-attainment area with respect to

### 3.3.1. *Mitigation Measures*

Fugitive dust emissions were controlled with a water truck, which constantly circulated throughout the Project area. The water trucks sprayed the soil surface constantly with water, thereby reducing dust emissions by approximately 50 percent or better. Unnecessary idling of heavy equipment was avoided as much as possible.

## 3.4. **Earth Resources**

Earth resources, such as topography, geology, hydrogeology, hydrology and water quality, at the Project area are discussed below. Facts regarding earth resources are taken from the JKB Environmental Assessment for the Storm Drain Extension Project prepared for the GLAHS, dated June 1995. The Storm Drain Extension Project area is totally included within the lower bench area for this Project, i.e., the construction of athletic facilities at the Brentwood School Lease area.

### 3.4.1. *Topography*

The Project area is located at the northwestern corner of the GLAHS property. The foothills of the Santa Monica Mountains are several miles to the northwest and northeast. The gently rolling hills of Beverly Hills lies to the east. The relatively flat topography of West Los Angeles lies to the south and Brentwood lies to the west.

The elevation of the Project area ranges from 473 feet above sea level at the northern end to 280 feet above sea level at the southern end. Upon completion of the Project, the approximate elevation of the lower bench will be 430 feet above sea level and the approximate elevation of the upper bench will be 468 feet above sea level.

### 3.4.2. *Geology*

The Project area is located within the Sawtelle Plain of the Coastal Plain of Los Angeles County. The Sawtelle Plain is an alluvial apron formed at the foot of the Santa Monica Mountains. Erosion from historic streambeds gradually built up over geologic time to form the flatlands of West Los Angeles. The thickness of the alluvial layer ranges from 30 to 40 feet (JKB, 1995).

Surface Water Treatment Rule. LADWP expects to be back in compliance after construction of four bypass facilities is completed in 2004 (LADWP, 1999).

### 3.5. Transportation and Parking

All grading and earth moving work will take place inside the GLAHS property. Approximately 100,000 cubic yards of fill material required for the Project originated from a large soil stockpile located at the southern end of the GLAHS property, where construction of a new hospital building is ongoing. Nearly 20,000 cubic yards of imported fill material will be brought to the Project area for final grading. Vehicular traffic is minimal at the GLAHS and is comprised of employees and out-patients. Construction workers typically park their personal vehicles close to the Project area in the vicinity of the upper bench area. Earth moving equipment travel over temporary access roads between the upper and lower benches. Regular traffic patterns at the GLAHS will not be affected by construction activities at the Project area.

### 3.6. Noise

Noise during the construction phase of the Project will emanate from diesel-powered vehicles, i.e., earth moving and grading equipment. Construction noise will be short-term and intermittent. The Los Angeles Noise Control Ordinance allows a maximum noise level of 85 dbA for non-scheduled, intermittent, short-term operation of mobile equipment at Business Structures. Noise levels measured at a distance of 50 feet for construction equipment are listed below (Bolt, 1971):

<u>Type of Equipment</u>	<u>Noise Level range in dbA</u>
Compactors (Rollers)	70-75
Front End Loaders	70-85
Backhoes	70-95
Scrapers, Graders	80-95
Trucks	75-85
Concrete Mixers	75-85
Cranes (movable)	75-85

### 3.10. Biological Resources

The 1995 Environmental Assessment prepared by JKB for the Los Angeles County Storm Drain Extension has an exhaustive review of biological resources at the former arroyo (JKB, 1995). In summary, no endangered or sensitive animal species were identified at the former arroyo during the biological resources survey conducted by JKB on 13 February 1995. Several coast live oak trees, which are protected by a City of Los Angeles and a Los Angeles County Ordinance, were identified during the survey. JKB concluded that filling in the arroyo to cover the storm drain extension would likely result in loss of habitat for unspecified animal species, and that urban species of birds may experience population growth at the expense of rural species. JKB also concluded that Federal and State jurisdictional wetlands are present at the former arroyo area, based on the identification of riparian vegetation during the biological resources survey.

The 1995 JKB Environmental Assessment proposed that lost coast live oak trees be replaced at a ratio of two to one. Lost wetlands habitat should be replaced at a ratio of 1.5 times the area lost due to filling the former arroyo. JKB also recommended that the fill area be landscaped with native vegetation.

### 3.11. Community Services and Utilities

The Project is not expected to significantly impact any community services and utilities, except for water supply. The Project will require significant quantities of water for dust suppression throughout construction activities. After construction is complete, water will be required for irrigation of the football field and soccer field.

## 4. ENVIRONMENTAL COMPLIANCE

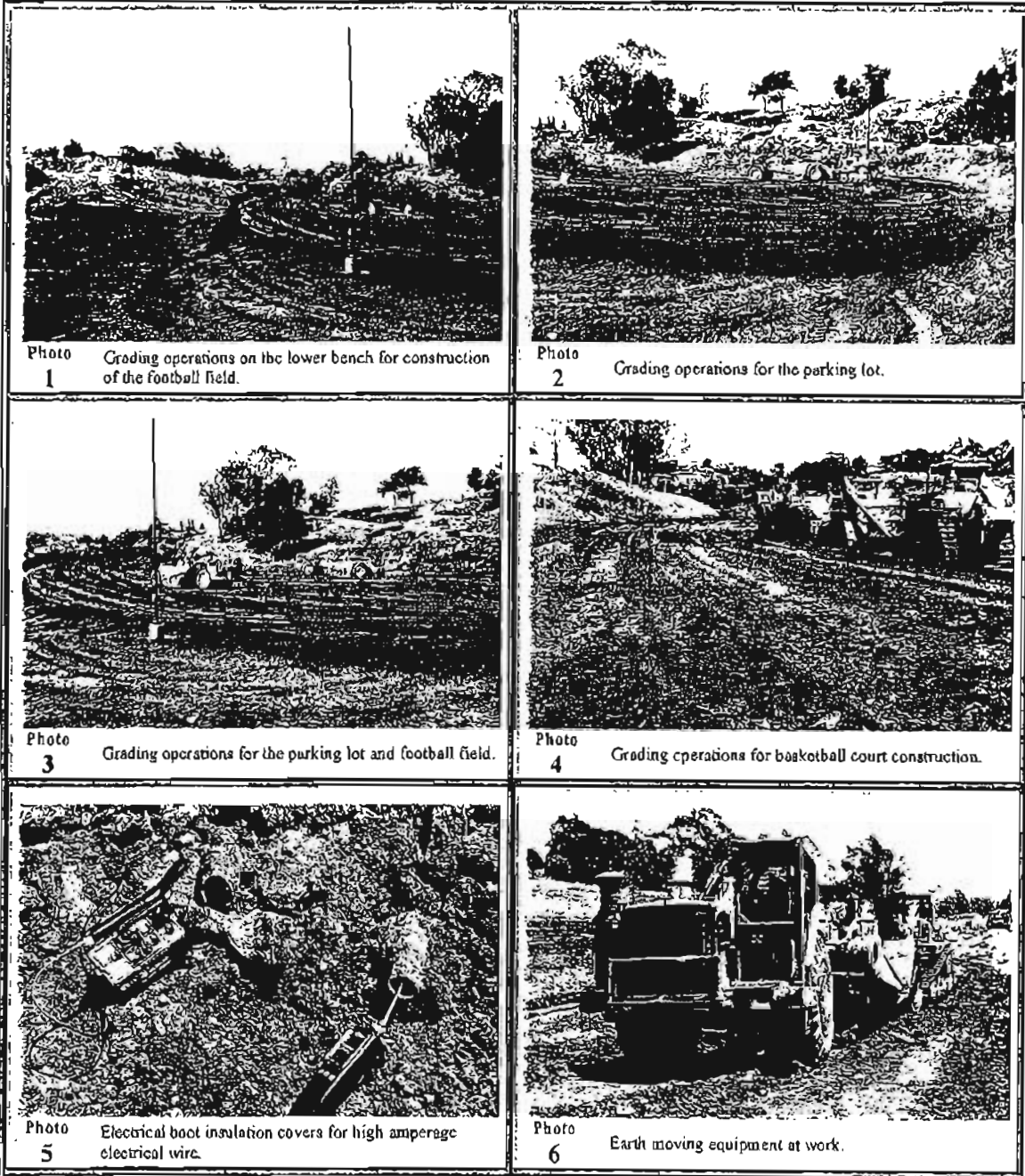
This environmental assessment has been prepared in accordance with GLAHS policies implementing NEPA, and as such it conforms to CEQA guidelines for an initial study. It addresses requirements set forth in the Code of Federal Regulations, including those relating to the Clean Water Act, the Clean Air Act, and the Resource Conservation and Recovery Act. It also addresses requirements set forth in the California Code of Regulations (CCR), including CCR Title 22. Local regulations taken into account include Rules and Regulations of the South Coast Air Quality Management District.

