Phase II Environmental Site Assessment
Learner Investment Company Property
768 46th Avenue
Oakland, California

Job No. 17212-001-043
August 26, 1988

Dames & Moore

BS/1188b

DAMES & MOORE A PROFESSIONAL LIMITED PARTNERSHIP
221 MAIN STREET, SUITE 600, SAN FRANCISCO, CALIFORNIA 94105-1917 (415) 896-5858

"ATTORNEY WORK PRODUCT"

August 23, 1988
Job No. 17212-001-043

Heller, Ehram, White and McAuliffe
515 South Figueroa Street,
Suite 1230
Los Angeles, California 90071

Attention: Mr. Roger Carrick, Esq.

Gentlemen:

Please find enclosed Dames & Moore's report entitled "Phase II Environmental Site Assessment, Learner Investment Company, 468 46th Avenue, Oakland, California." Dames & Moore performed this investigation in accordance with the agreement between Dames & Moore and your client, Learner Investment Company, dated July 19, 1988.

Please call if you have any questions or comments regarding the contents of this report.

Very truly yours,

DAMES & MOORE

David M. Klimberg
Associate

Bruce Scarbrough
Project Geologist

BES:fs

cc: Mr. Jack Hecht, Learner Investment Co.
Mr. Paul Shorb, Esq., Heller, Ehram, White and McAuliffe

"ATTORNEY WORK PRODUCT"

Phase II Environmental Site Assessment

Learner Investment Company

Oakland, California

1.0 INTRODUCTION

This report presents the results of a Phase II Environmental Site Assessment at the Learner Investment Company ("Learner") property at 768 46th Avenue, Oakland, California ("the site"). The Phase I investigation included assessment of the site conditions and the likelihood of site contamination utilizing existing information. The results of the Phase I investigation were presented in our report entitled "Environmental Site Assessment and Sampling Plan, 768 46th Avenue Oakland, California" dated June 3, 1988. The Phase II sampling activities were performed in accordance with the Sampling Plan included in our June 3, 1988 report, and the Supplemental Sampling Plan dated July 22, 1988.

2.0 OBJECTIVES AND SCOPE

The objectives of the Phase II investigation were to:

- Evaluate the vertical and horizontal extent of hydraulic oil present in the vicinity of the former bailer;
- Investigate the soils along the narrow drive located at the southern end of the Learner property; and
- Characterize the piles of soil presently stored at the site in order to recommend appropriate disposal of these materials.
- Develop recommendations for remedial action, if necessary.

The scope of work performed for this investigation was designed to address each of the above objectives and included:

- Sampling and laboratory analysis of 15 soil samples from the former bailer area;
- Sampling and laboratory analysis of 3 composite soil samples collected along the narrow drive;
- Sampling and laboratory analysis of two composite soil samples from the on-site soil piles; and
- Data analysis and preparation of this report.

3.0 SITE DESCRIPTION AND BACKGROUND

The Learner site is located at 768 46th Avenue just east of Highway 17 and south of High Street in Oakland, California (Figure 1). The site is a land parcel of approximately 2.8 acres, which includes a long, narrow drive that extends southeast to 50th Avenue (Figure 2). The site is entirely secured with a chain-link fence and is surrounded by heavy industrial and commercial facilities.

The Learner Company purchased the property in the 1960's, and according to a Learner employee, the site was previously occupied by an asphalt plant. Until cessation of operations in 1982, Learner operated a scrap metal bailing yard at the site. The yard received scrap metal materials such as old appliances, industrial machinery, motors, empty drums, and miscellaneous metal scrap light enough to be hydraulically compressed. The scrap was loaded into a hydraulic bailer via an electric crane and compressed into bails. Prior to 1971, automobiles were also bailed at the site.

In January 1988, Learner began to disassemble and remove the bailer and associated equipment including a large hopper, electric crane, and a pumphouse which housed an above-ground tank and piping used to store hydraulic oil for the bailer. A set of railroad tracks along the northeastern property boundary was also removed. A 1000-gallon underground storage tank, formerly used to store diesel fuel was removed by R.W. Johnston Company on June 22, 1988. Following removal, samples of the soil underlying the tank were collected and submitted for analysis by Kaprealian Engineering. In personal communication with Mr. Dick Burge of R.W. Johnston on July 25, 1988, he stated the laboratory results of the soil samples collected beneath the tank indicated no significant leakage.

The Alameda County Department of Health (ACDOH) inspected the property in January 1988 after receiving a report on the site from the Alameda County District Attorney's (DA) office. According to Mr. Ariu Levi of the ACDOH, during the site inspection he observed several ponds of water with oil layers around the bailer. Mr. Levi collected both a water and soil sample from this area and submitted them for total oil and grease analysis. Both the water and soil sample were reported by Mr. Levi to contain 10% by volume of oil and grease. On April 29, 1988, the ACDOH sent a notice of violation to Mr. Jack Hecht of Learner requesting a written plan of correction under Section 66328d, California Administrative Code, Title 22. According to Mr. Hecht, he never received the initial notice. A second notice of violation was submitted to and received by Learner on May 13, 1988. In May 1988, Learner retained Dames & Moore to perform an environmental site assessment and assist Learner in complying with the ACDOH requirements.

4.0 FIELD ACTIVITIES

The Phase II field investigation activities were performed by Dames & Moore on July 25, 1988. The following three areas of concern were identified during our Phase I investigation and subsequent discussions with Ariu Levi of the ACDOH, and were addressed in the Phase II investigation.

1. Former Bailer Area
2. Narrow Drive Area
3. Soil Pile Areas

A description of the Phase II activities completed in each of the above areas of concern is presented below.

