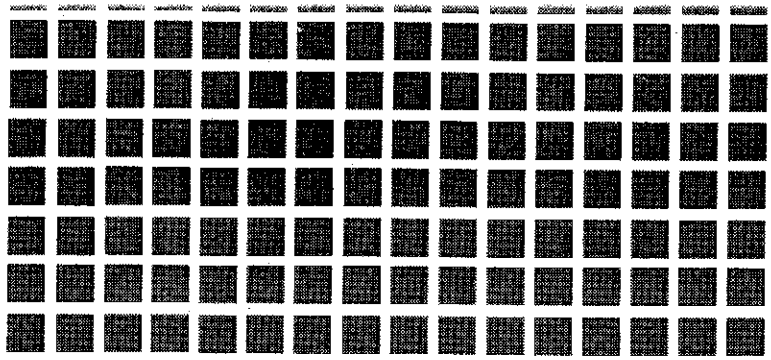

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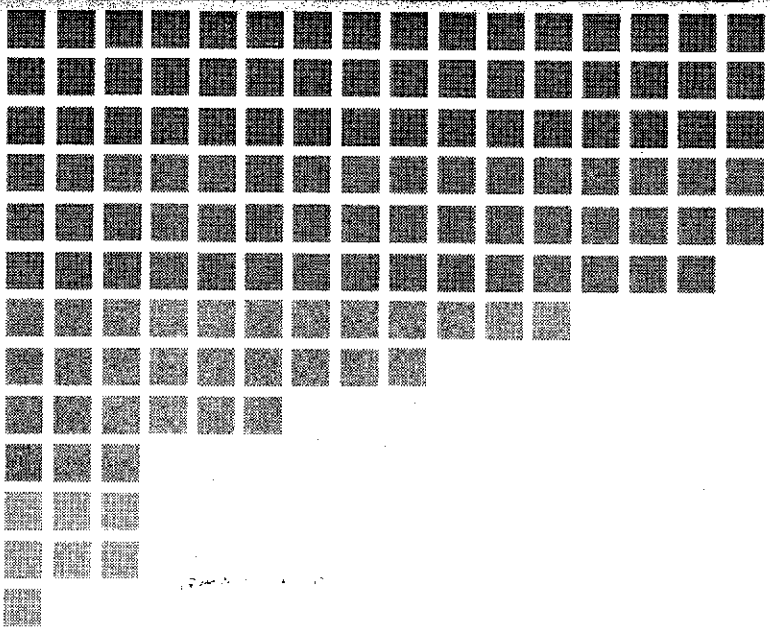

■ Subsurface Consultants, Inc.

LIMITED SOIL AND GROUNDWATER CONTAMINATION INVESTIGATION
5200 COLISEUM WAY
OAKLAND, CALIFORNIA
SCI 911.001

Prepared for:

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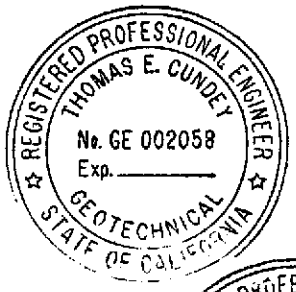

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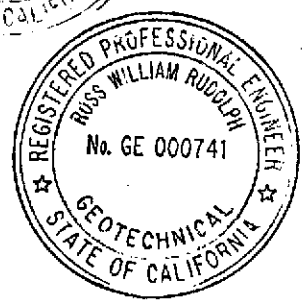

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I INTRODUCTION

This report presents the results of a limited soil and groundwater contamination investigation conducted by Subsurface Consultants, Inc. (SCI) for the property at 5200 Coliseum Way in Oakland, California. The site encompasses approximately 2.94 acres and is currently occupied by a mini storage facility. The location of the facility is shown on the Site Plan, Plate 1.

SCI's scope of services were as outlined in the Revised Proposal dated March 18, 1994. The intent of SCI's investigation was to evaluate the presence of contaminants on the subject property and their relation to past uses of this and adjacent properties. This investigation was not intended to be an intensive site characterization study.

II SITE HISTORY

Historic records indicate that 5200 Coliseum Way was originally part of a larger site that had a variety of manufacturing and industrial uses. These included chemical, paint and tar manufacturing, and ore processing. The larger site included 5200 Coliseum Way, 5050 Coliseum Way and 750 50th Avenue. Previous manufacturing and processing structures located at 5200 Coliseum Way included above ground tar storage tanks, a tar storage building and tar drum storage. Structures associated with the previous manufacturing and industrial facilities are shown on Figure 3 in Appendix A.

According to historical records, the combined site area was undeveloped in 1903. The Leona Chemical Company began operating at the site sometime between 1902 and 1910. The Leona Chemical Company produced nitric and sulfuric acids, barium sulfate, and aluminum sulfate. Crushed rock was generated as a by-product. The chemical facility changed ownership several times between 1910 and 1926. In 1926 to 1963, the Chemical and Pigment Company, a subsidiary of the Glidden Company, operated the facility. Records indicate the following chemicals were used in the Chemical and Pigment Company operations: zinc sulfate, bleached and oil well barytes (barium sulfate), lithopone, coal tar products, and asphalt emulsions. Previous investigators report that the apparent dumping of manufacturing wastes was observed in historic aerial photographs during this time period.

The property underwent another change of ownership in 1963. One year after the change in ownership, facility buildings were demolished. Site grades at 5200 Coliseum Way were raised with fill material that included debris derived from the demolished facility structures. The combined site was undeveloped until it was subdivided into its present configuration in 1973. In 1973, White Motor Corporation bought 750 50th Avenue and 5050 Coliseum Way and in 1974 the buildings that currently exist were constructed. In 1981, these properties were sold to Volvo-White Truck Corporation who sold it to its parent company Volvo General Motors Heavy Truck Corporation in 1988.

The site at 5200 Coliseum Way is currently occupied by a mini storage facility. Building permits for the facility were issued in 1978 and Coliseum Self-Storage has operated at the site since 1979.

III INVESTIGATION

A. Previous Environmental Investigations

Previous environmental investigations have been conducted for the 5200 Coliseum Way site and adjoining properties. A list of reports detailing these investigations is presented in Appendix A.

Levine Fricke (LF) has conducted an extensive analysis of subsurface conditions on 750-50th Avenue and 5050 Coliseum Way. High concentrations of lead, zinc, barium, arsenic, copper and cadmium were detected in shallow soils. Groundwater at the sites contained these metals, as well as nickel and cobalt. Petroleum hydrocarbons were also detected in both soil and groundwater. LF has presented concentration contours on site maps that show their presence relative to the location of the previous manufacturing buildings. Selected figures from LF reports are presented in Appendix A and are included as references for comparison with the results from SCI's study.

Blymyer Engineers, Inc. (BEI) conducted a Level I Environmental Site Assessment at 5200 Coliseum Way in March 1993. Their investigation consisted of historical background research, and site and surrounding land use inspection. Based on historical use of the subject property and the use of debris and fill from the adjacent manufacturing plant to raise grades on the subject site, BEI identified contamination concerns at 5200 Coliseum Way, which were similar to those at the adjacent properties. Additionally, risks associated with the former tar manufacturing that occurred at the subject site were identified.

B. Current Study

SCI investigated subsurface conditions at 5200 Coliseum Way by drilling 6 test borings at the locations shown on the Site Plan, Plate 1. Test borings were situated at each of the four corners of the property, in the center of the property and adjacent to 5050 Coliseum Way midway along the west property boundary. Temporary piezometers were installed in three of the six borings to obtain grab groundwater samples. A detailed discussion of the field procedures is presented in Appendix B.

IV ANALYTICAL TESTING

Selected soil and the "grab" groundwater samples were analyzed by Curtis and Tompkins, Ltd., a laboratory certified by the Department of Health Services (DHS) for hazardous waste and water testing. Analytical test reports and Chain-of-Custody records are presented in Appendix C. The testing program included analysis for contaminants of concern based on the past activities on the site and adjacent properties. Soil samples were analyzed for the presence of Total Extractable Hydrocarbons (TEH), Total Oil and Grease (TOG), Title 26 metals, pH, cyanide, sulfate and total sulfur. Additionally, soil samples from Borings 2, 3, 4 & 5 were analyzed for semivolatile organic compounds (SVOC) and polychlorinated biphenyls (PCB). Soil samples from Borings 3, 5 and 6 were further analyzed for volatile organic compounds (VOC). Analytical test results for soil are summarized in Tables 1 through 5.

Groundwater samples from borings 2, 3 and 5 were analyzed for TEH, TOG, Title 26 metals, pH, cyanide, sulfate, total sulfur, SVOC, PCB and VOC. Analytical test results for groundwater are summarized in Tables 6 through 10.

V SITE CONDITIONS

The site is relatively level and is occupied by 6 one-story mini warehouse buildings. The ground surface surrounding the buildings is covered by asphalt concrete and concrete accessways.

SCI's test borings indicate that the site is underlain by 7 to 10 feet of fill. The fill contains abundant concrete and rock fragments. The fill is underlain by soft to medium stiff clayey marsh deposits.

Groundwater was encountered at approximately 10 feet below the groundsurface in borings 2 and 3, and was not encountered during drilling the other borings. Where groundwater was encountered, it was at depths which are consistent with conditions encountered in monitoring wells installed on the adjacent site. The LF data further indicates the groundwater flow direction is toward the west.

VI DISCUSSION AND CONCLUSIONS

Contaminants of concern detected at 5200 Coliseum Way are similar to those detected on the adjacent properties at 5050 Coliseum Way and 750 50th Avenue. Based on the history of the site and the apparent use of demolition debris from the former manufacturing facility as fill for 5200 Coliseum Way, it is the opinion of SCI that the contaminants of concern detected at 5200 Coliseum Way are associated with the past manufacturing uses on the contiguous properties. Tables 11 through 16 present a comparison of contaminants detected at 5200 Coliseum Way, with those detected at 5050 Coliseum Way and 750 50th Avenue. For further comparison purposes, figures from the LF study which delineate contaminant concentrations at the adjacent properties are included in Appendix A. Graphical summaries of contaminant concentrations detected by SCI and data from LF's studies along the property boundary between 5050 and 5200 Coliseum Way are presented on Plates 6 through 19. A discussion of the data comparisons are presented below.

A. Soil Contamination

1. Metals

Total threshold limit concentration (TTLC) values are used in this report as a reference for comparison purposes. TTLC values have been established by the State of California - Assessment Code, Title 26. Soil containing concentrations exceeding these values is considered a hazardous waste.

Table 11 presents a comparison of the metals detected in soil. Six metals (arsenic, barium, cadmium, copper, lead and zinc) were detected above their respective TTLC values at the adjacent properties. With the exception of arsenic, these metals were also detected at 5200 Coliseum Way above their respective TTLC values. The presence of metals at 5200 Coliseum

Way and the adjacent properties is, in our opinion, associated with past ore processing activities that were conducted on these contiguous properties. Metal concentrations in soil at 5200 Coliseum Way are due in part to the apparent use of contaminated waste materials from the adjacent sites as fill to raise site grades at the 5200 Coliseum Way property.

2. **pH, Sulfate and Total Sulfur**

Table 12 compares the results of analytical testing for pH, sulfate and total sulfur. These constituents were detected in soils at both sites and are likely the products of mineral extraction that occurred during the previous manufacturing and industrial activities on the adjacent properties.

3. **Petroleum Hydrocarbons, SVOC's and VOC's**

Table 13 compares the ranges of values detected for petroleum hydrocarbons, volatile organic compounds and semivolatile organic compounds. High petroleum hydrocarbon and SVOC concentrations were detected on both sites. VOC concentrations on both sites are relatively low.

Petroleum hydrocarbon concentrations in soil at 5200 Coliseum Way and the adjacent properties are highest in the borings near the tar storage area and along the property boundary between 5050 and 5200 Coliseum Way. Product lines from the former tar storage tanks at 5200 Coliseum Way conveyed fuel to the manufacturing facilities on the adjacent site. Leakage or spills associated with the tanks, their transport lines and the former tar distillation facility likely account for the presence of petroleum hydrocarbons in the subsurface. Regrading activities may have displaced these contaminants to other areas on the property.

The SVOC's detected in soil are polynuclear aromatic hydrocarbons which are constituents of coal tar. SVOC's on the properties were detected near the former tar facilities. Due to the location of these compounds and their origin, it is SCI's opinion that their presence on the site is related to its past use as a tar plant facility, which was operated as part of the chemical manufacturing operations.

B. Groundwater

A number of contaminants of concern were detected in the grab groundwater samples obtained from borings 2, 3 and 5. Maximum contaminant levels (MCL), as established by the State of California Environmental Protection Agency for drinking water standards, have been presented for purposes of comparison where such standards exist. MCL's are the maximum permissible concentrations of a contaminant in water that may be delivered to any user of a public water system and may not be appropriate for site assessment or remediation goals.

1. Metals

A comparison of the range of values detected for metals in groundwater are presented in Table 14. Fifteen heavy metals were identified at concentrations above their respective MCL's at the adjacent site. Three of these heavy metals (arsenic, barium and cadmium) were also detected in the grab groundwater samples from 5200 Coliseum Way at concentrations above their respective MCL's. Both arsenic and barium are present at significant concentrations in the soil at the adjacent site and in the waste fill materials placed to raise site grades at 5200 Coliseum Way. Hence, their presence is likely related to former manufacturing and industrial practices.

2. pH and Sulfate

Table 15 presents a comparison of pH and sulfate concentrations. The range of pH values in groundwater at 5200 Coliseum Way is similar to the range at 5050 Coliseum Way; Sulfate values are significantly higher at the 5050 Coliseum Way properties. The presence of sulfate and the varying pH values are likely related to former mineral extraction practices at the adjacent properties.

3. Petroleum Hydrocarbons, SVOC's and VOC's

Table 16 compares the range of petroleum hydrocarbons, SVOC, and VOC concentrations in groundwater. Although petroleum hydrocarbons and SVOC's exist in groundwater at both sites, the groundwater at 5200 Coliseum Way appears to be more significantly impacted due to the location of the previous tar facility.

VII LIMITATIONS

This study was intended to provide a preliminary means of evaluating the potential risk of on-site and off-site contamination from sources associated with the former chemical manufacturing facilities, based on document review, limited subsurface investigation and analytical testing. If areas of contamination exist on other portions of the property, away from the areas investigated, it is probable that they would not have been detected during this study. In addition, if chemicals that were not tested for exist, they would not have been detected during this study.

Environmental sampling studies, such as presented herein, are by nature non-comprehensive and subject to limitations including those presented herein. This study was not designed to identify all potential concerns or eliminate the probability of acquiring land without some degree of risk.

SCI has performed this environmental assessment in accordance with generally accepted standards of care which exist in Northern California at the time of this study. Please recognize that the definition and evaluation of environmental conditions is difficult and inexact. Judgments leading to conclusions and recommendations are generally made with an incomplete knowledge of the subsurface and/or historic conditions applicable to the site. In addition, the conclusions made herein reflect site conditions at the time of the investigation. These conditions may change with time and as such the conclusions may also change.

The conclusions and opinions presented herein may also be affected by rapid changes in the field of environmental engineering and the laws governing hazardous waste. The reader is advised to consult with SCI prior to relying upon the information provided.

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Appendices:

A Previous Environmental Investigations

B Investigation Protocol

C Analytical Testing
Chain-of-Custody Documents
Analytical Test Reports

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Table 1
Heavy Metal Concentrations in [redacted]
(concentrations in mg/Kg)

Boring/ Depth (ft)	Sample Date	Antimony	Arsenic	Barium	Beryl-lium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molyb-denum	Nickel	Selenium	Silver	Thallium	Vandium	Zinc
1 @ 7.5	1/4/95	<3.0	160	3300	1.1	200	8.4	40	6200	2800	2.6	11	86	<2.5	26	<2.5	270	62000
2 @ 9.5	1/4/95	<12	50	16000	0.4	<1.0	27	22	20	15	<0.091	<4.0	27	<2.5	<2.0	<2.5	26	59
3 @ 9.5	1/4/95	17	92	3000	0.2	1.2	21	4.7	610	2500	2.3	6.6	18	<2.5	3.8	<2.5	22	500
4 @ 9.5	1/6/95	<3.0	14	40000	0.4	<0.25	44	73	65	35	<0.095	1.6	64	<2.5	2.6	<2.5	66	68
5 @ 6.0	1/6/95	<3.0	3.5	30000	0.3	0.32	8.3	22	34	19	<0.10	<0.99	29	<2.5	<0.83	<2.5	67	180
6 @ 8.5	1/6/95	<3.0	8	22000	1.8	3.8	16	33	180	77	<0.10	4.3	240	<2.5	4.5	<2.5	550	9100
TTLC		500	500	10000	75	100	2500	8000	2500	1000	20	3500	2000	100	500	700	2400	5000
STLC		15	5	100	0.75	1	560	80	25	5	0.2	650	20	1	5	7	25	250

Notes:
<3.0 = metal present above the laboratory reporting limit stated
TTLC = Total Threshold Limit Concentration
mg/Kg = milligrams per kilogram

= Concentrations exceeding TTLCs
= Concentrations exceeding 10 x STLCs

Table 2
pH, Sulfate, Total Sulfur, and Cyanide Concentrations in Soil

Boring/ Depth (feet)	Sample Date	pH (standard units)	Sulfate (mg/Kg)	Total Sulfur (mg/Kg)	Cyanide (mg/Kg)
1 @ 6.0	1/4/95	6.1	--	--	<1
1 @ 7.5	1/4/95	--	1200	3500	--
2 @ 10.0	1/4/95	9.2	--	--	<1
2 @ 9.5	1/4/95	--	13	1000	--
3 @ 8.5	1/4/95	8.1	--	--	<1
3 @ 9.5	1/4/95	--	25	3200	--
4 @ 6.0	1/6/95	8.1	--	--	<1
4 @ 9.5	1/6/95	--	11	1200	--
5 @ 5.5	1/6/95	10.5	--	--	<1
5 @ 6.0	1/6/95	--	10	750	--
6 @ 9.0	1/6/95	8.4	--	--	<1
6 @ 8.5	1/6/95	--	18	1600	--

Notes:
<1 = analyte not present above the laboratory reporting limit stated
mg/Kg = milligrams per kilogram
-- = Test not requested

Table 3
Hydrocarbon Concentrations in Soil
(concentrations in mg/Kg)

Boring/ Depth	Sample Date	TEH-k	TEH-d	TOG
1 @ 7.5	1/4/95	**	190*	480
2 @ 9.5	1/4/95	**	28*	1300
3 @ 9.5	1/4/95	**	32000*	1500
4 @ 9.5	1/6/95	**	160*	98
5 @ 6.0	1/6/95	**	8*	60
6 @ 8.5	1/6/95	**	40*	670

Notes:
* Sample chromatogram does not match diesel standard. Components in oil range contributed to diesel range quantitation.
** Kerosene range not reported due to overlap of hydrocarbon ranges
TEH-k = Total Extractable Hydrocarbons as kerosene
TEH-d = Total Extractable Hydrocarbons as diesel
TOG = Total Oil and Grease
mg/Kg = milligrams per kilogram

Table 4
Semivolatile Organic Compound and PCB Concentrations in [redacted]
(concentrations in ug/Kg)

	Boring/Depth (feet)				
	2 @ 9.5	3 @ 9.5 ppm		4 @ 9.5 ppm	5 @ 6.0
Sample Date	1/4/95	1/4/95		1/6/95	1/6/95
2-Methylnaphthalene	<330	26000	26	4000 4	<330
Acenapththene	<330	21000	21	2400 2.4	<330
Anthracene	<330	<330		1200 1.2	<330
Benzo(a)anthracene	<330	<330		550 0.5	<330
Chrysene	<330	<330		550 0.5	<330
Dibenzofuran	<330	11000	11	1500 1.5	<330
Fluoranthene	<330	<330		2500 2.5	<330
Fluorene	<330	13000	13	2500 2.5	<330
Naphthalene	360	91000	91	26000 26	440
Phenanthrene	<330	11000	11	7200 7.2	<330
Pyrene	<330	<330		2500 2.5	<330
PCBs	<20	<200*		<20	<20
Other 8270 Compounds	ND	ND		ND	ND

Borings closest to tar facilities

Notes:
PCB = Polychlorinated Biphenyls
*Elevated reporting limit due to high level of non-target analytes
ug/Kg = micrograms per kilogram
ND = analyte not detected above the laboratory reporting limits
<300 = analyte not detected above the laboratory reporting limit stated

Table 5
Volatile Organic Compound Concentrations in Soil
(concentrations in ug/Kg)

Boring/ Depth (feet)	Sample Date	Acetone	Benzene	Ethyl-benzene	Toluene	Total Xylenes	Other 8240 Compounds
3 @ 9.5	1/4/95	<100	57	610	100	1300	ND
5 @ 6.0	1/6/95	<20	<5	<5	<5	<5	ND
6 @ 8.5	1/6/95	26	<5	<5	<5	<5	ND

Notes:
<100 = metal not present above the laboratory reporting limit stated
ND = analyte not detected above the laboratory reporting limit
ug/Kg = micrograms per kilogram

Table 6
Heavy Metal Concentrations in [redacted]undwater
(concentrations in ug/L)

Boring	Sample Date	Antimony	Arsenic	Barium	Beryl-lium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molyb-denum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
2	1/5/95	<60	320	260000	<2.0	5.3	<10	200	<10	<3.0	<0.20	<20	<20	<5.0	<10	<5.0	16	42
3	1/6/95	<60	2000	28000	<2.0	14	<10	28	<10	4.2	0.42	<20	<20	<5.0	<10	<5.0	<10	53
5	1/11/95	<60	3400	2600000	<2.0	13	<10	1300	<10	<3.0	<0.20	35	74	<5.0	<10	<5.0	27	<20
[redacted]		5	50	100	1	10	50		1300	50	2		100	10	50	1		5000
[redacted]			36+69			9.3+43			4.9	5.6+140	2.1		7.1+140		2.3			58+170

Notes:
< 60 = Metal not present above the laboratory reporting limit stated
MCL = Maximum Contaminant Level
ug/L = micrograms per liter

= Concentrations exceeding the water quality criteria in Basin Plan for surface waters.

□ = Concentrations exceeding MCLs.

Table 7
pH, Sulfate, Total Sulfur, and Cyanide Concentrations in Groundwater

Boring	Sample Date	pH (standard units)	Sulfate (mg/L)	Total Sulfur (ug/L)	Cyanide (ug/L)
2	1/5/95	5.8	1.2	6600	<10
3	1/6/95	7.7	3.8	4500	<10
5	1/11/95	10.3	0.9	600000	<10

Notes:
< 10 = analyte not present above the laboratory reporting limit stated
mg/L = milligrams per liter
ug/L = micrograms per liter

Table 8
Hydrocarbon Concentrations in Groundwater

Boring	Sample Date	TEH-k (ug/L)	TEH-d (ug/L)	TOG (mg/L)
2	1/5/95	**	580*	<5
3	1/6/95	34000	***	12
5	1/11/95	480	***	10

Notes:
* Sample chromatogram does not match diesel standard. Components in oil range contributed to diesel range quantification.
** Kerosene range not reported due to overlap of hydrocarbon ranges.
*** Diesel range not reported due to overlap of hydrocarbon ranges.
TEH-k = Total Extractable Hydrocarbons as kerosene
TEH-d = Total Extractable Hydrocarbons as diesel
TOG = Total Oil and Grease
ug/L = micrograms per liter
mg/L = milligrams per liter
<5 = analyte not detected above the laboratory reporting limit stated.

Table 9
Semivolatile Organic Compound and PCB Concentrations in Groundwater
(concentrations in ug/L)

	Boring		
	2	3	5
Sample Date	1/5/95	1/6/95	1/11/95
2-Chlorophenol	<10	<10	18
2-Methyl-naphthalene	<10	1700	<9.4
2-Methyl-phenol	<10	620	9.9
2-4-Dimethyl-phenol	<10	430	<9.4
4-Methyl-phenol	<10	770	18
Acenaphthene	<10	700	<9.4
Acenaphthylene	<10	38	<9.4
Aniline	<10	200	<9.4
Anthracene	<10	410	<9.4
Benzo(a)anthracene	<10	27	<9.4
Benzo(a)pyrene	<10	15	<9.4
Benzo(b)fluoranthene	<10	13	<9.4
Benzo(k)fluoranthene	<10	15	<9.4
Chrysene	<10	33	<9.4
Dibenzofuran	<10	410	<9.4
Fluoranthene	<10	210	<9.4
Fluorene	<10	410	<9.4
Naphthalene	<10	11000	9.9
Phenanthrene	<10	640	<9.4
Phenol	<10	880	47
Pyrene	<10	150	<9.4
PCBs	<20	<20	<20
Other 8270 Compounds	ND	ND	ND

Notes:
PCB = Polychlorinated Biphenyls
<10 = analyte not present above laboratory reporting limit stated
ug/L = micrograms per liter
ND = analyte not detected above the laboratory reporting limit.

Table 10
Volatile Organic Compound Concentrations in Groundwater
(concentrations in ug/L)

Boring	Sample Date	Carbon disulfide	Benzene	Toluene	Ethyl-benzene	Styrene	Total xylenes	Other 8240 Compounds
2	1/5/95	25	<5	<5	<5	<5	<5	ND
3	1/6/95	<10	120	180	180	65	460	ND
5	1/11/95	17	<5	<5	<5	<5	<5	ND

Notes:
<5 = metal not present above the laboratory reporting limit stated
ND = anlayte not detected above laboratory reporting limit
ug/L = micrograms per liter

Table 11
Comparison of Heavy Metal Concentrations in Soil
5200 Coliseum Way vs. Adjacent Properties

Metal	TTLC (ppm)	Range of Values at 5200 Coliseum Way (ppm)	Range of Values at Adjacent Properties (ppm) (5050 Coliseum)	SCI Plate Numbers	Levine-Fricke Figures (see Appendix A)
Arsenic	500	3.5-160	ND-18,000	7	15a,b
Barium	10,000	3,000-40,000	24-92,000	8	17a,b
Cadmium	100	ND-200	ND-1,400	9	14a,b
Cobalt	8,000	4.7-40	ND-47	1	19
Copper	2,500	20-6,200	8.2-3,600	11	16a,b
Lead	1,000	15-2,800	1.4-14,000	12	13a,b
Nickel	2,000	18-240	ND-160	13	18
Silver	500	ND-26	ND-58	14	--
Vanadium	2,400	22-550	ND-130	15	--
Zinc	5,000	68-62,000	23-60,000	16	12a,b

Notes:
Bold type indicates a value above the respective TTLC
ppm = parts per million
ND = Analyte not detected above the laboratory reporting limit

In general, it appears that concentrations noted at 5050 Coliseum tend to be higher than or commensurate to levels identified at 5200 Coliseum for heavy metals.

Table 12
Comparison of pH, Sulfur and Total Sulfate Concentrations in Soil
5200 Coliseum Way vs. Adjacent Properties

5050 Coliseum Way
V

	Range of Values at 5200 Coliseum Way	Range of Values at Adjacent Properties
pH	6.1-10.2	3.9-11.4
Sulfate (mg/Kg)	10-1200	8-18000
Total Sulfur (mg/Kg)	750-3500	97-30000

Note:
mg/Kg = milligram per kilogram

Table 13
Comparison of Petroleum Hydrocarbon, Volatile and Semivolatile Organic Compound Concentrations in Soil
5200 Coliseum Way vs. Adjacent Properties

5050 Coliseum Way

Compound	Range of Values at 5200 Coliseum Way	Range of Values at Adjacent Properties
TEHd/TPHd (mg/Kg)	8-32000	ND-3000
Total Oil and Grease (mg/Kg)	60-1500	ND-2200
Benzene (mg/Kg)	ND-0.057	ND-0.044
Toluene (mg/Kg)	ND-0.610	ND-0.076
Ethylbenzene (mg/Kg)	ND-0.100	ND-0.045
Xylene (mg/Kg)	ND-1.300	ND-0.19
Acetone (mg/Kg)	ND-26	ND
2-methyl naphthalene (ug/K)	ND-26,000	ND-11,000
Acenaphthene (ug/Kg)	ND-21,000	ND-110,000
Anthracene (ug/Kg)	ND-1,200	ND-71,000
Benzo(a)anthracene (ug/Kg)	ND-550	ND-10,000
Chrysene (ug/Kg)	ND-550	ND-21,000
Dibenzofuran (ug/Kg)	ND-11,000	ND-67,000
Fluoranthene (ug/Kg)	ND-2,500	ND-110,000
Fluorene (ug/Kg)	ND-13,000	ND-88,000
Naphthalene (ug/Kg)	ND-91,000	ND-27,000
Phenanthrene (ug/Kg)	ND-11,000	ND-160,000
Pyrene (ug/Kg)	ND-2,500	ND-69,000

Notes:
TEHd/TPHd = Total extractable hydrocarbons as diesel/total petroleum hydrocarbons as diesel
ND = Analyte not detected above the laboratory reporting limit
ug/Kg = micrograms per kilogram
mg/Kg = milligrams per kilogram

Table 14
Comparison of Heavy Metal Concentrations in Groundwater
5200 Coliseum Way vs. Adjacent Properties

Metal	MCL (ppb)	Range of Values 5200 Coliseum Way (ppb)	Range of Values Adjacent Property (ppb)
Antimony	5	ND	ND-30
Arsenic	50	**320-3400**	ND-7,300
Barium	100	**28,000-2,600,000**	**ND-770**
Beryllium	1	ND (<2.0)	ND-110
Cadmium	10	5.3-14	ND-140,000
Chromium	50	ND	ND-600
Cobalt	--	28-1300	ND-9,400
Copper	1300	ND	ND-21,000
Lead	50	ND-4.2	ND-6,000
Mercury	2	ND-0.42	ND-5.5
Molybdenum	--	ND-35	ND-220
Nickel	100	ND-74	ND-40,000
Selenium	10	ND	ND-27
Silver	50	ND	ND-54
Thallium	1	ND (<5.0)	ND-900
Vanadium	--	ND-27	ND-61
Zn	5000	ND-53	ND-47,000,000

5050 Coliseum

← levels of Barium higher at 5200 Coliseum

Notes:
Bold type indicate a value above the respective MCL
MCL = Maximum contaminant level
ppb = parts per billion
ND = Analyte not detected above the laboratory reporting limit

Table 15
Comparison of pH, Sulfur and Total Sulfate Concentrations in Groundwater
5200 Coliseum Way vs. Adjacent Properties

	Range of Values at 5200 Coliseum Way	Range of Values at Adjacent Properties
pH	5.8-10.3	3.7-7.4
Sulfate (mg/L)	0.9-1.2	ND-99,000
Total Sulfur (ug/L)	4,500-600,000	--

Notes:
-- = Test Not requested
mg/L = milligrams per liter
ug/L = micrograms per liter

Table 16
Comparison of Petroleum Hydrocarbon, Volatile and Semi-Volatile Organic Compound Concentrations in Groundwater
5200 Coliseum Way vs. Adjacent Properties

Compound	Range of Values at 5200 Coliseum Way (ppb)	Range of Values at Adjacent Properties (ppb)
TEH	480-34,000	ND-9,800
Total Oil and Grease	ND-12	ND-2,000
Benzene	ND-120	ND
Toluene	ND-180	ND
Ethylbenzene	ND-180	ND
Styrene	ND-65	ND
Total Xylenes	ND-460	ND
Carbon Disulfide	ND-25	ND
2-Chlorophenol	ND-18	ND
2-Methylnaphthalene	ND-1,700	ND
2-Methylphenol	ND-620	ND
2-4-Dimethylphenol	ND-430	ND
4-Methyphenol	ND-770	ND
Acenaphthene	ND-700	ND-300
Acenaphthylene	ND-38	ND-158
Aniline	ND-200	ND
Anthracene	ND-410	ND-55
Benzo(a)anthracene	ND-27	ND
Benzo(a)pyrene	ND-15	ND
Benzo(b)fluoranthene	ND-13	ND
Benzo(k)fluoranthene	ND-15	ND
Chrysene	ND-33	ND
Dibenzofuran	ND-410	ND-200
Fluoranthene	ND-210	ND-68
Fluorene	ND-410	ND-210
Naphthalene	ND-11,000	ND
Phenanthrene	ND-640	ND-130
Phenol	ND-880	ND
Pyrene	ND-150	ND-32

Notes:
TEH includes total extractable hydrocarbons in the diesel and kerosene ranges
ppb = parts per billion
ND = analyte not detected above the laboratory reporting limit

SOUTHERN PACIFIC TRANSPORTATION COMPANY

SS-2

5200 COLISEUM WAY

2

1

SB-17

SB-1

LF-13

5050 COLISEUM WAY

STEEL TAR STORAGE TANKS

5

ALAMEDA COUNTY FLOOD CONTROL

SB-19

LF-8

3

SB-2

TAR BARREL YARD

SB-20

4

TAR STORAGE BUILDING

6

LF-4

STEEL TAR STORAGE TANKS

COLISEUM WAY

REFERENCE: PREVIOUS FACILITY BUILDINGS AS SHOWN ON 1950 SANBORN FIRE INSURANCE COMPANY MAP.

VICINITY MAP

SCI TEST BORING

SAMPLING LOCATION BY LEVINE-FRICKE

PROPERTY LINE

EXISTING STRUCTURE

Wells where g.w. was sampled.