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## REFERENCES

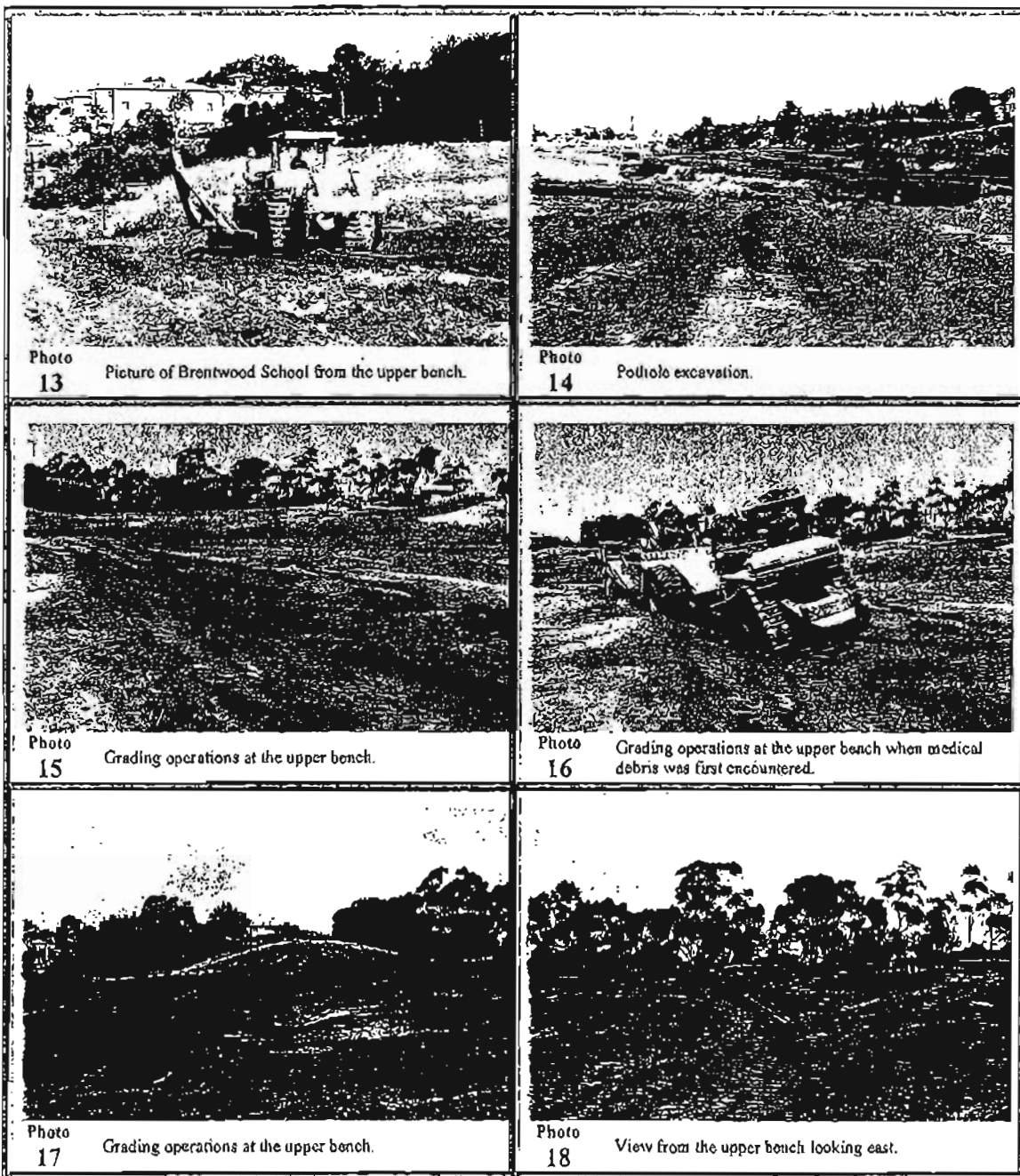
- (Bolt, 1971) Bolt, Beranek and Newman, Inc., (1971), EPA-68-04-0047; NTID 300.1, *Noise from Construction Equipment and Operations, Building Equipment and Home Appliances.*
- (EIR, 1983) *Environmental Impact Report for the Barrington Recreation Center Addition, Veterans Administration, 1983*
- (GLAHS, 1986) Veterans Administration Greater Los Angeles Healthcare System, Los Angeles, (1996), Letter Addressed to Mr. Frank Wenslawski, Chief, Materials Branch, United States Nuclear Regulatory Commission, Region IV, September 17.
- (JKB, 1995) Jack K. Bryant Engineers, (1995), *Environmental Assessment Veterans Administration Medical Center, Los Angeles, California, June.*
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- (NRC, 1981) United States Nuclear Regulatory Commission, (1981), Report No. 81092, *Inspection of Waste Burial Sites A, B and C, May 7.*
- (Shirtz, 2000) John Shirtz, (2000), Meeting with John Shirtz and Ben Spivey at the Brentwood School Lease Area, Los Angeles, California, September 6.
- (Skinner, 2000) Electronic mail with *Memorandum* from Mr. Clint Skinner to Mr. John Schweizer, September 18, 2000.
- (UCLA, 1983) University of California at Los Angeles Laboratory of Biomedical and Environmental Sciences, (1983), *Radioassay for Tritium and Carbon-14 at the Waste Disposal Site, April.*

Project: Environmental Assessment Brontwood School Athletic Fields Grading Project and Recreation Facility Development



Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: July 7, 2000 - Photos 13-16  
July 10, 2000 - Photos 17-18

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development





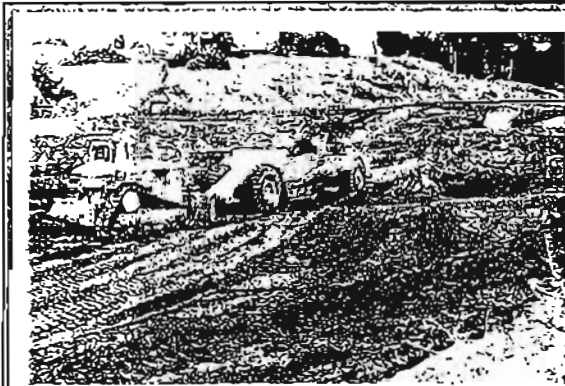


Photo 25 Grading operations at the tennis court construction area.



Photo 26 Upper bench where medical debris was first encountered.



Photo 27 Pothole excavation at the upper bench where medical debris was first encountered.