4.1 Former Bailer Area

A total of 9 test pits (1,2,3,4,6,7,8,9,10) were excavated with a backhoe at locations shown on Figure 3. Test pit locations 1, 3, and 4 were excavated to a depth of approximately 6 feet below the surface. Two soil samples from each of these three test pits were collected from depths of 2.5 feet and 4.5 feet below the surface. Test pit locations 2,6,7,8,9,and 10 were excavated to an approximate depth of 4 feet. One soil sample from each of these test pits were collected from a depth of 2.5 feet. A few hours prior to Dames & Moore arriving on the site, Learner had trenched around the concrete crane foundation shown on Figure 3 to a depth of approximately 5.5 feet and around the pumphouse, bailer, and hopper foundations to a depth of approximately two feet. According to Learner's equipment operator, this trenching was necessary in order to expose the concrete foundations for demolition. Soil samples were collected adjacent to the crane foundation (Location 5) from the trench wall at depths of 2.5 feet and 4.5 feet. One soil sample from a depth of 2.5 feet was collected along cut slope on the eastern side of the bailer foundation (Location 11).

The vertical profile of soils encountered during excavation of the test pits was similar and can be characterized as follows:

underlain by approximately 6 inches of asphalt paving, which appeared to be in relatively good condition. At sampling location R1 (southern end of the drive), a shallow test pit was dug through the asphalt and a soil sample was collected approximately 18 inches beneath the base of the asphalt paving. Due to the presence of the thick asphalt surface, we decided to collect the additional soil samples in unpaved areas along the shoulder of the asphalt drive (see Figure 4). Samples were collected along the shoulder from an approximate depth of 18 to 24 inches using a stainless steel trowel and transferred directly into laboratory supplied glassware. Sample handling procedures are described in Section 4.1. The two subsamples from each area were composited on an equal weight basis by the analytical laboratory and analyzed for TPH (EPA Method 3550/418.1) and PCB's (EPA Method 8080).

4.3 Soil Pile Areas

Two adjacent piles of soil with some gravel, small wood pieces and metal scrap are located approximately 50 feet north of the former bailer area. There were reportedly generated following removal of the railroad bed materiel. Another pile of soil and metal scrap is located south of the former bailer area and reportedly generated over the years from on-site operations. In order to recommend an appropriate disposal location for these materiels, Dames & Moore collected a composite soil sample from both soil pile areas. Each composite soil sample was composed of two subsamples collected at random locations in each pile area. Soil subsamples were collected by scraping away the upper few inches of soil from the surface of the pile and transferring a sample of the underlying soil directly into clean laboratory supplied glassware with a clean stainless steel trowel. Approximate sampling locations are shown on Figure 3. Sampling handling procedures as described in Section 4.1 were followed. The two subsamples from each area were composited on an equal weight basis by the analytical laboratory and analyzed for TPH (EPA Method 3550/418.1) and PCB's (EPA Method 8080).

Depth Below Surface (feet)	Soil Description and Unified Soil Classification
0.0 to 2.0	Gray sandy gravel (GP)
2.0 to 3.0	Dark brown clayey silt (ML)
3.0 to 3.25	Light brown clayey silt (ML)
3.25 to 4.0	Olive gray clay (CL)
4.0 to 4.75	Brownish yellow clay with fine sand (CL)
4.75 to 6.0+	Olive gray clay (CL)

Ground water was not encountered in the test pits.

All soil samples collected from the trench and test pit locations were collected at a discrete depths from excavation sidewalls using clean stainless steel trowels. Soil was transferred directly into clean laboratory supplied glassware, placed in a cooler containing blue-ice and delivered to the laboratory on the same day accompanied by chain-of-custody documentation. All soil samples collected in the former bailer area were submitted to Curtis-Tompkins, Ltd. Analytical Laboratories in Berkeley, California for analysis for total petroleum hydrocarbons (TPH) using EPA Methods 3550/418.1. In addition, soil samples collected at sampling locations 1, 3, 4, and 5 from a depth of 2.5 feet were analyzed for Polychlorinated Biphenyls (PCB's) using EPA Method 8080.

4.2 Narrow Drive Area

To characterize the soils along the narrow drive located at the southern portion of the property, Dames & Moore divided the narrow drive along it's length into three approximately equal areas and collected one composite soil sample from each area. Composite samples from each area were composed of two subsamples collected within each area. Sampling locations along the narrow drive are shown on Figure 4. The entire length of the drive was found to be

5.0 CHEMICAL TEST RESULTS

Former Bailer Area

The analytical results of the soil samples collected in the vicinity of the former bailer are presented in Table 1. Complete laboratory reports are attached as Appendix A. At most locations, soils encountered did not exhibit any visible signs of staining or strong petroleum odor, except for some discontinuous dark staining present in the upper few inches of soil adjacent to the bailer and pumphouse concrete pads. Elevated concentrations of TPH were generally limited to the shallow soil samples collected at a depth of 2.5 feet directly north and east of the former bailer (sampling locations 2,3, and 11). The highest reported TPH concentration from this area was 3770 ppm, collected at a depth of 2.5 feet at sample location 2. A TPH concentration of 2860 ppm was reported at sampling location 6 located southeast of the crane concrete pad. TPH concentrations in all soil samples collected at a depth of 4.5 feet were reported at below the detection limit of 5 ppm, with the exception of location 5, where a TPH concentration of 7.2 ppm was reported. PCB's were not detected above the detection limit of 0.01 ppm in any of the soil samples collected from the bailer area.