N

APPROXIMATE SCALE (feet)

0 50 100

SITE PLAN

Subsurface Consultants

5200 COLISEUM WAY - OAKLAND, CA

JOB NUMBER	DATE	APPROVED
911.001	2/1/95	

PLATE 1

LOG OF TEST BORING 1

EQUIPMENT: Cuttingless System
DATE DRILLED: 1/4/95
ELEVATION: - -

LABORATORY TESTS	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	OVM (PPM)	DEPTH (FEET)	SAMPLE	BLOWS PER FOOT	
				0			ASPHALTIC CONCRETE - 2" thick
			9.3			48	BROWN GRAVELLY SAND (SM) loose, moist (fill)
			0			49	DARK BROWN GRAVELLY SILTY CLAY (CL) medium stiff, moist (fill)
			0	5		20	RED BROWN SILTY CLAY (CL) medium stiff, moist (fill)
			0			28/6"	DARK GRAY SILTY SAND (SM) medium dense, wet
			12.4	10		16	BLACK SILTY CLAY (CL) medium stiff, moist
			6.2	15		16	MOTTLED OLIVE BROWN SILTY CLAY (CL) medium stiff, moist

GROUNDWATER NOT ENCOUNTERED DURING DRILLING

LOG OF TEST BORING 2

EQUIPMENT: 7" Hollow Stem Auger
DATE DRILLED: 1/4/95
ELEVATION: - -

LABORATORY TESTS	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	OVM (PPM)	DEPTH (FEET)	SAMPLE	BLOWS PER FOOT	
				0			ASPHALTIC CONCRETE - 2" thick
						20	BROWN GRAVELLY SAND (SM) loose, moist (fill)
				5			BROWN SILTY SAND (SM) loose, moist, with brick and rock fragments (fill) sampling refusal at 5 feet
						20	BLACK SILTY CLAY (CL) medium stiff, moist
			9.3 ▼	10		27	GROUNDWATER LEVEL DURING DRILLING
			9.3	15		40	GRAY GREEN SILTY CLAY (CL) stiff, moist

SAMPLER TYPE:
STANDARD PENETRATION TEST
O.D.: 2.0 inches
I.D.: 1.4 inches

HAMMER WEIGHT: 140 pounds
HAMMER DROP: 30 inches

Subsurface Consultants

5200 COLISEUM WAY - OAKLAND, CA

JOB NUMBER	DATE	APPROVED
911.001	1/11/95	

PLATE 2

LOG OF TEST BORING 3

EQUIPMENT 7" Hollow Stem Auger
DATE DRILLED 1/4/95
ELEVATION --

LABORATORY TESTS	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	OVM (PPM)	DEPTH (FEET)	SAMPLE	BLOWS PER FOOT	
				0			ASPHALTIC CONCRETE - 2" thick
							BLACK SILTY SAND (SM) loose, moist (fill)
			9.3			42	BROWN GRAVELY SAND (SM) loose, moist, with rock fragments to 1.5" in dia. (fill)
				5			BROWN SILTY SANDY CLAY (CL)
			6.2			42	stiff, moist (fill)
							GRAY SILTY SAND (SM) medium dense to dense, moist (fill)
						22	BLACK SILTY CLAY (CL) medium stiff, moist, hydrocarbon odor
			56.2	10			GROUNDWATER LEVEL DURING DRILLING
							BROWN SANDY CLAY (CL)
							medium stiff, wet, hydrocarbon odor
			53.1			22	
				15			

LOG OF TEST BORING 4

EQUIPMENT 7" Hollow Stem Auger
DATE DRILLED 1/6/95
ELEVATION --

LABORATORY TESTS	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	OVM (PPM)	DEPTH (FEET)	SAMPLE	BLOWS PER FOOT	
				0			ASPHALTIC CONCRETE - 2" thick
							BROWN SILTY CLAY (CL) medium stiff, moist (fill)
			0			28	
				5			
			0			24	brick fragments and cobbles at 6 feet
							BLACK SANDY SILTY CLAY (CL) soft to medium stiff, wet, [illegible]
				10		6	
			94				
						16	
			52	15		15	GROUNDWATER NOT ENCOUNTERED DURING DRILLING

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5200 COLISEUM WAY - OAKLAND, CA

JOB NUMBER	DATE	APPROVED
911.001	1/11/95	

PLATE 3

LOG OF TEST BORING 5

EQUIPMENT 7" Hollow Stem Auger
DATE DRILLED 1/6/95
ELEVATION - -

LABORATORY TESTS	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	OVM (PPM)	DEPTH (FEET)	SAMPLE	BLOWS PER FOOT	
				0			ASPHALTIC CONCRETE - 2" thick BROWN GRAVELLY CLAY (CL) stiff, moist, with rock fragments (fill)
			7			46	
				5		33	GRAY SILTY SAND (SM) loose, wet [redacted]
				10		12	DARK GRAY SILTY CLAY (CL) medium stiff, moist
			3				
			3			27	OLIVE GREEN SILTY CLAY (CL) stiff, moist
				15			

GROUNDWATER NOT ENCOUNTERED DURING DRILLING

LOG OF TEST BORING 6

EQUIPMENT 7" Hollow Stem Auger
DATE DRILLED 1/6/95
ELEVATION - -

LABORATORY TESTS	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	OVM (PPM)	DEPTH (FEET)	SAMPLE	BLOWS PER FOOT	
				0			ASPHALTIC CONCRETE - 2" thick BROWN SANDY CLAY (CL) medium dense, moist, with cobbles, concrete, and brick fragments (fill)
			0	5		50/5"	GRAY SILTY SAND (SM) dense, moist (fill)
				10		12	BLACK SILTY CLAY (CH) medium stiff, moist
						24	OLIVE GREEN SILTY CLAY (CL) medium stiff, moist
				15			

GROUNDWATER NOT ENCOUNTERED DURING DRILLING

Subsurface Consultants

5200 COLISEUM WAY - OAKLAND, CA

JOB NUMBER	DATE	APPROVED
911.001	1/11/95	MM

PLATE 4

GENERAL SOIL CATEGORIES			SYMBOLS	TYPICAL SOIL TYPES
COARSE GRAINED SOILS More than half is larger than No. 200 seive	GRAVEL More than half coarse fraction is larger than No. 4 seive size	Clean Gravel with little or no fines	GW	Well Graded Gravel, Gravel-Sand Mixtures
			GP	Poorly Graded Gravel, Gravel-Sand Mixtures
		Gravel with more than 12% fines	GM	Silty Gravel, Poorly Graded Gravel-Sand-Silt Mixtures
			GC	Clayey Gravel, Poorly Graded Gravel-Sand-Clay Mixtures
	SAND More than half coarse fraction is smaller than No. 4 seive size	Clean Sand with little or no fines	SW	Well Graded Sand, Gravelly Sand
			SP	Poorly Graded Sand, Gravelly Sand
		Sand with more than 12% fines	SM	Silty Sand, Poorly Graded Sand-Silt Mixtures
			SC	Clayey Sand, Poorly Graded Sand-Clay Mixtures
FINE GRAINED SOILS More than half is smaller than No. 200 seive	SILT AND CLAY Liquid Limit Less than 50%		ML	Inorganic Silt and Very Fine Sand, Rock Flour, Silty or Clayey Fine Sand, or Clayey Silt with Slight Plasticity
			CL	Inorganic Clay of Low to Medium Plasticity, Gravelly Clay, Sandy Clay, Silty Clay, Lean Clay
			OL	Organic Clay and Organic Silty Clay of Low Plasticity
	SILT AND CLAY Liquid Limit Greater than 50%		MH	Inorganic Silt, Micaceous or Diatomaceous Fine Sandy or Silty Soils, Elastic Silt
			CH	Inorganic Clay of High Plasticity, Fat Clay
			OH	Organic Clay of Medium to High Plasticity, Organic Silt
HIGHLY ORGANIC SOILS			PT	Peat and Other Highly Organic Soils

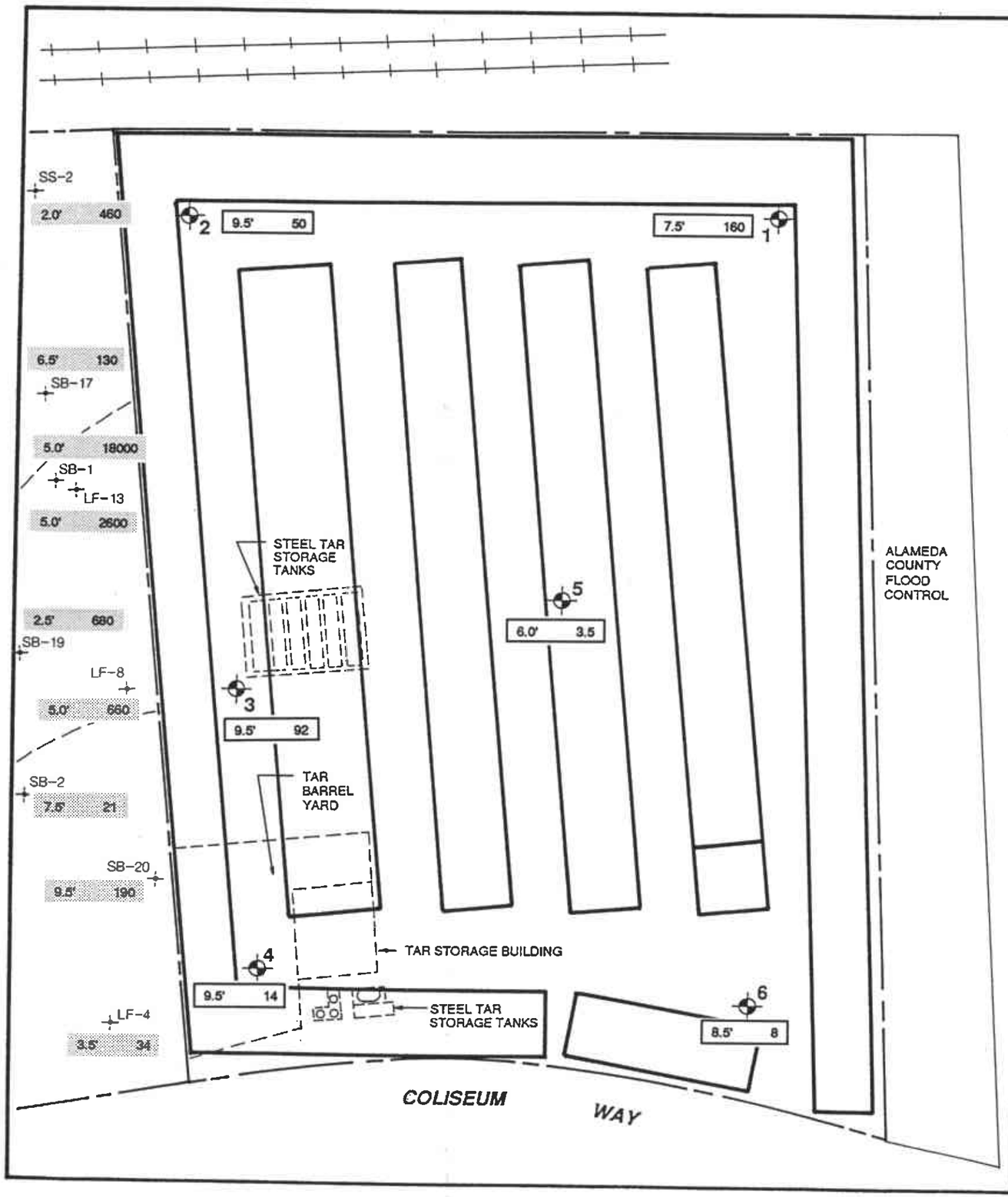
UNIFIED SOIL CLASSIFICATION SYSTEM

Subsurface Consultants

5200 COLISEUM WAY - OAKLAND, CA

JOB NUMBER	DATE	APPROVED
911.001	1/11/95	mm

PLATE 5



SCI TEST BORING

PROPERTY LINE

EXISTING STRUCTURE

LF — GRID GENERATED SOIL SAMPLING LOCATION (COMPLETED AS A GROUNDWATER MONITORING WELL BY LEVINE-FRICKE)

SS — SHALLOW SOIL SAMPLING LOCATION BY LEVINE-FRICKE (2-FEET DEEP)

SB — SOIL SAMPLING LOCATION BY LEVINE-FRICKE (UP TO 15 FEET DEEP)

ELEVATED CONCENTRATION CONTOUR FOR ARSENIC (>500mg/kg)AS DETERMINED BY LEVINE-FRICKE FOR 5050 COLISEUM WAY

7.5' 59 — CONCENTRATION IN mg/kg; DEPTH OF SAMPLE

FOR ADDITIONAL INFORMATION REGARDING ARSENIC CONCENTRATIONS IN SOILS AT 5050 COLISEUM WAY AND 750 50TH AVENUE, SEE LEVINE-FRICKE FIGURES 15 a & b IN APPENDIX A.

N

APPROXIMATE SCALE (feet)

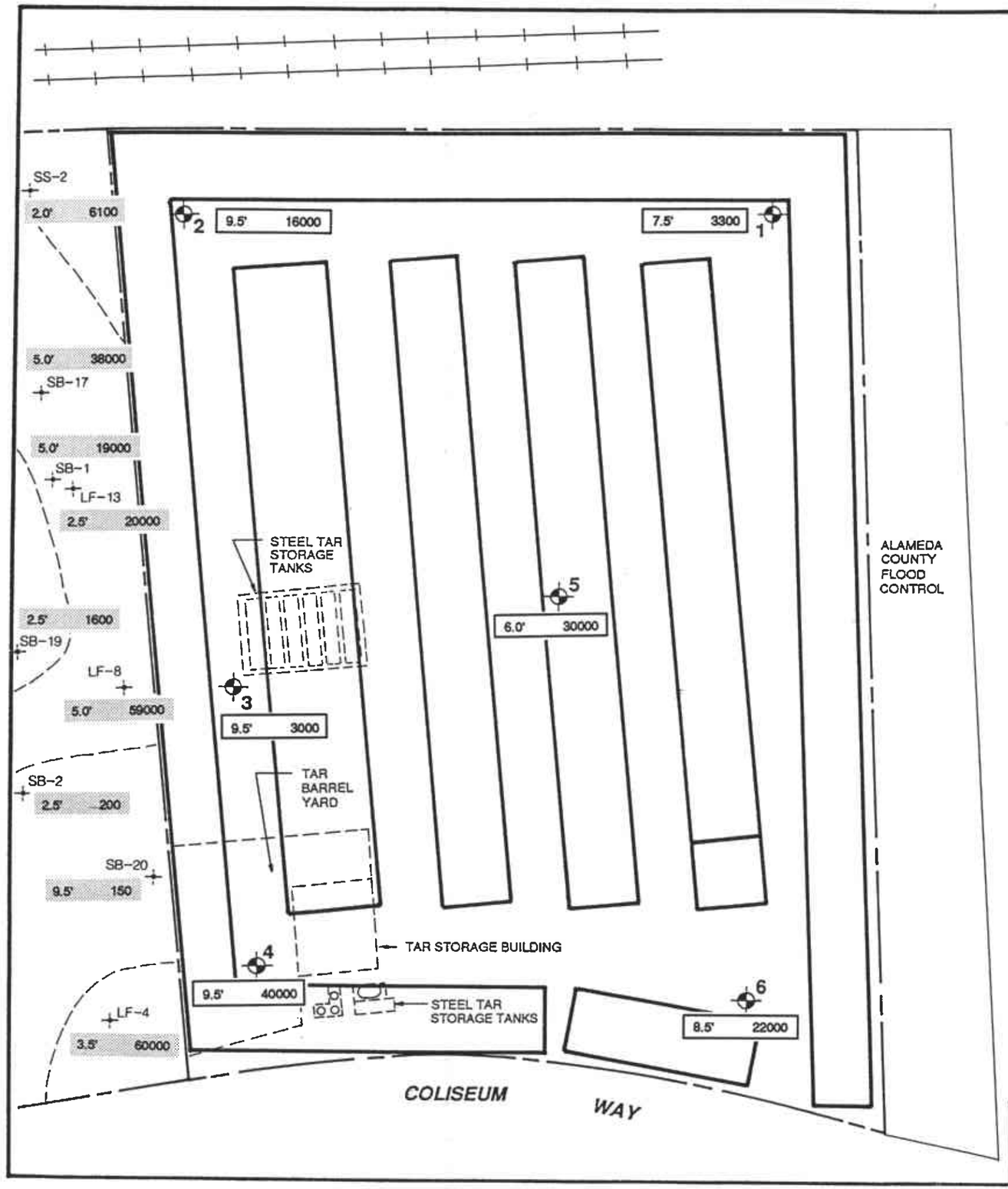
0 50 100

CONCENTRATIONS OF ARSENIC IN SOIL

Subsurface Consultants

5200 COLISEUM WAY - OAKLAND, CA

JOB NUMBER	DATE	APPROVED	PLATE
911.001	2/1/95	MM	6



SCI TEST BORING

PROPERTY LINE

EXISTING STRUCTURE

LF — GRID GENERATED SOIL SAMPLING LOCATION (COMPLETED AS A GROUNDWATER MONITORING WELL BY LEVINE-FRICKE)

SS — SHALLOW SOIL SAMPLING LOCATION BY LEVINE-FRICKE (2-FEET DEEP)

SB — SOIL SAMPLING LOCATION BY LEVINE-FRICKE (UP TO 15 FEET DEEP)

ELEVATED CONCENTRATION CONTOUR FOR BARIUM (>10000mg/kg) AS DETERMINED BY LEVINE-FRICKE FOR 5050 COLISEUM WAY

7.5' 59
- 59 — CONCENTRATION IN mg/kg
- 7.5' — DEPTH OF SAMPLE

FOR ADDITIONAL INFORMATION REGARDING BARIUM CONCENTRATIONS IN SOILS AT 5050 COLISEUM WAY AND 750 50TH AVENUE, SEE LEVINE-FRICKE FIGURES 17 a & b IN APPENDIX A.

N

APPROXIMATE SCALE (feet)

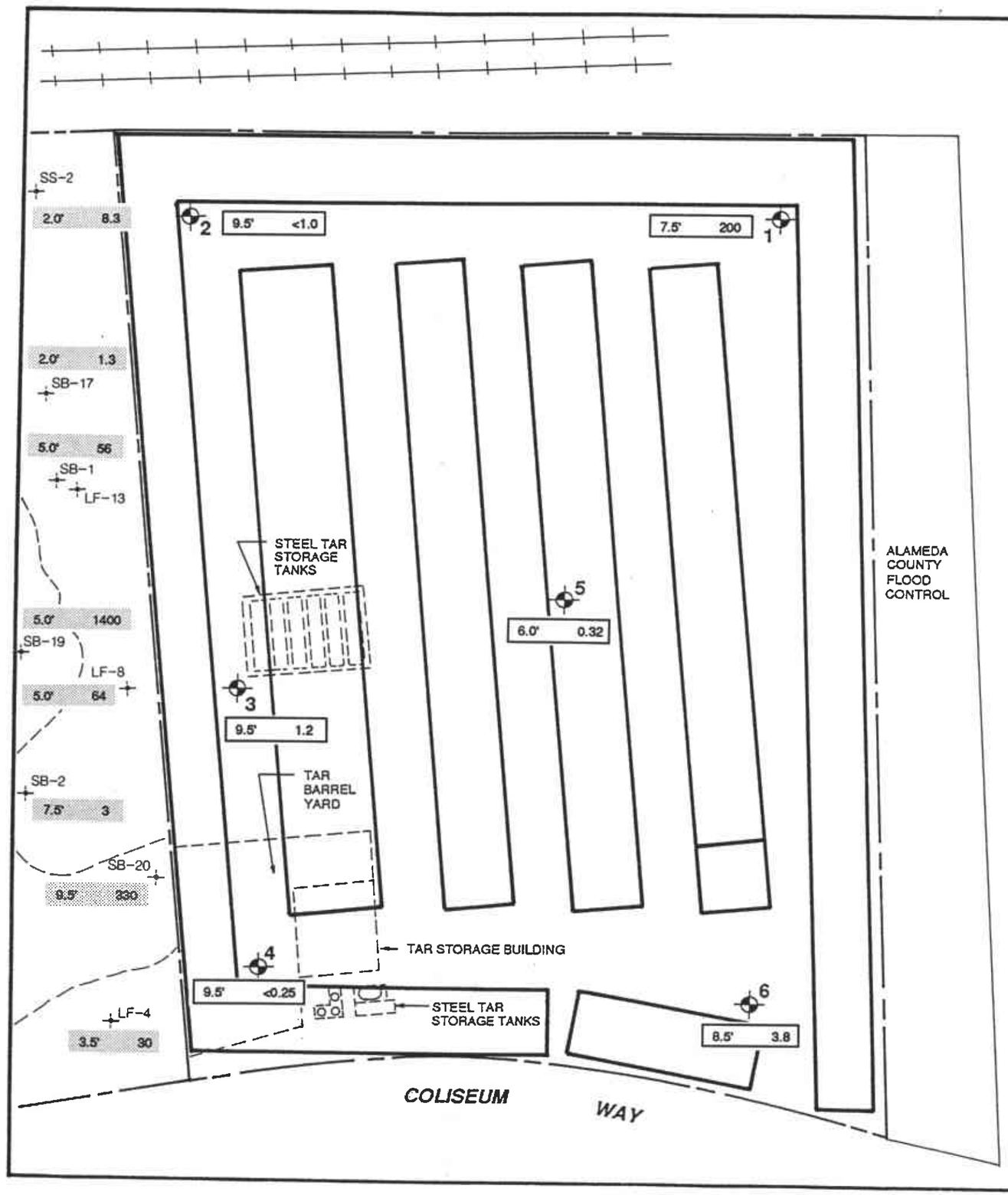
0 50 100

CONCENTRATIONS OF BARIUM IN SOIL

Subsurface Consultants

5200 COLISEUM WAY - OAKLAND, CA

JOB NUMBER	DATE	APPROVED	PLATE
911.001	2/1/95		7



SCI TEST BORING

PROPERTY LINE

EXISTING STRUCTURE

LF — GRID GENERATED SOIL SAMPLING LOCATION (COMPLETED AS A GROUNDWATER MONITORING WELL BY LEVINE-FRICKE)

SS — SHALLOW SOIL SAMPLING LOCATION BY LEVINE-FRICKE (2-FEET DEEP)

SB — SOIL SAMPLING LOCATION BY LEVINE-FRICKE (UP TO 15 FEET DEEP)

ELEVATED CONCENTRATION CONTOUR FOR CADMIUM (>100mg/kg) AS DETERMINED BY LEVINE-FRICKE FOR 5050 COLISEUM WAY

7.5' 59
- 59 — CONCENTRATION IN mg/kg
- 7.5' — DEPTH OF SAMPLE

FOR ADDITIONAL INFORMATION REGARDING CADMIUM CONCENTRATIONS IN SOILS AT 5050 COLISEUM WAY AND 750 50TH AVENUE, SEE LEVINE-FRICKE FIGURES 14 a & b IN APPENDIX A.

N

APPROXIMATE SCALE (feet)

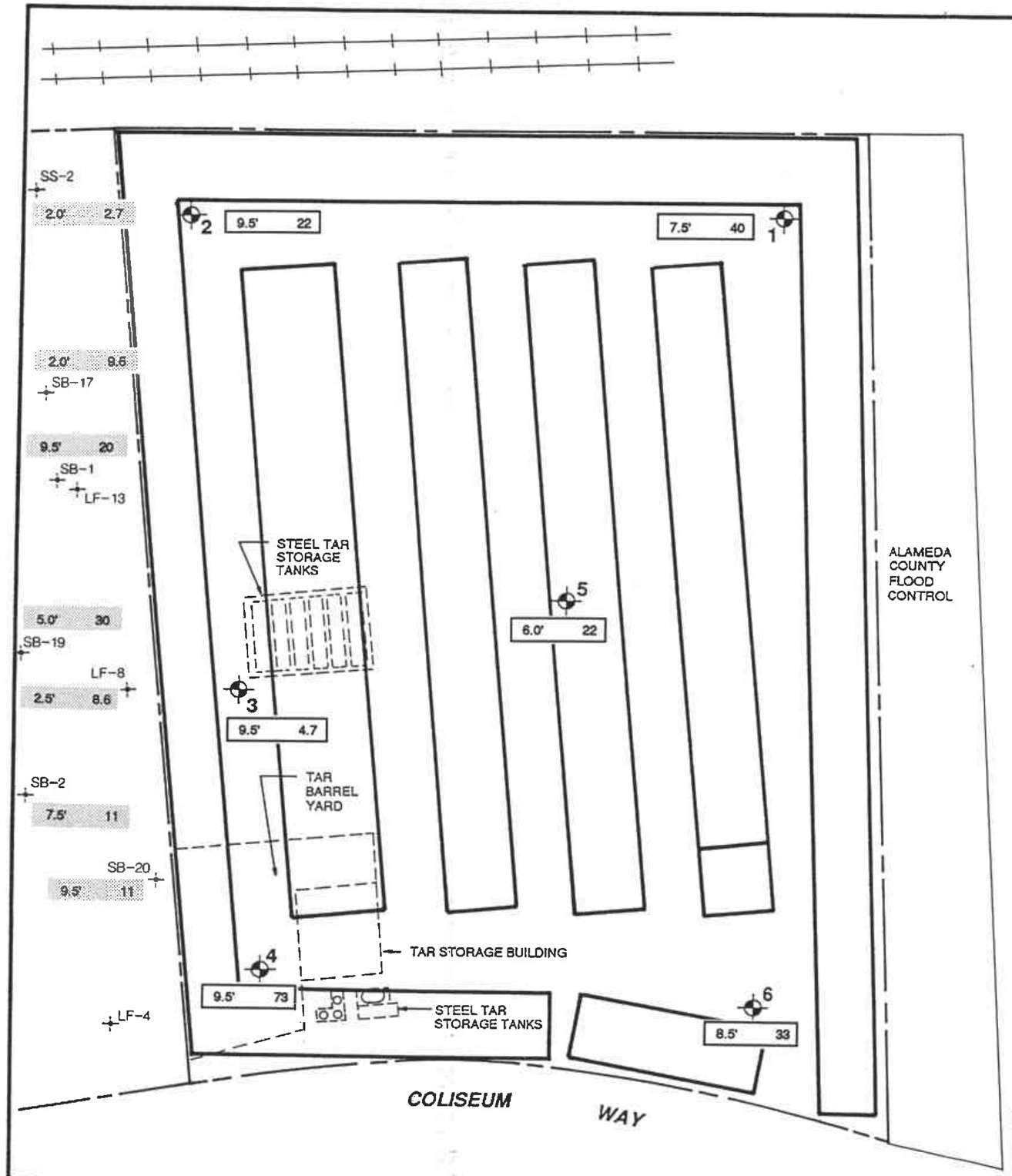
0 50 100

CONCENTRATIONS OF CADMIUM IN SOIL

Subsurface Consultants

5200 COLISEUM WAY - OAKLAND, CA

JOB NUMBER	DATE	APPROVED	PLATE
911.001	2/1/95	MM	8



SCI TEST BORING

PROPERTY LINE

EXISTING STRUCTURE

LF — GRID GENERATED SOIL SAMPLING LOCATION (COMPLETED AS A GROUNDWATER MONITORING WELL BY LEVINE-FRICKE)

SS — SHALLOW SOIL SAMPLING LOCATION BY LEVINE-FRICKE (2-FEET DEEP)

SB — SOIL SAMPLING LOCATION BY LEVINE-FRICKE (UP TO 15 FEET DEEP)

TOTAL THRESHOLD LIMIT CONCENTRATION FOR COBALT = 8000mg/kg

7.5' 59
- 59 — CONCENTRATION IN mg/kg
- 7.5' — DEPTH OF SAMPLE

FOR ADDITIONAL INFORMATION REGARDING COBALT CONCENTRATIONS IN SOILS AT 5050 COLISEUM WAY AND 750 50TH AVENUE, SEE LEVINE-FRICKE FIGURE 19 IN APPENDIX A.

N

APPROXIMATE SCALE (feet)

0 50 100

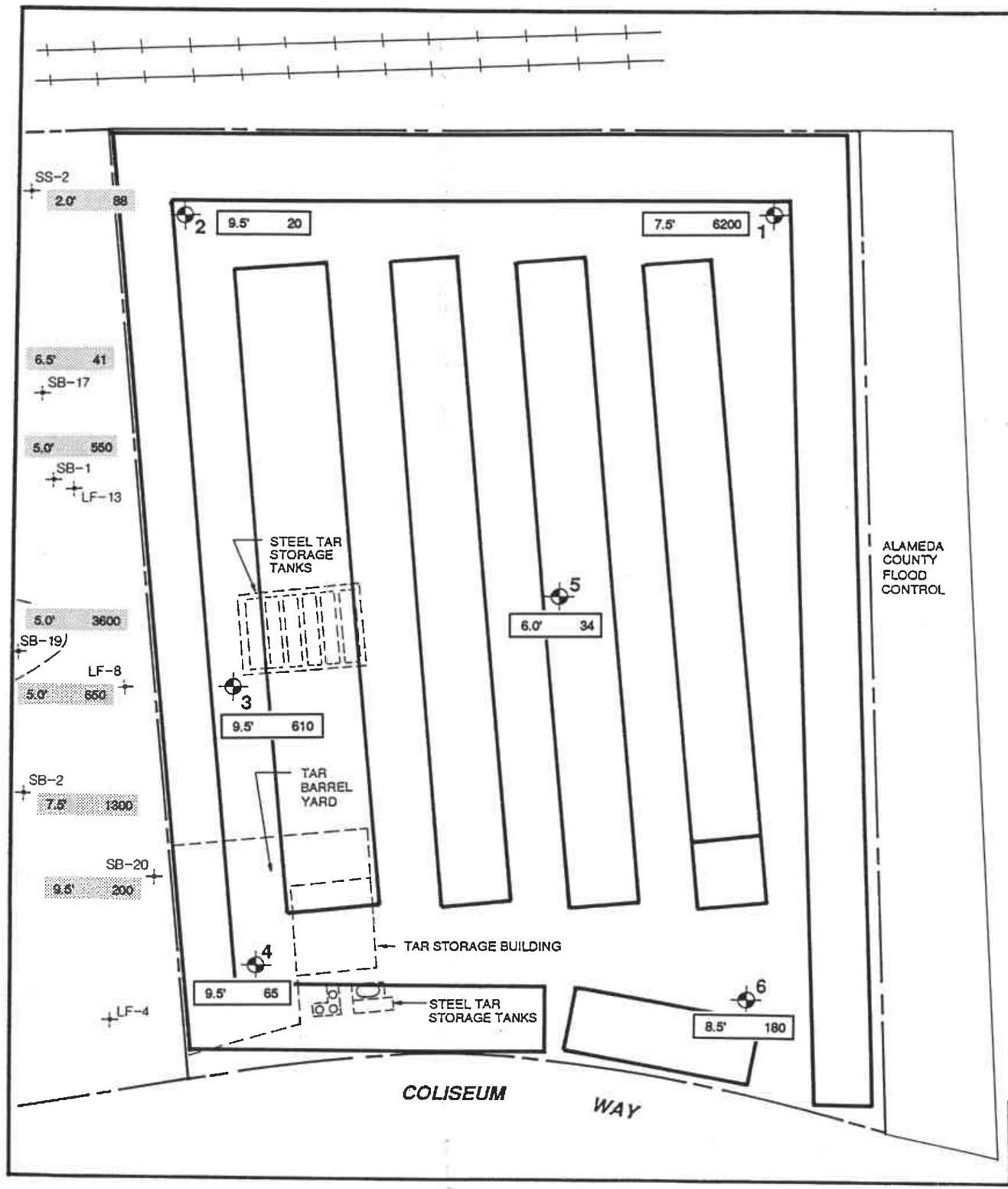
CONCENTRATIONS OF COBALT IN SOIL

Subsurface Consultants

5200 COLISEUM WAY - OAKLAND, CA

JOB NUMBER	DATE	APPROVED
911.001	2/1/95	MW

PLATE 9



SCI TEST BORING

PROPERTY LINE

EXISTING STRUCTURE

LF GRID GENERATED SOIL SAMPLING LOCATION (COMPLETED AS A GROUNDWATER MONITORING WELL BY LEVINE-FRICKE)

SS SHALLOW SOIL SAMPLING LOCATION BY LEVINE-FRICKE (2-FEET DEEP)

SB SOIL SAMPLING LOCATION BY LEVINE-FRICKE (UP TO 15 FEET DEEP)

ELEVATED CONCENTRATION CONTOUR FOR COPPER (>2500mg/kg) AS DETERMINED BY LEVINE-FRICKE FOR 5050 COLISEUM WAY

7.5' 59
- 59: CONCENTRATION IN mg/kg
- 7.5': DEPTH OF SAMPLE

FOR ADDITIONAL INFORMATION REGARDING LEAD CONCENTRATIONS IN SOILS AT 5050 COLISEUM WAY AND 750 50TH AVENUE, SEE LEVINE-FRICKE FIGURES 16 a & b IN APPENDIX A.

N

APPROXIMATE SCALE (feet)

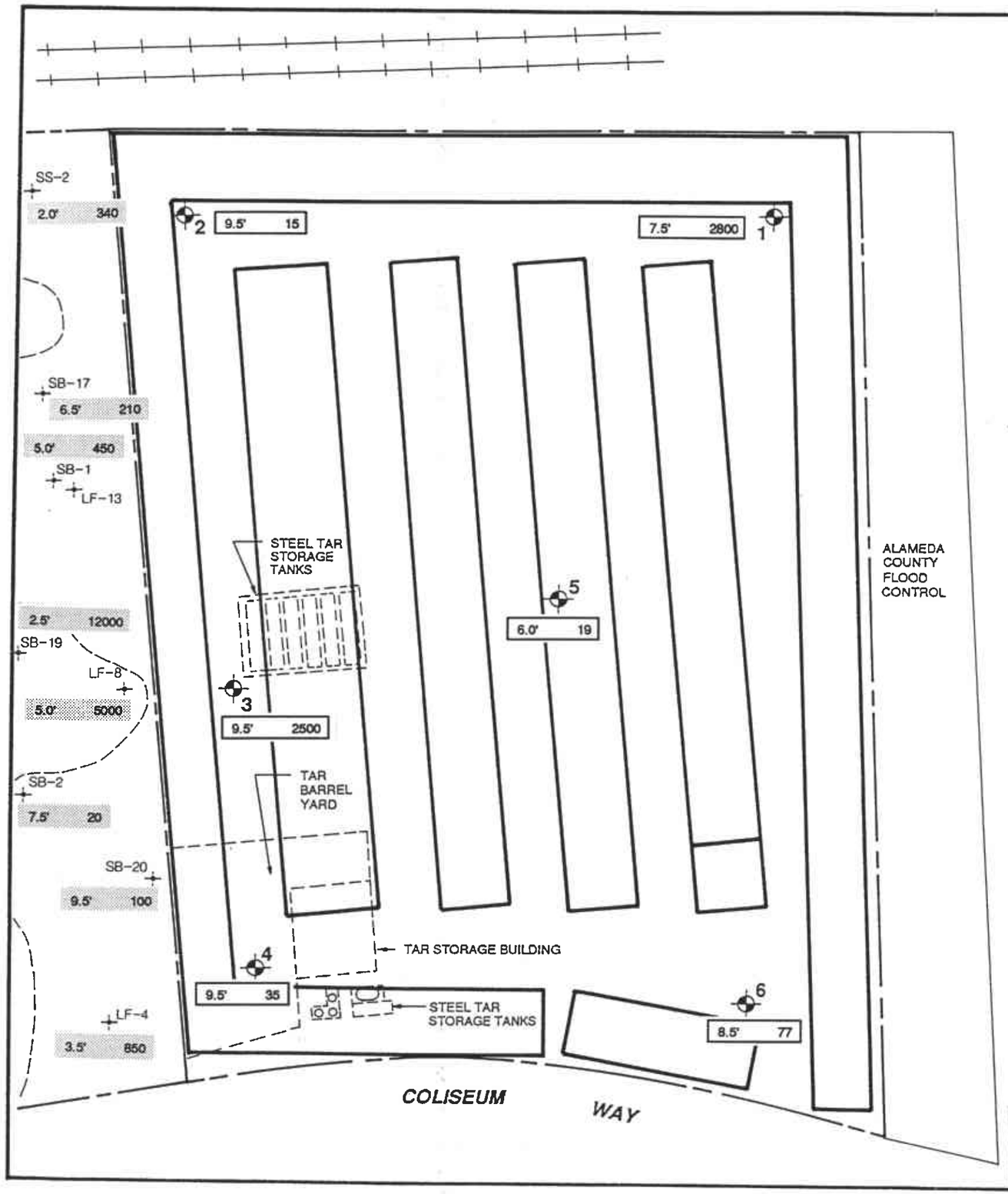
0 50 100

CONCENTRATIONS OF COPPER IN SOIL

Subsurface Consultants

5200 COLISEUM WAY - OAKLAND, CA

JOB NUMBER	DATE	APPROVED	PLATE
911.001	2/1/95		10



SCI TEST BORING

PROPERTY LINE

EXISTING STRUCTURE

LF — GRID GENERATED SOIL SAMPLING LOCATION (COMPLETED AS A GROUNDWATER MONITORING WELL BY LEVINE-FRICKE)

SS — SHALLOW SOIL SAMPLING LOCATION BY LEVINE-FRICKE (2-FEET DEEP)

SB — SOIL SAMPLING LOCATION BY LEVINE-FRICKE (UP TO 15 FEET DEEP)

ELEVATED CONCENTRATION CONTOUR FOR LEAD (>1000mg/kg) AS DETERMINED BY LEVINE-FRICKE FOR 5050 COLISEUM WAY

7.5' 59
- 59 — CONCENTRATION IN mg/kg
- 7.5' — DEPTH OF SAMPLE

FOR ADDITIONAL INFORMATION REGARDING LEAD CONCENTRATIONS IN SOILS AT 5050 COLISEUM WAY AND 750 50TH AVENUE, SEE LEVINE-FRICKE FIGURES 13 a & b IN APPENDIX A.