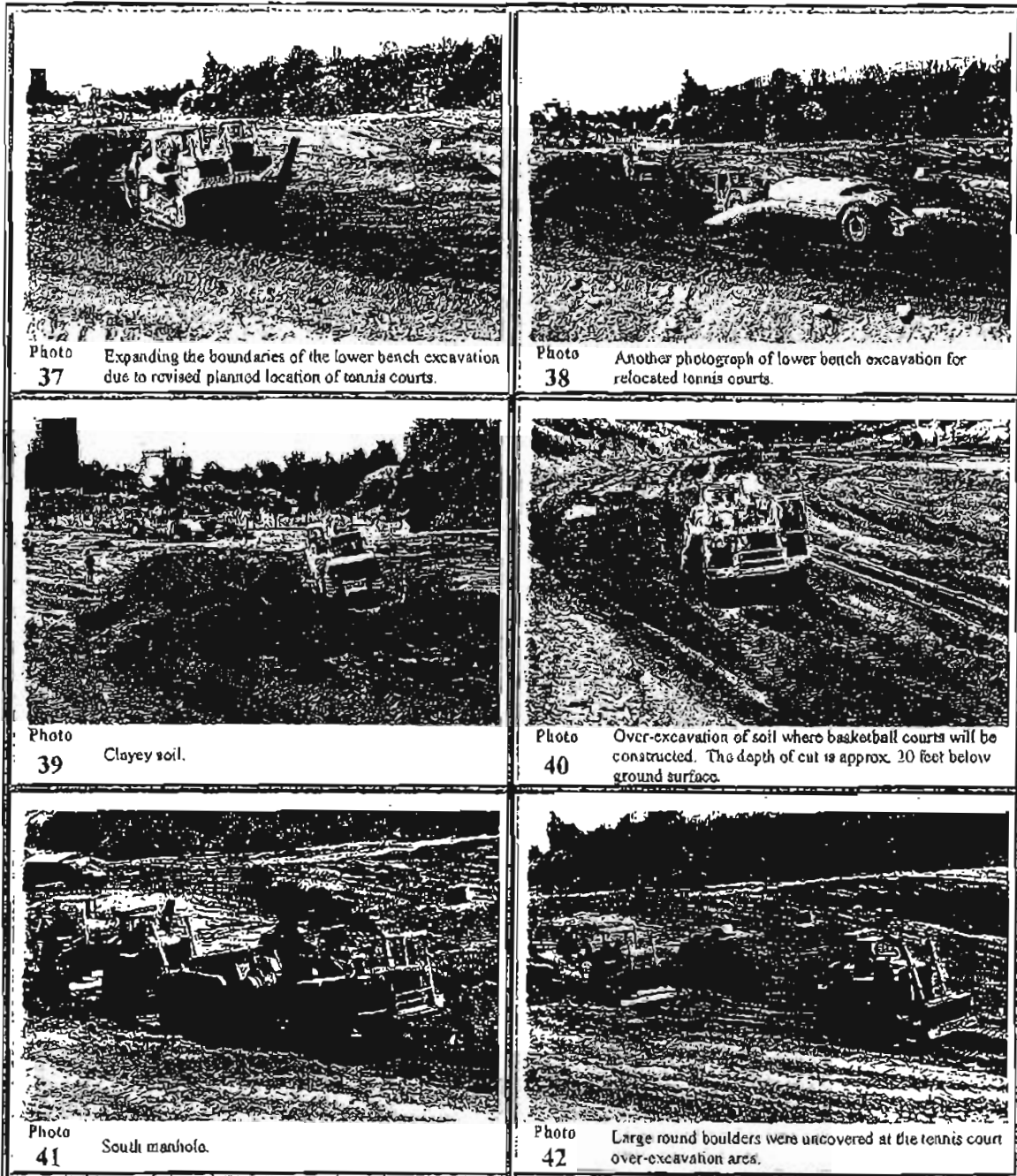
Photo 28 Medical debris appears limited to the upper two feet of soil at the upper bench.



Photo 29 Trench excavation at the upper bench.



Photo 30 Trench excavation was completed to 10 feet below ground surface, where buried tires and trees were encountered.