Narrow Drive

The analytical results of the composite soil samples collected along the narrow drive are presented in Table 2. Complete analytical laboratory reports are attached as Appendix A. TPH concentrations reported for the three composite samples R1-R2, R3-R4, and R5-R6 were 645 ppm, 1830 ppm and 247 ppm, respectively. No visible staining or petroleum odors were observed in any of the samples. PCB's were detected in two of the composite samples (R1-R2 and R3-R4) at a total concentration 0.06 ppm and 0.57 ppm. PCB's were not detected above the detection limit of 0.01 ppm in composite sample R5-R6.

Soil Piles

The analytical results of the two composite soil samples collected from the soil piles are presented in Table 3. Complete analytical laboratory reports are attached as Appendix A. TPH concentrations reported in the two composite samples P1A-P1B and P2A-P2B were 3610 ppm and 3920 ppm, respectively. PCB's were detected in both samples at concentrations of 25.2 ppm and 19.9 ppm, respectively.

6.0 DISCUSSION AND RECOMMENDATIONS

The results of the Phase II site investigation performed by Dames & Moore at the Learner Investment Company property in Oakland can be summarized as follows:

1) Past hydraulic oil leak/s in the vicinity of the above-ground hydraulic oil storage tank have resulted in the presence of elevated concentrations of petroleum hydrocarbons in shallow soils in the immediate vicinity of the former bailer. Analysis of soil samples collected at a depth of 4.5 feet below the surface within the impacted area indicate that no significant vertical migration of the hydraulic oil has occurred. It is our opinion that this zone of soil contamination extends to a maximum depth of 2 to 3 feet and is limited to an area immediately surrounding the bailer, pumphouse, and crane pad.

2) Composite soil sample analysis of shallow soil samples collected along the narrow drive indicate the presence of petroleum hydrocarbons and trace levels of PCB's (less than 1 ppm). The source of these compounds is not known, although they may be a result of past storage of machinery along the drive. Based on the heavy industrial setting of this property and the fact that Learner reportedly intends to pave the entire property for storage and

warehousing, it is our opinion that the concentrations of TPH and PCB's detected in the shallow soils along the narrow drive do not pose a significant threat to the public health or environment.

3) Composite soil sample analysis of the soil piles currently stored on-site show elevated concentrations of TPH and detectable levels of PCB's. According to Learner, the soil stored to the north of the bailer area resulted from the removal of the railroad tracks which previously ran through the site. The pile to the south of the bailer was composed of a mixture of soil and scrap metal accumulated through the years. The concentrations of PCB's reported in both samples are well below the the Total Threshold Limit Concentration (TTLC) of 50 ppm which would require the materiel to be designated a hazardous waste in the State of California. In their recently published Leaking Underground Fuel Tank Manual (LUFT), the State of California Department of Health Services recommends a total petroleum hydrocarbon level of 1000 ppm in soil be used as a hazardous waste classification criteria. Based on the results of the limited sampling data and the above criteria, these soils would be classified hazardous waste, and therefore, required to be disposed of into a Class I landfill facility.

Dames & Moore recommends the following:

1) Excavate soils from an area adjacent to the existing concrete pads for the bailer, hopper and pumphouse to a depth of approximately 3 feet (see Figure 5). Additionally any visually stained areas in the vicinity of the former bailer should be scraped to a depth where soils appear visually clean and added to the segregated pile. Confirmation soil samples should be collected from the base and sidewalls of the excavated areas to confirm removal of soils containing greater than 1000 ppm TPH.

2) Following excavation, the excavated soils could be treated on-site by landfarming or transported to a Class I landfill. Landfarming is a process by which petroleum hydrocarbon contaminated soils are spread over an area to enhance naturally occurring biodegradation processes. Hydraulic oil is composed of heavy hydrocarbon compounds which do not volatilize. Thus, microbial biodegradation is left as the major process for remediation. Stimulation of microbial growth and activity for hydrocarbon removal is accomplished primarily through the addition of oxygen and nutrients. Biodegradation has been found to be an efficient and cost-effective method for mitigating several types of petroleum hydrocarbon products. The process requires an open area for treatment of the soil and sufficient time to accomplish hydrocarbon destruction. It is estimated that the bioremediation of the soils could be accomplished in 4 to 6 months following excavation. On-site treatment of these soils could be accomplished by use of enhanced biodegradation. This could be accomplished by spreading the excavated soils over an open area to depths varying from 6 to 18 inches. Prior to spreading of the soil, the ground surface will be covered with some form of impervious materiel in order to prevent contaminants from leaching into the underlying soil. To enhance natural biodegradation, water and nutrients will be added to the soil, and the soil will be turned over to allow aeration on a regular basis. Cores of the landfarmed soil will be collected on a monthly basis and analyzed for TPH to evaluate the effectiveness of the biodegradation process. Landfarming of the soils will be continued until the TPH concentrations are below 100 ppm. At that time, the soils will either be used on-site as fill or disposed of off-site at a Class III landfill. It is anticipated that the costs associated with on-site biodegradation of the soils will probably range from about one-third to one-fourth of the cost of disposal at a Class I landfill.

3) Off-site disposal at a Class I landfill of the soils and debris presently stored on-site is estimated to range from $250 to $300 per cubic yard. The volume of soil and debris currently stored at the site is estimated at approximately 500 cubic years. Due to the high cost of disposal at a Class I and the relatively large volume of soil present, Dames & Moore recommends that additional soil samples from discrete portions of these piles be collected and analyzed to further evaluate the distribution of TPH and PCB's in these materiels. Results of these analyses may enable a segregation of materials and lower the overall disposal costs.

4) Collect and analyze approximately three to five surface soil samples for PCB's along the length of the former railroad track bed to confirm that PCB's are not present at significant levels.

