2295-5126-92

ENVIRONMENTAL INVESTIGATION
SOUTH BEND LATHE
400 W. SAMPLE STREET
SOUTH BEND, INDIANA

JULY 31, 1992

PREPARED FOR
TURNMASTER CORPORATION

PREPARED BY
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1.0 INTRODUCTION

EIS Environmental Engineers, Inc. (EIS) of South Bend, Indiana was retained by th Turnmaster Corporation of Carson, California to conduct an environmental investigation of the South Bend Lathe property located at 400 W. Sample Street in South Bend, Indiana. The site location is indicated on Figure 1.1.

1.1 Purpose

The purpose of the investigation was to determine if soil or groundwater contamination was present near five underground storage tanks (USTs) and an associated fuel oil piping track, to collect and analyze samples of possible asbestos-containing roofing materials, and to develop rough cost estimates of possible tank removal and asbestos abatement costs.

1.2 Scope

The scope of the investigation included conducting eight soil borings at selected locations adjacent to the USTs and fuel oil piping track. Soil and groundwater samples were collected from each borehole for laboratory analysis. Soil samples were screened for Volatile Organic Compounds (VOC) with a field Photoionizatio Detector (PID) analyzer, and selected samples were analyzed for Total Petroleum Hydrocarbons (TPH) by the EIS laboratory. Groundwater samples collected from two borings adjacent to a waste oil tank were analyzed for TPH and VOC. The remaining groundwater samples were analyzed for Benzene, Toluene, Ethyl Benze and Xylenes (BTEX). A total of 24 samples of possible asbestos-containing roofing materials were also collected for laboratory asbestos analysis.

FIGURE 1.1
SITE LOCATION MAP
SOUTH BEND LATHE
400 W. SAMPLE STREET
SOUTH BEND, INDIANA

EIS Environmental Engineers, Inc.

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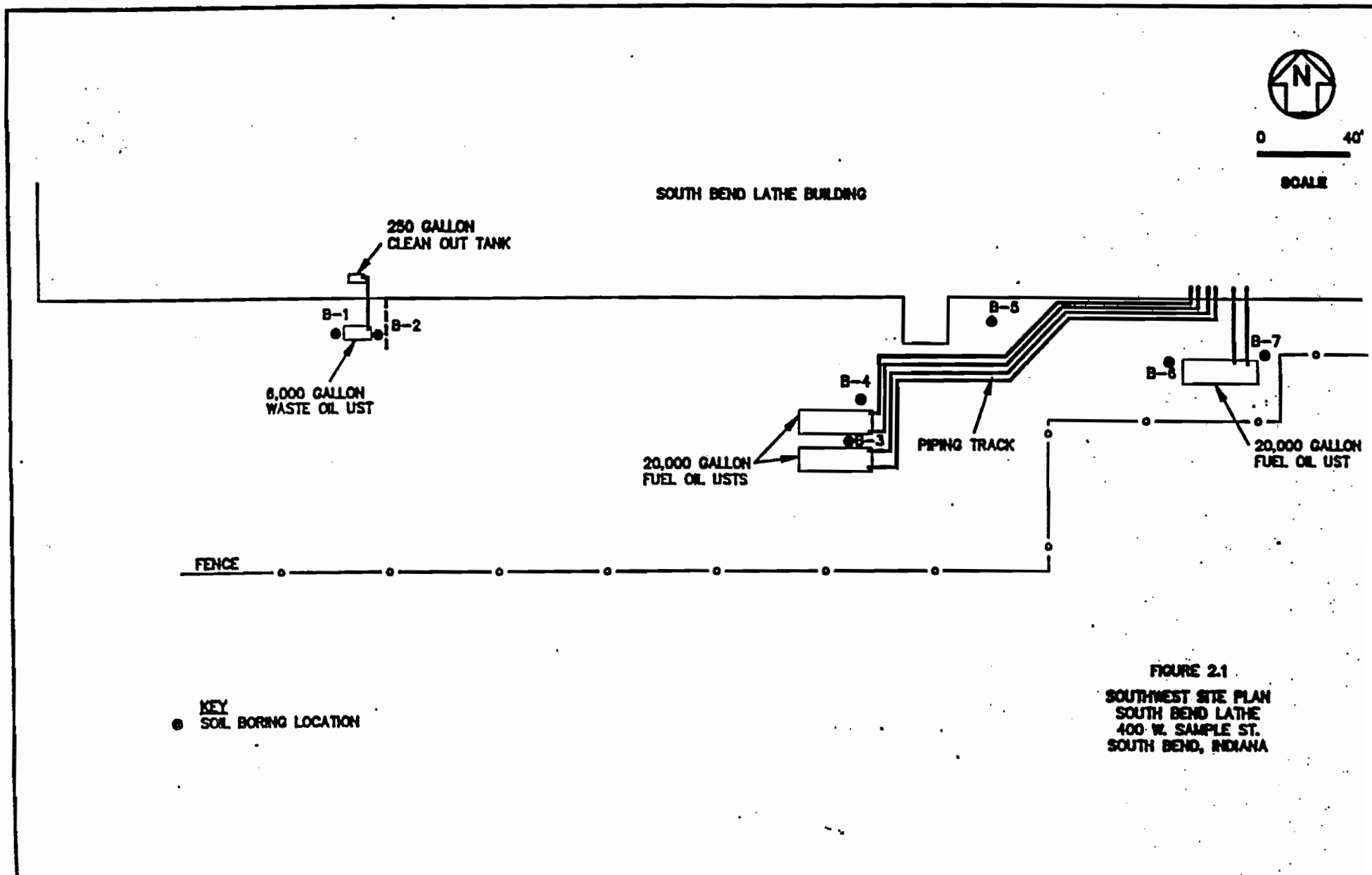