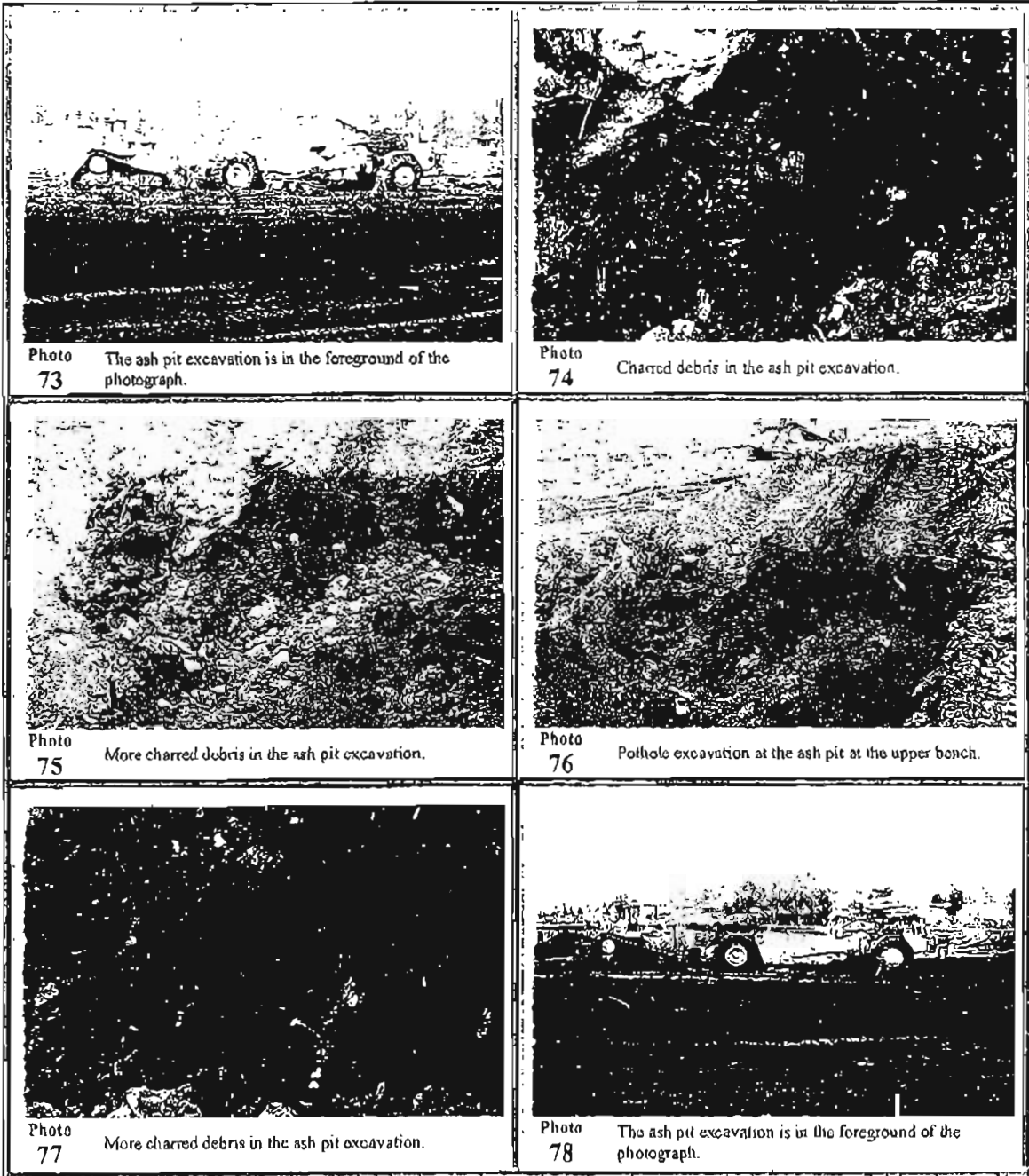


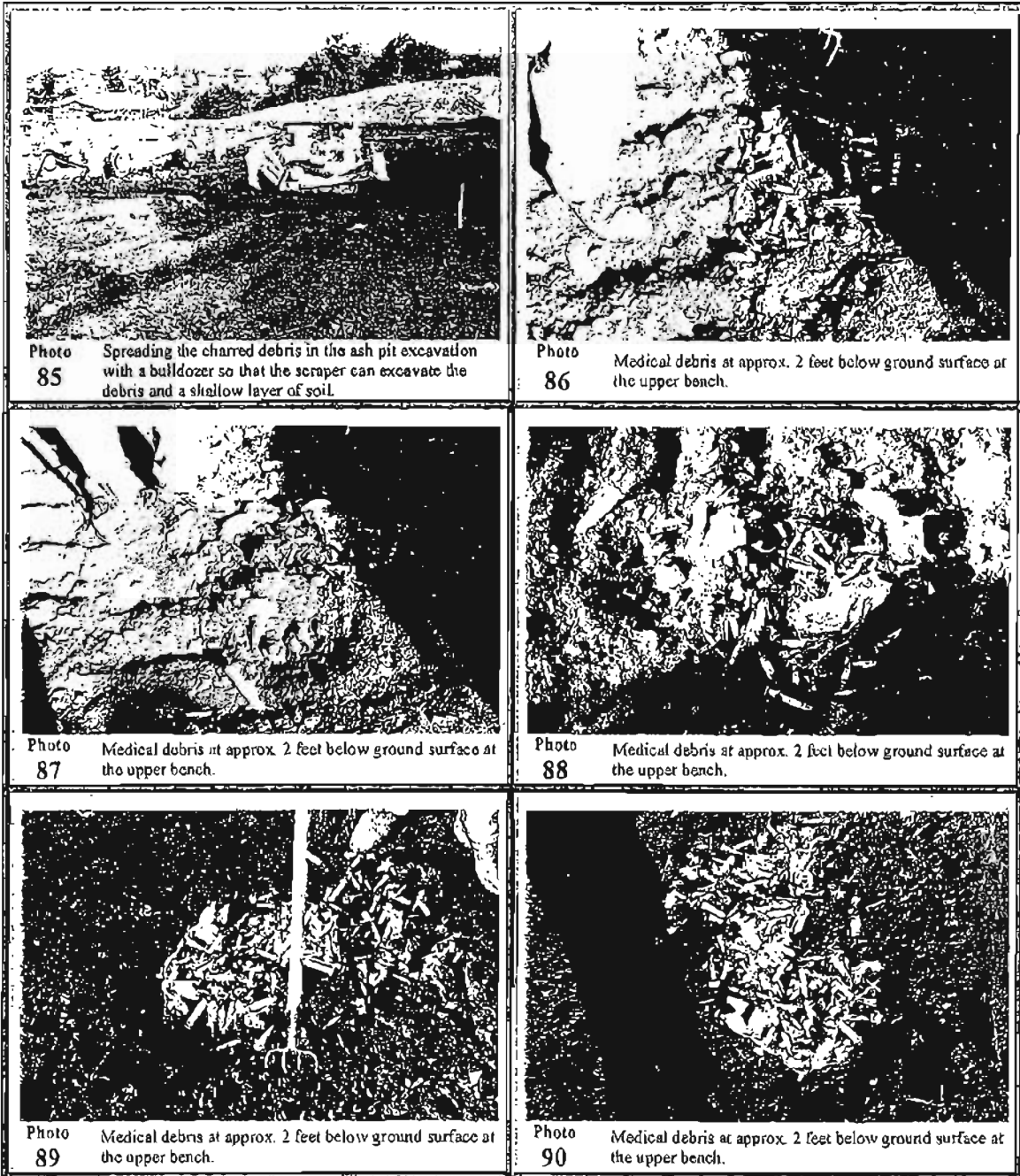
Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: July 17, 2000 - Photos 49-54

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development











Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: July 27, 2000 - Photos 97-102

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development



Photo 97 Charred debris.



Photo 98 The ash pit excavation is in the foreground of the photograph.

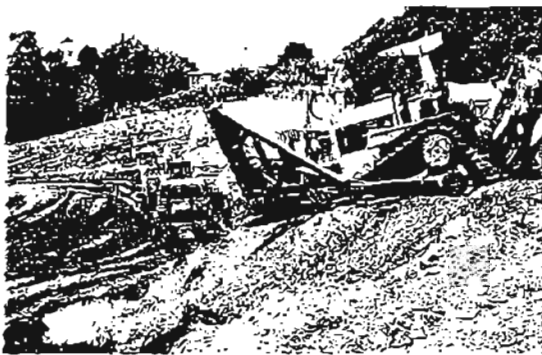


Photo 99 The ash pit excavation is in the foreground of the photograph.



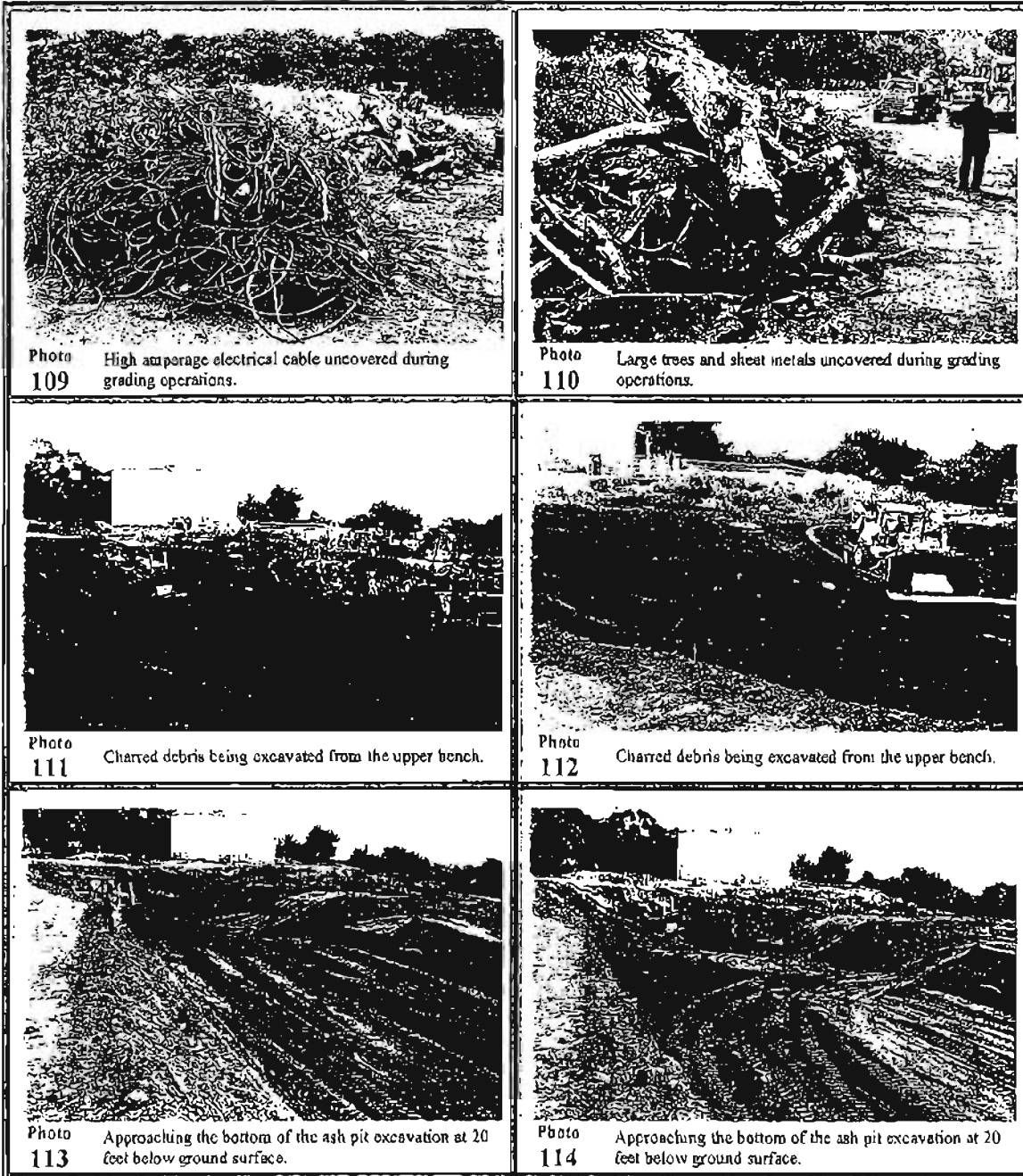
Photo 100 Grading operations in order to move the soccer field to the east.



Photo 101 Grading operations near the ash pit excavation. The ash pit is located to the right of the photograph.