N

APPROXIMATE SCALE (feet)

0 50 100

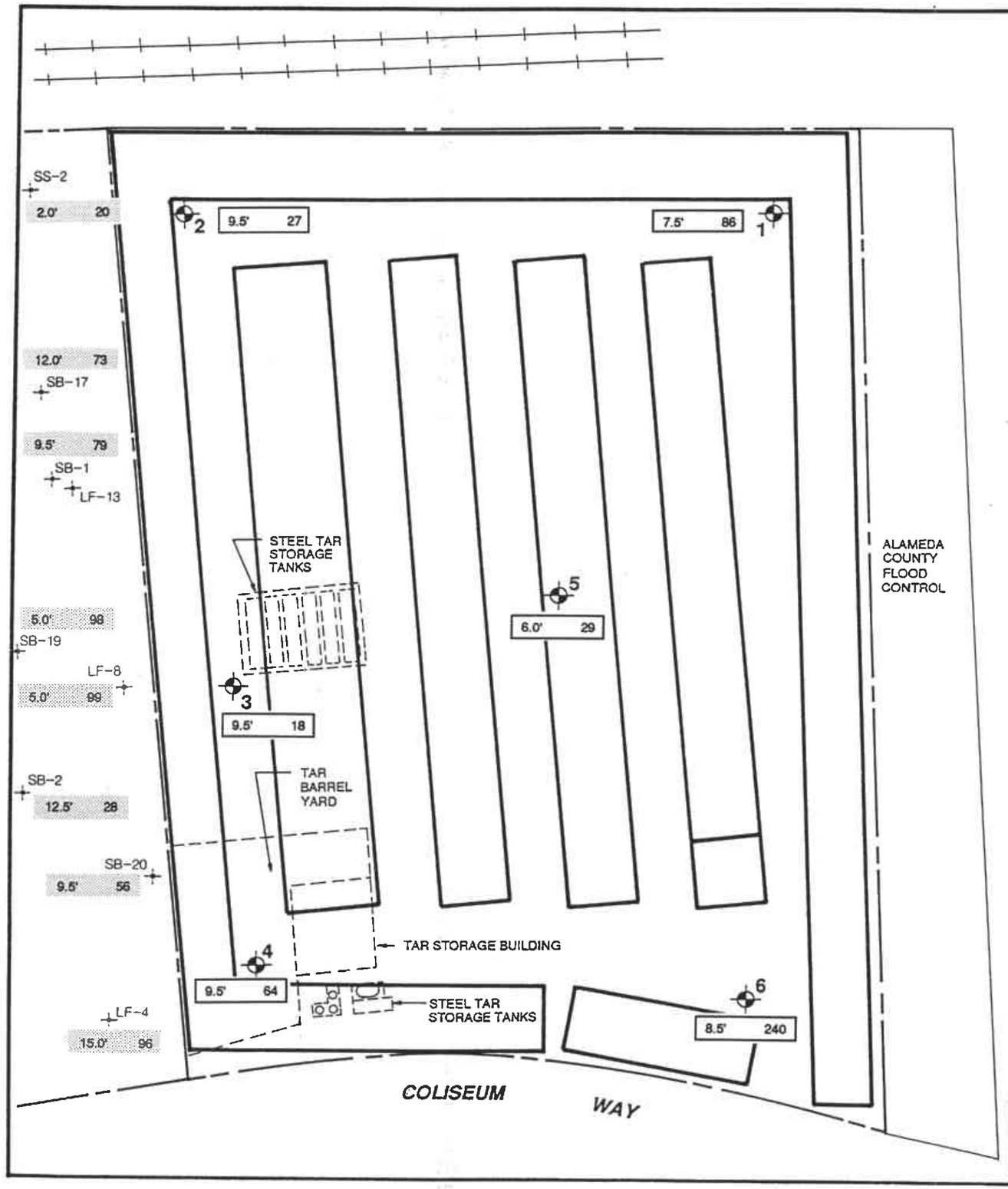
CONCENTRATIONS OF LEAD IN SOIL

Subsurface Consultants

5200 COLISEUM WAY - OAKLAND, CA

JOB NUMBER	DATE	APPROVED
911.001	2/1/95	

PLATE 11



SCI TEST BORING

PROPERTY LINE

EXISTING STRUCTURE

LF GRID GENERATED SOIL SAMPLING LOCATION (COMPLETED AS A GROUNDWATER MONITORING WELL BY LEVINE-FRICKE)

SS SHALLOW SOIL SAMPLING LOCATION BY LEVINE-FRICKE (2-FEET DEEP)

SB SOIL SAMPLING LOCATION BY LEVINE-FRICKE (UP TO 15 FEET DEEP)

TOTAL THRESHOLD LIMIT CONCENTRATION FOR NICKEL = 2000mg/kg

7.5' 59
- 59 — CONCENTRATION IN mg/kg
- 7.5' — DEPTH OF SAMPLE

FOR ADDITIONAL INFORMATION REGARDING NICKEL CONCENTRATIONS IN SOILS AT 5050 COLISEUM WAY AND 750 50TH AVENUE, SEE LEVINE-FRICKE FIGURE 18 IN APPENDIX A.

N

APPROXIMATE SCALE (feet)

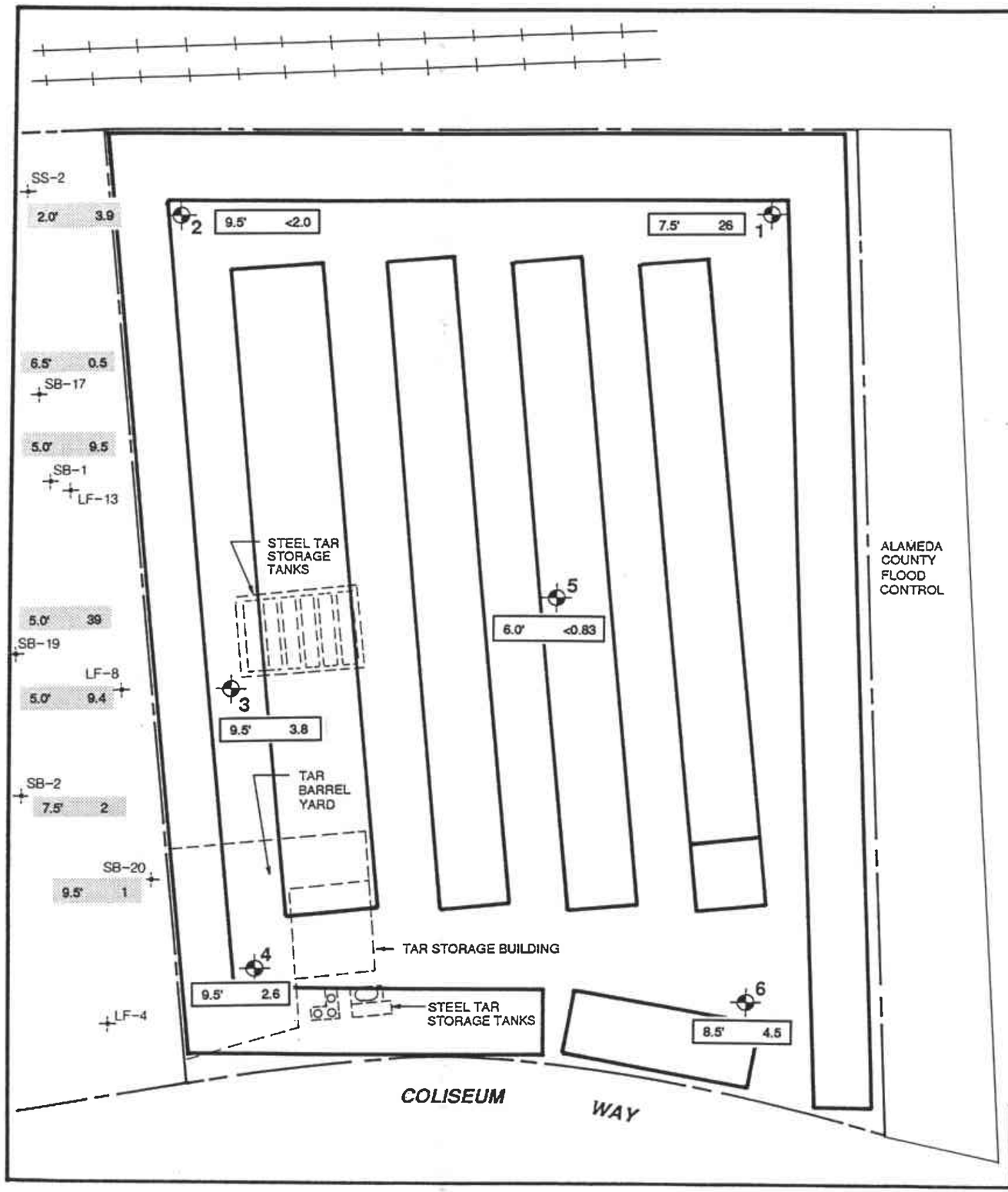
0 50 100

CONCENTRATIONS OF NICKEL IN SOIL

Subsurface Consultants

5200 COLISEUM WAY - OAKLAND, CA

JOB NUMBER	DATE	APPROVED	PLATE
911.001	2/1/95	MM	12



SCI TEST BORING

PROPERTY LINE

EXISTING STRUCTURE

LF GRID GENERATED SOIL SAMPLING LOCATION (COMPLETED AS A GROUNDWATER MONITORING WELL BY LEVINE-FRICKE)

SS SHALLOW SOIL SAMPLING LOCATION BY LEVINE-FRICKE (2-FEET DEEP)

SB SOIL SAMPLING LOCATION BY LEVINE-FRICKE (UP TO 15 FEET DEEP)

TOTAL THRESHOLD LIMIT CONCENTRATION FOR SILVER = 500mg/kg

7.5' 59
- 59 — CONCENTRATION IN mg/kg
- 7.5' — DEPTH OF SAMPLE

N

APPROXIMATE SCALE (feet)

0 50 100

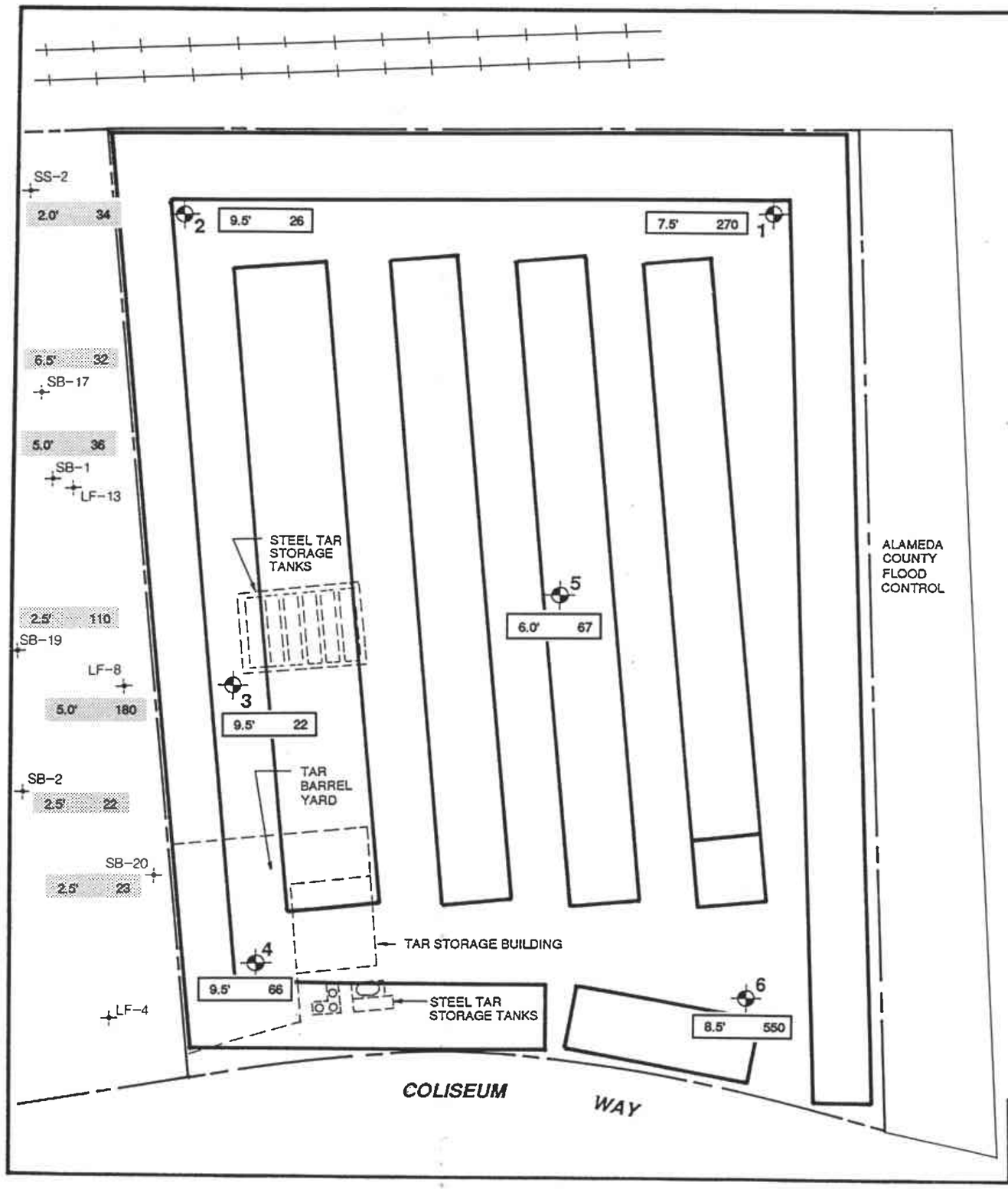
CONCENTRATIONS OF SILVER IN SOIL

Subsurface Consultants

5200 COLISEUM WAY - OAKLAND, CA

JOB NUMBER	DATE	APPROVED
911.001	2/1/95	

PLATE 13



SCI TEST BORING

PROPERTY LINE

EXISTING STRUCTURE

LF — GRID GENERATED SOIL SAMPLING LOCATION (COMPLETED AS A GROUNDWATER MONITORING WELL BY LEVINE-FRICKE)

SS — SHALLOW SOIL SAMPLING LOCATION BY LEVINE-FRICKE (2-FEET DEEP)

SB — SOIL SAMPLING LOCATION BY LEVINE-FRICKE (UP TO 15 FEET DEEP)

TOTAL THRESHOLD LIMIT CONCENTRATION FOR VANADIUM = 2400mg/kg

7.5' 59
- 59 — CONCENTRATION IN mg/kg
- 7.5' — DEPTH OF SAMPLE

N

APPROXIMATE SCALE (feet)

0 50 100

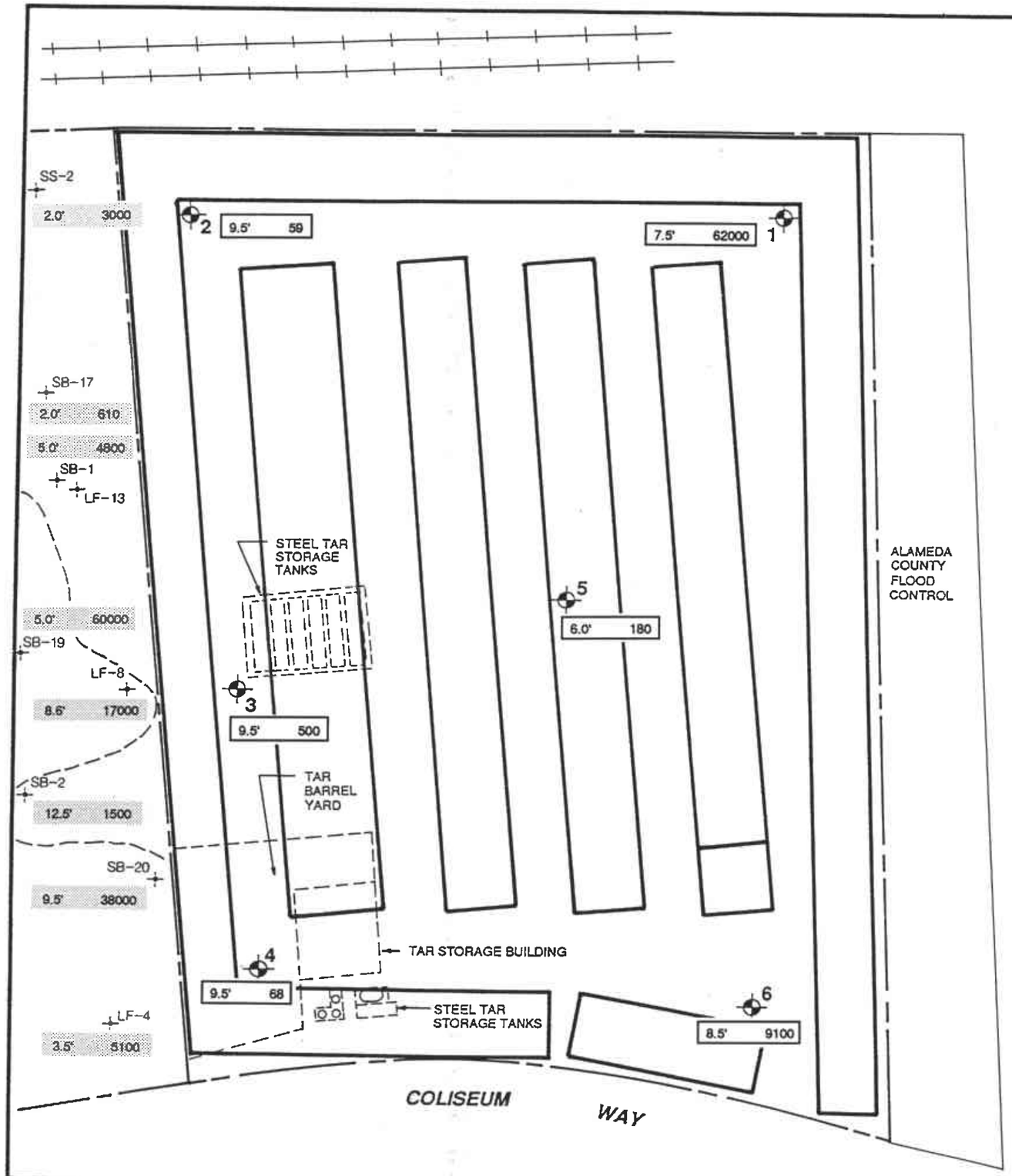
CONCENTRATIONS OF VANADIUM IN SOIL

Subsurface Consultants

5200 COLISEUM WAY - OAKLAND, CA

JOB NUMBER	DATE	APPROVED
911.001	2/1/95	MM

PLATE 14



SCI TEST BORING

PROPERTY LINE

EXISTING STRUCTURE

LF — GRID GENERATED SOIL SAMPLING LOCATION (COMPLETED AS A GROUNDWATER MONITORING WELL BY LEVINE-FRICKE)

SS — SHALLOW SOIL SAMPLING LOCATION BY LEVINE-FRICKE (2-FEET DEEP)

SB — SOIL SAMPLING LOCATION BY LEVINE-FRICKE (UP TO 15 FEET DEEP)

ELEVATED CONCENTRATION CONTOUR FOR ZINC (>5000mg/kg) AS DETERMINED BY LEVINE-FRICKE FOR 5050 COLISEUM WAY

7.5' 59
- 59 — DEPTH OF SAMPLE
- 7.5' — CONCENTRATION IN mg/kg

FOR ADDITIONAL INFORMATION REGARDING ZINC CONCENTRATIONS IN SOILS AT 5050 COLISEUM WAY AND 750 50TH AVENUE, SEE LEVINE-FRICKE FIGURES 12 a & b IN APPENDIX A.

N

APPROXIMATE SCALE (feet)

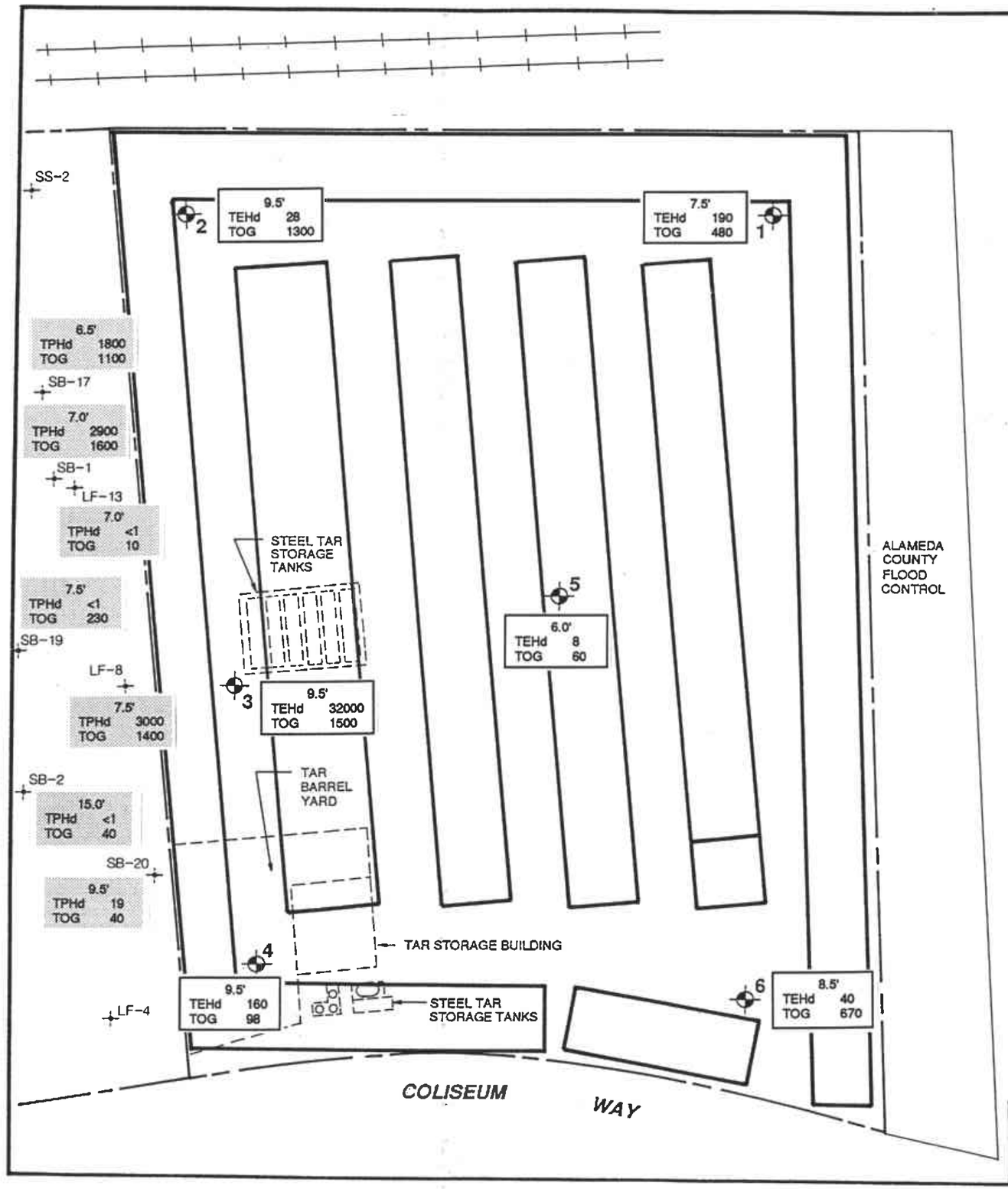
0 50 100

CONCENTRATIONS OF ZINC IN SOIL

5200 COLISEUM WAY - OAKLAND, CA

Subsurface Consultants

JOB NUMBER	DATE	APPROVED	PLATE
911.001	2/1/95	MM	15



SCI TEST BORING

PROPERTY LINE

EXISTING STRUCTURE

LF GRID GENERATED SOIL SAMPLING LOCATION (COMPLETED AS A GROUNDWATER MONITORING WELL BY LEVINE-FRICKE)

SS SHALLOW SOIL SAMPLING LOCATION BY LEVINE-FRICKE (2-FEET DEEP)

SB SOIL SAMPLING LOCATION BY LEVINE-FRICKE (UP TO 15 FEET DEEP)

7.5' — DEPTH OF SAMPLE
TEHd 190
TOG 480
— CONCENTRATIONS IN mg/kg
— PETROLEUM HYDROCARBON COMPOUND

FOR ADDITIONAL INFORMATION REGARDING PETROLEUM HYDROCARBONS IN SOILS AT 5050 COLISEUM WAY AND 750 50TH AVENUE, SEE LEVINE-FRICKE FIGURE 20 IN APPENDIX A.

N

APPROXIMATE SCALE (feet)

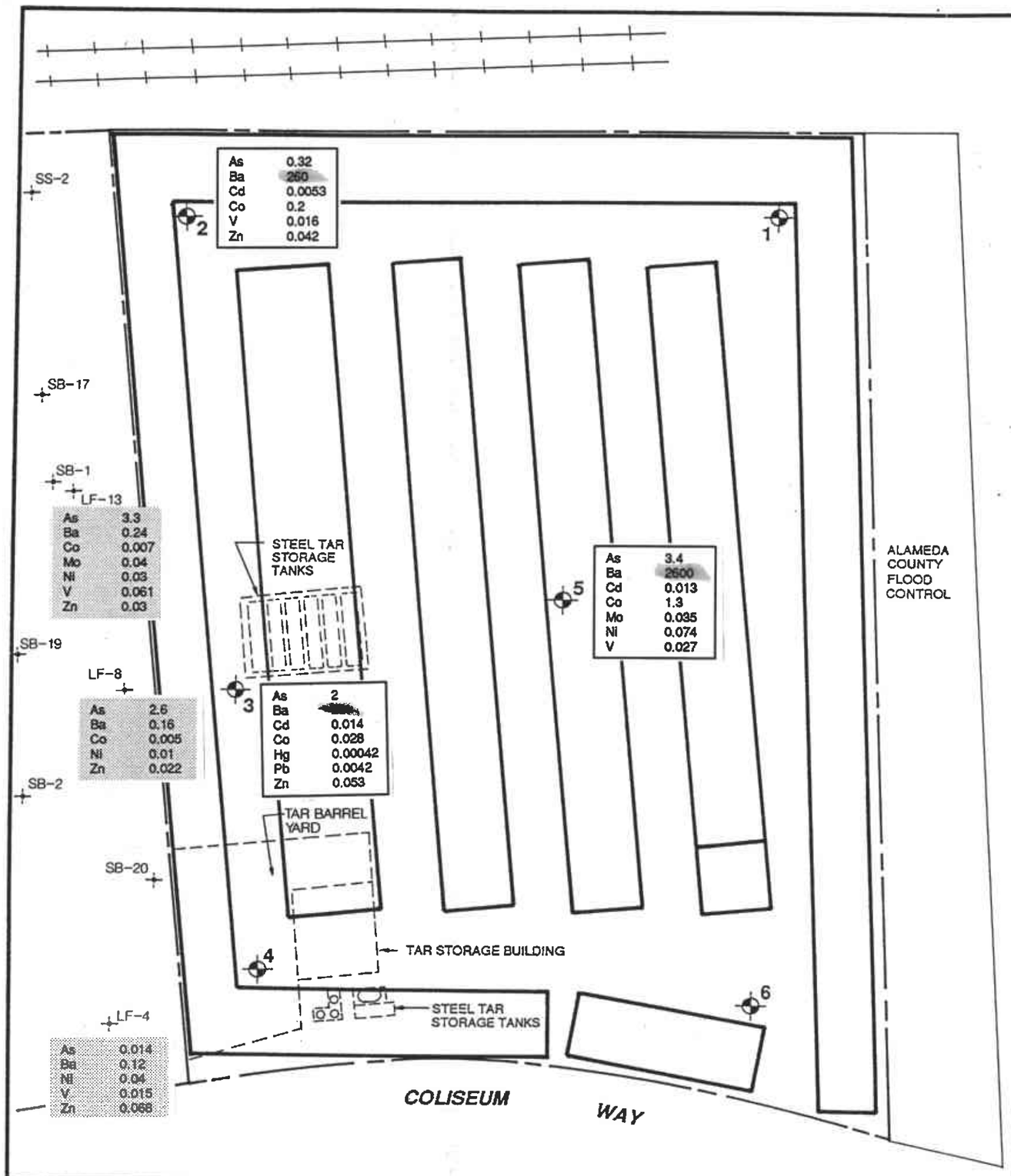
0 50 100

HYDROCARBON CONCENTRATIONS IN SOIL

Subsurface Consultants

5200 COLISEUM WAY - OAKLAND, CA

JOB NUMBER	DATE	APPROVED	PLATE
911.001	2/1/95	MM	16



SCI TEST BORING

PROPERTY LINE

EXISTING STRUCTURE

LF GRID GENERATED SOIL SAMPLING LOCATION (COMPLETED AS A GROUNDWATER MONITORING WELL BY LEVINE-FRICKE)

SS SHALLOW SOIL SAMPLING LOCATION BY LEVINE-FRICKE (2-FEET DEEP)

SB SOIL SAMPLING LOCATION BY LEVINE-FRICKE (UP TO 15 FEET DEEP)

As 0.032 — 0.032 CONCENTRATIONS IN mg/l; As METAL

As	ARSENIC
Ba	BARIUM
Cd	CADMIUM
Co	COBALT
Hg	MERCURY
Mo	MOLYBDENUM
Ni	NICKEL
Pb	LEAD
V	VANADIUM
Zn	ZINC

FOR ADDITIONAL INFORMATION REGARDING METAL CONCENTRATIONS IN GROUNDWATER AT 5050 COLISEUM WAY AND 750 50TH AVENUE, SEE LEVINE-FRICKE FIGURES 21 THROUGH 30b IN APPENDIX A.

N

APPROXIMATE SCALE (feet)

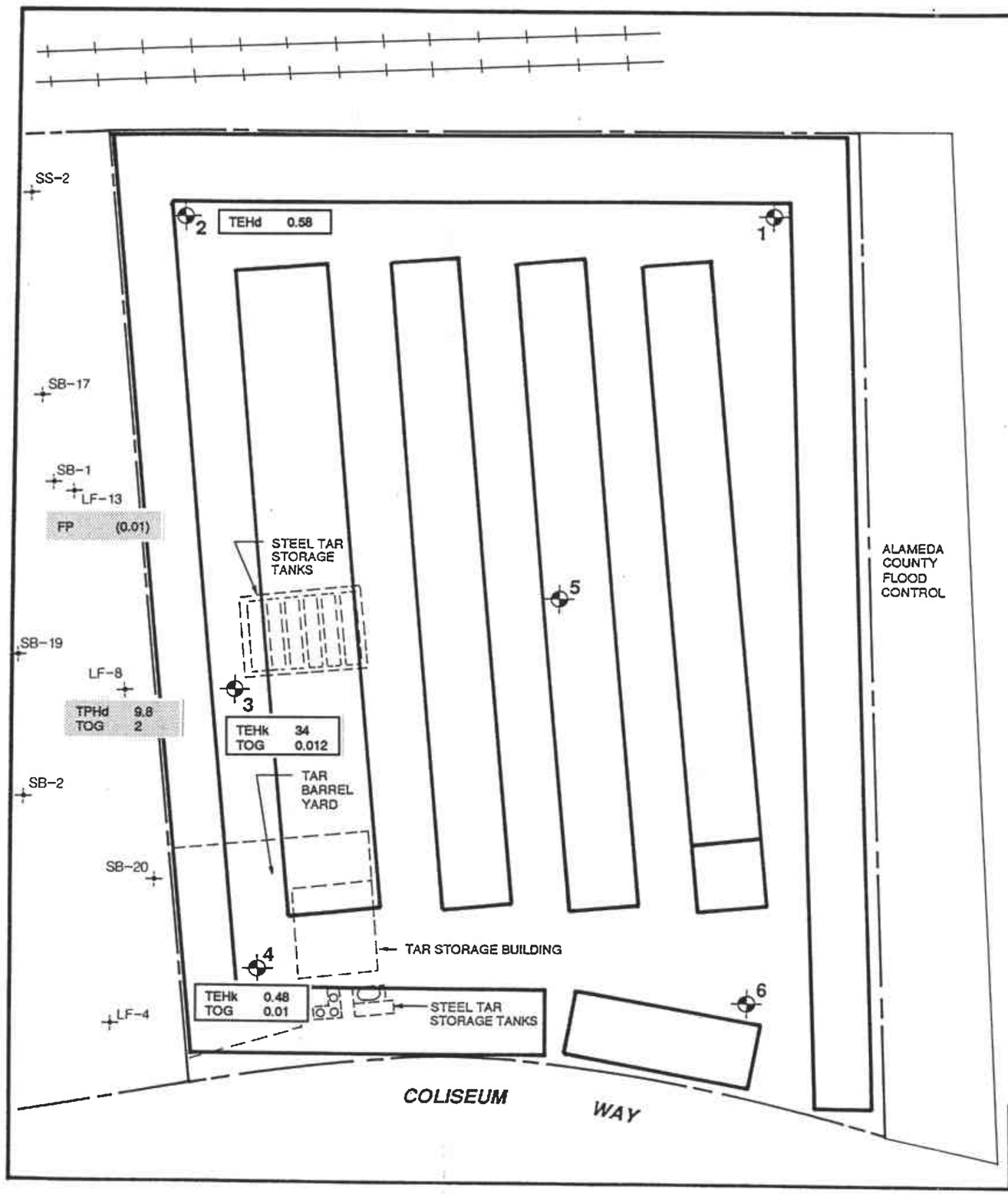
0 50 100

CONCENTRATIONS OF METALS IN GROUNDWATER

Subsurface Consultants

5200 COLISEUM WAY - OAKLAND, CA

JOB NUMBER	DATE	APPROVED	PLATE
911.001	2/1/95	MM	17



SCI TEST BORING

PROPERTY LINE

EXISTING STRUCTURE

LF — GRID GENERATED SOIL SAMPLING LOCATION (COMPLETED AS A GROUNDWATER MONITORING WELL BY LEVINE-FRICKE)

SS — SHALLOW SOIL SAMPLING LOCATION BY LEVINE-FRICKE (2-FEET DEEP)

SB — SOIL SAMPLING LOCATION BY LEVINE-FRICKE (UP TO 15 FEET DEEP)

TEHd 0.58 — CONCENTRATIONS IN mg/kg; CHEMICAL COMPOUND

TEHk — TOTAL EXTRACTABLE HYDROCARBONS AS KEROSENE

TEHd — TOTAL EXTRACTABLE HYDROCARBONS AS DIESEL

TPHd — TOTAL PETROLEUM HYDROCARBONS AS DIESEL

TOG — TOTAL OIL AND GREASE

FP — FREE PRODUCT (FEET)

FOR ADDITIONAL INFORMATION REGARDING HYDROCARBONS IN GROUNDWATER AT 5050 COLISEUM WAY AND 750 50TH AVENUE, SEE LEVINE-FRICKE FIGURE 31 IN APPENDIX A.