7.0 LIMITATIONS

Dames & Moore warrants that its services have been performed, within the limits prescribed by the Client, in accordance with current generally accepted principles and practices of hydrogeology, geology, and civil and geotechnical engineering. No other warranty or representation, either expressed or implied, is included or intended in this report.

The conclusions and recommendations presented in this report are professional opinions based on the indicated data described in this report. They are intended only for the purpose, site location and project indicated. The conclusions and recommendations presented in this report are based on the assumption that subsurface conditions do not deviate from those observed during our study, as described in this report. Other locations of contamination may exist at the site and the levels of contamination at the site may vary from those shown.

Opinions and recommendations presented herein apply to site conditions existing at the time of our study and those reasonably foreseeable, they cannot necessarily apply to site changes made of which this office is not aware and has not had opportunity to evaluate. Changes in the conditions of the subject property can occur with time, because of natural processes or the works of man, on the subject site or on adjacent properties. Changes in applicable engineering and construction standards can also occur as the result of legislation or from the broadening of knowledge. Accordingly the findings of this report may be invalidated, wholly or in part, by changes beyond our control.

Table 1

Summary of Analytical Results
Former Bailer Area
Learner Investment Co.
Oakland, CA

Sampling Location	Sample I.D.	Sample Depth (ft)	Total Petroleum Hydrocarbons (mg/kg)	PCB's (mg/kg)
1	1S	2.5	7.9	ND(0.01)
1	1D	4.5	<5.0	*
2	2S	2.5	3770	*
3	3S	2.5	3430	ND(0.01)
3	3D	4.5	<5.0	*
4	4S	2.5	<5.0	ND(0.01)
4	4D	4.5	<5.0	*
5	5S	2.5	15.3	ND(0.01)
5	5D	4.5	7.2	*
6	6S	2.5	2860	*
7	7S	2.5	<5.0	*
8	8S	2.5	<5.0	*
9	9S	2.5	<5.0	*
10	10S	2.5	<5.0	*
11	11S	2.5	2290	*

ND: Not detected (detection limit in mg/kg)

*: Not analyzed

SAMPLED TO 4.5' - TPH FOUND AT ACCEPTABLE LEVELS

SAMPLES AT 2.5' FOUND

BS/1087b/16b

Table 2

Analytical Results
Narrow Drive
Learner Investment Co.
Oakland, CA

SAMPLE I.D.:	R1-R2	R3-R4	R5-R6
SAMPLE DEPTH (IN.)	18-24	18-24	18-24
TOTAL PETROLEUM HYDROCARBONS (mg/kg)	645	1830	247
PCB's (mg/kg)			
Aroclor 1254	0.03	0.14	ND (0.01)
Aroclor 1260	0.03	0.43	ND (0.01)
TOTAL PCB's	0.06	0.57	ND

ND: Not detected (detection limit of 0.01 mg/kg)

NOTE:

Samples are composite samples.

BS/1087b/16b

Table 3

Analytical Results
Soil Pile
Learner Investment Co.
Oakland, CA

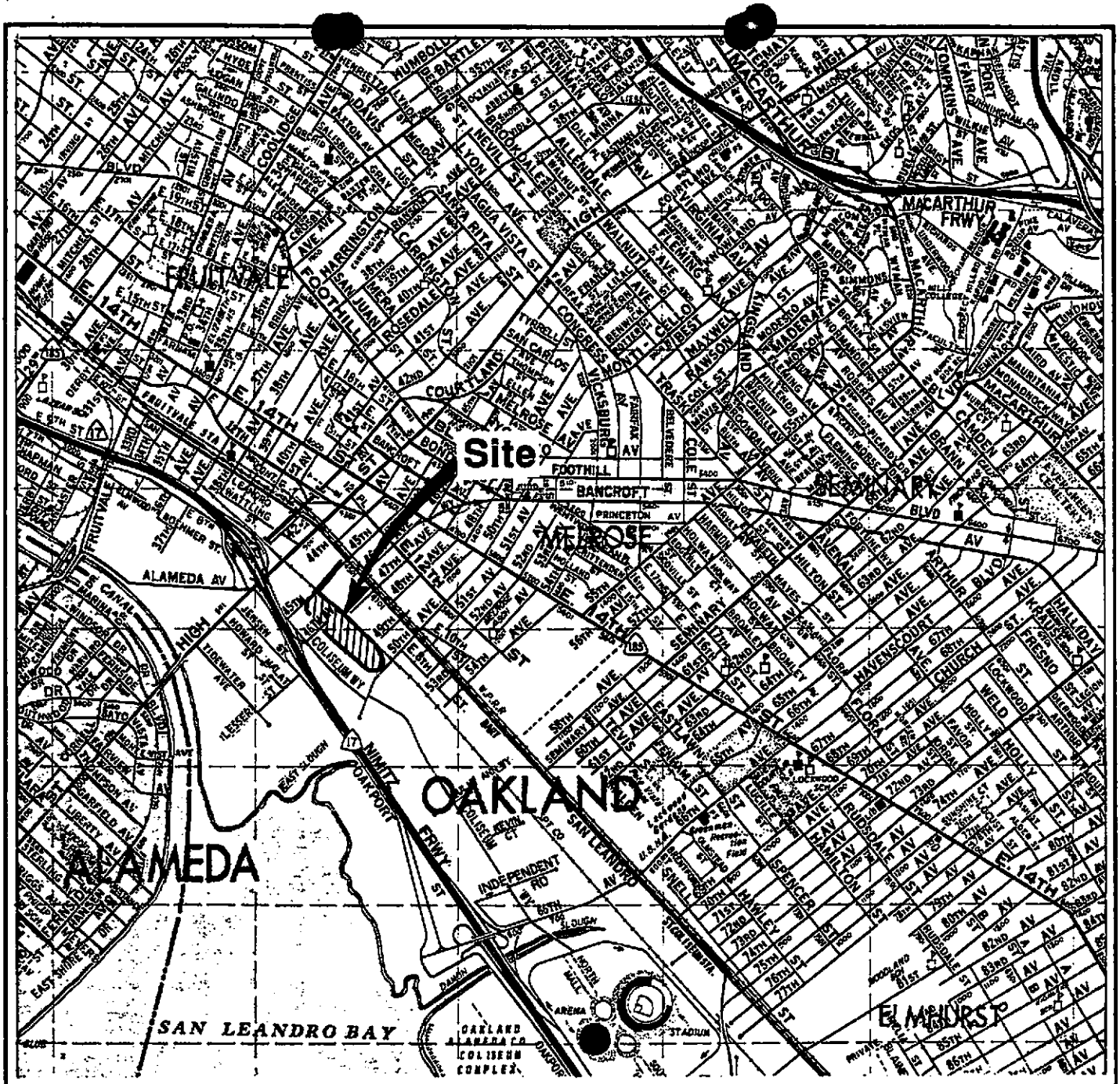
SAMPLE I.D.	P1A-P1B	P2A-P2B
TOTAL PETROLEUM HYDROCARBONS (mg/kg)	3610	3920
PCB's (mg/kg)		
Aroclor 1254	20	16
Aroclor 1260	5.2	3.9
Total PCB's	25.2	19.9