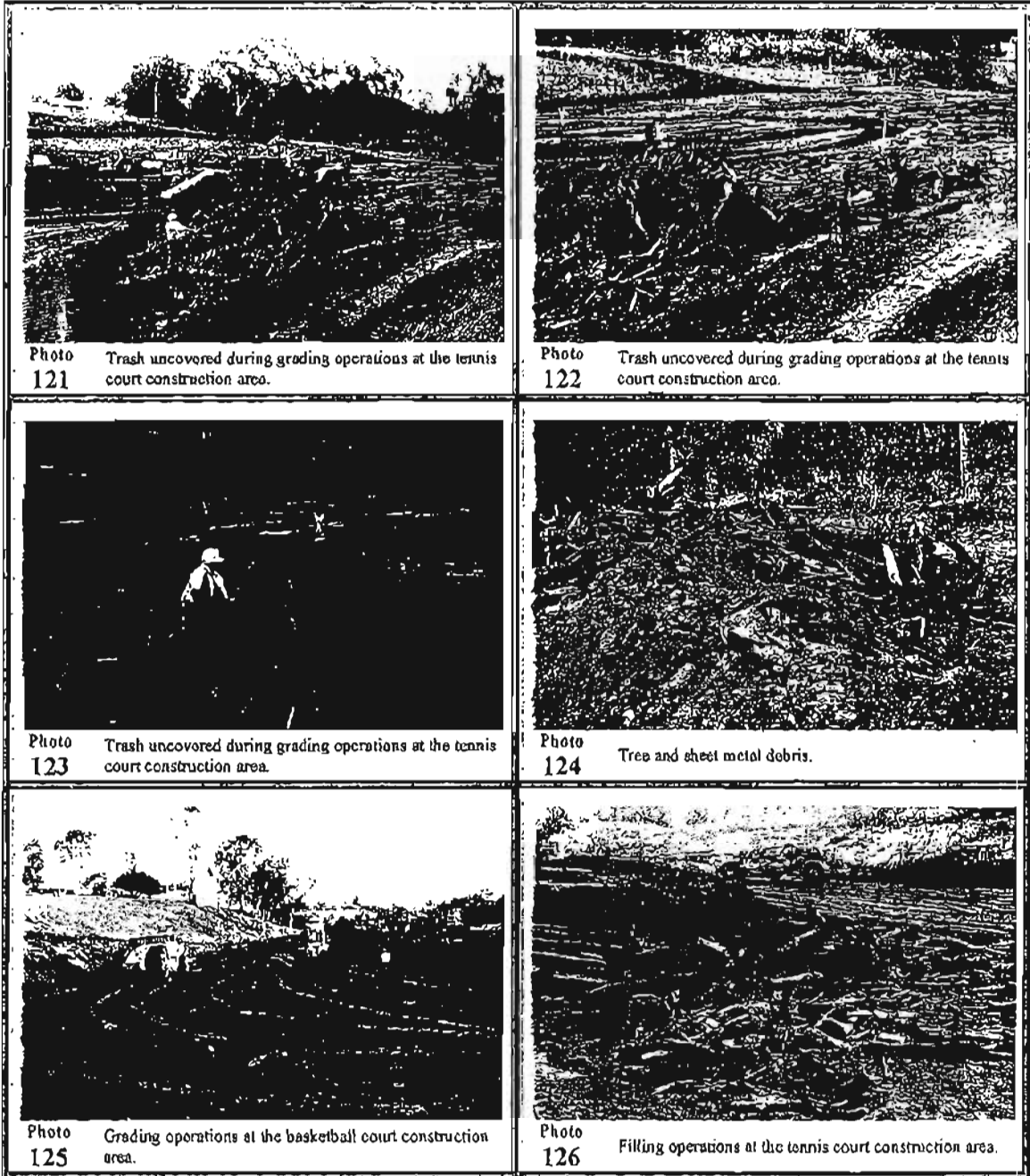


Photo 102 Grading operations near the ash pit excavation. The ash pit is located to the right of the photograph.