FIGURE 2.1

SOUTHWEST SITE PLAN
SOUTH BEND LATHE
400 W. SAMPLE ST.
SOUTH BEND, INDIANA

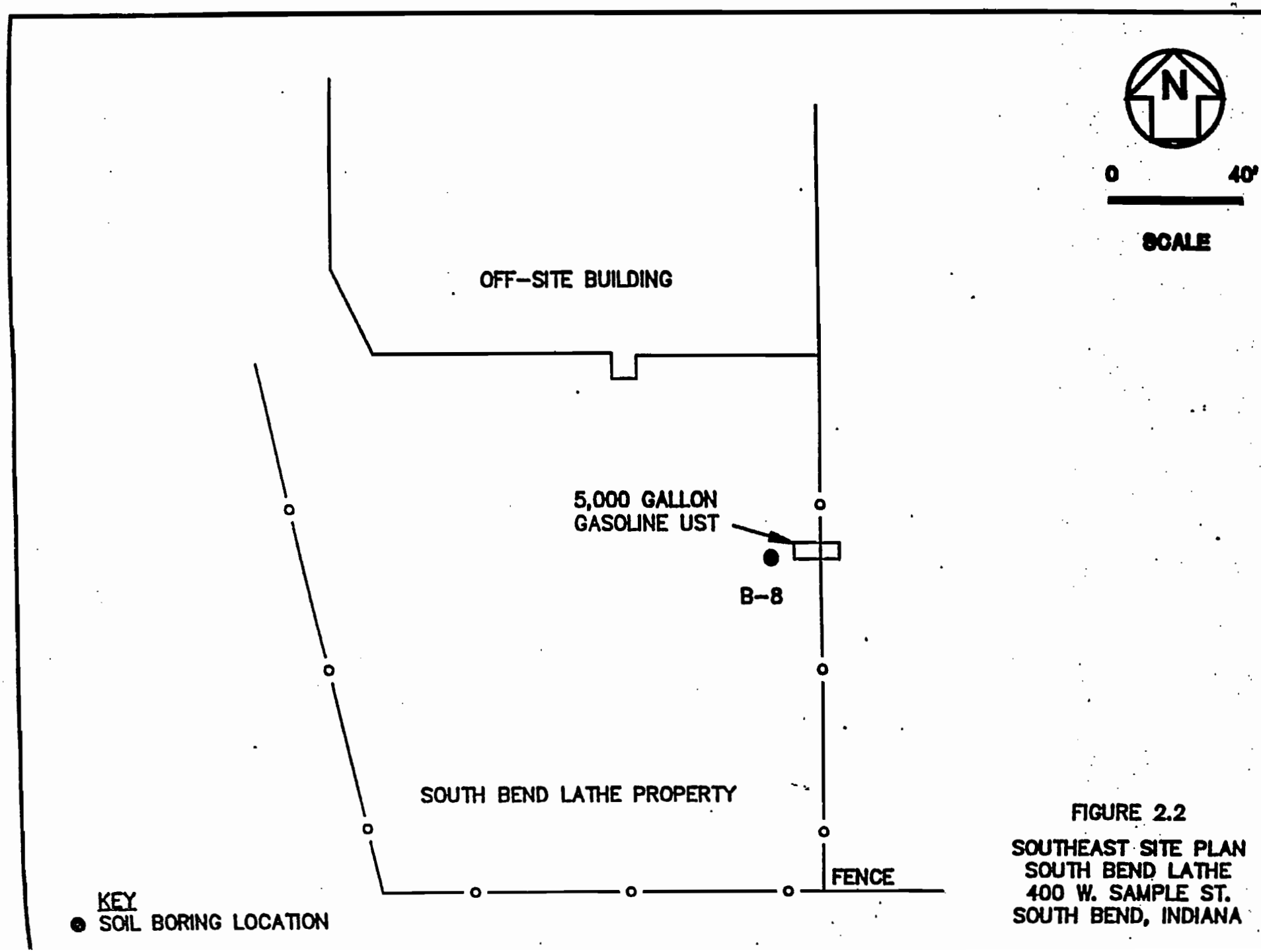

FIGURE 2.2

SOUTHEAST SITE PLAN
SOUTH BEND LATHE
400 W. SAMPLE ST.
SOUTH BEND, INDIANA

TABLE 3.1
TPH AND BTEX
ANALYTICAL RESULTS
SOIL & GROUNDWATER SAMPLES

Sample	Units	TPH	Benzene	Ethyl-Benzene	Toluene	Xylenes
B-1(1.5-3.0)	ppm	4,530*	-	-	-	-
B-1(GW)	mg/l	15*	<0.001	<0.001	<0.001	<0.001
B-2(16.5-18)	ppm	10,400*	-	-	-	-
B-2(GW)	mg/l	124*	<0.001	<0.001	<0.001	0.013
B-3(19.5-21)	ppm	<10	-	-	-	-
B-3(GW)	mg/l	-	<0.001	<0.001	<0.001	<0.001
B-4(19.5-21)	ppm	<10	-	-	-	-
B-4(GW)	mg/l	-	<0.001	<0.001	<0.001	<0.001
B-5(1.5-3.0)	ppm	2,550	-	-	-	-
B-5(16.5-18)	ppm	112	-	-	-	-
B-5(GW)	mg/l	0.44	<0.001	<0.001	0.010	0.008
B-6(1.5-3.0)	ppm	<10	-	-	-	-
B-6(GW)	mg/l	-	<0.001	<0.001	<0.001	<0.001
B-7(10.5-12)	ppm	<10	-	-	-	-
B-7(GW)	mg/l	-	<0.001	<0.001	<0.001	<0.001
B-8(1.5-3.0)	ppm	<10	-	-	-	-
B-8(GW)	mg/l	0.59	<0.001	<0.001	<0.001	<0.001

* By IR Method (418.1).

TABLE 3.2
NON-BTEX VOC DETECTED IN
GROUNDWATER SAMPLES

Parameter	Results B-1(GW) µg/l	B-2(GW) µg/l	B-3(GW) µg/l	B-4(GW) µg/l	B-5(GW) µg/l	EPA µg
1,1-Dichloroethane	2.9	–	2.0	1.7	1.5	–
c-1,2-Dichloroethene	–	–	4.6	3.6	3.5	70
1,1,1-Trichloroethane	–	–	3.1	2.4	1.4	200
Trichloroethene	–	–	15	10	11	5
p-Isopropyltoluene	–	24	–	–	–	–
Naphthalene	–	20	–	–	–	–
1,2,4-Trimethylbenzene	–	125	–	–	–	–
1,3,5-Trimethylbenzene	–	40	–	–	–	–
Xylenes	–	12.5	–	–	–	–

* Maximum Contaminant Level (MCL) specified in EPA National Primary Drinking Water Standards.