NOTES:

1) P1A-P1B: Composite sample from piles north of bailer area

2) P2A-P2B: Composite sample from piles south of bailer area

BS/1087b/16b

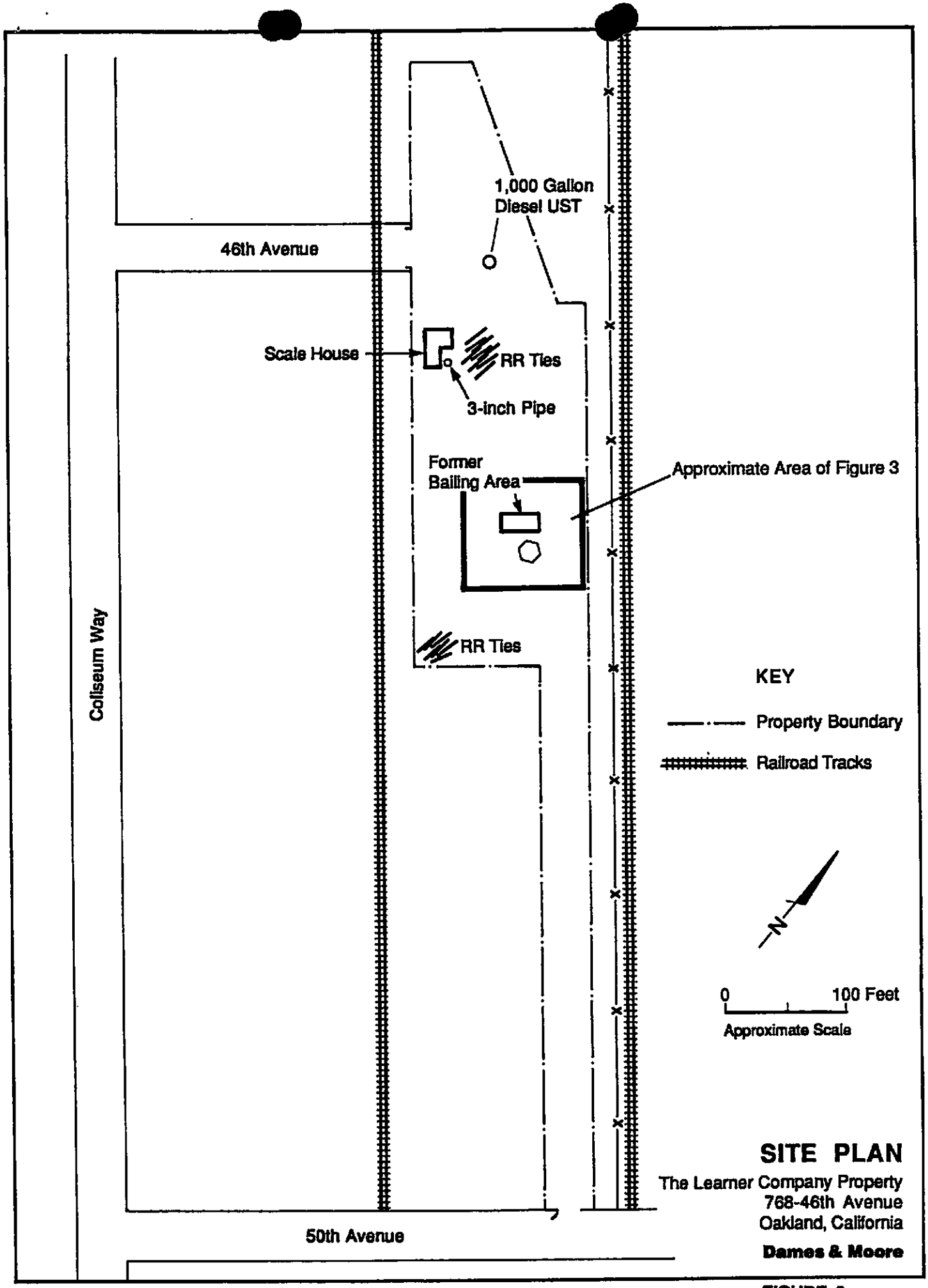


Reference: Thomas Bros. Maps

SITE LOCATION MAP