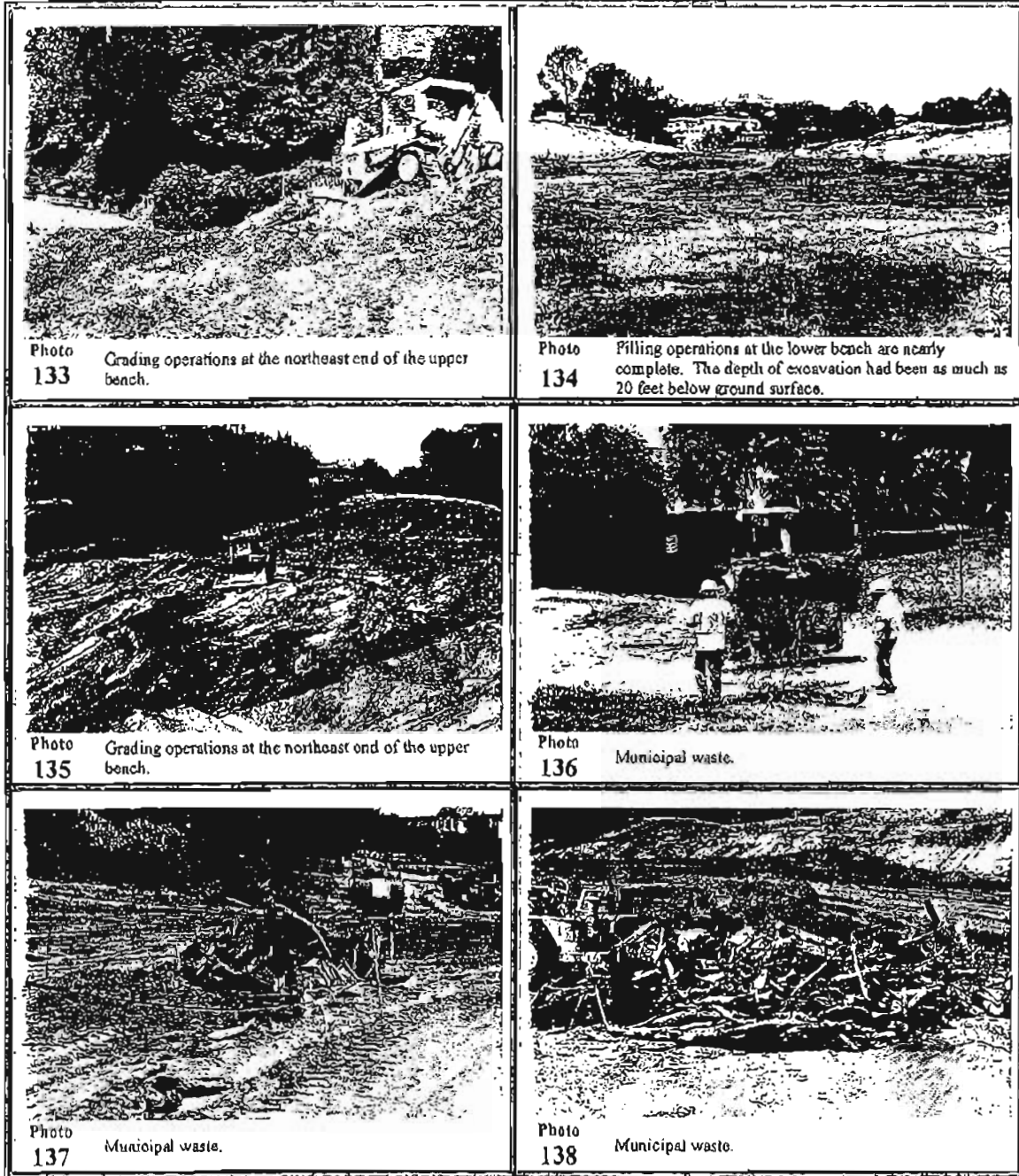


Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

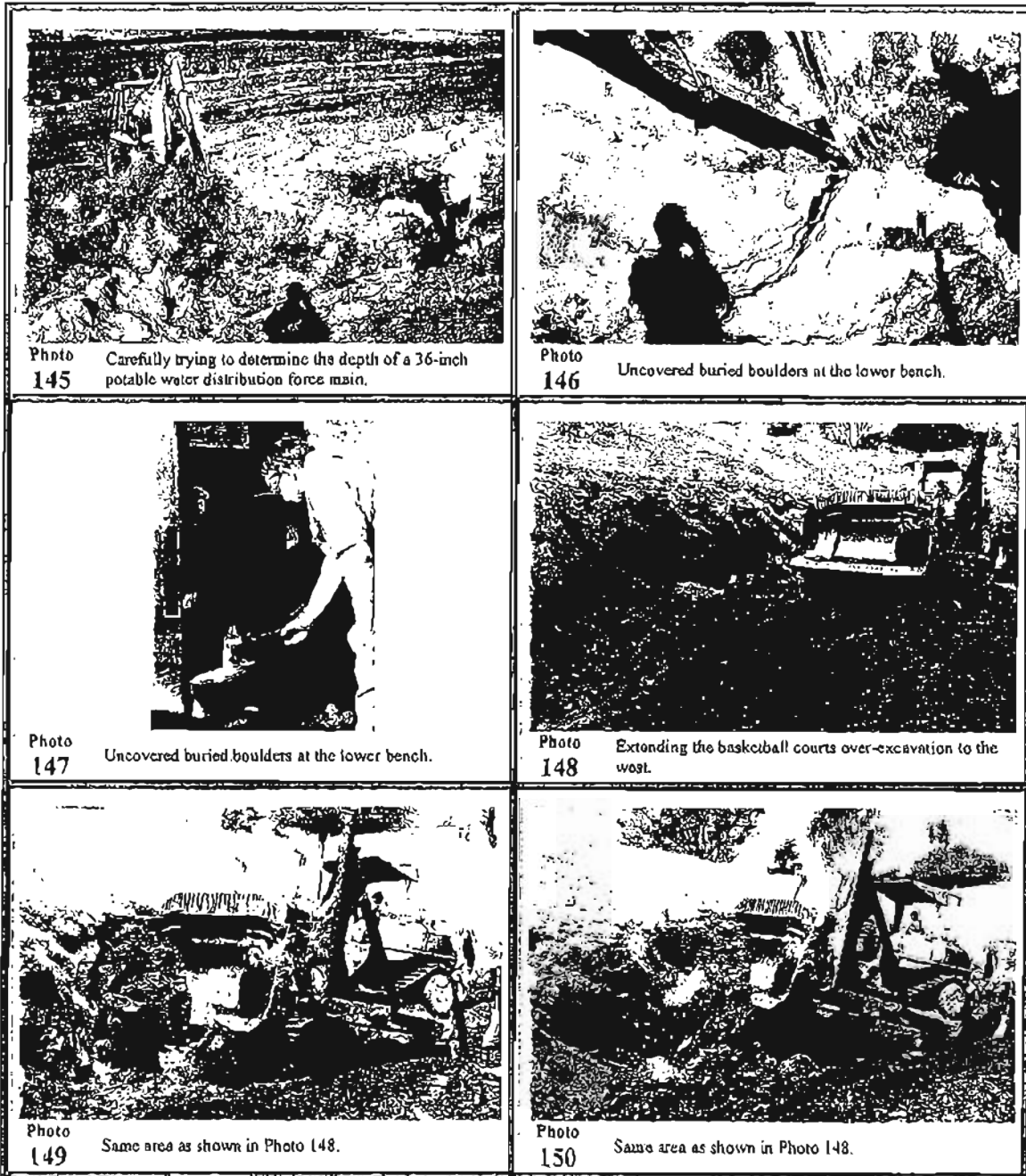


Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: August 2, 2000 - Photos 133-138

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

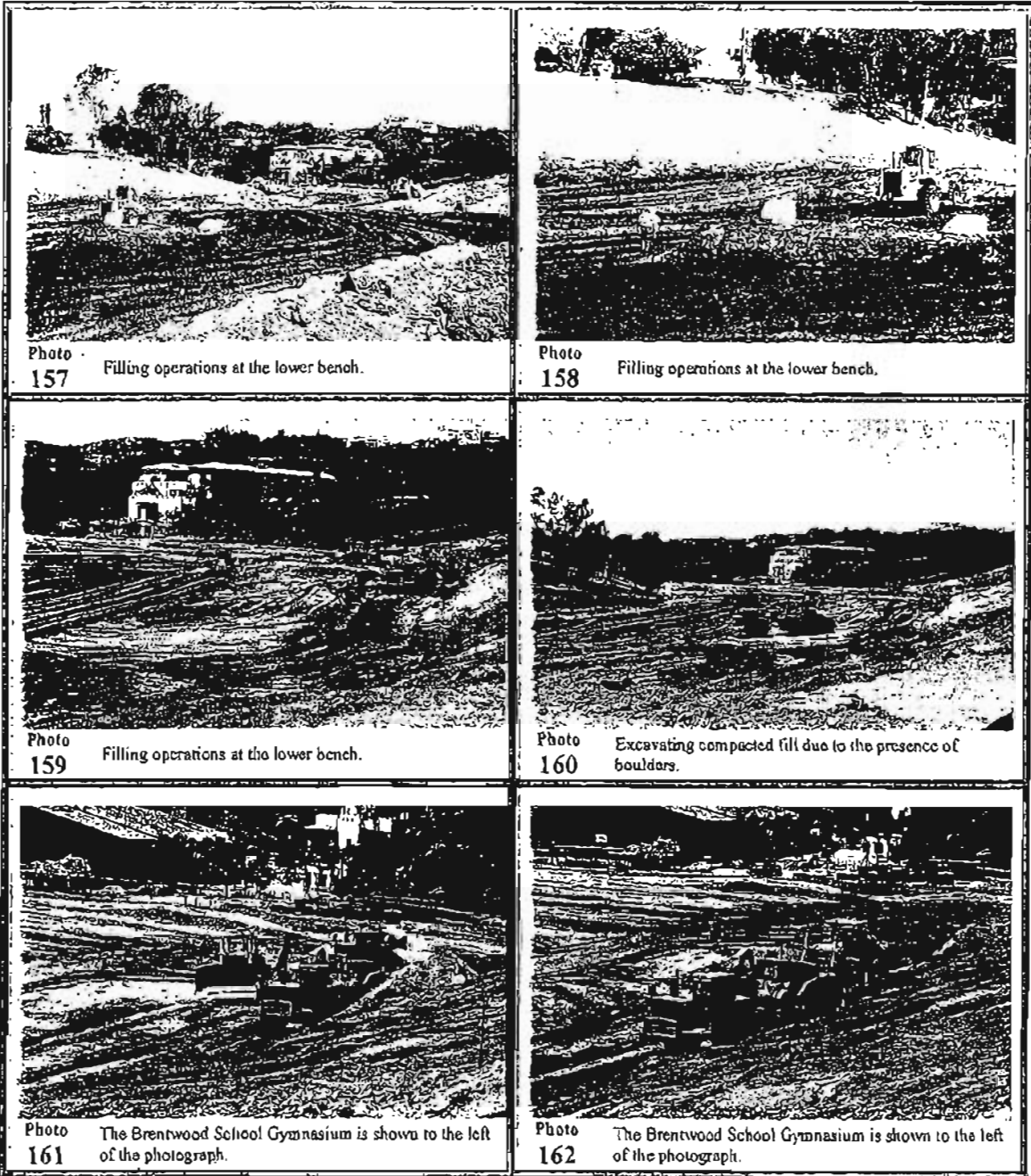


Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development



Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: August 4, 2000 - Photos 157-162