N

APPROXIMATE SCALE (feet)

0 50 100

HYDROCARBON CONCENTRATIONS IN GROUNDWATER

Subsurface Consultants

5200 COLISEUM WAY - OAKLAND, CA

JOB NUMBER	DATE	APPROVED
911.001	2/1/95	MM

PLATE 18

Appendix A

Previous Environmental Investigations

PREVIOUS ENVIRONMENTAL INVESTIGATIONS

Aqua Terra Technologies, October 23, 1990, *Phase II Site Assessment for the Property Located at 750 50th Avenues, Oakland, California.*

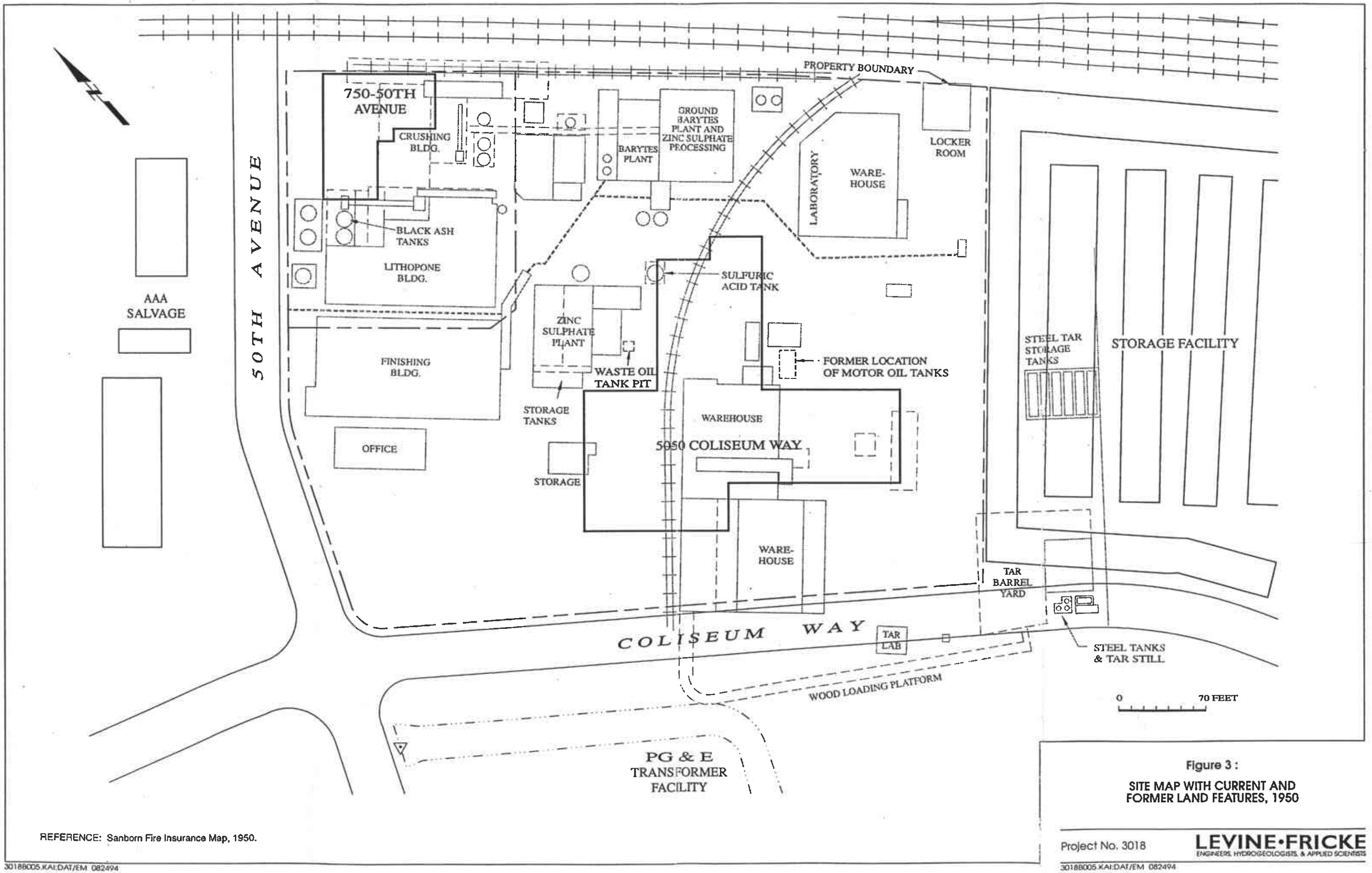
Blymyer Engineers, Inc., June 21, 1990, *Environmental Site Assessment, Charles Campanella, Oakland, California.*

Blymyer Engineers, Inc., March 19, 1993, *Level I, Environmental Site Assessment, Coliseum Storage Associates, 5200 Coliseum Way, Oakland, California.*

Levine-Fricke, June 25, 1992, *Soil and Groundwater Investigation, White GMC Truck Corporation Facility, 5050 Coliseum Way, Oakland, California.*

Levine-Fricke, January 6, 1993, *Remedial Investigation Work Plan, 5050 Coliseum Way and 750-50th Avenue, Oakland, California.*

Levine-Fricke, September 19, 1994, *Remedial Investigation Report, 5050 Coliseum Way and 750-50th Avenue, Oakland, California.*



REFERENCE: Sanborn Fire Insurance Map, 1950.

Figure 3 :

SITE MAP WITH CURRENT AND FORMER LAND FEATURES, 1950

Project No. 3018

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

30188005.KAI:DAT/EM 082494

30188005.KAI:DAT/EM 082494

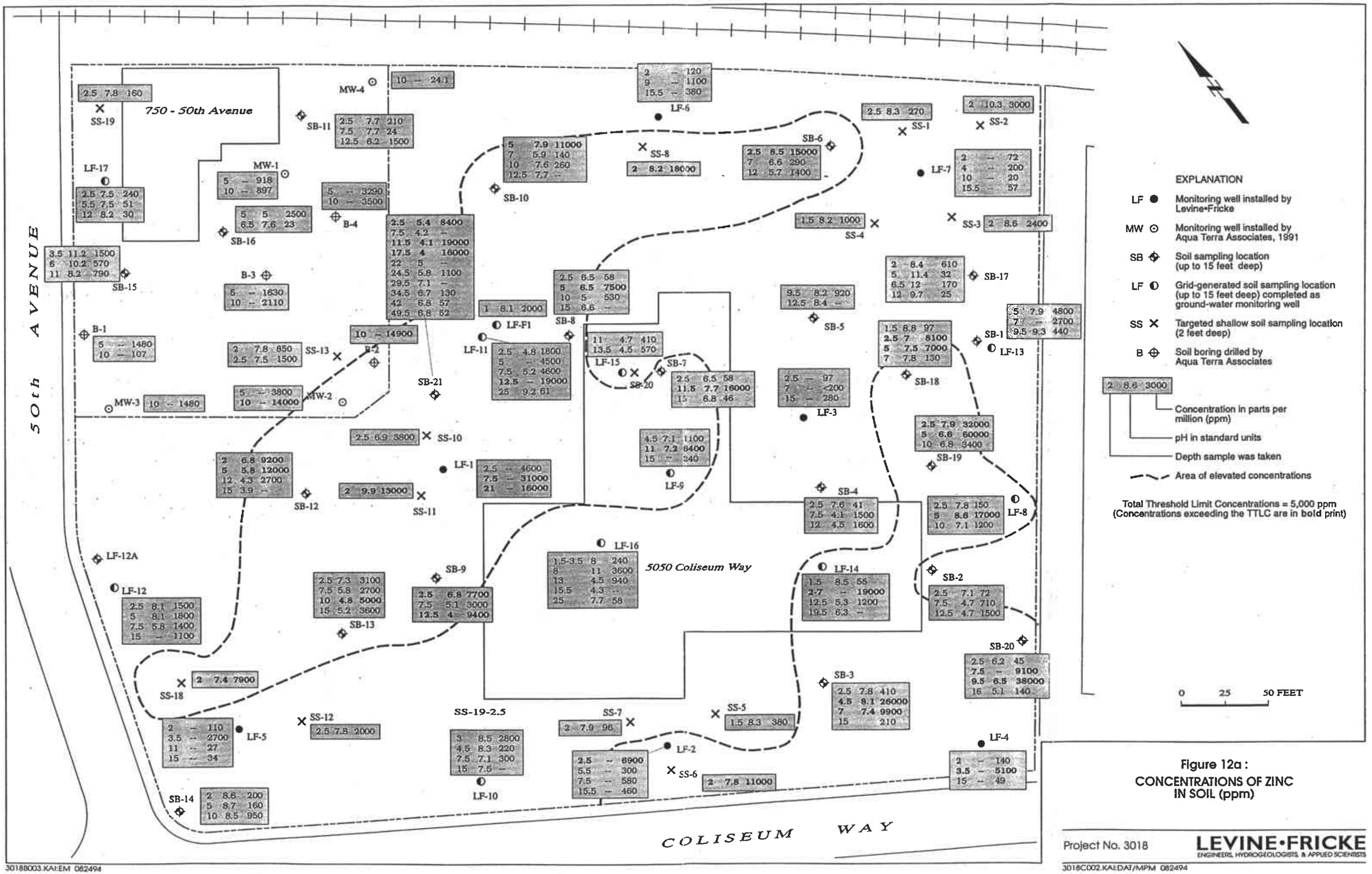


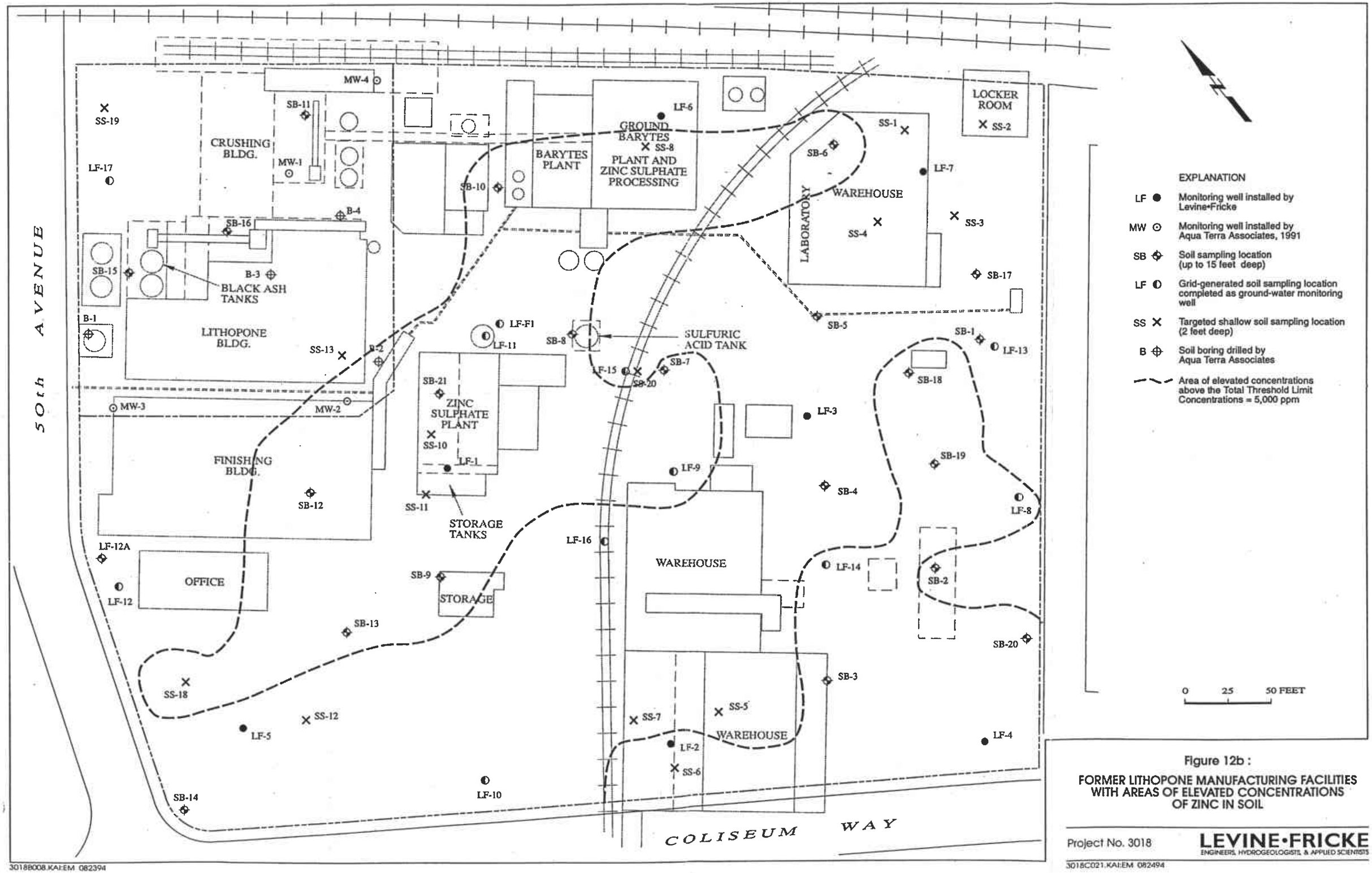
Figure 12a :
CONCENTRATIONS OF ZINC
IN SOIL (ppm)

Project No. 3018

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

3018B003.KAI:EM 082494

3018C002.KAI:DAT/MPM 082494



3018B008.KAI:EM 082394

Figure 12b :

FORMER LITHOPONE MANUFACTURING FACILITIES WITH AREAS OF ELEVATED CONCENTRATIONS OF ZINC IN SOIL

Project No. 3018

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3018C021.KAI:EM 082494

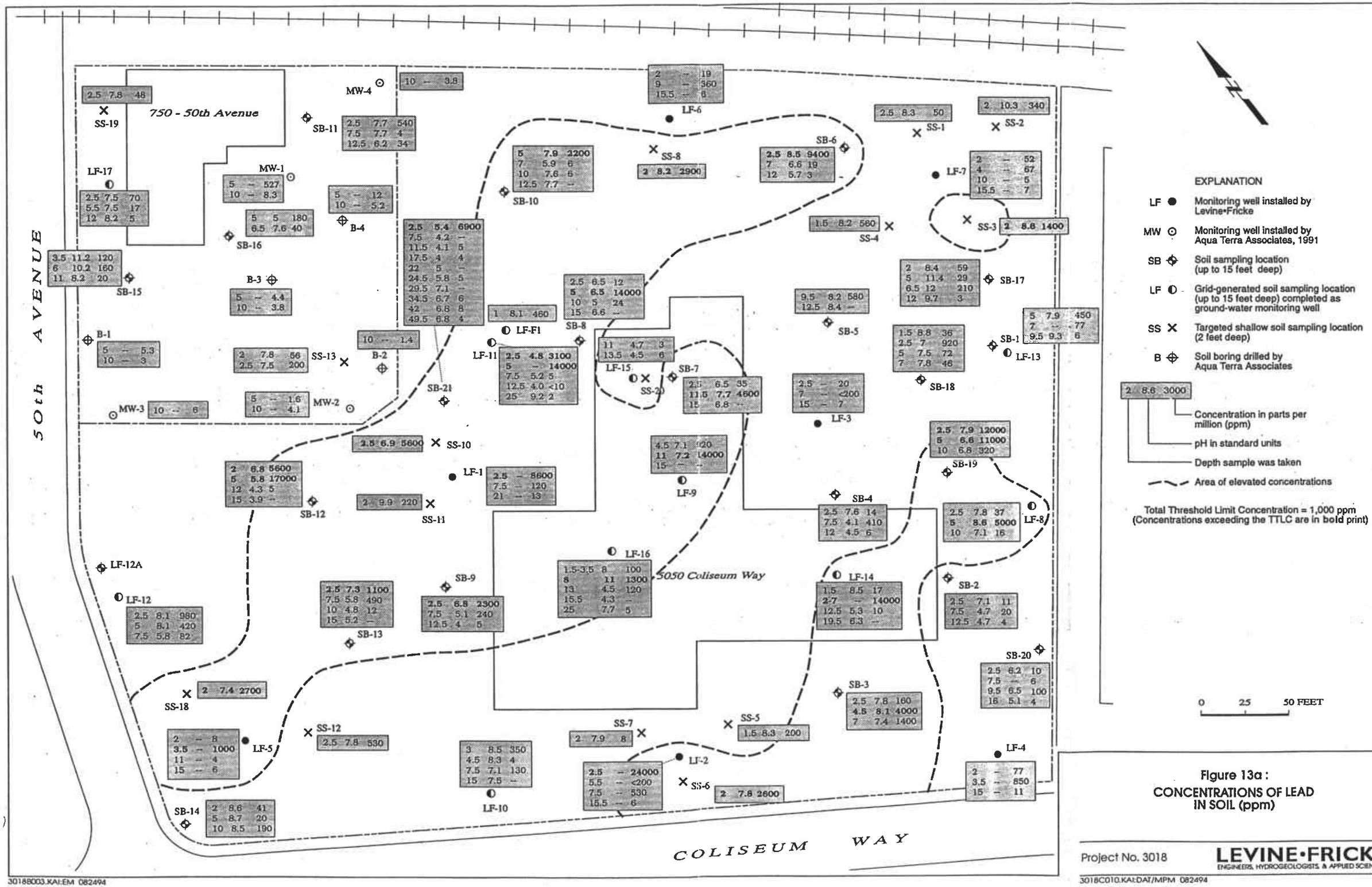


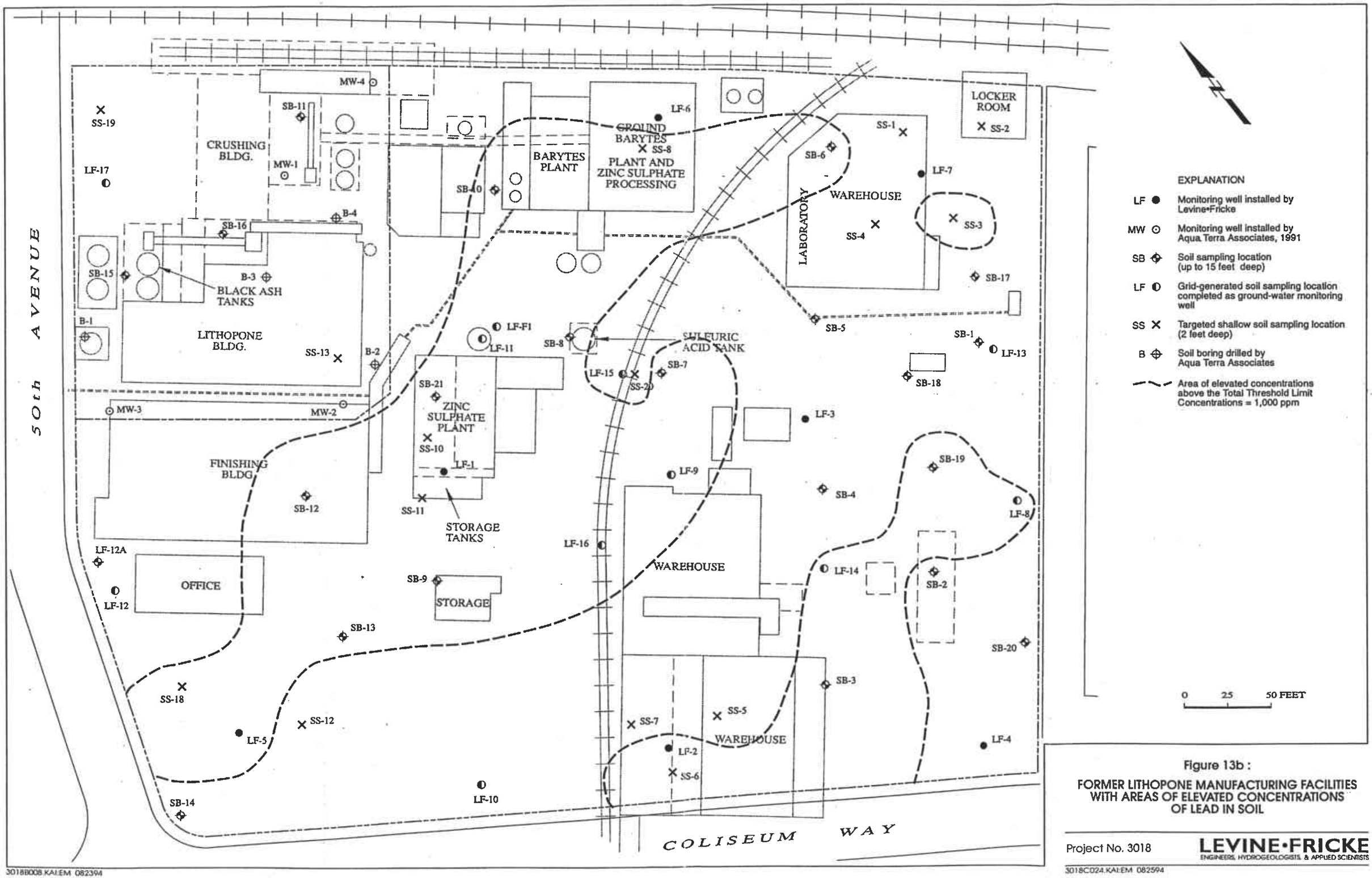
Figure 13a :
CONCENTRATIONS OF LEAD IN SOIL (ppm)

Project No. 3018

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

30188003.KAI:EM 082494

3018C010.KAI:DAT/MPM 082494



3018B008.KAI:EM 082394

Figure 13b :

FORMER LITHOPONE MANUFACTURING FACILITIES WITH AREAS OF ELEVATED CONCENTRATIONS OF LEAD IN SOIL

Project No. 3018

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3018C024.KAI:EM 082594

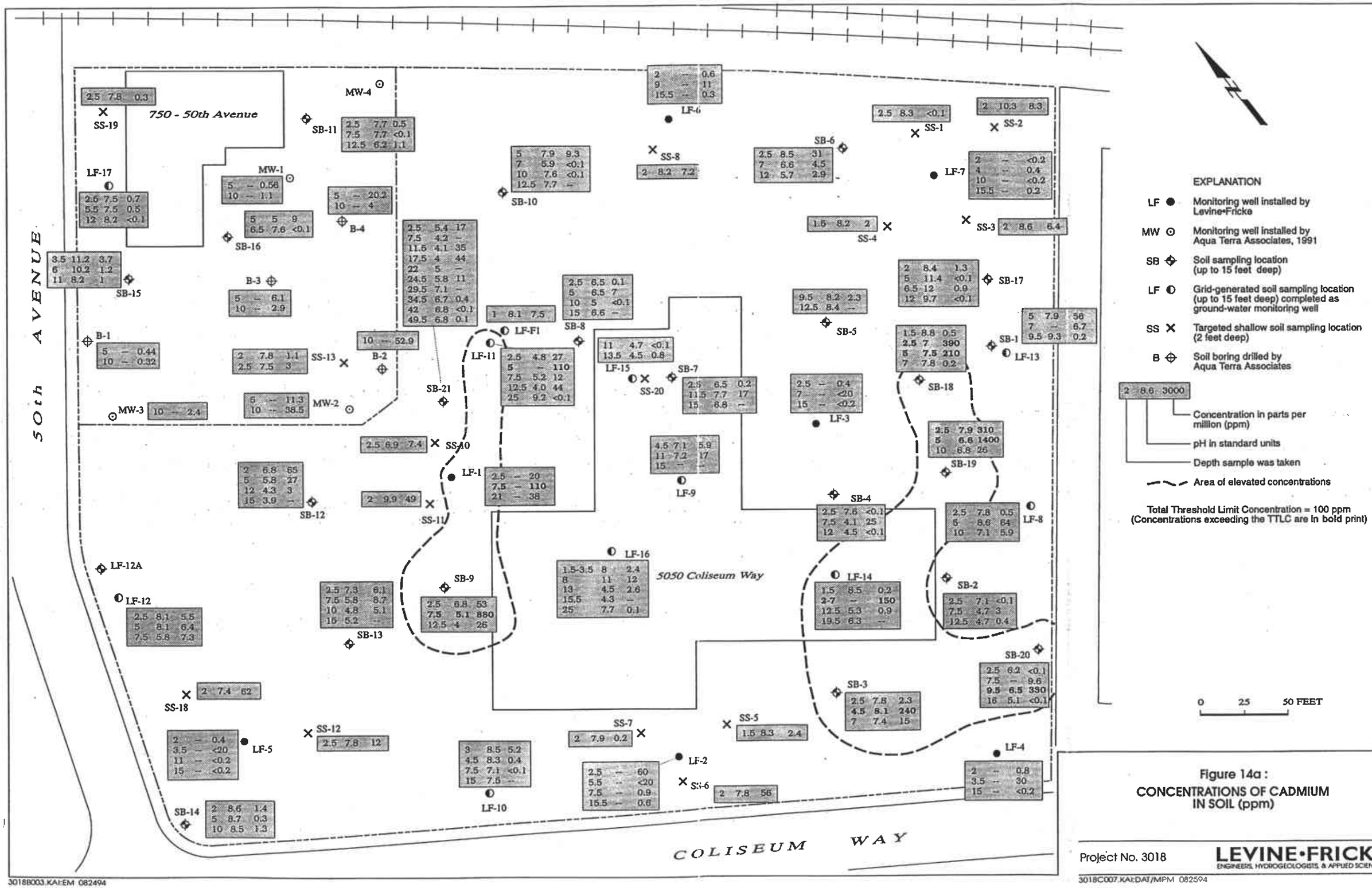


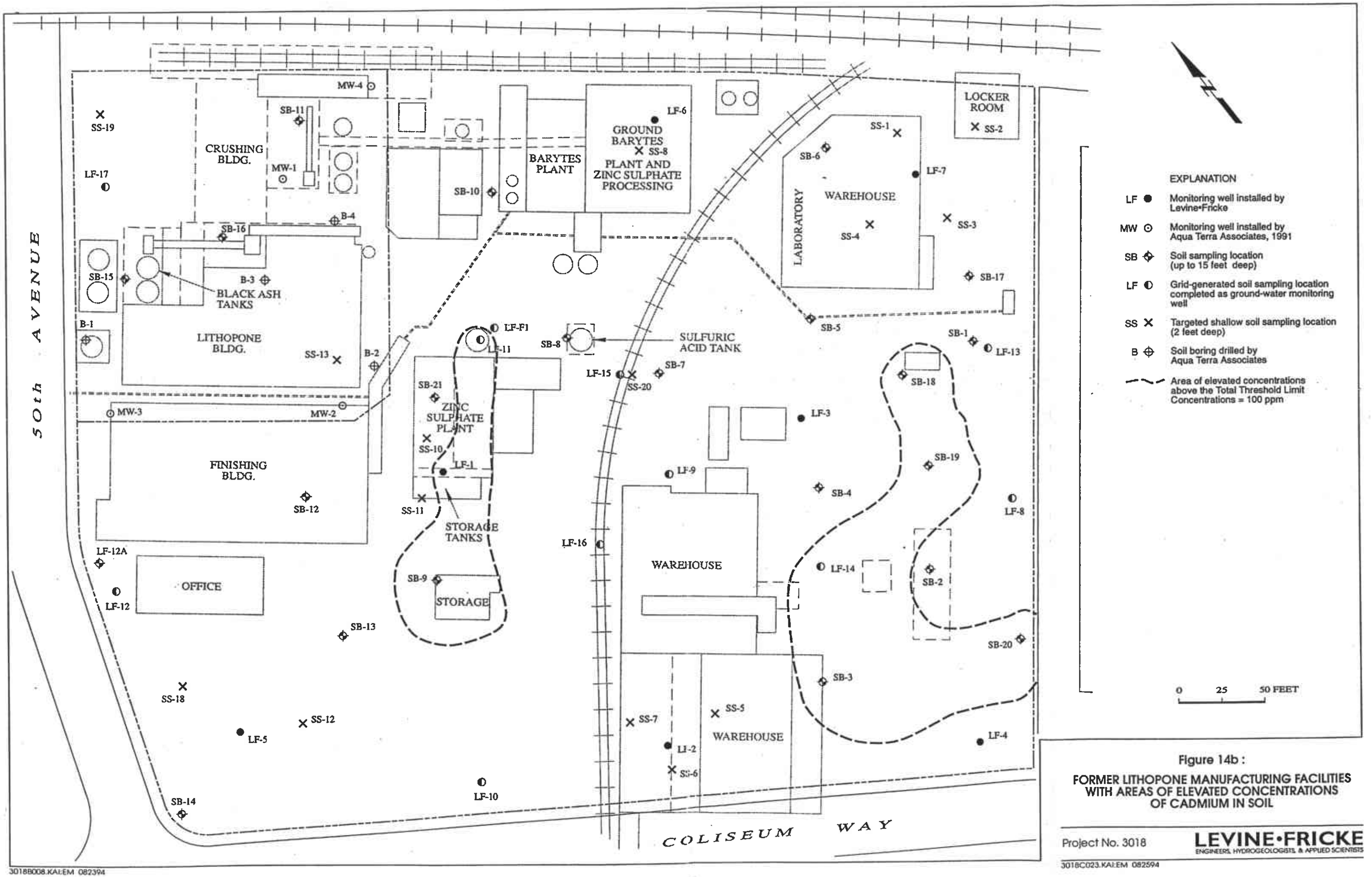
Figure 14a :
CONCENTRATIONS OF CADMIUM
IN SOIL (ppm)

Project No. 3018

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

3018C007.KAI:DAT/MPM 082594

30188003.KAI:EM 082494



3018B008.KAI:EM 082394

Figure 14b :

FORMER LITHOPONE MANUFACTURING FACILITIES WITH AREAS OF ELEVATED CONCENTRATIONS OF CADMIUM IN SOIL

Project No. 3018

LEVINE•FRICKE
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3018C023.KAI:EM 082594