The Learner Company Property
768-46th Avenue
Oakland, California
Dames & Moore

FIGURE 1

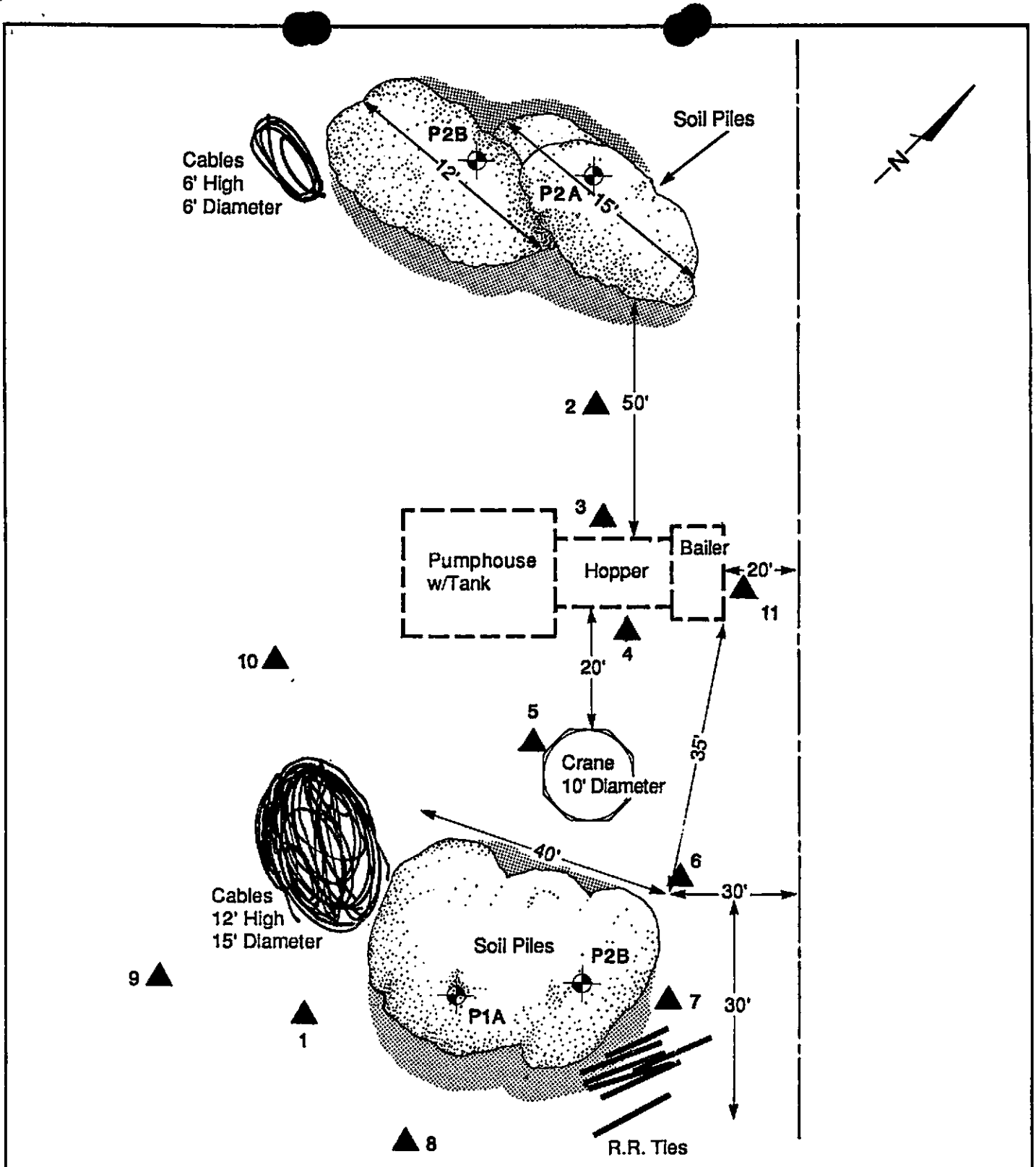


SITE PLAN

The Learner Company Property
768-46th Avenue
Oakland, California

Dames & Moore

FIGURE 2



KEY:

Property Boundary

7 ▲ Soil Sampling Location and Designation

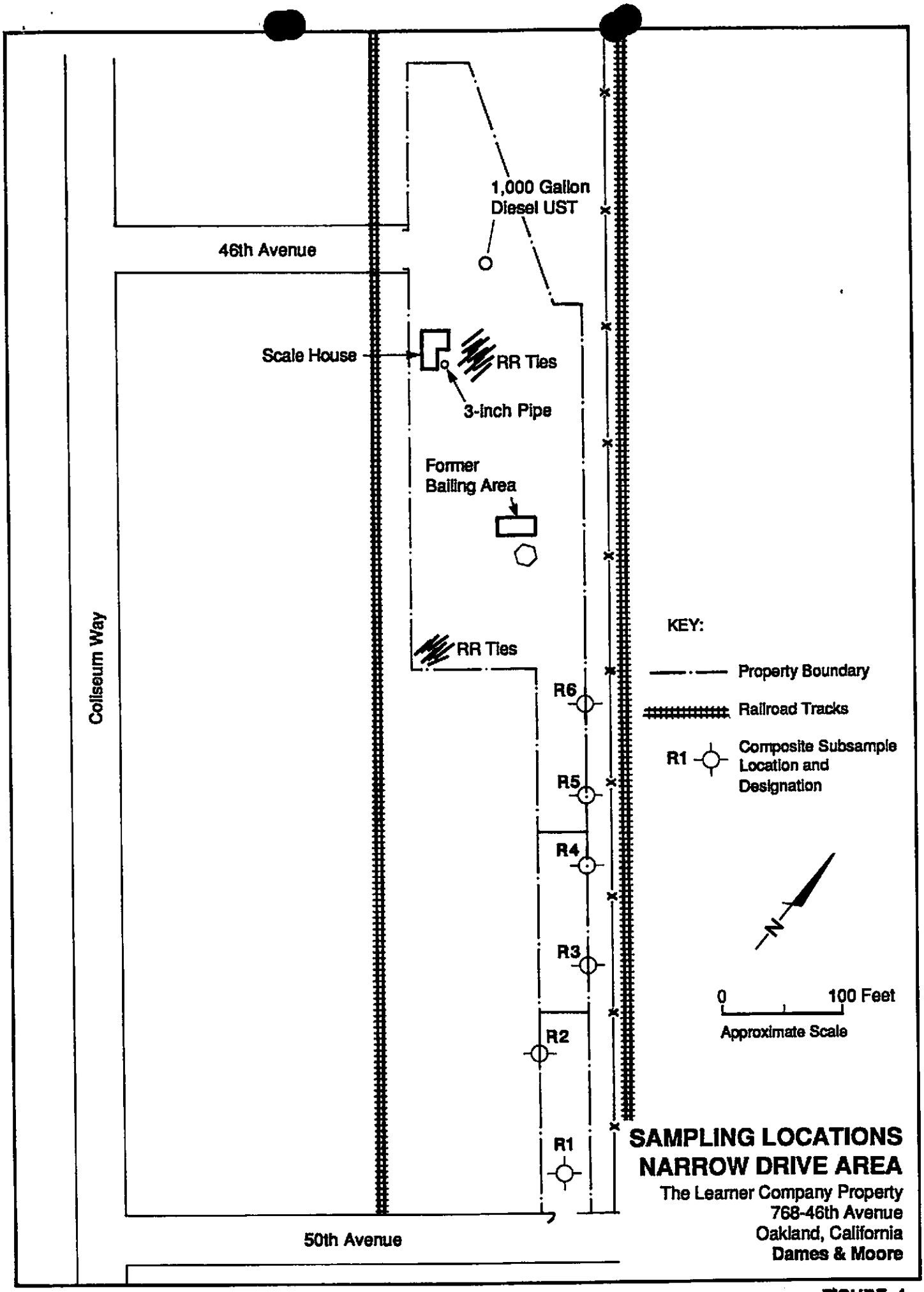
P1A ⊕ Composite Subsample Location and Designation

Not to scale

SAMPLING LOCATIONS FORMER BAILER AREA AND SOIL PILES

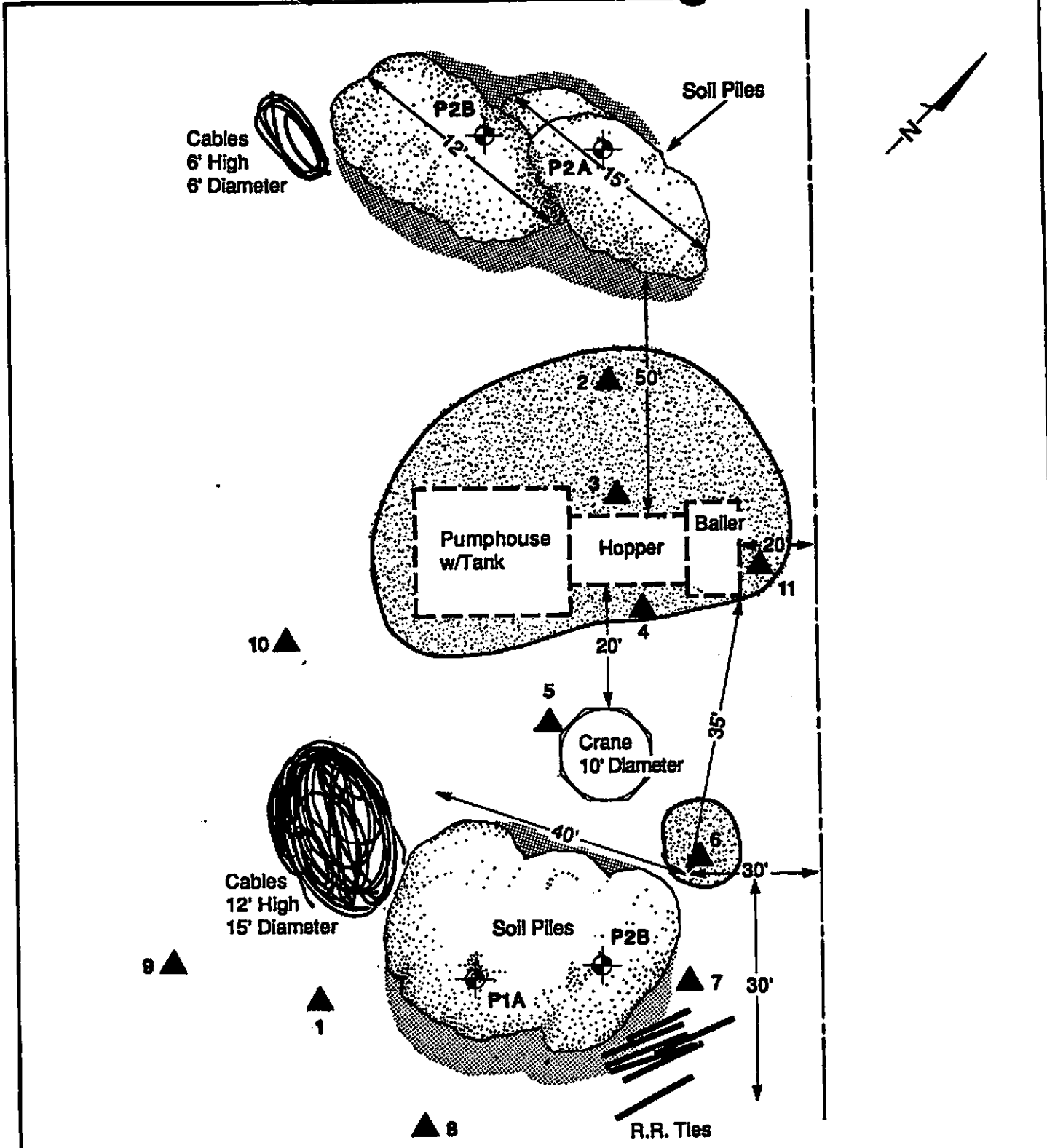
The Learner Company Property
768-46th Avenue
Oakland, California
Dames & Moore