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development



Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

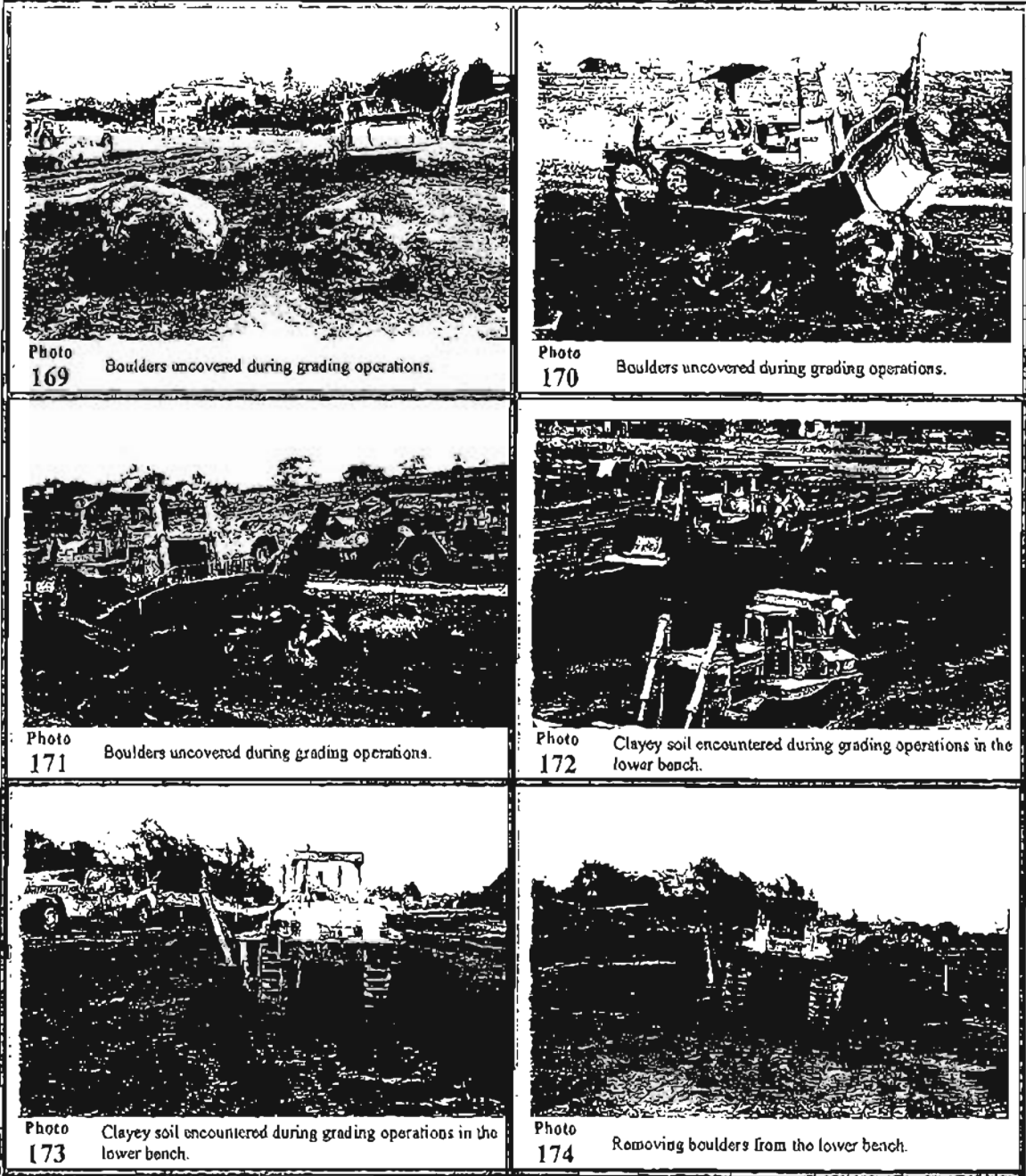


Photo 169 Boulders uncovered during grading operations.



Photo 170 Boulders uncovered during grading operations.



Photo 171 Boulders uncovered during grading operations.



Photo 172 Clayey soil encountered during grading operations in the lower bench.



Photo 173 Clayey soil encountered during grading operations in the lower bench.



Photo 174 Removing boulders from the lower bench.

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development



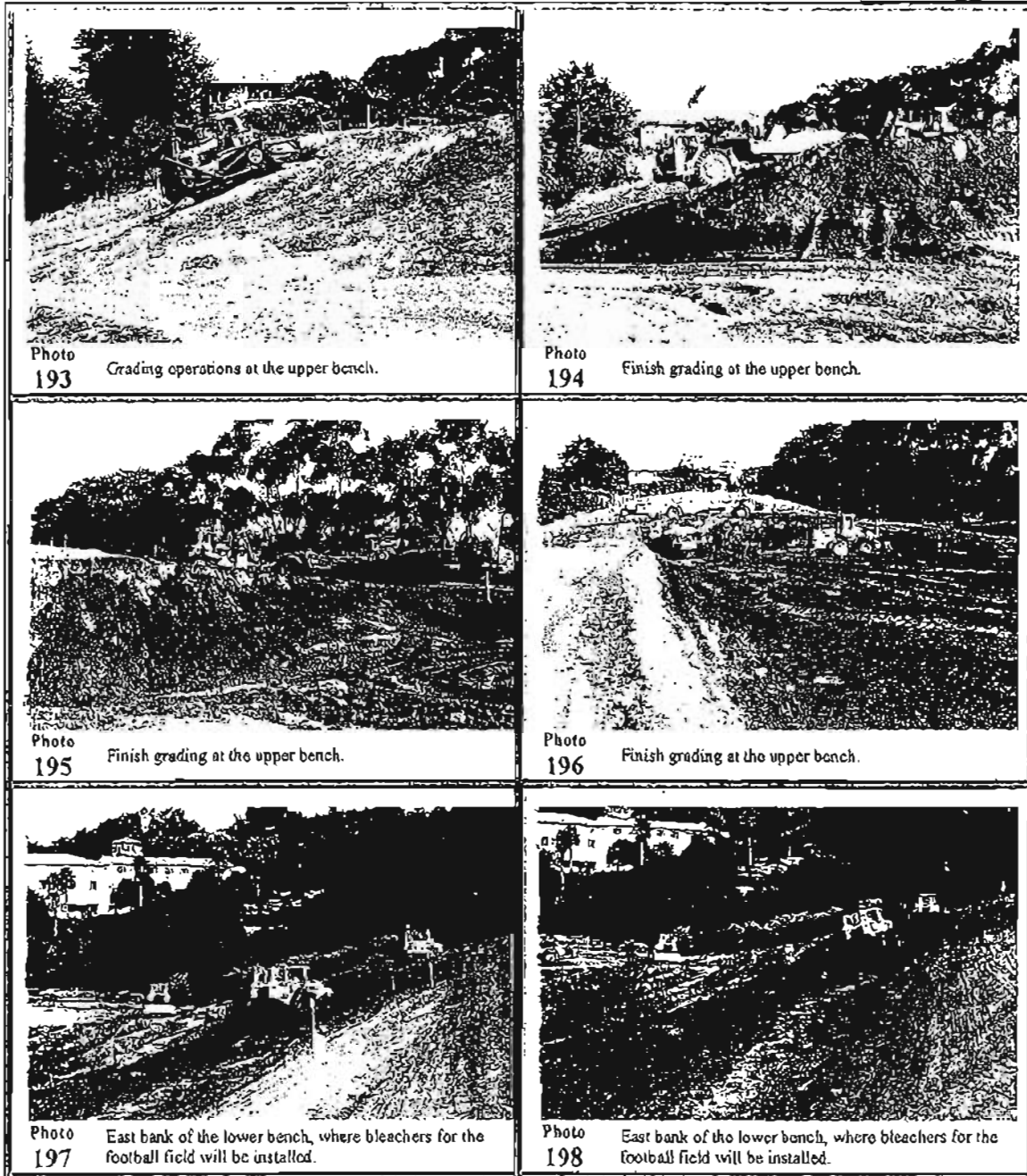


Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: August 8, 2000 - Photo 193