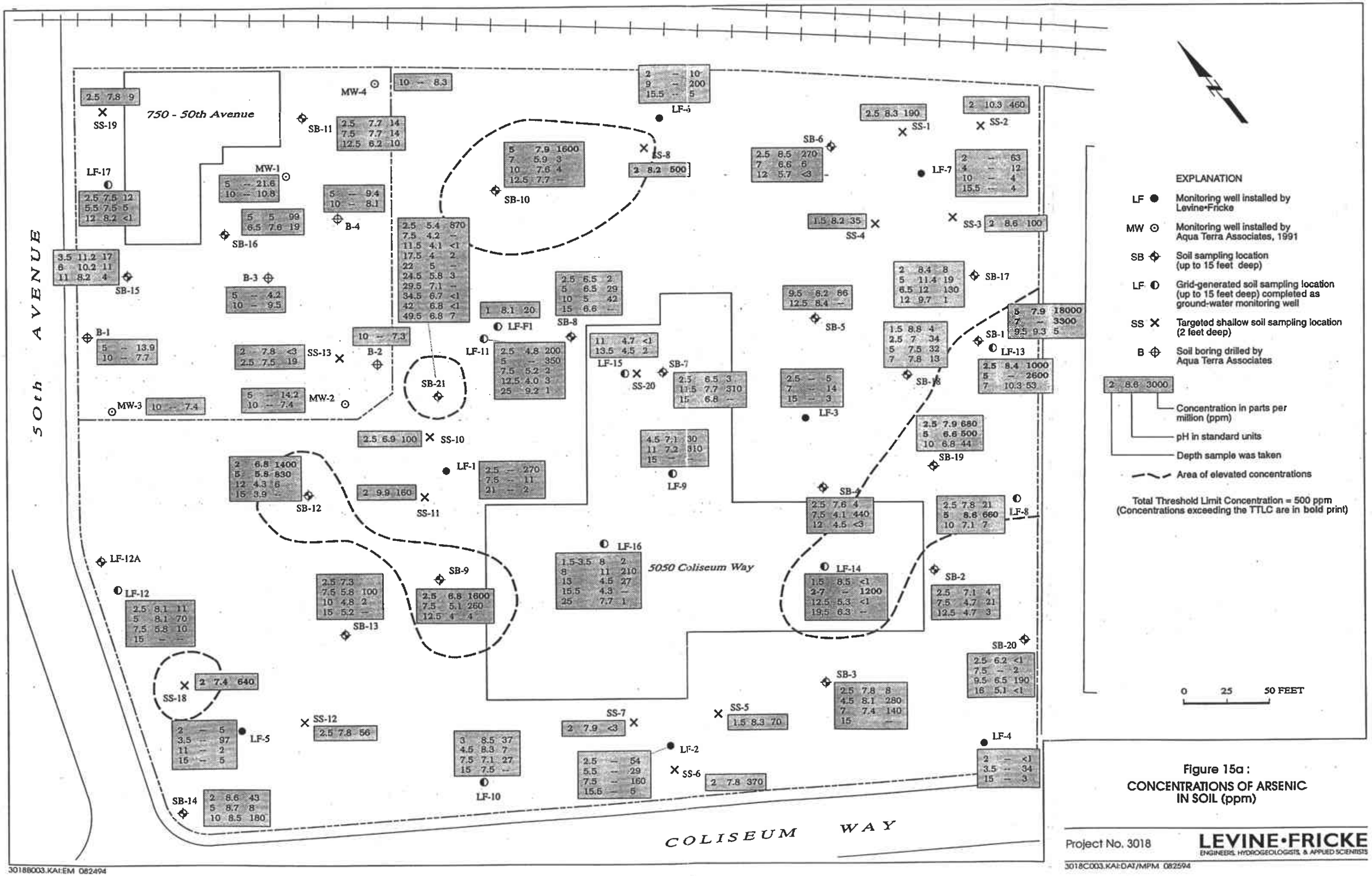


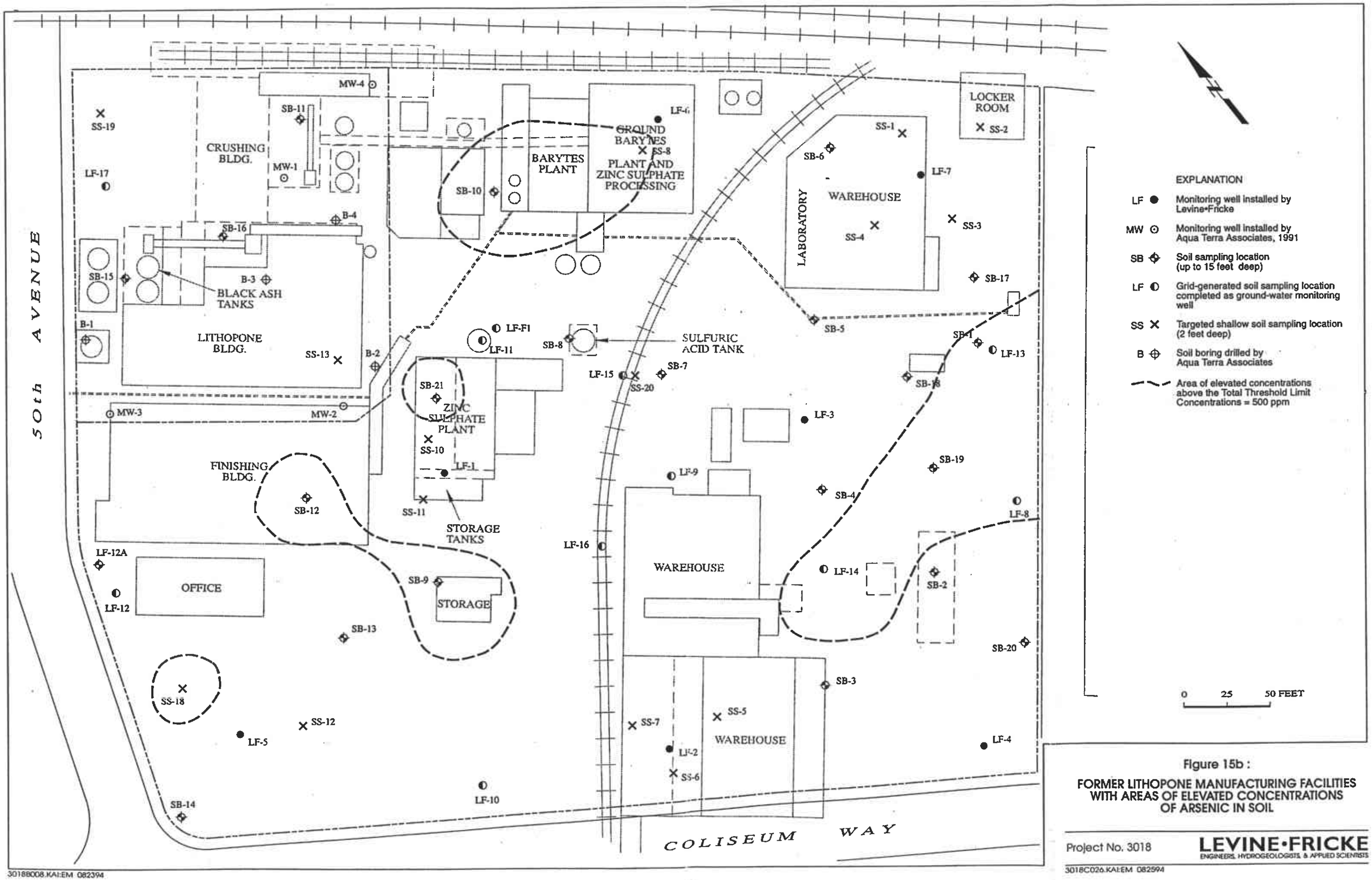
Figure 15a :
CONCENTRATIONS OF ARSENIC IN SOIL (ppm)

Project No. 3018

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

3018C003.KAI:DAT/MPM 082594

30188003.KAI:EM 082494



3018B008.KAI:EM 082394

Figure 15b :

FORMER LITHOPONE MANUFACTURING FACILITIES WITH AREAS OF ELEVATED CONCENTRATIONS OF ARSENIC IN SOIL

Project No. 3018

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ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

3018C026.KAI:EM 082594

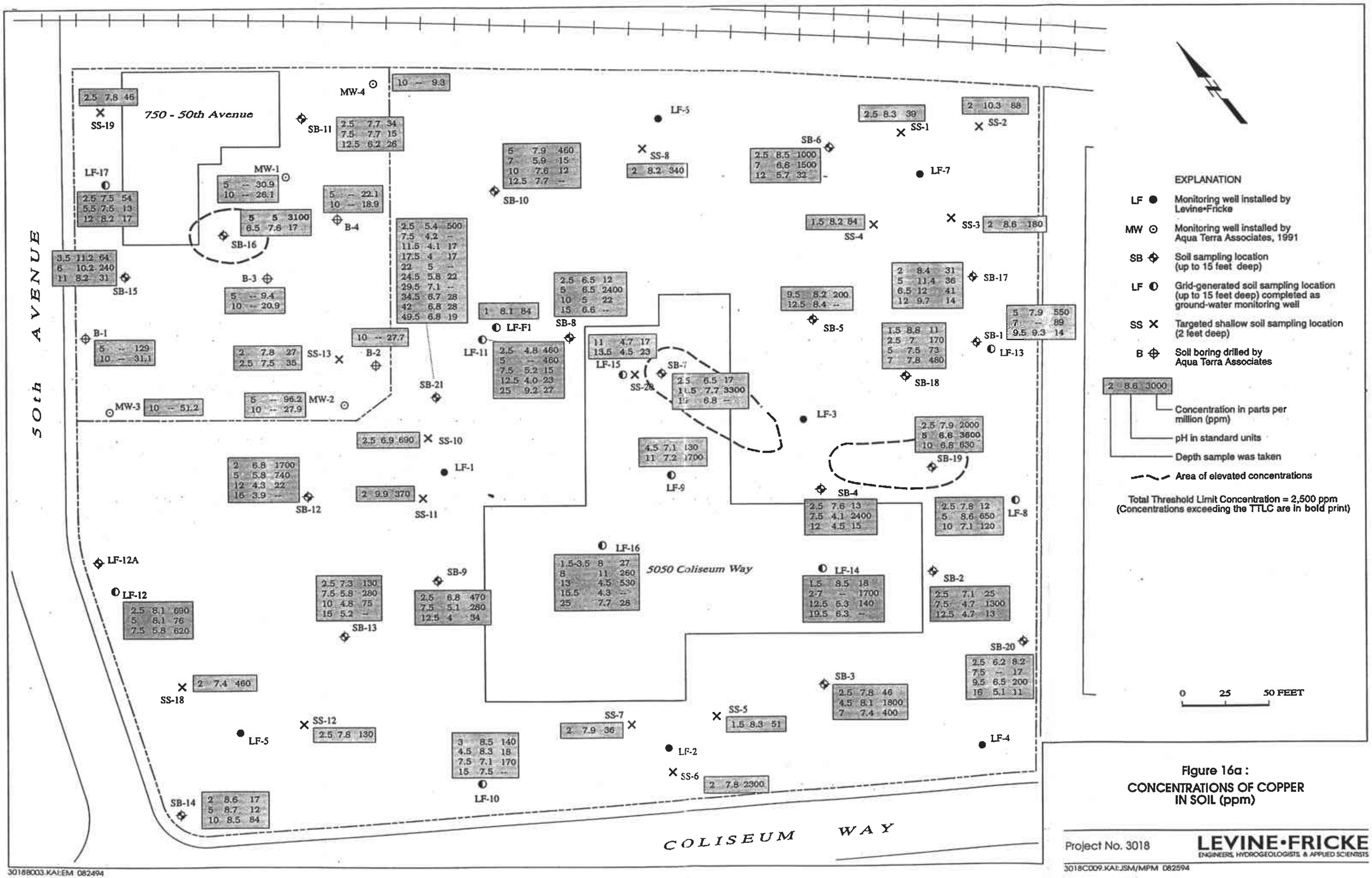


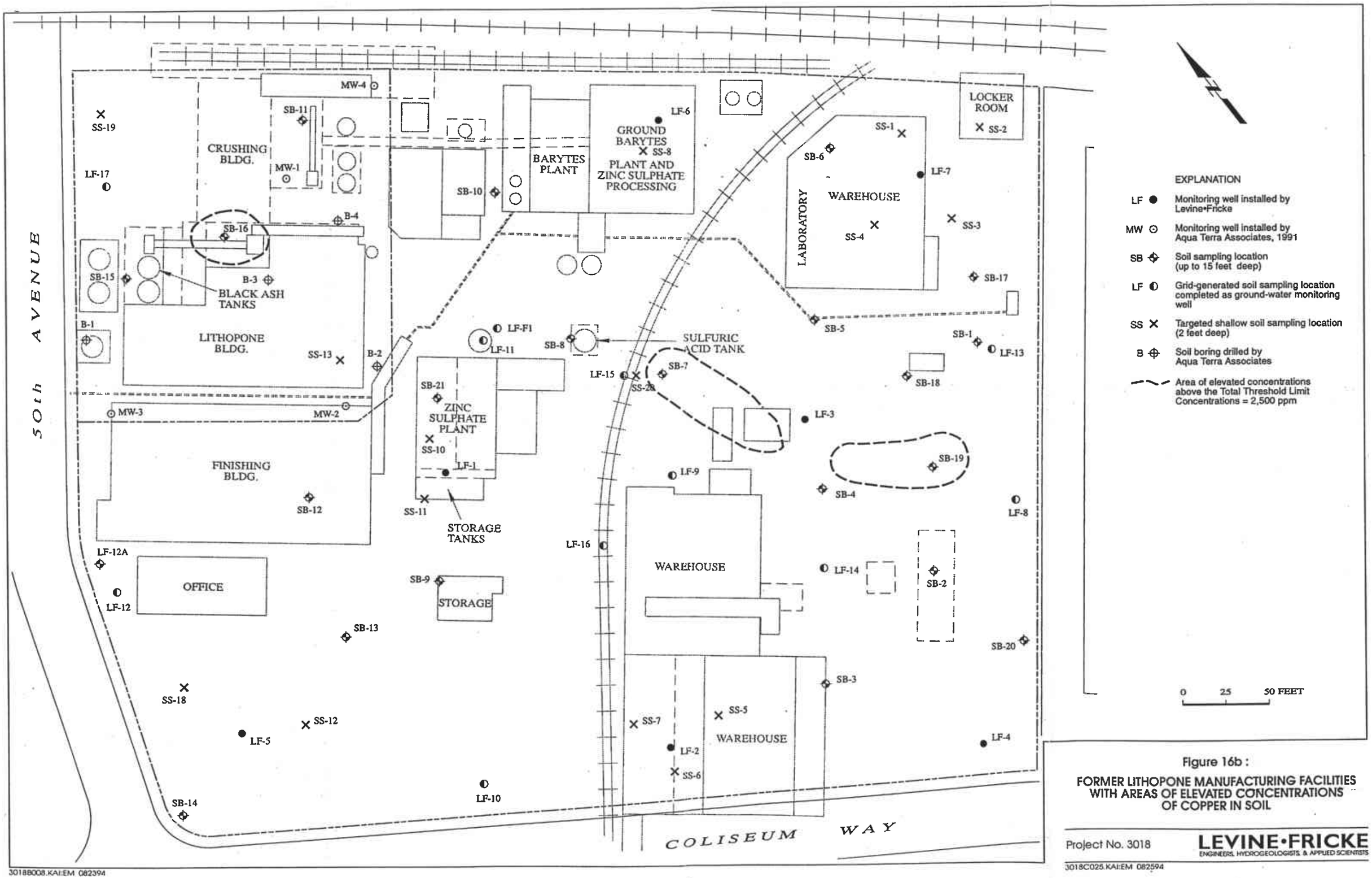
Figure 16a :
CONCENTRATIONS OF COPPER
IN SOIL (ppm)

Project No. 3018

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

3018C009.KAI:JSM/MPM 082594

30188003.KAI:EM 082494



30188008.KAI:EM 082394

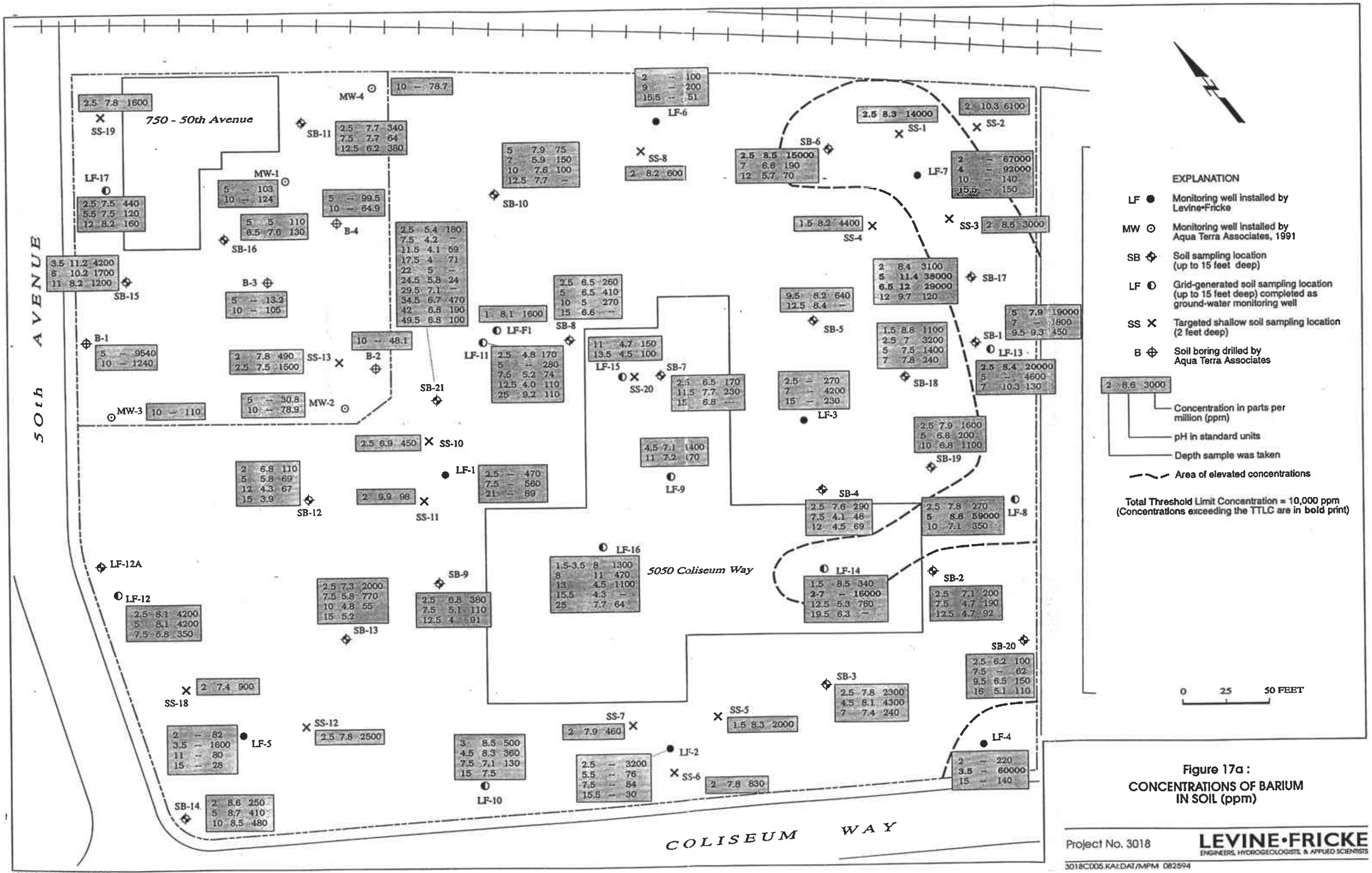
Figure 16b :

FORMER LITHOPONE MANUFACTURING FACILITIES WITH AREAS OF ELEVATED CONCENTRATIONS OF COPPER IN SOIL

Project No. 3018

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

3018C025.KAI:EM 082594



3018B003.KAI:EM 082494

Figure 17a :
CONCENTRATIONS OF BARIUM IN SOIL (ppm)

Project No. 3018

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

3018C005.KAI:DAT/MPM 082594

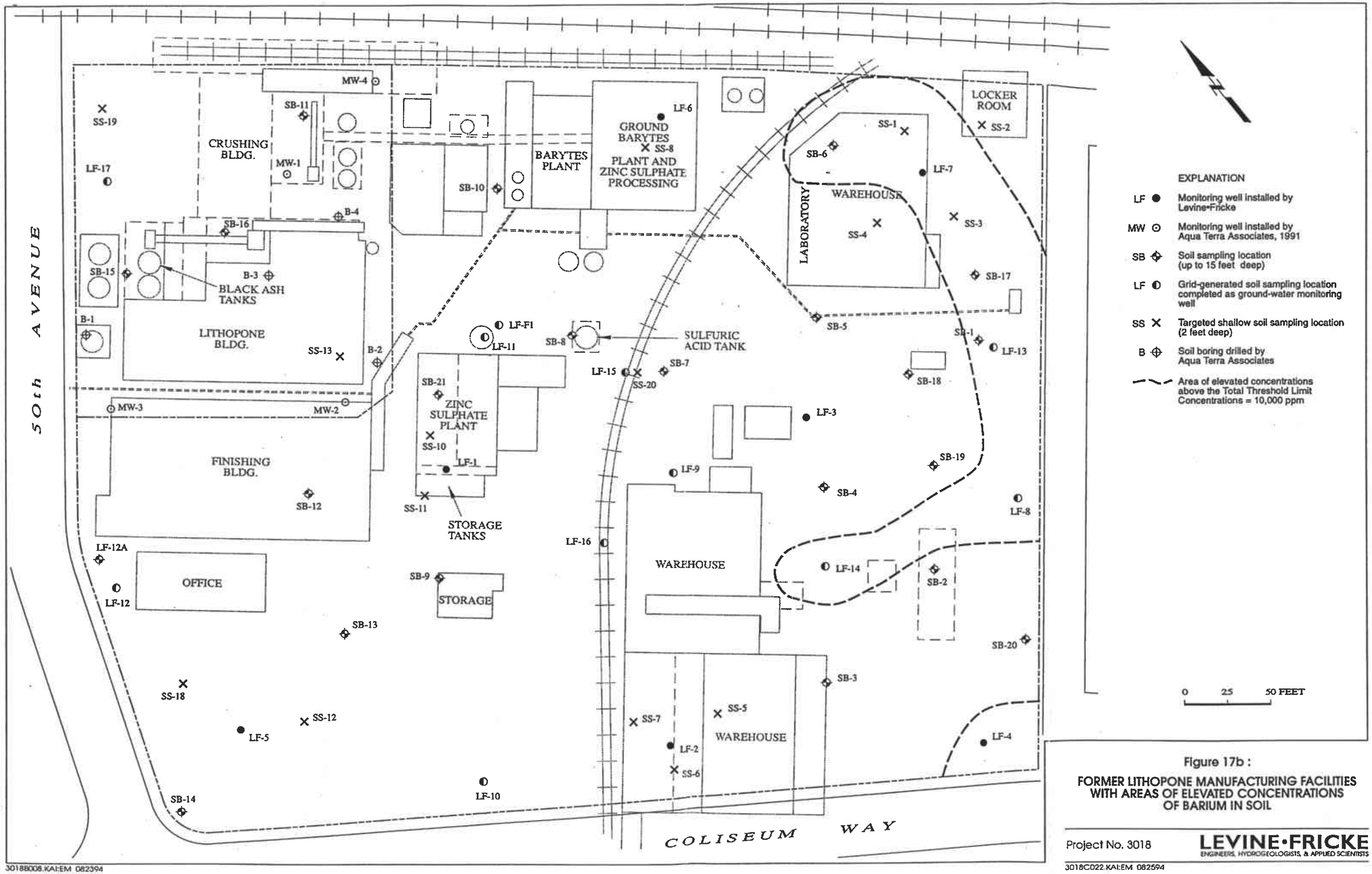


Figure 17b :

FORMER LITHOPONE MANUFACTURING FACILITIES WITH AREAS OF ELEVATED CONCENTRATIONS OF BARIUM IN SOIL

Project No. 3018

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

3018C022.KAI:EM 082594

30188008.KAI:EM 082394

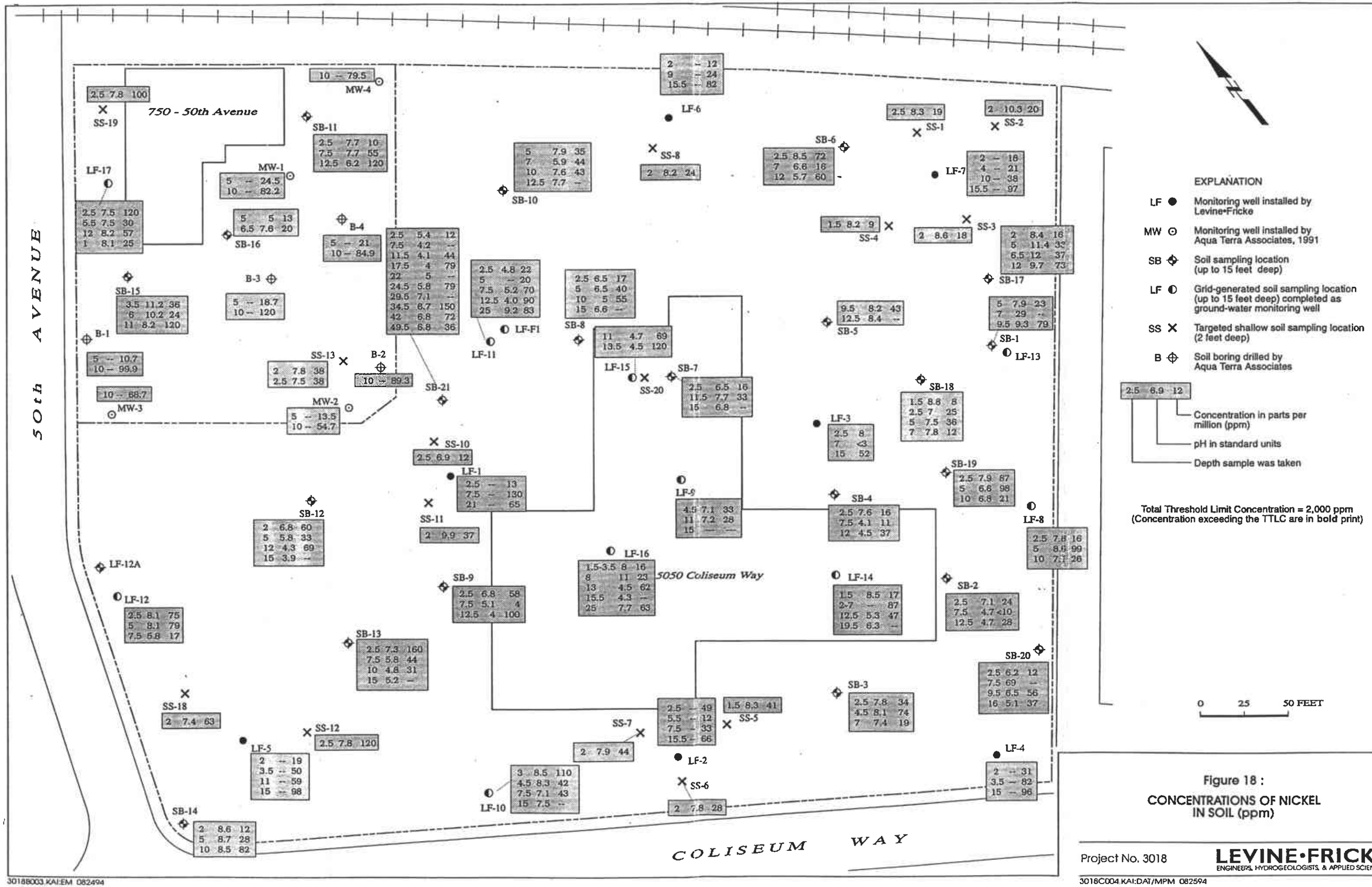


Figure 18 :

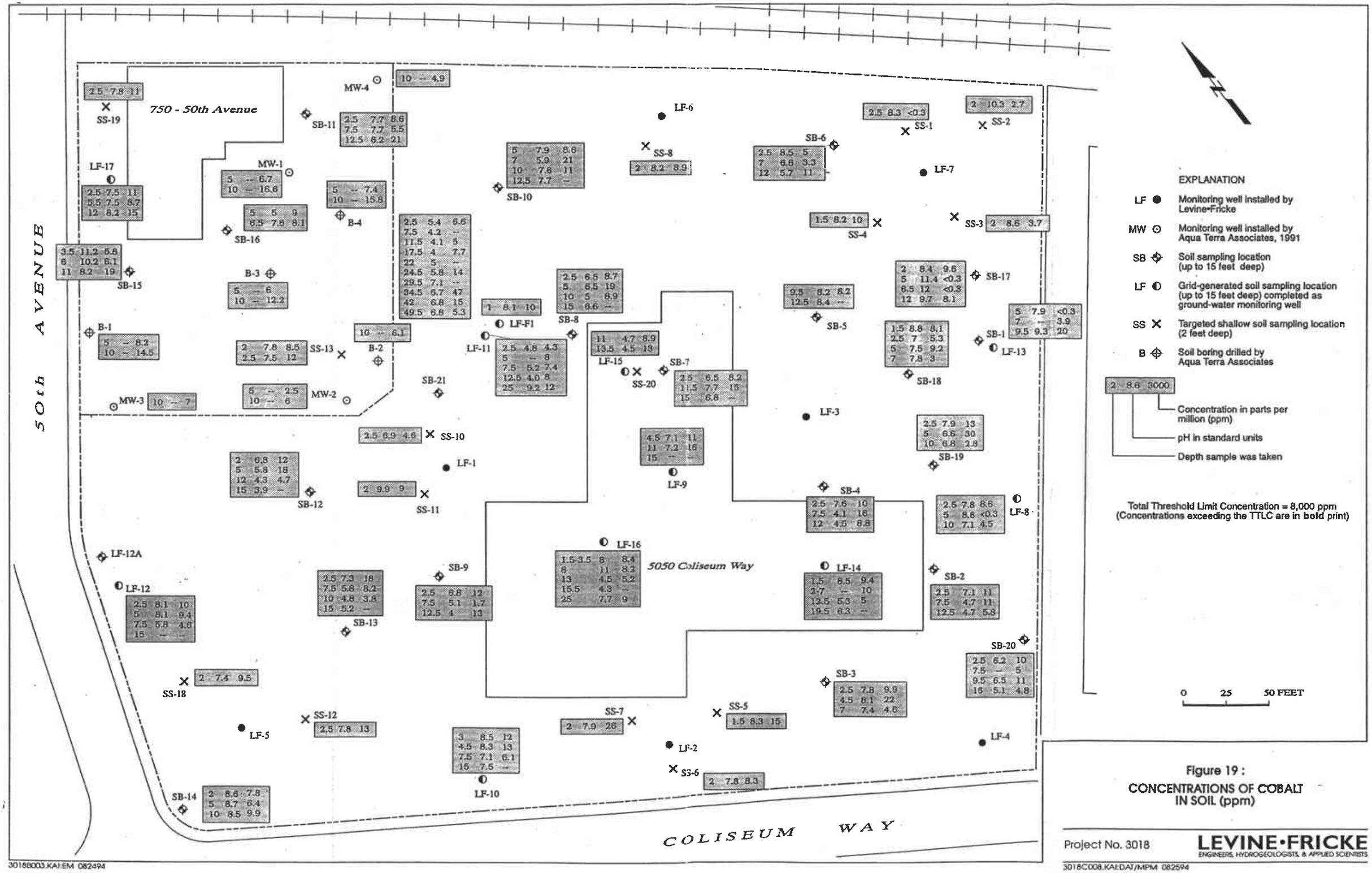
CONCENTRATIONS OF NICKEL IN SOIL (ppm)

Project No. 3018

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

3018C004.KAI:DAT/MPM 082594

30188003.KAI:EM 082494



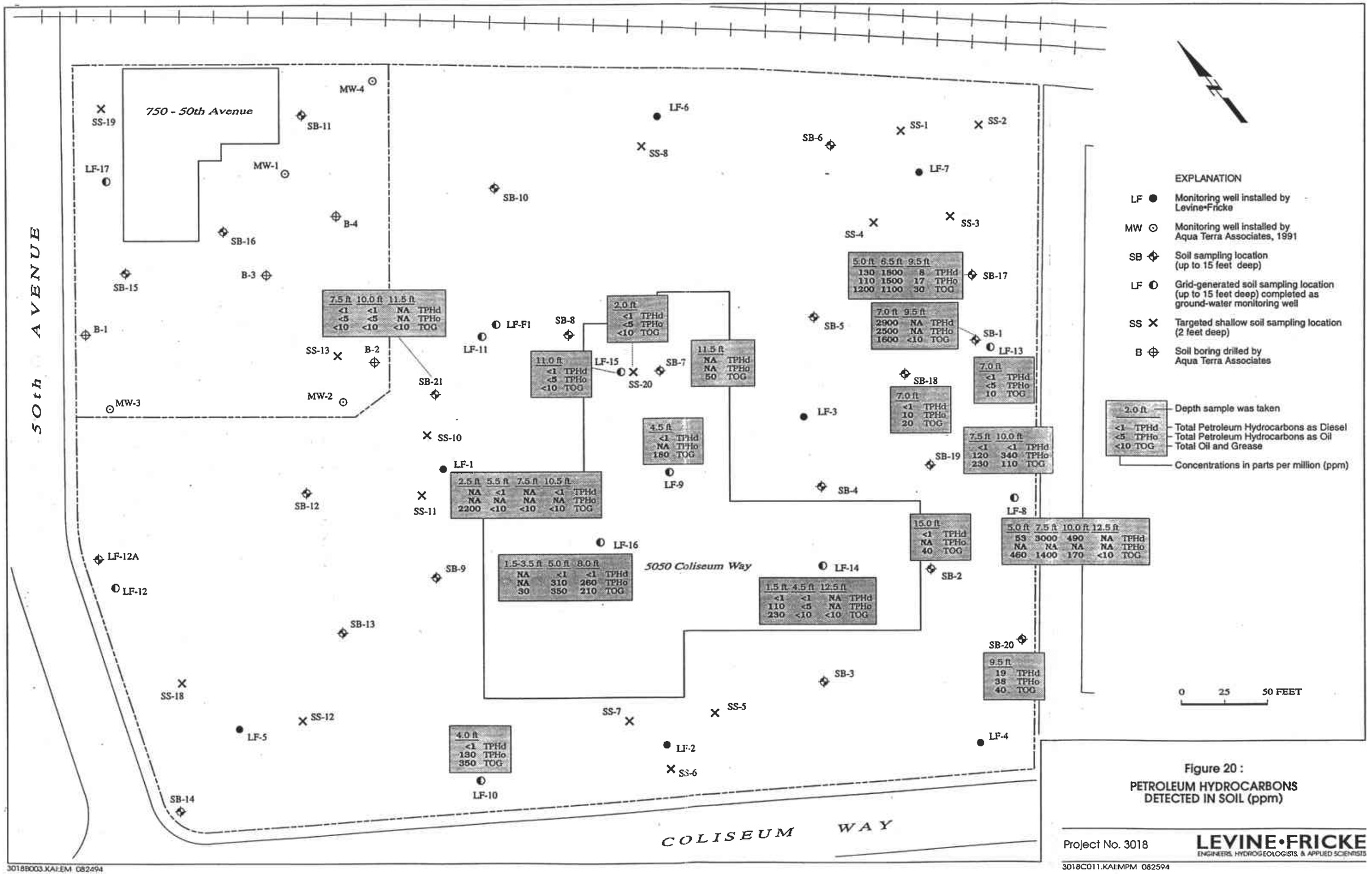
3018B003.KAI:EM 082494

Figure 19 :
CONCENTRATIONS OF COBALT IN SOIL (ppm)