FIGURE 3



SAMPLING LOCATIONS
NARROW DRIVE AREA
The Learner Company Property
768-46th Avenue
Oakland, California
Dames & Moore

FIGURE 4



KEY:

Property Boundary

Proposed Area of Excavation (3 Ft. Deep)

7 Soil Sampling Location and Designation

P1A Composite Subsample Location and Designation

Not to scale

PROPOSED EXTENT OF SOIL EXCAVATION

The Learner Company Property
768-46th Avenue
Oakland, California
Dames & Moore

FIGURE 5

APPENDIX A

COMPLETE LABORATORY REPORTS

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (415) 486-0900

LABORATORY NUMBER: 15227
CLIENT: DAMES & MOORE
JOB NO.: 17212-001-43
JOB LOCATION: 768 46th AVE, OAKLAND

DATE RECEIVED: 07/25/88
DATE ANALYZED: 08/01/88
DATE REPORTED: 08/04/88

EPA 418.1: Total Petroleum Hydrocarbons by IR in Soils & Wastes
Extraction Method: EPA 3550

LAB ID	COMPOSITE ID	TPH (mg/Kg)
15527-1,2	R1, R2	645
15527-3,4	R3, R4	1,830
15527-4,5	R5, R6	247
15527-7,8	P1A, P1B	3,610
15527-9,10	P2A, P2B	3,920

ND = Not Detected; Limit of detection in parentheses.

QA/QC SUMMARY

Duplicate: Relative % Difference	10
Average Spike Recovery %	111

LABORATORY DIRECTOR

Curtis & Tompkins, Ltd.

LAB NUMBER: 15227
CLIENT: DAMES & MOORE
JOB NO.: 17212-001-43
JOB LOCATION: 768 46th AVENUE, OAKLAND

DATE RECEIVED: 07/25/88
DATE ANALYZED: 08/01/88
DATE REPORTED: 08/04/88

EPA 418.1: Total Petroleum Hydrocarbons by IR in Soils & Wastes
Extraction Method: EPA 3550

LAB ID	CLIENT ID	TPH (mg/Kg)
15227-11	1S	7.9
15227-12	1D	<5.0
15227-13	3S	3,430
15227-14	3D	<5.0
15227-15	4S	<5.0
15227-16	4D	<5.0
15227-17	5S	15.3
15227-18	5D	7.2
15227-19	2S	3,770
15227-20	6S	2,860
15227-21	7S	<5.0
15227-22	8S	<5.0
15227-23	9S	<5.0
15227-24	10S	<5.0
15227-25	11S	2,290

ND = Not Detected; Limit of detection in parentheses.

QA/QC SUMMARY

Duplicate: Relative % Difference	10
Average Spike Recovery %	111

Curtis & Tompkins, Ltd.

LAB NUMBER: 15227
CLIENT: DAMES & MOORE
PROJECT ID: 17212-001-43, 768 46th AVENUE

DATE RECEIVED: 07/25/88
DATE EXTRACTED: 08/04/88
DATE ANALYZED: 08/08/88
DATE REPORTED: 08/09/88

Polychlorinated Biphenyls (PCBs) by EPA Method 8080

LAB ID	COMPOSITE ID	PCBs (mg/kg)	AROCLOR TYPE
15227-1,2	R1, R2	0.03	1254
		0.03	1260
15227-3,4	R3, R4	0.14	1254
		0.43	1260
15227-5,6	R5, R6	ND(0.01)	---
15227-7,8	P1A, P1B	20	1254
		5.2	1260
15227-9,10	P2A, P2B	16	1254
		3.9	1260

ND = Not Detected; Limit of Detection indicated in parentheses.

QA/QC Summary:

%RPD	%Spike Recovery
23	112

Curtis & Tompkins, Ltd.

LAB NUMBER: 15227
CLIENT: DAMES & MOORE
PROJECT ID: 17212-001-43, 768 46th AVENUE

DATE RECEIVED: 07/25/88
DATE EXTRACTED: 08/04/88
DATE ANALYZED: 08/08/88
DATE REPORTED: 08/09/88

Polychlorinated Biphenyls (PCBs) by EPA Method 8080

LAB ID	SAMPLE ID	PCBs (mg/kg)	AROCLOR TYPE
15227-11	1S	ND(0.01)	--- ---
15227-13	3S	ND(0.01)	--- ---
15227-15	4S	ND(0.01)	---
15227-17	5S	ND(0.01)	---

ND = Not Detected; Limit of Detection indicated in parentheses.

QA/QC Summary:

%RPD	%Spike Recovery
23	112