August 14, 2000 - Photos 194-196

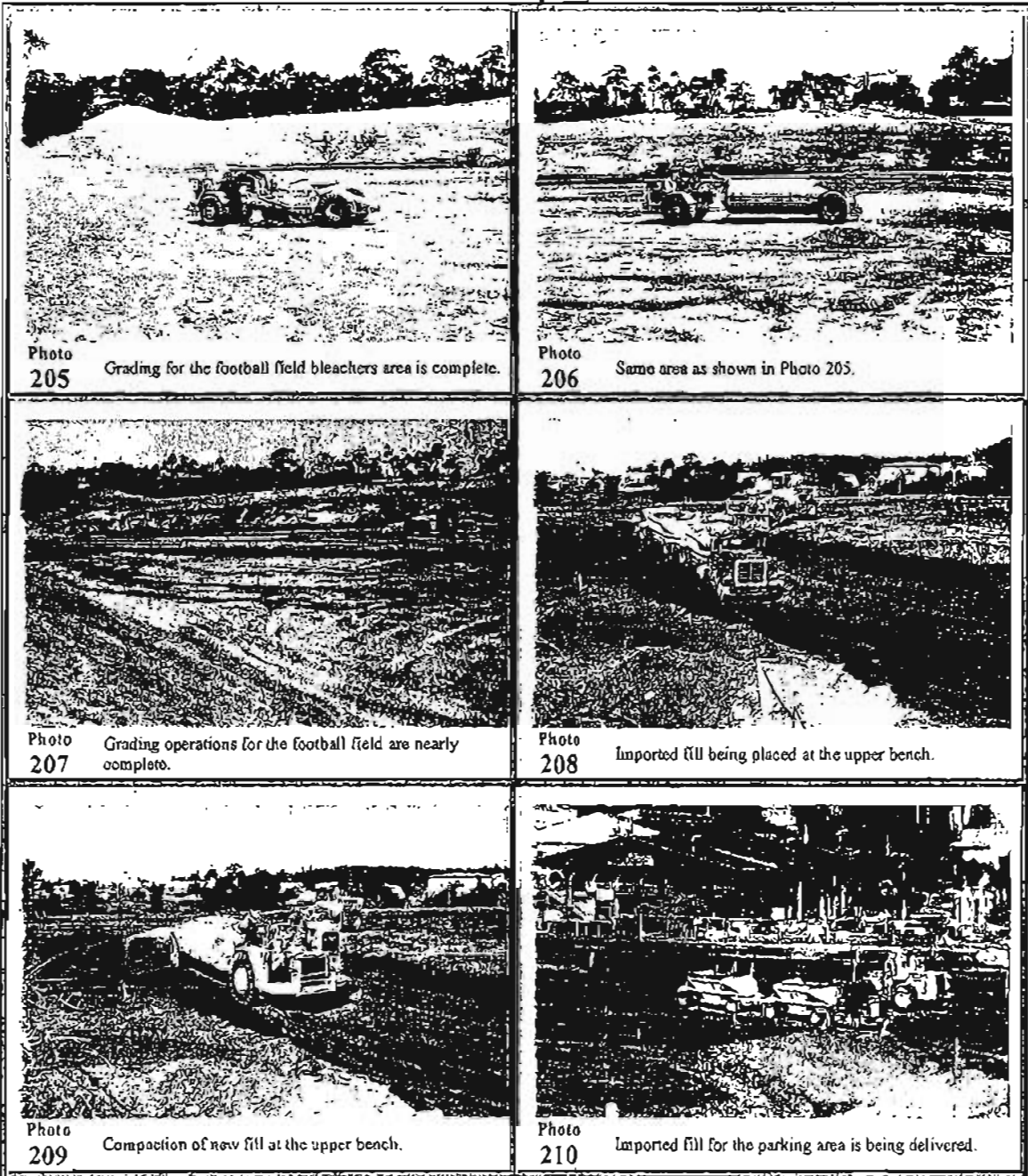
September 5, 2000 - Photos 197-198

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development



Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: September 5, 2000 - Photos 205-207  
September 6, 2000 - Photos 208-209  
September 8, 2000 - Photo 210

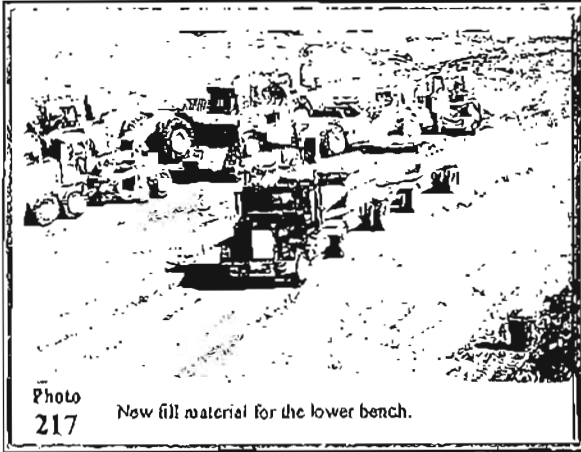
Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development

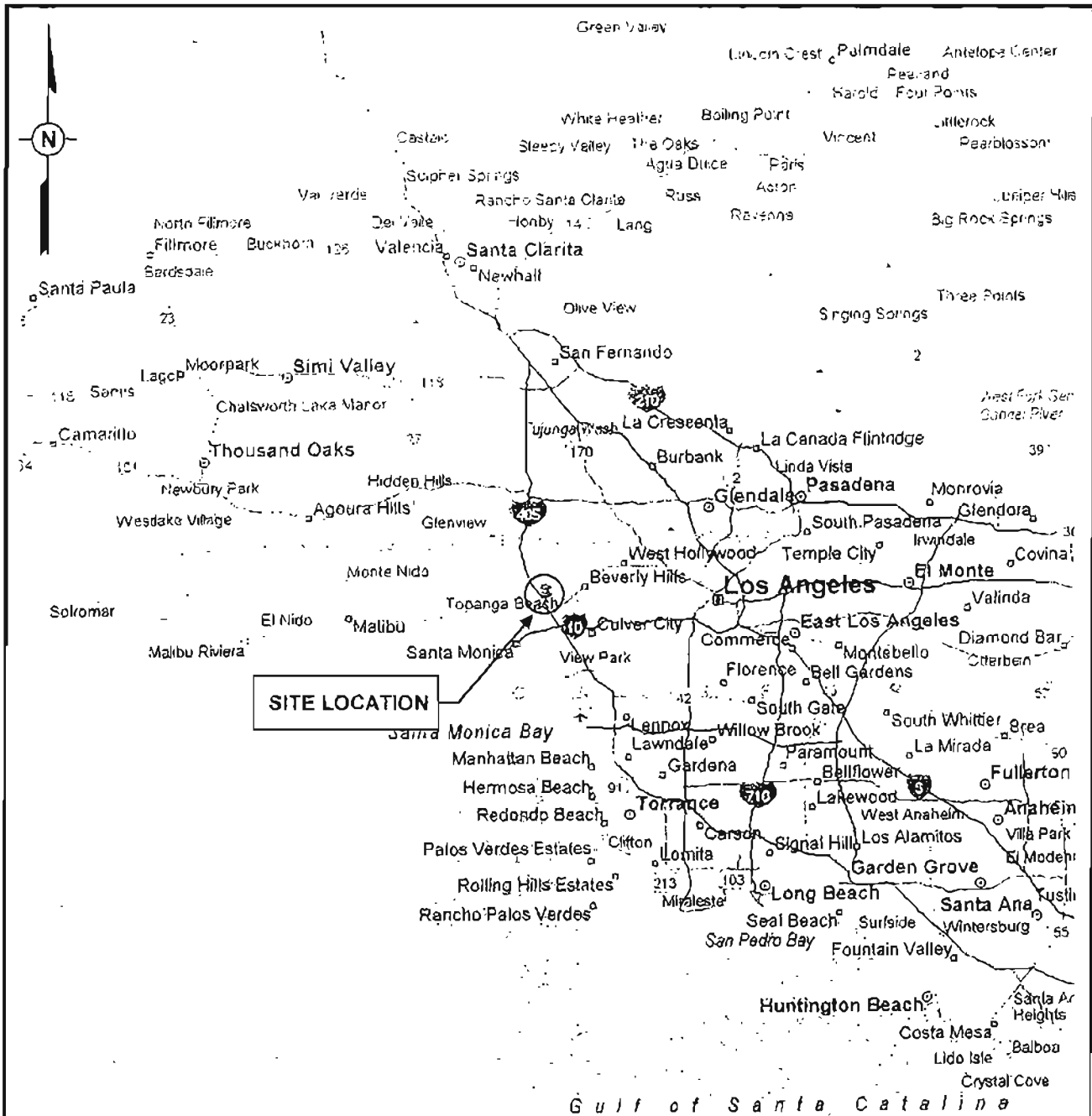




Client Name: Veterans Administration Greater Los Angeles Healthcare System (GLAHS) Photo Dates: September 8, 2000 - Photo 217

Project: Environmental Assessment Brentwood School Athletic Fields Grading Project and Recreation Facility Development





SITE LOCATION MAP  
 U.S. VETERANS ADMINISTRATION  
 WEST LOS ANGELES, CALIFORNIA

PREPARED FOR  
 VETERANS ADMINISTRATION  
 LOS ANGELES, CALIFORNIA

1.	20 SEP 00	ISSUED FOR REPORT	VZC	<i>JKS</i>	<i>JKS</i>
No.	DATE	ISSUE / REVISION	OWN. BY	CKD BY	APD BY

**Locus**

NOT TO SCALE

DRAWING NO. 20-D13-A1

FIGURE 1

81-167



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**APPENDIX A**

**PHOTOGRAPHS**