Project No. 3018

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

3018C008.KAI:DAT/MPM 082594



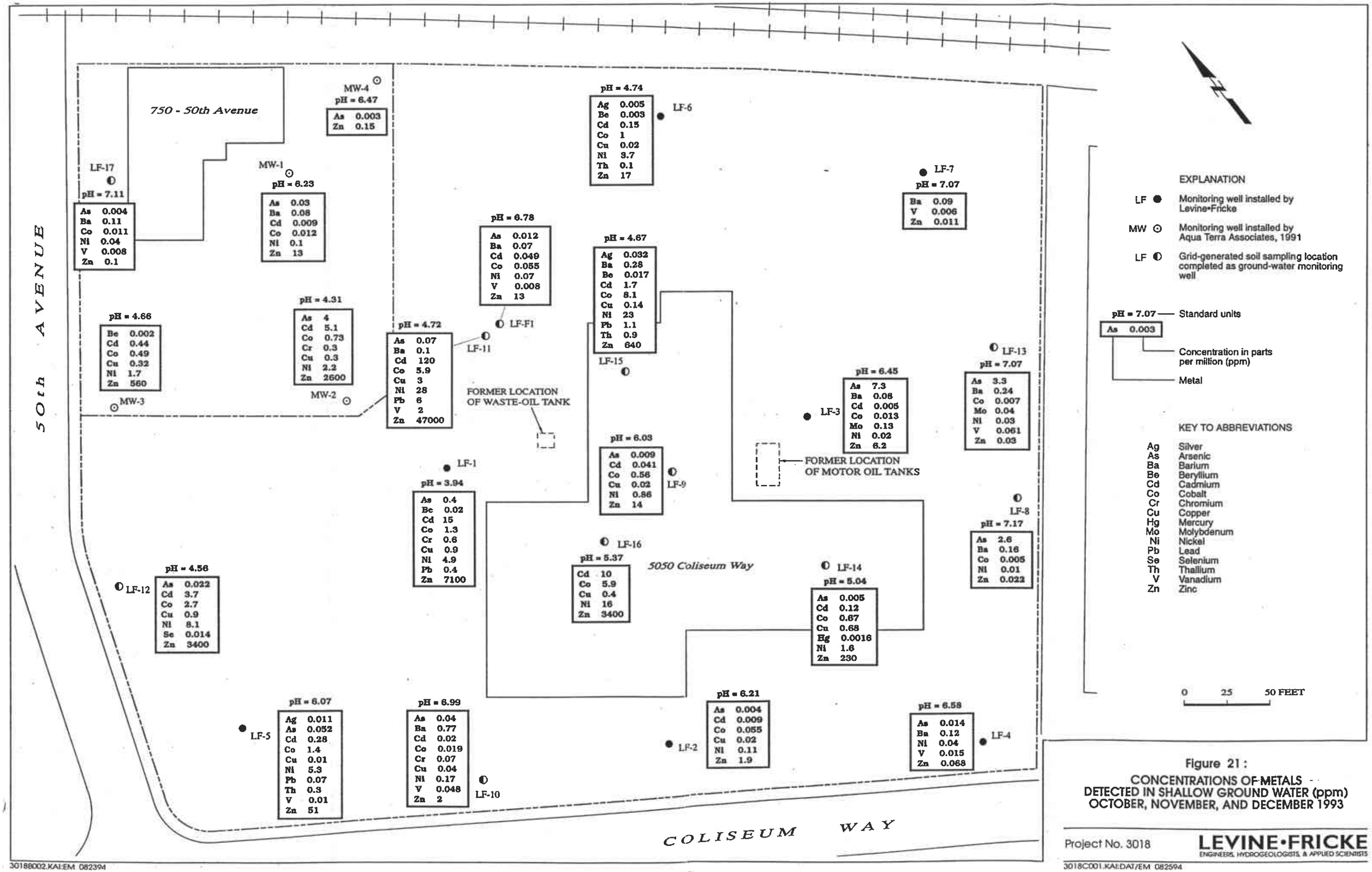
3018B003.KAI:EM 082494

Figure 20 :
PETROLEUM HYDROCARBONS
DETECTED IN SOIL (ppm)

Project No. 3018

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

3018C011.KAI:MPM 082594



30188002.KAI:EM 082394

Figure 21 :
CONCENTRATIONS OF METALS DETECTED IN SHALLOW GROUND WATER (ppm)
OCTOBER, NOVEMBER, AND DECEMBER 1993

Project No. 3018

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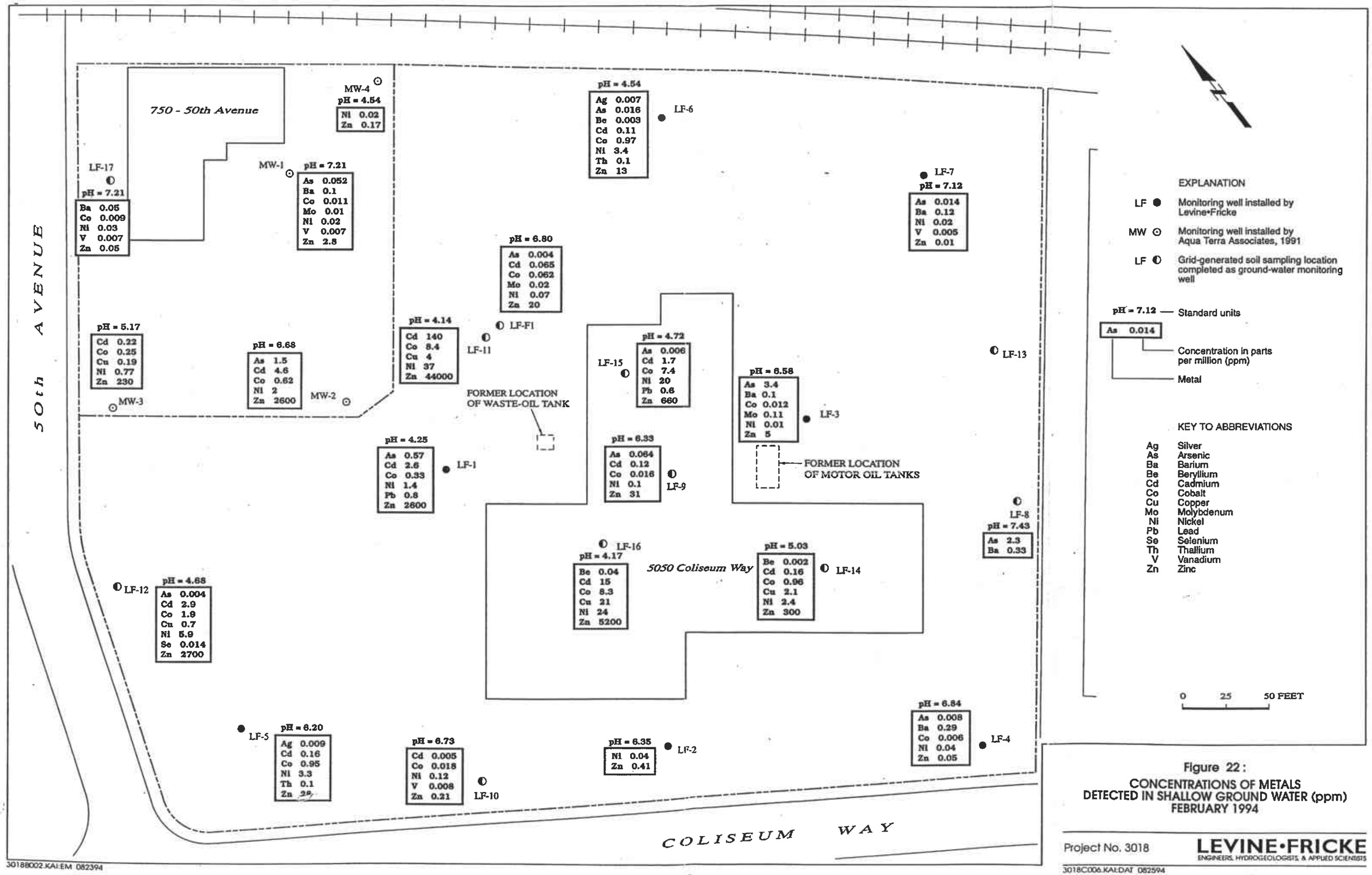
3018C001.KAI:DAT/EM 082594



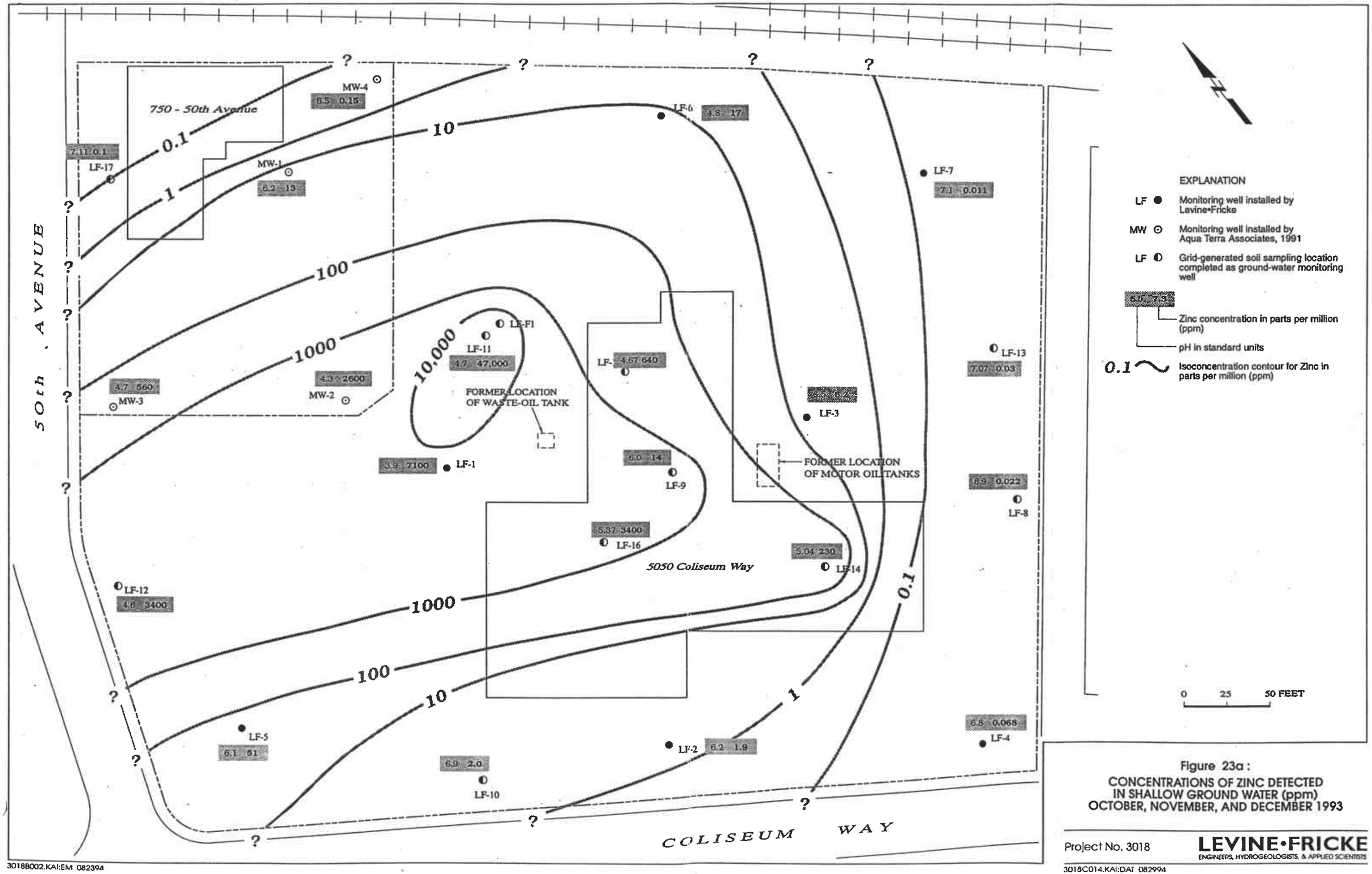
30188002.KAI:EM 082394

Figure 22 :
CONCENTRATIONS OF METALS
DETECTED IN SHALLOW GROUND WATER (ppm)
FEBRUARY 1994

Project No. 3018

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

3018C006.KAI:DAT 082594



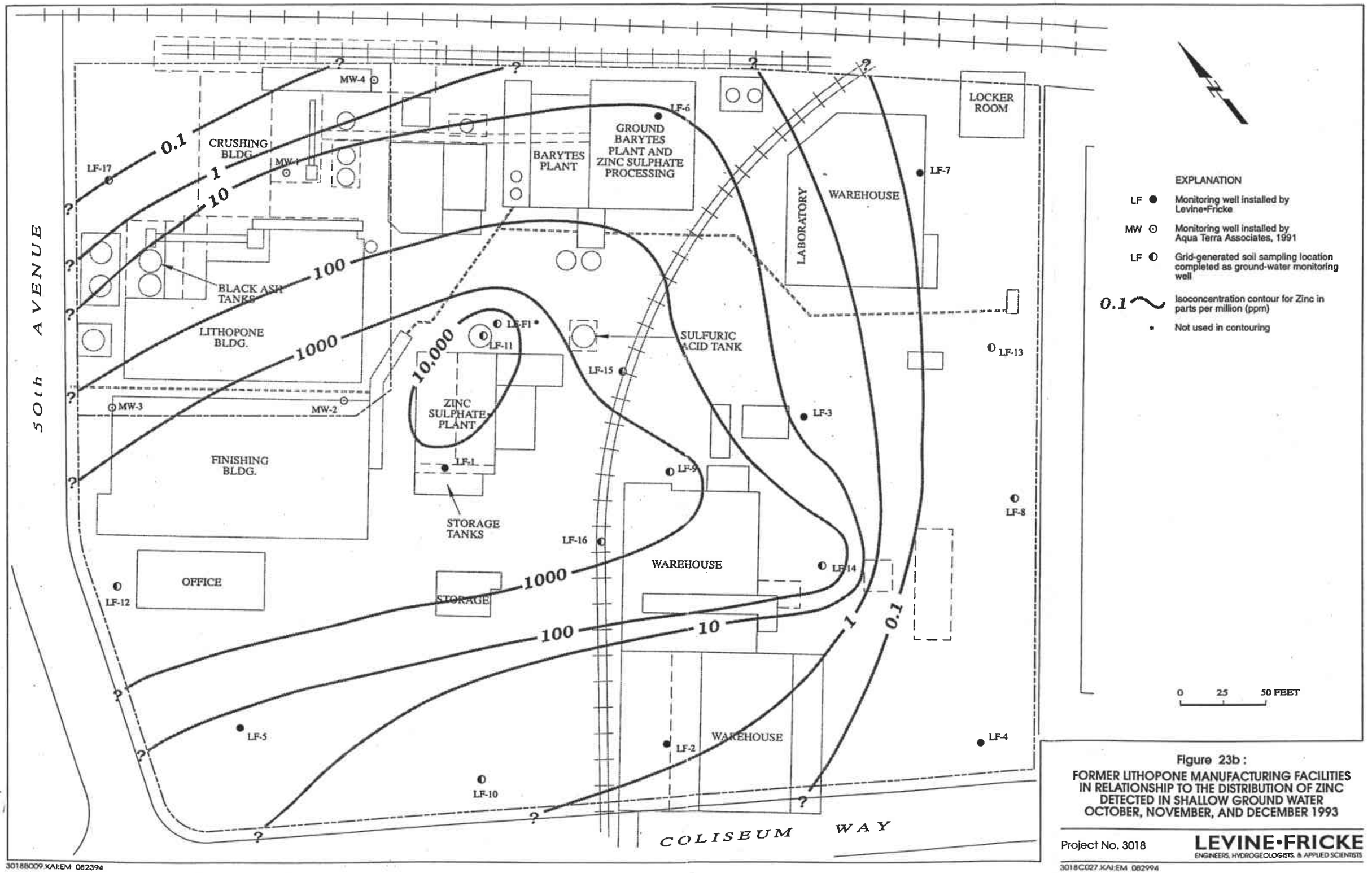
3018B002.KAI:EM 082394

Figure 23a :
CONCENTRATIONS OF ZINC DETECTED
IN SHALLOW GROUND WATER (ppm)
OCTOBER, NOVEMBER, AND DECEMBER 1993

Project No. 3018

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

3018C014.KAI:DAT 082994



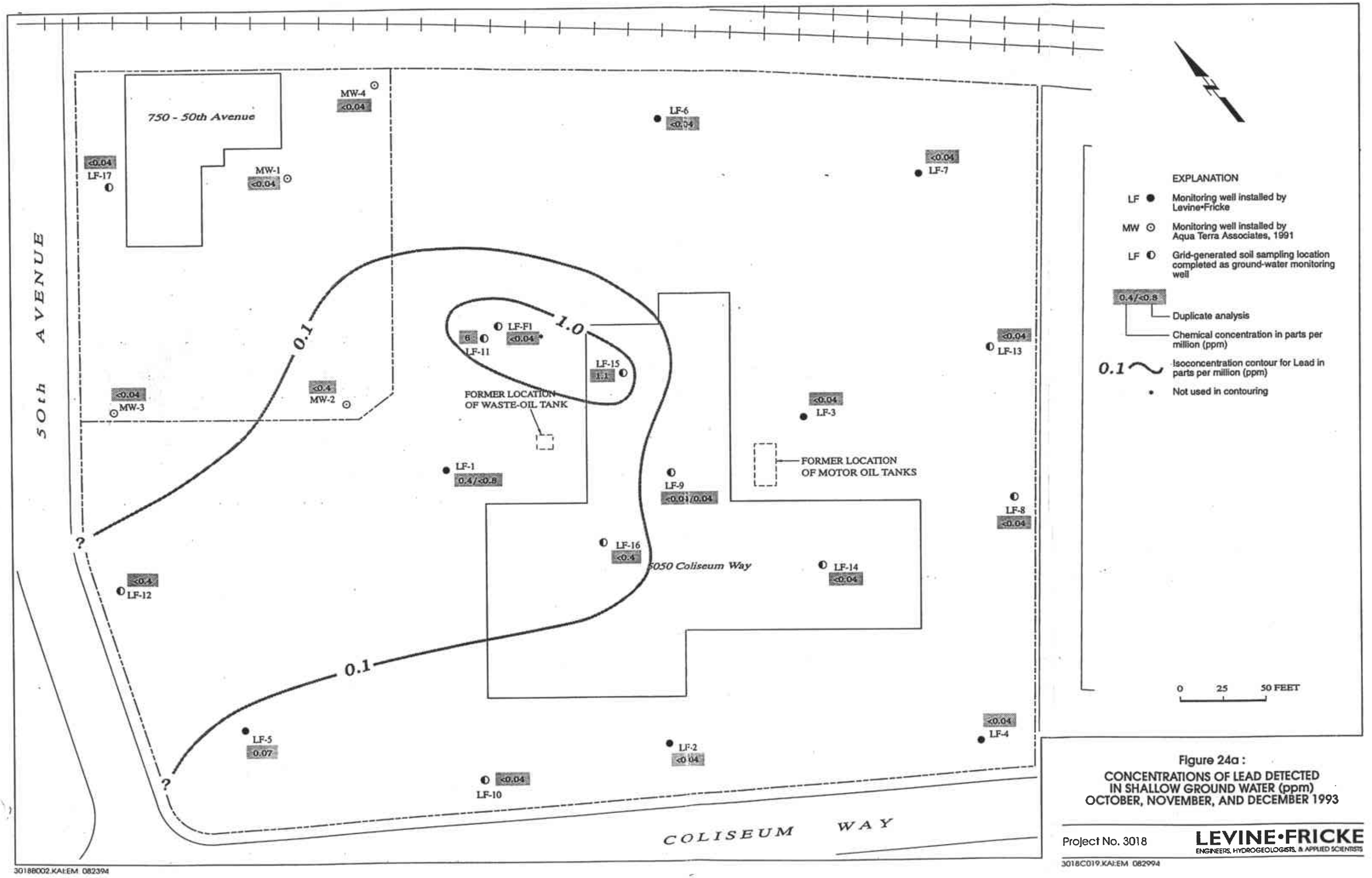
30188009.KAI:EM 082394

Figure 23b :
FORMER LITHOPONE MANUFACTURING FACILITIES IN RELATIONSHIP TO THE DISTRIBUTION OF ZINC DETECTED IN SHALLOW GROUND WATER OCTOBER, NOVEMBER, AND DECEMBER 1993

Project No. 3018

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

3018C027.KAI:EM 082994



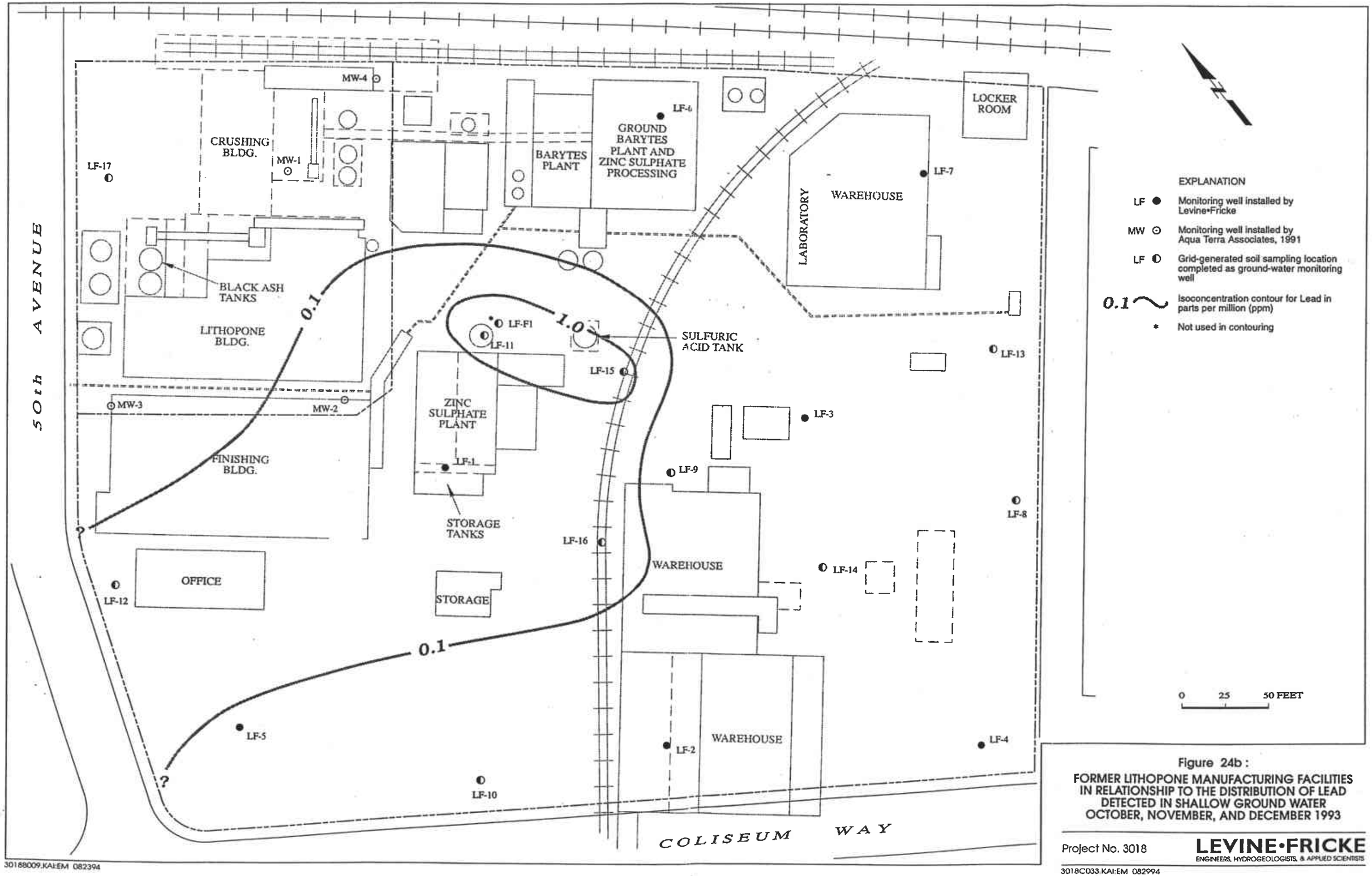
3018B002.KAI:EM 082394

Figure 24a :
CONCENTRATIONS OF LEAD DETECTED IN SHALLOW GROUND WATER (ppm) OCTOBER, NOVEMBER, AND DECEMBER 1993

Project No. 3018

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

3018C019.KAI:EM 082994



30188009.KAI:EM 082394

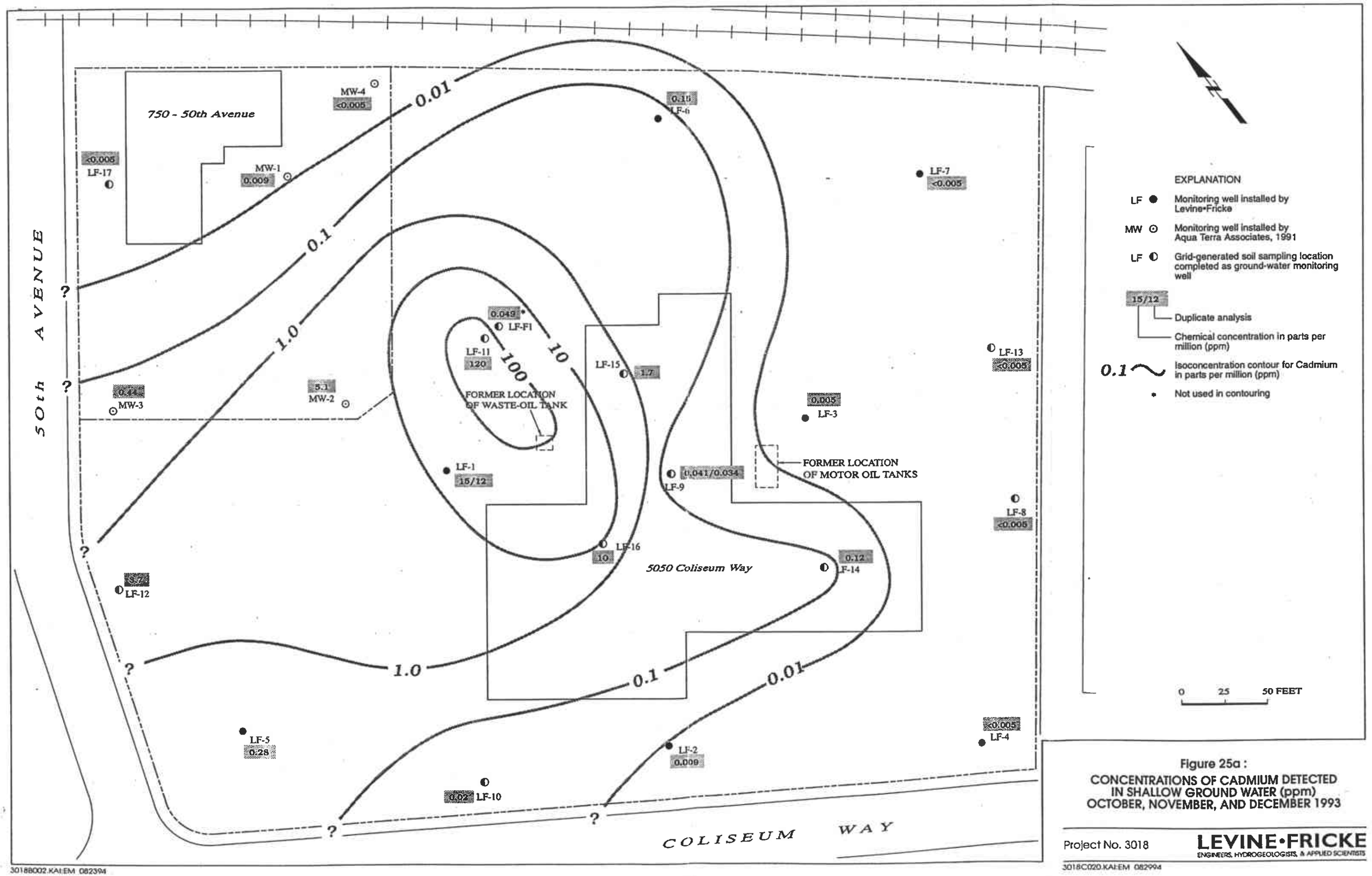
Figure 24b :

FORMER LITHOPONE MANUFACTURING FACILITIES IN RELATIONSHIP TO THE DISTRIBUTION OF LEAD DETECTED IN SHALLOW GROUND WATER OCTOBER, NOVEMBER, AND DECEMBER 1993

Project No. 3018

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

3018C033.KAI:EM 082994



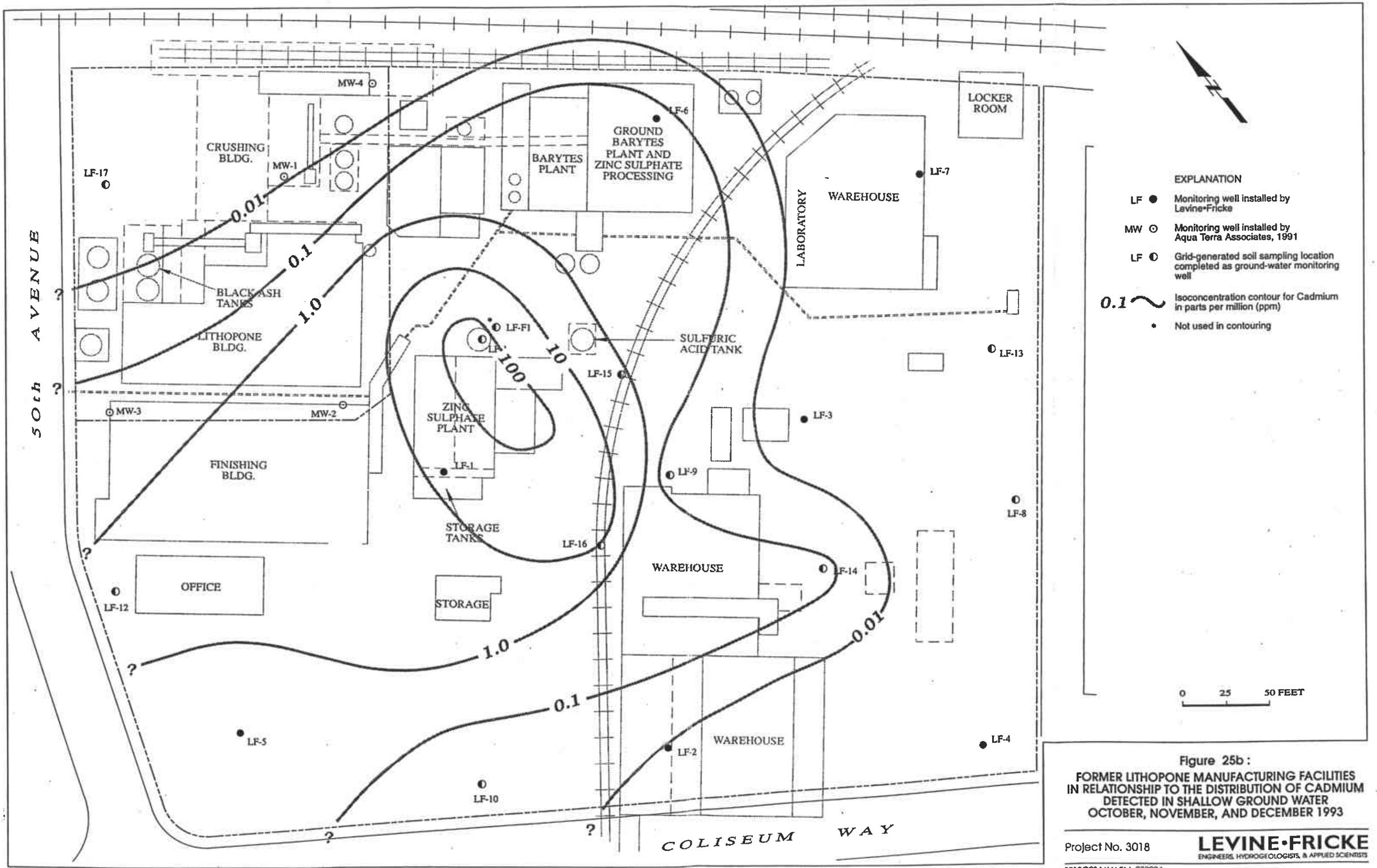
30188002.KAI:EM 082394

Figure 25a :
CONCENTRATIONS OF CADMIUM DETECTED IN SHALLOW GROUND WATER (ppm) OCTOBER, NOVEMBER, AND DECEMBER 1993

Project No. 3018

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

3018C020.KAI:EM 082994



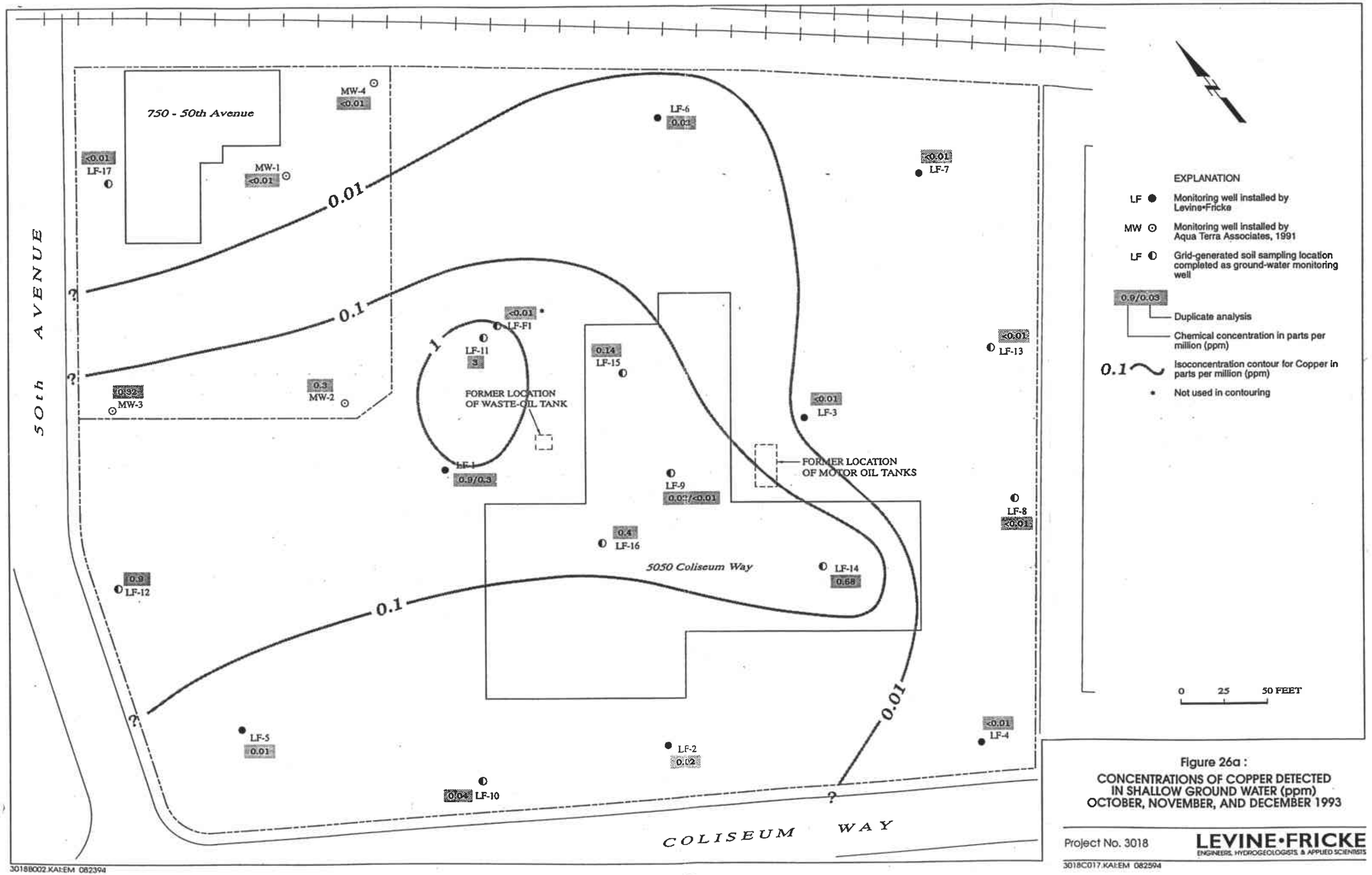
30188009.KAI:EM 082394

Figure 25b :
FORMER LITHOPONE MANUFACTURING FACILITIES IN RELATIONSHIP TO THE DISTRIBUTION OF CADMIUM DETECTED IN SHALLOW GROUND WATER OCTOBER, NOVEMBER, AND DECEMBER 1993