The groundwater samples from borings B-3, B-4, and B-5 were found to contain lev of Trichloroethene (TCE) which were two to three times the Maximum Contaminan Level (MCL) for this compound specified in the EPA Drinking Water Standards. Al relatively high levels of TPH were detected in the groundwater samples from borin B-1 and B-2. In our opinion, the levels of contamination found in the groundwater samples suggest that additional investigation should be conducted and that correcti action may be required.

3.3 Asbestos Analytical Results

The analytical results are summarized in Table 3.3. The laboratory analytical report are included in Appendix A.

The results of the survey of suspect asbestos-containing materials (ACM) are summarized in Table 3.4.

3.4 Rough Cost Estimate

The rough cost estimates based on contractor information for possible asbestos abatement costs and possible removal costs for the waste oil and gasoline USTs are provided in Tables 3.5 and 3.6.

TABLE 3.6
ROUGH COST ESTIMATES - TANK REMOVAL

- Removal of 6,000-gallon waste oil tank and up to 200 C.Y. of non-hazardous petroleum hydrocarbon-contaminated soil, including compacted backfill, concrete repair, clearance sampling/analysis, landfilling of contaminated soil.

  $20,000 to $30,000

- Removal of 5,000-gallon gasoline tank and up to 25 C.Y. of non-hazardous contaminated soil, including compacted backfill, concrete & fence repair, clearance sampling/analysis, soil disposal.

  $9,000 to $13,000