Project No. 3018

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

3018C034.KAI:EM 082994



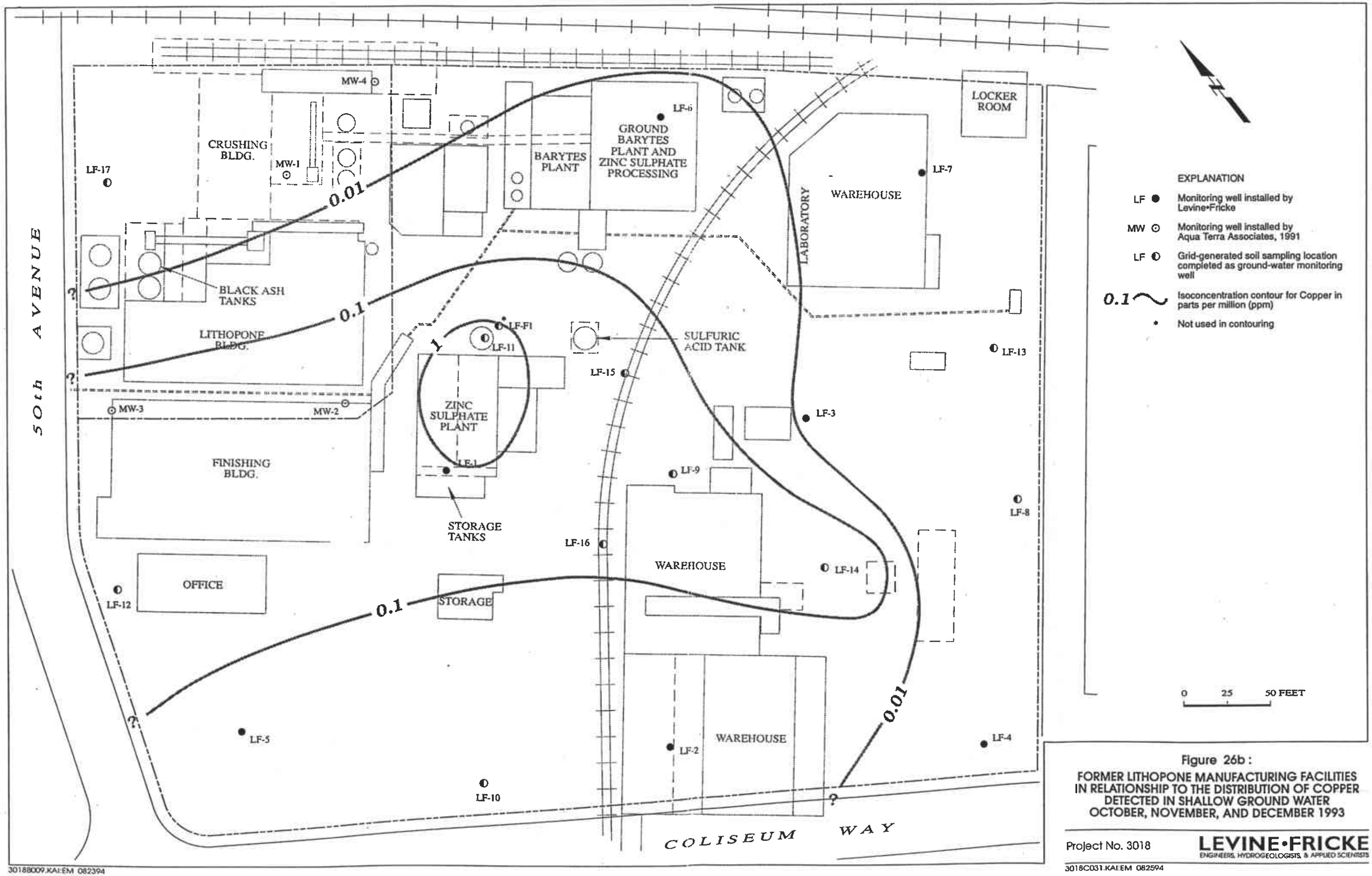
3018B002.KAI:EM 082394

Figure 26a :
CONCENTRATIONS OF COPPER DETECTED IN SHALLOW GROUND WATER (ppm) OCTOBER, NOVEMBER, AND DECEMBER 1993

Project No. 3018

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS & APPLIED SCIENTISTS

3018C017.KAI:EM 082594



30188009.KAI:EM 082394

Figure 26b :

FORMER LITHOPONE MANUFACTURING FACILITIES IN RELATIONSHIP TO THE DISTRIBUTION OF COPPER DETECTED IN SHALLOW GROUND WATER OCTOBER, NOVEMBER, AND DECEMBER 1993

Project No. 3018

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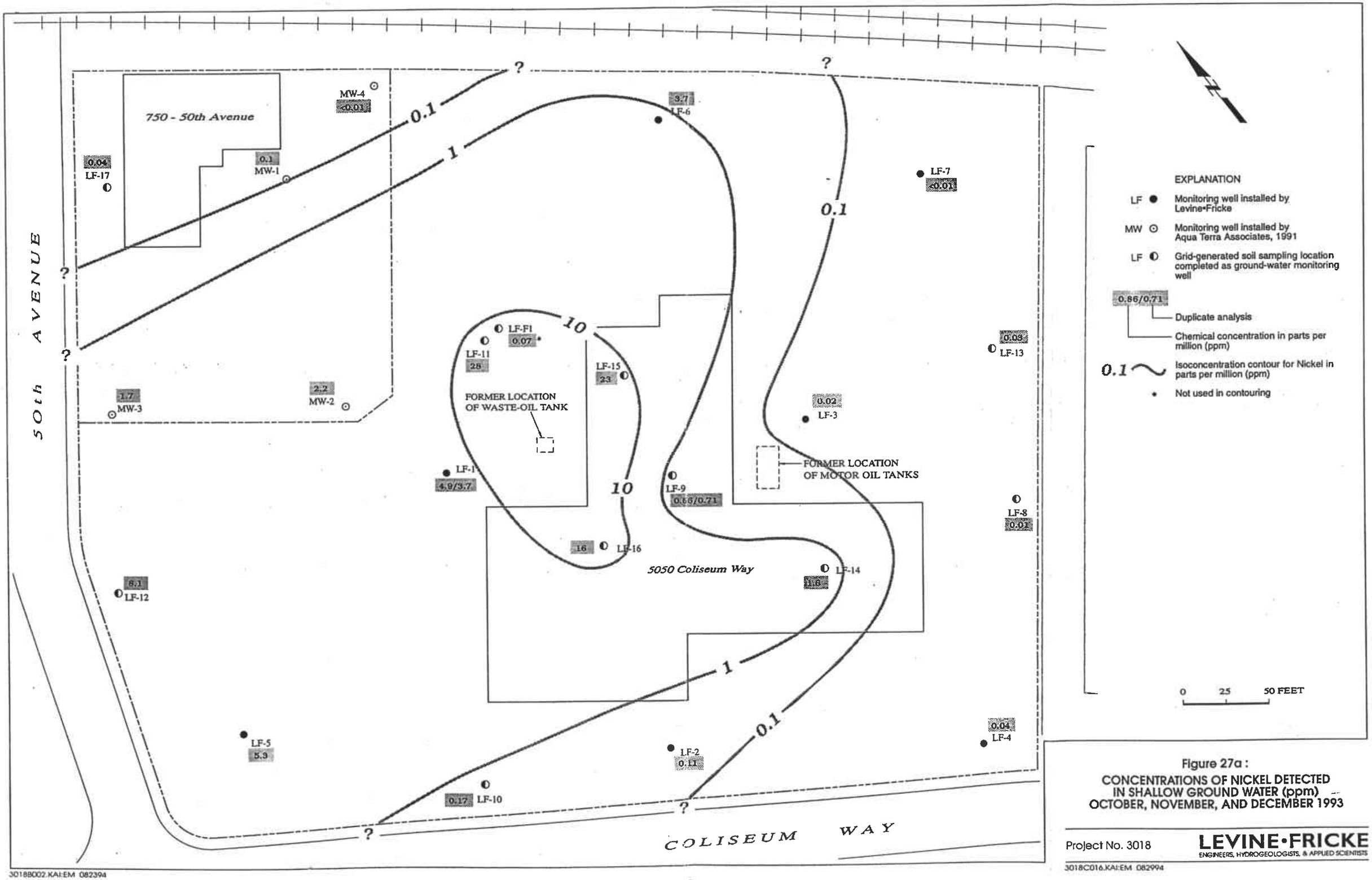
3018C031.KAI:EM 082594



3018B002.KAI:EM 082394

Figure 27a :
CONCENTRATIONS OF NICKEL DETECTED IN SHALLOW GROUND WATER (ppm) OCTOBER, NOVEMBER, AND DECEMBER 1993

Project No. 3018

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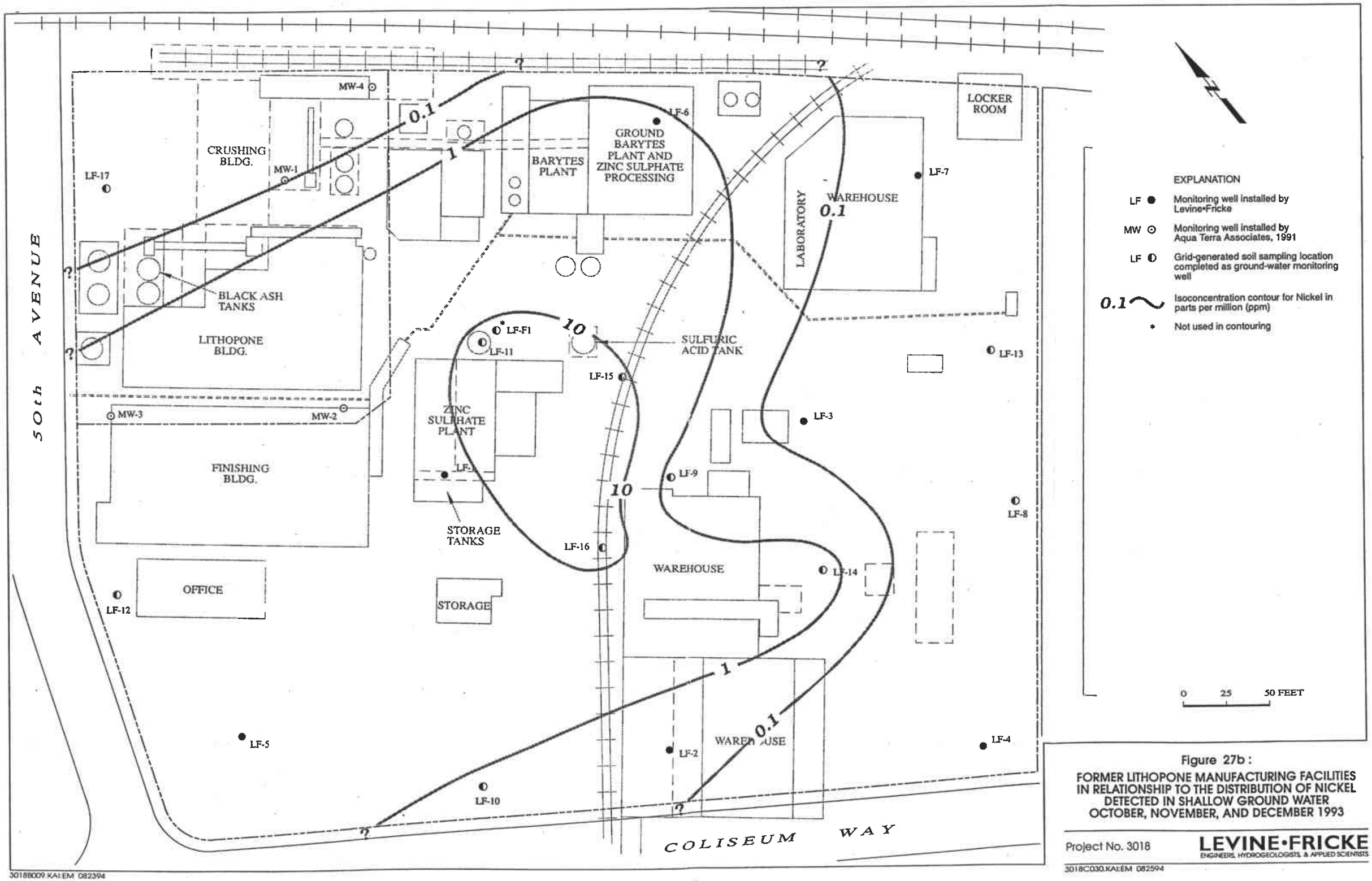
ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

3018C016.KAI:EM 082994



30188009.KAI:EM 082394

Figure 27b :

FORMER LITHOPONE MANUFACTURING FACILITIES IN RELATIONSHIP TO THE DISTRIBUTION OF NICKEL DETECTED IN SHALLOW GROUND WATER OCTOBER, NOVEMBER, AND DECEMBER 1993

Project No. 3018

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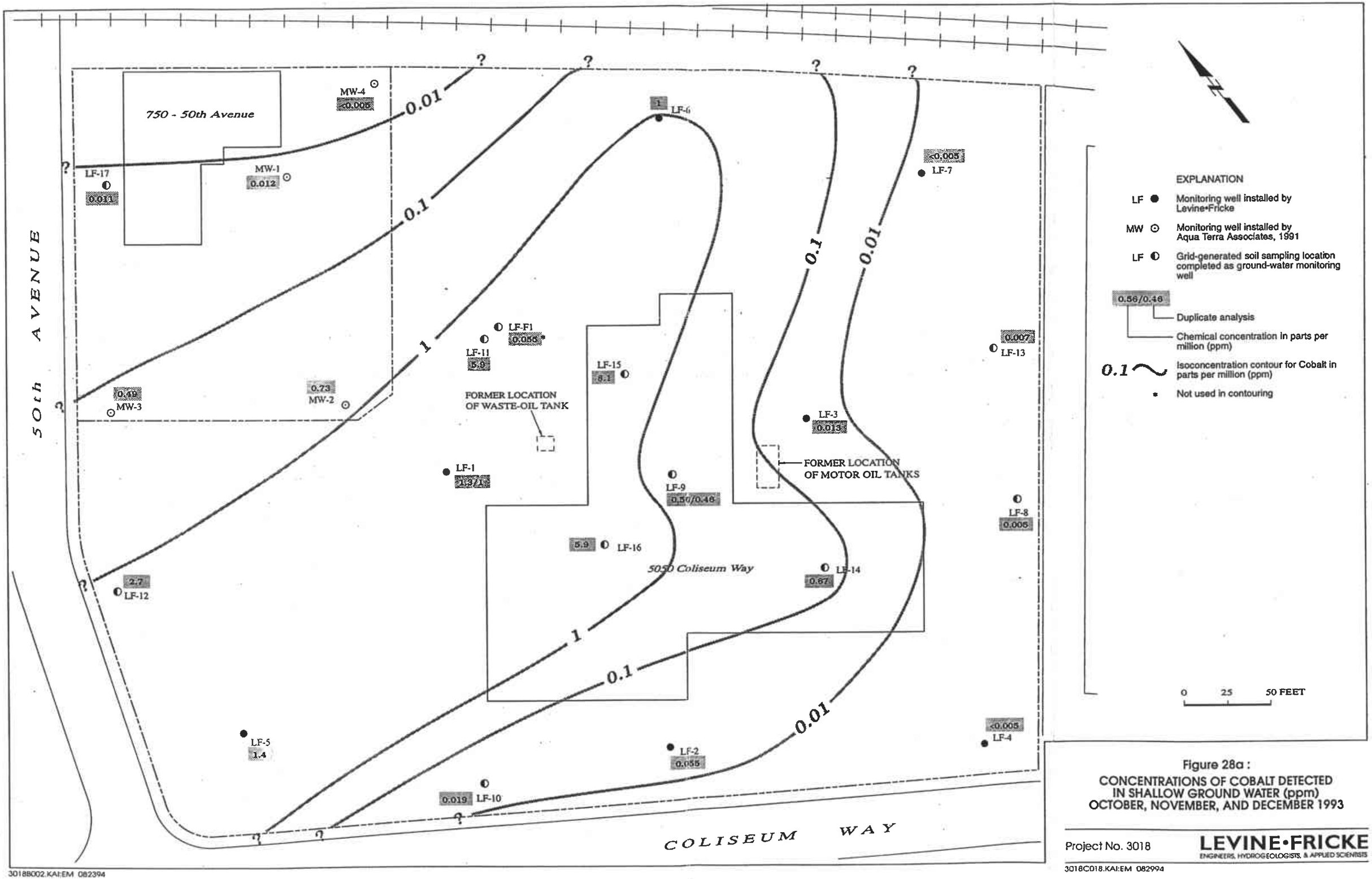
3018C030.KAI:EM 082594



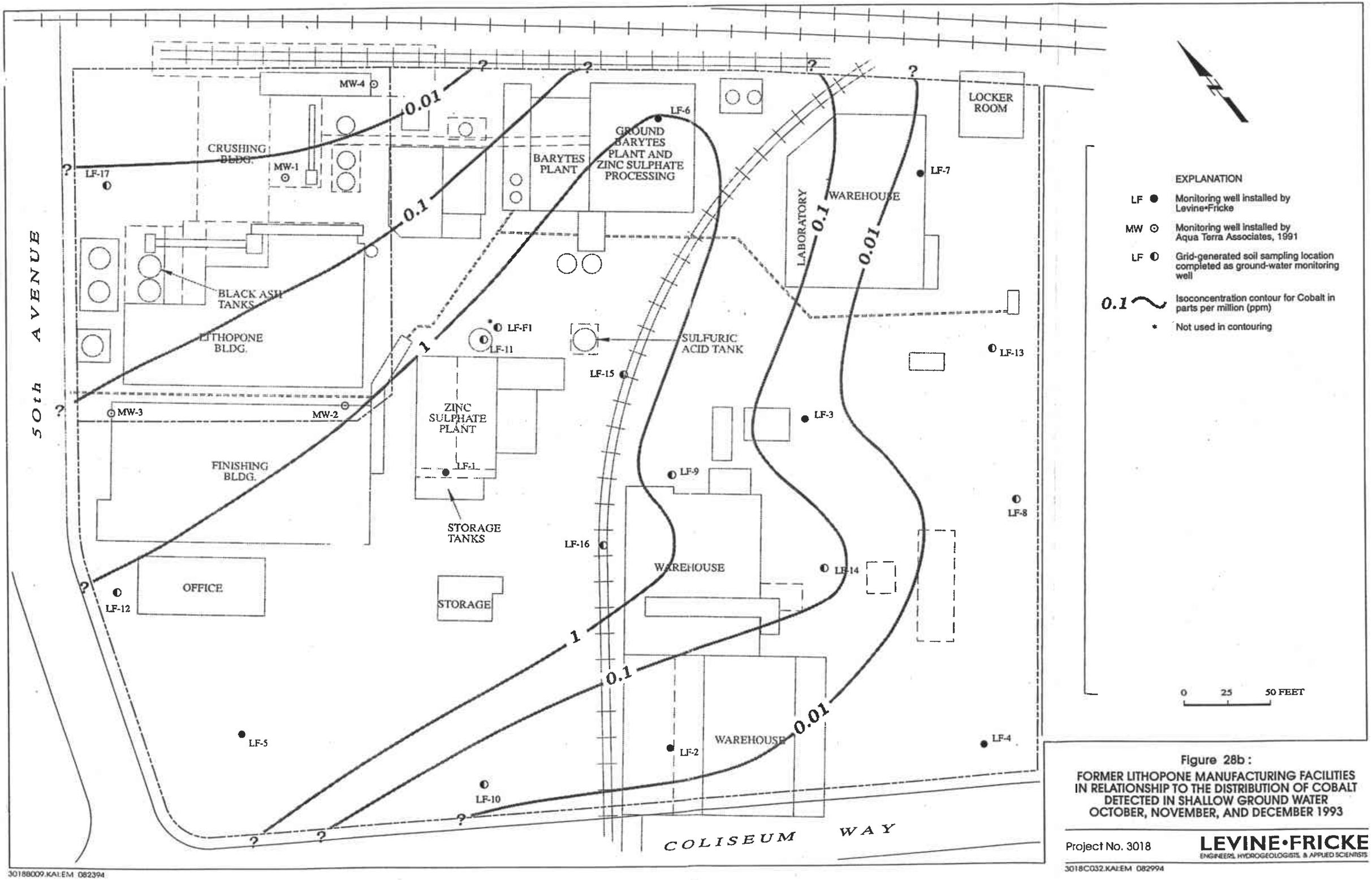
3018B002.KAI:EM 082394

Figure 28a :
CONCENTRATIONS OF COBALT DETECTED IN SHALLOW GROUND WATER (ppm) OCTOBER, NOVEMBER, AND DECEMBER 1993

Project No. 3018

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

3018C018.KAI:EM 082994



30188009.KAI:EM 082394

Figure 28b :
FORMER LITHOPONE MANUFACTURING FACILITIES IN RELATIONSHIP TO THE DISTRIBUTION OF COBALT DETECTED IN SHALLOW GROUND WATER OCTOBER, NOVEMBER, AND DECEMBER 1993

Project No. 3018

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ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

3018C032.KAI:EM 082994

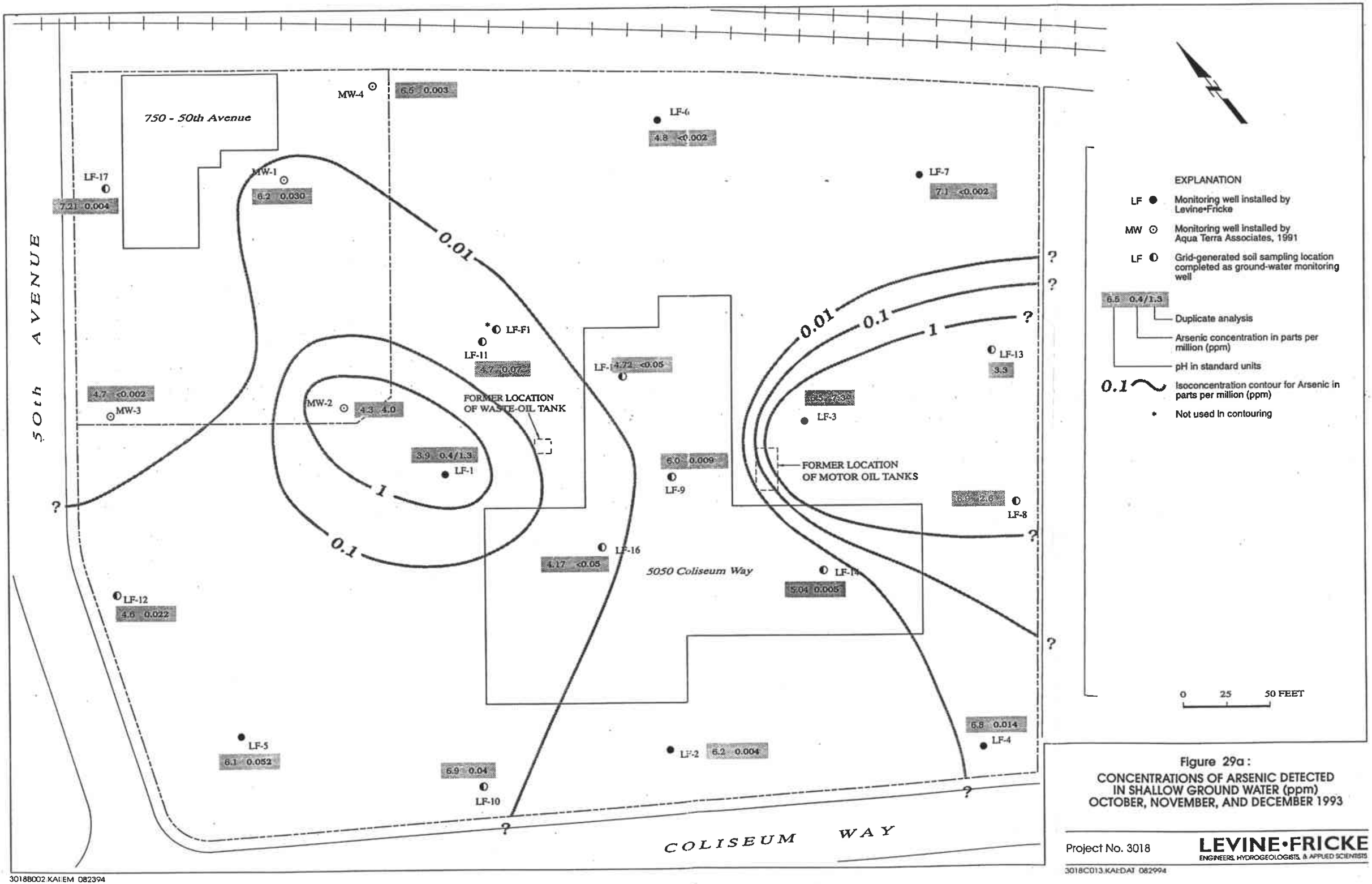


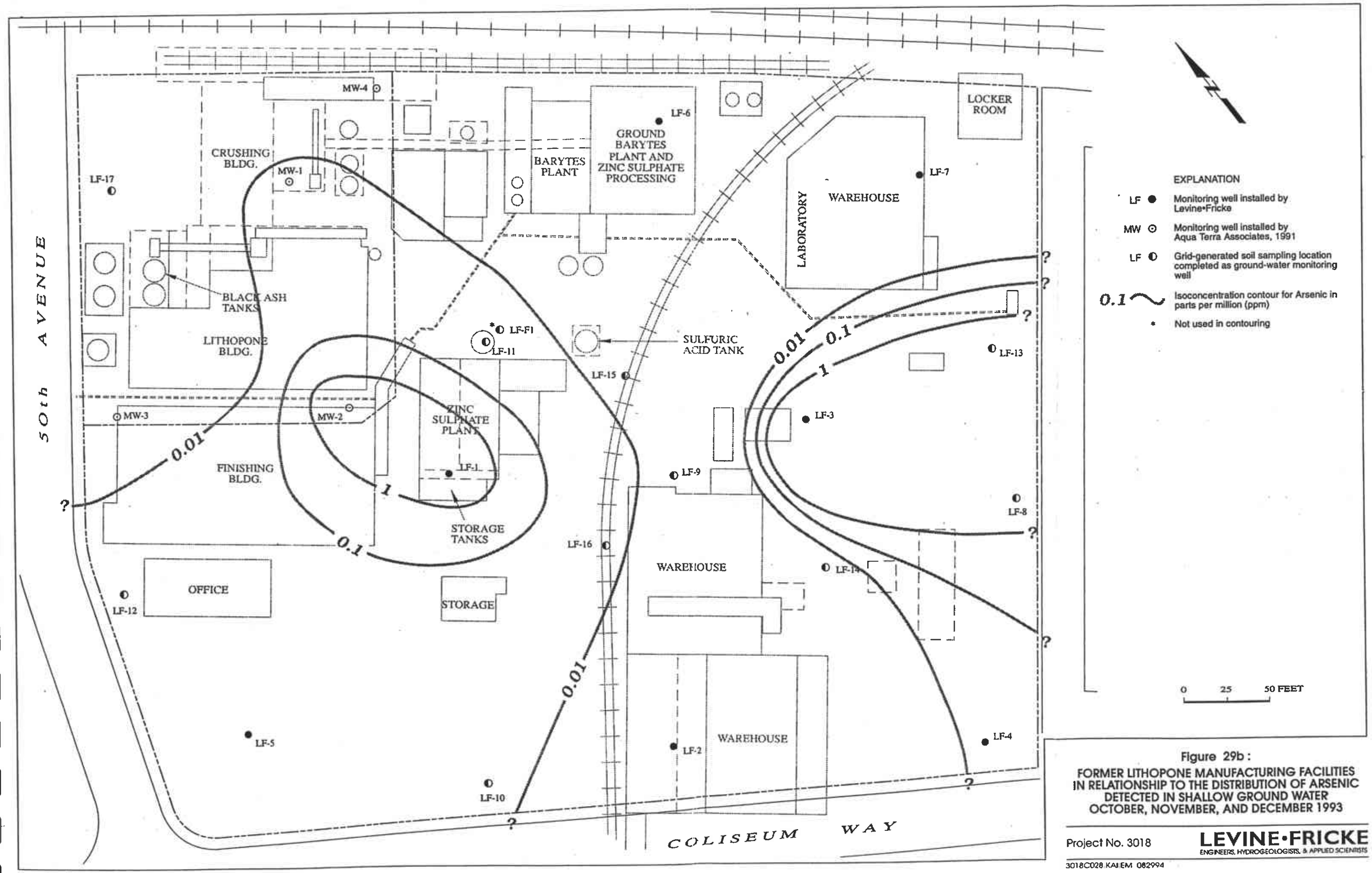
Figure 29a :
CONCENTRATIONS OF ARSENIC DETECTED IN SHALLOW GROUND WATER (ppm) OCTOBER, NOVEMBER, AND DECEMBER 1993

Project No. 3018

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

3018C013.KAI:DAT 082994

30188002.KAI:EM 082394



30188009.KAEEM 082394

Figure 29b :
FORMER LITHOPONE MANUFACTURING FACILITIES IN RELATIONSHIP TO THE DISTRIBUTION OF ARSENIC DETECTED IN SHALLOW GROUND WATER OCTOBER, NOVEMBER, AND DECEMBER 1993

Project No. 3018

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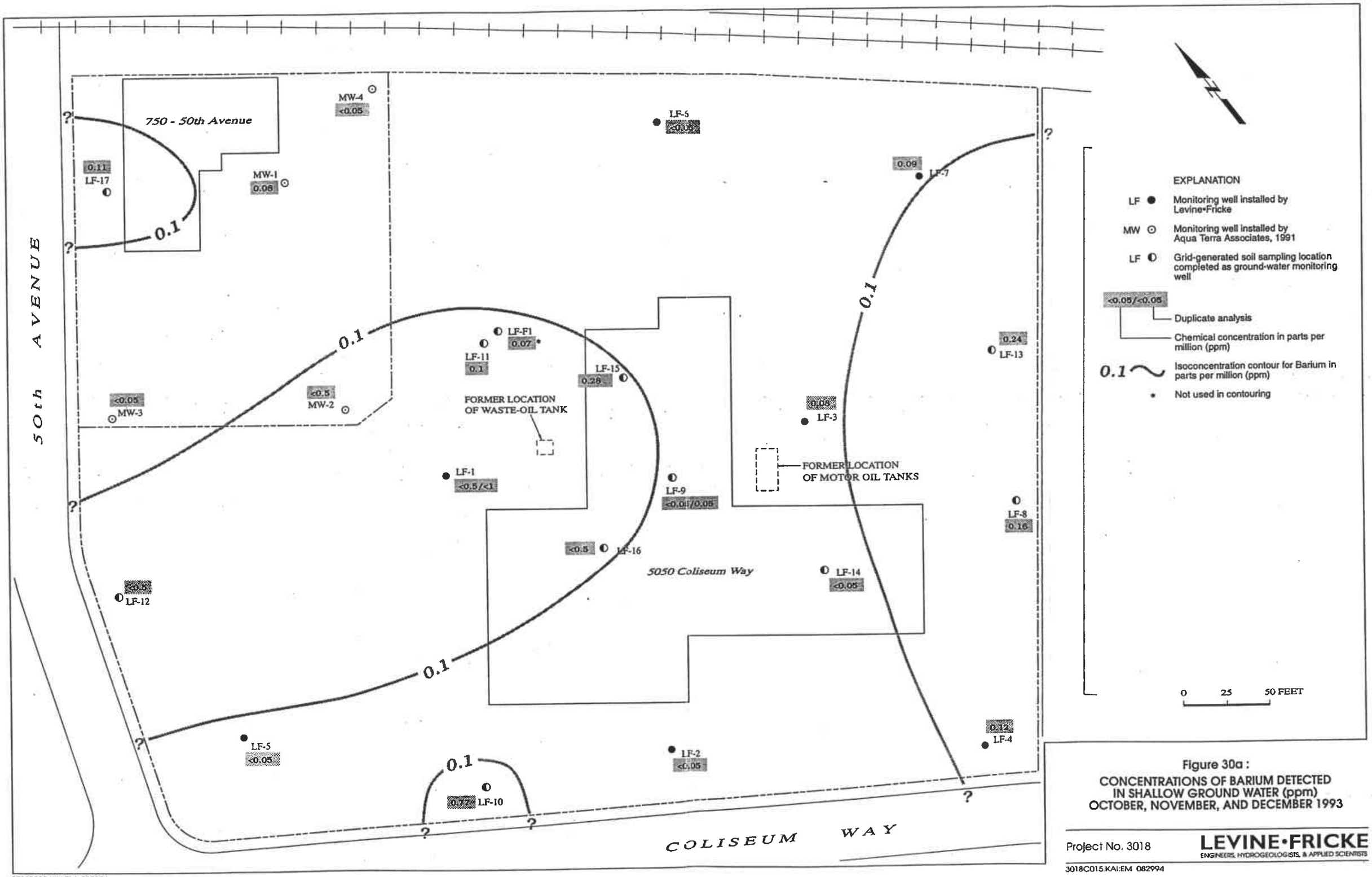
ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

3018C028.KAEEM 082994



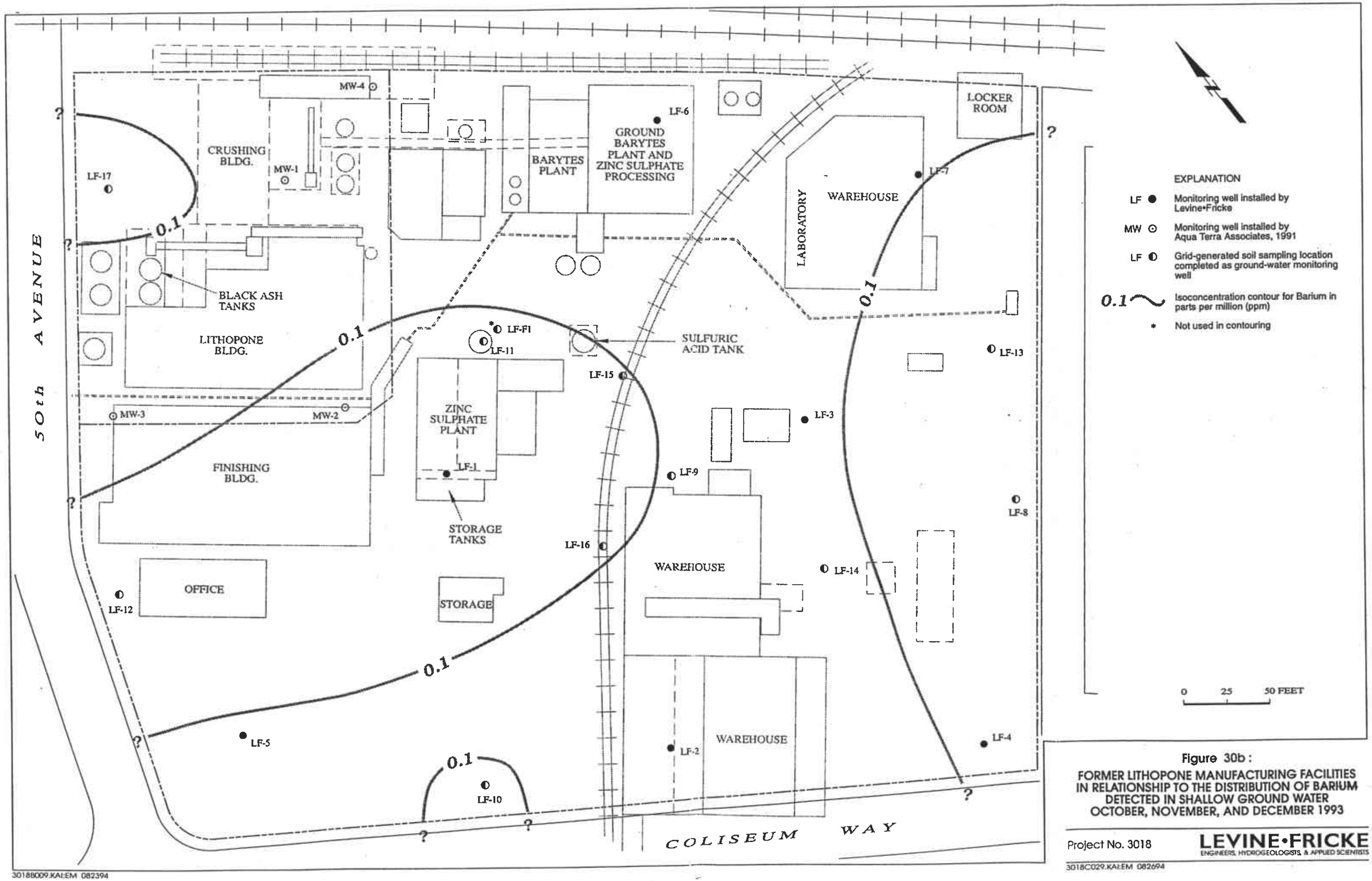
3018B002.KAI:EM 082394

Figure 30a :
CONCENTRATIONS OF BARIUM DETECTED
IN SHALLOW GROUND WATER (ppm)
OCTOBER, NOVEMBER, AND DECEMBER 1993

Project No. 3018

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

3018C015.KAI:EM 082994



30188009.KAI:EM 082394

Figure 30b :

FORMER LITHOPONE MANUFACTURING FACILITIES IN RELATIONSHIP TO THE DISTRIBUTION OF BARIUM DETECTED IN SHALLOW GROUND WATER OCTOBER, NOVEMBER, AND DECEMBER 1993

Project No. 3018

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3018C029.KAI:EM 082694

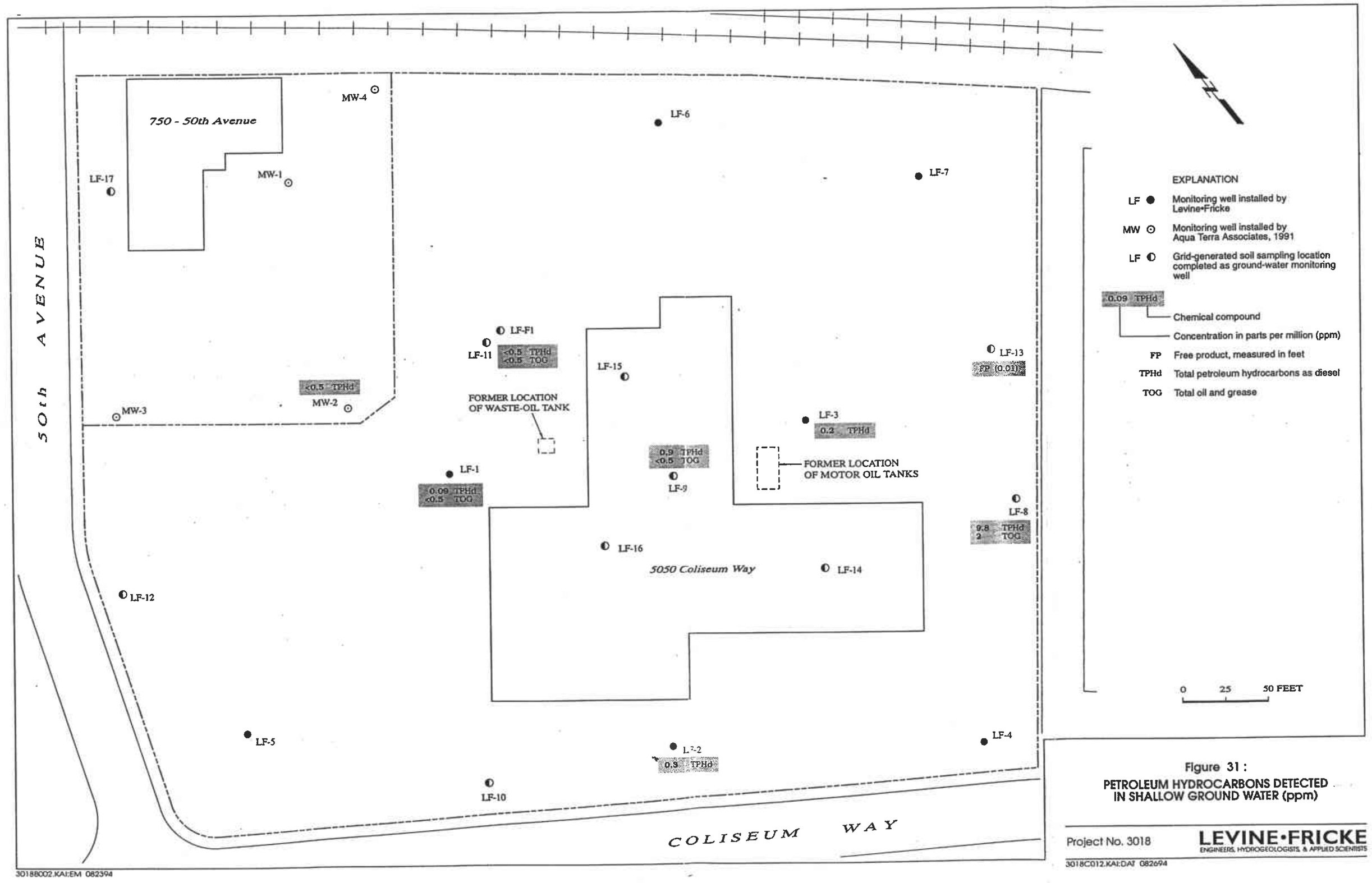

Figure 31 :
PETROLEUM HYDROCARBONS DETECTED IN SHALLOW GROUND WATER (ppm)

Project No. 3018

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

3018C012.KAI:DAT 082694

3018B002.KAI:EM 082394

Appendix B

Investigation Protocol

INVESTIGATION PROTOCOL

A. Test Borings

Test boring 1 was drilled using a cuttingless sampling system. Test Boring 2 was attempted using this same cuttingless system but due to subsurface obstructions in the boring was terminated at a shallow depth. Hence, it was determined that hollow stem auger drilling equipment would be used to complete Boring 2 and the remaining test borings. SCI's field engineer/geologist observed drilling and sampling operations, prepared detailed logs of the test borings and obtained undisturbed samples of the materials encountered. Test boring logs are presented on Plates 2 through 4. Soils are classified in accordance with the Unified Soil Classification System described on Plate 5.

A Standard Penetration Test Sampler (outside diameter of 2.0 inches, inside diameter of 1.4 inches) was used to obtain samples from the hollow stem auger borings. The number of blows required to drive the samplers the final 12 inches of each 18-inch penetration were recorded and are presented on the test boring logs. Drilling and sampling equipment was thoroughly steam-cleaned prior to each use to reduce the likelihood of cross-contamination between samples and/or borings.

Samples were retained in brass and/or stainless steel liners. Teflon sheeting was placed over the ends of the liners; the liners were subsequently capped and sealed with duct tape. The sealed liners were placed in ice-filled coolers and remained iced until delivery to the analytical laboratory. Chain-of-Custody Records accompanied the samples.

"Grab" groundwater samples were obtained following drilling in Borings 2, 3 and 5. Prior to sampling, a temporary well consisting of a section of 2-inch-diameter machine-slotted PVC well screen

was installed in the boreholes. The well screen was steam-cleaned prior to use. The temporary wells were developed by removing about 5 gallons of water prior to sampling. The samples were obtained using new disposable bailers. The samples were retained in pre-cleaned glass containers which were placed in ice filled coolers.

Upon completion of drilling, the borings were backfilled with cement grout and sealed to match existing conditions. Cuttings generated during drilling and sampling were placed in individual plastic garbage bags which were subsequently placed in DOT approved 55 gallon drums. Development and steam-cleaning waste water was also placed in 55-gallon drums. The drums were labeled and left on-site for later disposal by others.

B. Field Analysis for Organic Vapors

Field analysis for organic vapors was performed on shoe samples obtained during drilling. The shoe samples were broken up and placed into plastic bags. The bags were allowed to come to equilibrium before being opened and checked with the probe of a portable photo-ionization detector (PID). Organic vapor concentrations are presented on the respective boring logs.

ANALYTICAL TESTING

Analytical testing was performed by Curtis & Tompkins, Ltd., a State of California Department of Health Services certified analytical laboratory. The analytical tests were performed on individual samples. A summary of sample preparation and test methods is presented below.

Test	Sample Preparation Method	Analysis Method
Semivolatile Organic Compounds	EPA 3550	EPA 8270
Polychlorinated Biphenyls	EPA 3550	EPA 8080
Total Recoverable Petroleum Hydrocarbons	EPA 3550	EPA 418.1
Heavy Metals Antimony, Arsenic, Barium Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, mercury, Molybdenum, Nickel Selenium, Silver, Sulfur, Thallium, Vanadium, Zinc	EPA 3050	EPA 6000/7000 series
Volatile Organic Compounds	EPA 5030	EPA 8240
Cyanide		EPA 335.2

Test results are summarized in Tables 1 through 16. Analytical test reports and Chain-of-Custody Documents are attached.

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

A N A L Y T I C A L R E P O R T

Prepared for:

Subsurface Consultants
171 12th Street
Suite 201
Oakland, CA 94608

Date: 26-JAN-95
Lab Job Number: 119474
Project ID: 911.001
Location: 5200 Coliseum Way

Reviewed by: _____

Reviewed by: _____

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119474
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY

DATE SAMPLED: 01/11/95
DATE RECEIVED: 01/11/95
DATE EXTRACTED: 01/13/95
DATE ANALYZED: 01/19/95
DATE REPORTED: 01/26/95
BATCH NO: 18532

Extractable Petroleum Hydrocarbons in Aqueous Solutions
California DOHS Method
LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (ug/L)	DIESEL RANGE (ug/L)	REPORTING LIMIT (ug/L)
119474-001	5	480	***	50
METHOD BLANK		ND	ND	50

*** Diesel range not reported due to overlap of hydrocarbon ranges.
ND = Not detected at or above reporting limit. Reporting limit applies to all analytes.

QA/QC SUMMARY:

RPD, %	10
RECOVERY, %	121

Curtis & Tompkins, Ltd.

Client: Subsurface Consultants

Laboratory Login Number: 119474

Project Name: 5200 Coliseum Way

Report Date: 26 January 95

Project Number: 911.001

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) METHOD: SMWW 17:5520BF

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	RL	Analyst	QC Batch
119474-001	5	Water	11-JAN-95	11-JAN-95	17-JAN-95	10.	mg/L	5	TR	18606

ND = Not Detected at or above Reporting Limit (RL).

Curtis & Tompkins, Ltd.

QC Batch Report

Client: Subsurface Consultants
Project Name: 5200 Coliseum Way
Project Number: 911.001

Laboratory Login Number: 119474
Report Date: 26 January 95

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric)

QC Batch Number: 18606

Blank Results

Sample ID	Result	MDL	Units	Method	Date Analyzed
BLANK	ND	5	mg/L	SMWW 17:5520BF	17-JAN-95

Spike/Duplicate Results

Sample ID	Recovery	Method	Date Analyzed
BS	84%	SMWW 17:5520BF	17-JAN-95
BSD	89%	SMWW 17:5520BF	17-JAN-95

		Control Limits
Average Spike Recovery	86%	80% - 120%
Relative Percent Difference	5.7%	< 20%

Curtis & Tompkins, Ltd.

SAMPLE ID: 5
LAB ID: 119474-001
CLIENT: Subsurface Consultants
PROJECT ID: 911.001
LOCATION: 5200 Coliseum Way
MATRIX: Water

DATE SAMPLED: 01/11/95
DATE RECEIVED: 01/11/95
DATE REPORTED: 01/26/95

California TITLE 26 Metals

Compound	Result (ug/L)	Reporting Limit (ug/L)	QC Batch	Method	Analysis Date
Antimony	ND	60	18558	EPA 6010A	01/17/95
Arsenic	3400	250	18559	EPA 7060	01/16/95
Barium	2600000	500	18558	EPA 6010A	01/17/95
Beryllium	ND	2.0	18558	EPA 6010A	01/17/95
Cadmium	13	5.0	18558	EPA 6010A	01/17/95
Chromium (total)	ND	10	18558	EPA 6010A	01/17/95
Cobalt	1300	20	18558	EPA 6010A	01/17/95
Copper	ND	10	18558	EPA 6010A	01/17/95
Lead	ND	3.0	18559	EPA 7421	01/17/95
Mercury	ND	0.20	18504	EPA 7470	01/12/95
Molybdenum	35	20	18558	EPA 6010A	01/17/95
Nickel	74	20	18558	EPA 6010A	01/17/95
Selenium	ND	5.0	18559	EPA 7740	01/16/95
Silver	ND	10	18558	EPA 6010A	01/17/95
Thallium	ND	5.0	18559	EPA 7841	01/17/95
Vanadium	27	10	18558	EPA 6010A	01/17/95
Zinc	ND	20	18558	EPA 6010A	01/17/95

ND = Not detected at or above reporting limit

Curtis & Tompkins, Ltd.

SAMPLE ID: 5
LAB ID: 119474-001
CLIENT: Subsurface Consultants
PROJECT ID: 911.001
LOCATION: 5200 Coliseum Way
MATRIX: Water

DATE SAMPLED: 01/11/95
DATE RECEIVED: 01/11/95
DATE REPORTED: 01/26/95

Metals Analytical Report

Compound	Result (ug/L)	Reporting Limit (ug/L)	QC Batch	Method	Analysis Date
Sulfur	600000	100	18558	EPA 6010A	01/17/95

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 119474

DATE REPORTED: 01/26/95

BATCH QC REPORT
PREP BLANK

Compound	Result	Reporting Limit	Units	QC Batch	Method	Analysis Date
Antimony	ND	60	ug/L	18558	EPA 6010A	01/17/95
Arsenic	ND	5	ug/L	18559	EPA 7060	01/16/95
Barium	ND	10	ug/L	18558	EPA 6010A	01/17/95
Beryllium	ND	2	ug/L	18558	EPA 6010A	01/17/95
Cadmium	ND	5	ug/L	18558	EPA 6010A	01/17/95
Chromium (total)	ND	10	ug/L	18558	EPA 6010A	01/17/95
Cobalt	ND	20	ug/L	18558	EPA 6010A	01/17/95
Copper	ND	10	ug/L	18558	EPA 6010A	01/17/95
Lead	ND	3	ug/L	18559	EPA 7421	01/17/95
Mercury	ND	0.2	ug/L	18504	EPA 7470	01/12/95
Molybdenum	ND	20	ug/L	18558	EPA 6010A	01/17/95
Nickel	ND	20	ug/L	18558	EPA 6010A	01/17/95
Selenium	ND	5	ug/L	18559	EPA 7740	01/16/95
Silver	ND	10	ug/L	18558	EPA 6010A	01/17/95
Sulfur	120	100	ug/L	18558	EPA 6010A	01/17/95
Thallium	ND	5	ug/L	18559	EPA 7841	01/17/95
Vanadium	ND	10	ug/L	18558	EPA 6010A	01/17/95
Zinc	ND	20	ug/L	18558	EPA 6010A	01/17/95

ND = Not Detected at or above reporting limit

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 119474

DATE REPORTED: 01/26/95

BATCH QC REPORT
BLANK SPIKE / BLANK SPIKE DUPLICATE

Compound	Spike Amount	BS Result	BSD Result	Units	BS % Recovery	BSD % Recovery	Average Recovery	RPD	QC Batch	Method	Analysis Date
Antimony	500	478	554.1	ug/L	96	111	104	15	18558	EPA 6010A	01/17/95
Arsenic	40	44.19	45.66	ug/L	111	114	113	3	18559	EPA 7060	01/16/95
Barium	2000	1747	1848	ug/L	87	92	90	6	18558	EPA 6010A	01/17/95
Beryllium	50	44.9	46.7	ug/L	90	93	92	4	18558	EPA 6010A	01/17/95
Cadmium	50	56.9	58.7	ug/L	114	117	116	3	18558	EPA 6010A	01/17/95
Chromium (total)	200	181.4	193.4	ug/L	91	97	94	6	18558	EPA 6010A	01/17/95
Cobalt	500	464.3	482.7	ug/L	93	97	95	4	18558	EPA 6010A	01/17/95
Copper	250	228.4	237.8	ug/L	91	95	93	4	18558	EPA 6010A	01/17/95
Lead	30	30.42	30.36	ug/L	101	101	101	0	18559	EPA 7421	01/17/95
Mercury	4	4.173	4.126	ug/L	104	103	104	1	18504	EPA 7470	01/12/95
Molybdenum	400	369.4	406.5	ug/L	92	102	97	10	18558	EPA 6010A	01/17/95
Nickel	500	423	465.1	ug/L	85	93	89	10	18558	EPA 6010A	01/17/95
Selenium	30	30.98	30.75	ug/L	103	103	103	1	18559	EPA 7740	01/16/95
Silver	50	44.4	42.1	ug/L	89	84	87	5	18558	EPA 6010A	01/17/95
Sulfur	10000	8992	9674	ug/L	90	97	94	7	18558	EPA 6010A	01/17/95
Thallium	40	40.1	39.71	ug/L	100	99	100	1	18559	EPA 7841	01/17/95
Vanadium	500	450.5	478.6	ug/L	90	96	93	6	18558	EPA 6010A	01/17/95
Zinc	500	462.2	490.4	ug/L	92	98	95	6	18558	EPA 6010A	01/17/95

Curtis & Tompkins, Ltd.

Client: Subsurface Consultants

Laboratory Login Number: 119474

Project Name: 5200 Coliseum Way

Report Date: 26 January 95

Project Number: 911.001

ANALYSIS: pH

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	Method	Analyst	QC Batch
119474-001	5	Water	11-JAN-95	11-JAN-95	11-JAN-95	10.3	SU	EPA 9040	TR	18500

Curtis & Tompkins, Ltd.

QC Batch Report

Client: Subsurface Consultants
Project Name: 5200 Coliseum Way
Project Number: 911.001

Laboratory Login Number: 119474
Report Date: 26 January 95

ANALYSIS: pH

QC Batch Number: 18500

Calibration Verification Results

Sample	Result	TV	Difference	Limit	Analyzed
ICV	7.04	7.00	.04	< 0.10	11-JAN-95
CCV	7.04	7.00	.04	< 0.10	11-JAN-95
CCV	12.03	12.00	.03	< 0.10	11-JAN-95
CCV	12.02	12.00	.02	< 0.10	11-JAN-95
CCV	7.03	7.00	.03	< 0.10	11-JAN-95
CCV	7.04	7.00	.04	< 0.10	11-JAN-95

Sample Duplicate Results

Sample	Duplicate	RPD	Analyzed
8.56	8.57	.1%	11-JAN-95

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119474
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY

DATE SAMPLED: 01/11/95
DATE RECEIVED: 01/11/95
DATE ANALYZED: 01/17/95
DATE REPORTED: 01/26/95

ANALYSIS: CYANIDE
ANALYSIS METHOD: EPA 335.2

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
119474-001	5	ND	ug/L	10
METHOD BLANK		ND	ug/L	10

ND = Not detected at or above reporting limit.

QA/QC SUMMARY:

RPD, %	4
RECOVERY, %	96

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119474-001
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY
SAMPLE ID: 5

DATE SAMPLED: 01/11/95
DATE RECEIVED: 01/11/95
DATE EXTRACTED: 01/11/95
DATE ANALYZED: 01/17/95
DATE REPORTED: 01/26/95
BATCH NO: 18498

EPA 8270: Base/Neutral and Acid Extractables in Water
Extraction Method: EPA 3520 Continuous Liquid/Liquid

	RESULT ug/L	REPORTING LIMIT ug/L
ACID COMPOUNDS		
Phenol	47	9.4
2-Chlorophenol	18	9.4
Benzyl Alcohol	ND	9.4
2-Methylphenol	9.9	9.4
4-Methylphenol	18	9.4
2-Nitrophenol	ND	47
2,4-Dimethylphenol	ND	9.4
Benzoic Acid	ND	47
2,4-Dichlorophenol	ND	9.4
4-Chloro-3-methylphenol	ND	9.4
2,4,6-Trichlorophenol	ND	9.4
2,4,5-Trichlorophenol	ND	47
2,4-Dinitrophenol	ND	47
4-Nitrophenol	ND	47
4,6-Dinitro-2-methylphenol	ND	47
Pentachlorophenol	ND	47
BASE/NEUTRAL COMPOUNDS		
N-Nitrosodimethylamine	ND	9.4
Aniline	ND	9.4
Bis(2-chloroethyl)ether	ND	9.4
1,3-Dichlorobenzene	ND	9.4
1,4-Dichlorobenzene	ND	9.4
1,2-Dichlorobenzene	ND	9.4
Bis(2-chloroisopropyl)ether	ND	9.4
N-Nitroso-di-n-propylamine	ND	9.4
Hexachloroethane	ND	9.4
Nitrobenzene	ND	9.4
Isophorone	ND	9.4
Bis(2-chloroethoxy)methane	ND	9.4
1,2,4-Trichlorobenzene	ND	9.4
Naphthalene	9.9	9.4
4-Chloroaniline	ND	9.4
Hexachlorobutadiene	ND	9.4
2-Methylnaphthalene	Detected(5.5)	9.4
Hexachlorocyclopentadiene	ND	9.4
2-Chloronaphthalene	ND	9.4
2-Nitroaniline	ND	47

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119474-001
SAMPLE ID: 5

EPA 8270

BASE/NEUTRAL COMPOUNDS	RESULT ug/L	REPORTING LIMIT ug/L
Dimethylphthalate	ND	9.4
Acenaphthylene	ND	9.4
2,6-Dinitrotoluene	ND	9.4
3-Nitroaniline	ND	47
Acenaphthene	ND	9.4
Dibenzofuran	ND	9.4
2,4-Dinitrotoluene	ND	9.4
Diethylphthalate	ND	9.4
4-Chlorophenyl-phenylether	ND	9.4
Fluorene	ND	9.4
4-Nitroaniline	ND	47
N-Nitrosodiphenylamine	ND	9.4
Azobenzene	ND	9.4
4-Bromophenyl-phenylether	ND	9.4
Hexachlorobenzene	ND	9.4
Phenanthrene	Detected(6.6)	9.4
Anthracene	ND	9.4
Di-n-butylphthalate	ND	9.4
Fluoranthene	ND	9.4
Pyrene	ND	9.4
Butylbenzylphthalate	ND	9.4
3,3'-Dichlorobenzidine	ND	47
Benzo(a)anthracene	ND	9.4
Chrysene	ND	9.4
Bis(2-ethylhexyl)phthalate	ND	9.4
Di-n-octylphthalate	ND	9.4
Benzo(b)fluoranthene	ND	9.4
Benzo(k)fluoranthene	ND	9.4
Benzo(a)pyrene	ND	9.4
Indeno(1,2,3-cd)pyrene	ND	9.4
Dibenzo(a,h)anthracene	ND	9.4
Benzo(g,h,i)perylene	ND	9.4

ND = Not detected at or above reporting limit.

% SURROGATE RECOVERIES

2-Fluorophenol	73	Nitrobenzene-d5	79
Phenol-d5	79	2-Fluorobiphenyl	78
2,4,6-Tribromophenol	78	Terphenyl-d14	59
2-Chlorophenol-d4	75	1,2-Dichlorobenzene-d4	76

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119474 METHOD BLANK
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY
SAMPLE ID: N/A

DATE SAMPLED: N/A
DATE RECEIVED: N/A
DATE EXTRACTED: 01/11/95
DATE ANALYZED: 01/17/95
DATE REPORTED: 01/26/95
BATCH NO: 18498

EPA 8270: Base/Neutral and Acid Extractables in Water
Extraction Method: EPA 3520 Continuous Liquid/Liquid

	RESULT ug/L	REPORTING LIMIT ug/L
ACID COMPOUNDS		
Phenol	ND	10
2-Chlorophenol	ND	10
Benzyl Alcohol	ND	10
2-Methylphenol	ND	10
4-Methylphenol	ND	10
2-Nitrophenol	ND	50
2,4-Dimethylphenol	ND	10
Benzoic Acid	ND	50
2,4-Dichlorophenol	ND	10
4-Chloro-3-methylphenol	ND	10
2,4,6-Trichlorophenol	ND	10
2,4,5-Trichlorophenol	ND	50
2,4-Dinitrophenol	ND	50
4-Nitrophenol	ND	50
4,6-Dinitro-2-methylphenol	ND	50
Pentachlorophenol	ND	50
BASE/NEUTRAL COMPOUNDS		
N-Nitrosodimethylamine	ND	10
Aniline	ND	10
Bis(2-chloroethyl)ether	ND	10
1,3-Dichlorobenzene	ND	10
1,4-Dichlorobenzene	ND	10
1,2-Dichlorobenzene	ND	10
Bis(2-chloroisopropyl)ether	ND	10
N-Nitroso-di-n-propylamine	ND	10
Hexachloroethane	ND	10
Nitrobenzene	ND	10
Isophorone	ND	10
Bis(2-chloroethoxy)methane	ND	10
1,2,4-Trichlorobenzene	ND	10
Naphthalene	ND	10
4-Chloroaniline	ND	10
Hexachlorobutadiene	ND	10
2-Methylnaphthalene	ND	10
Hexachlorocyclopentadiene	ND	10
2-Chloronaphthalene	ND	10
2-Nitroaniline	ND	50

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119474 METHOD BLANK
SAMPLE ID: N/A

EPA 8270

BASE/NEUTRAL COMPOUNDS	RESULT ug/L	REPORTING LIMIT ug/L
Dimethylphthalate	ND	10
Acenaphthylene	ND	10
2,6-Dinitrotoluene	ND	10
3-Nitroaniline	ND	50
Acenaphthene	ND	10
Dibenzofuran	ND	10
2,4-Dinitrotoluene	ND	10
Diethylphthalate	ND	10
4-Chlorophenyl-phenylether	ND	10
Fluorene	ND	10
4-Nitroaniline	ND	50
N-Nitrosodiphenylamine	ND	10
Azobenzene	ND	10
4-Bromophenyl-phenylether	ND	10
Hexachlorobenzene	ND	10
Phenanthrene	ND	10
Anthracene	ND	10
Di-n-butylphthalate	ND	10
Fluoranthene	ND	10
Pyrene	ND	10
Butylbenzylphthalate	ND	10
3,3'-Dichlorobenzidine	ND	50
Benzo(a)anthracene	ND	10
Chrysene	ND	10
Bis(2-ethylhexyl)phthalate	ND	10
Di-n-octylphthalate	ND	10
Benzo(b)fluoranthene	ND	10
Benzo(k)fluoranthene	ND	10
Benzo(a)pyrene	ND	10
Indeno(1,2,3-cd)pyrene	ND	10
Dibenzo(a,h)anthracene	ND	10
Benzo(g,h,i)perylene	ND	10

ND = Not detected at or above reporting limit.

% SURROGATE RECOVERIES

2-Fluorophenol	85	Nitrobenzene-d5	91
Phenol-d5	90	2-Fluorobiphenyl	88
2,4,6-Tribromophenol	87	Terphenyl-d14	110
2-Chlorophenol-d4	86	1,2-Dichlorobenzene-d4	85

Curtis & Tompkins, Ltd

8270 BS/BSD Report

Curtis & Tompkins, Ltd.

Lab No: QC82783 QC82784
Date Analyzed: 17-JAN-95
Matrix: WATER
Batch No: 18498 505017138005 505017145006

Spike File: 05_bs_18498.d
Spike Dup File: 06_bsd_18498.d
Analyst: KC

	Instrdg	SpikeAmt	% Rec	Limits	
MS RESULTS					
Phenol	108	150	72 %	12-110%	
2-Chlorophenol	111	150	74 %	27-123%	
4-Chloro-3-methylphenol	101	150	67 %	23-97%	
4-Nitrophenol	461	150	308 %	10-80%	*
Pentachlorophenol	58	150	39 %	9-103%	
1,4-Dichlorobenzene	74	100	74 %	36-97%	
N-Nitroso-di-n-propylamine	66	100	66 %	41-116%	
1,2,4-Trichlorobenzene	74	100	74 %	39-98%	
Acenaphthene	68	100	68 %	46-118%	
2,4-Dinitrotoluene	85	100	85 %	24-96%	
Pyrene	83	100	83 %	26-127%	
Surrogate Recoveries					
2-Fluorophenol	117	150	78 %	21-100%	
Phenol-d5	118	150	79 %	10-94%	
2,4,6-Tribromophenol	120	150	80 %	10-123%	
Nitrobenzene-d5	84	100	84 %	35-114%	
2-Fluorobiphenyl	85	100	85 %	43-116%	
Terphenyl-d14	106	100	106 %	33-141%	
2-Chlorophenol-d4	119	150	79 %	33-110%	
1,2-Dichlorobenzene-d4	81	100	81 %	16-110%	
MSD RESULTS					
Phenol	99	150	66 %	12-110%	
2-Chlorophenol	103	150	69 %	27-123%	
4-Chloro-3-methylphenol	97	150	65 %	23-97%	
4-Nitrophenol	417	150	278 %	10-80%	*
Pentachlorophenol	58	150	39 %	9-103%	
1,4-Dichlorobenzene	68	100	68 %	36-97%	
N-Nitroso-di-n-propylamine	58	100	58 %	41-116%	
1,2,4-Trichlorobenzene	70	100	70 %	39-98%	
Acenaphthene	63	100	63 %	46-118%	
2,4-Dinitrotoluene	78	100	78 %	24-96%	
Pyrene	78	100	78 %	26-127%	
Surrogate Recoveries					
2-Fluorophenol	107	150	72 %	21-100%	
Phenol-d5	113	150	75 %	10-94%	
2,4,6-Tribromophenol	118	150	78 %	10-123%	
Nitrobenzene-d5	80	100	80 %	35-114%	
2-Fluorobiphenyl	80	100	80 %	43-116%	
Terphenyl-d14	101	100	101 %	33-141%	
2-Chlorophenol-d4	112	150	74 %	33-110%	
1,2-Dichlorobenzene-d4	75	100	75 %	16-110%	

RPD DATA		
Phenol	9 %	< 42%
2-Chlorophenol	7 %	< 40%
4-Chloro-3-methylphenol	4 %	< 42%
4-Nitrophenol	10 %	< 50%
Pentachlorophenol	0 %	< 50%

1,4-Dichlorobenzene	8 %	< 28%
N-Nitroso-di-n-propylamine	12 %	< 38%
1,2,4-Trichlorobenzene	4 %	< 28%
Acenaphthene	7 %	< 31%
2,4-Dinitrotoluene	9 %	< 38%
Pyrene	5 %	< 31%

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119474-001
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY
SAMPLE ID: 5

DATE SAMPLED: 01/11/95
DATE RECEIVED: 01/11/95
DATE EXTRACTED: 01/12/95
DATE ANALYZED: 01/24/95
DATE REPORTED: 01/26/95
BATCH NO: 18523

ANALYSIS: POLYCHLORINATED BIPHENYLS (PCBs)
ANALYSIS METHOD: EPA 8080
EXTRACTION METHOD: EPA 3520

AROCLOR TYPE	RESULT (ug/L)	REPORTING LIMIT (ug/L)
AROCLOR 1221	ND	1
AROCLOR 1232	ND	1
AROCLOR 1016	ND	1
AROCLOR 1242	ND	1
AROCLOR 1248	ND	1
AROCLOR 1254	ND	1
AROCLOR 1260	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

RPD, %	15
RECOVERY, %	108

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119474 METHOD BLANK
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY
SAMPLE ID: N/A

DATE SAMPLED: N/A
DATE RECEIVED: N/A
DATE EXTRACTED: 01/12/95
DATE ANALYZED: 01/24/95
DATE REPORTED: 01/26/95
BATCH NO: 18523

ANALYSIS: POLYCHLORINATED BIPHENYLS (PCBs)
ANALYSIS METHOD: EPA 8080
EXTRACTION METHOD: EPA 3520

AROCLOR TYPE	RESULT (ug/L)	REPORTING LIMIT (ug/L)
AROCLOR 1221	ND	1
AROCLOR 1232	ND	1
AROCLOR 1016	ND	1
AROCLOR 1242	ND	1
AROCLOR 1248	ND	1
AROCLOR 1254	ND	1
AROCLOR 1260	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

RPD, %	15
RECOVERY, %	108

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119474-001
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY
SAMPLE ID: 5

DATE SAMPLED: 01/11/95
DATE RECEIVED: 01/11/95
DATE ANALYZED: 01/12/95
DATE REPORTED: 01/26/95
BATCH NO: 18503

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	17	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
trans-1,2-Dichloroethene	ND	5
cis-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	50
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

SURROGATE RECOVERIES

1,2-Dichloroethane-d4	96 %
Toluene-d8	105 %
Bromofluorobenzene	98 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119474 METHOD BLANK
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY
SAMPLE ID: N/A

DATE SAMPLED: N/A
DATE RECEIVED: N/A
DATE ANALYZED: 01/12/95
DATE REPORTED: 01/26/95
BATCH NO: 18503

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
trans-1,2-Dichloroethene	ND	5
cis-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	50
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

SURROGATE RECOVERIES

1,2-Dichloroethane-d4	97 %
Toluene-d8	107 %
Bromofluorobenzene	98 %

Curtis & Tompkins, Ltd

Curtis & Tompkins, Ltd.

8240 Laboratory Control Sample Report

Lab No: QC82807 LCS Datafile: DAC07
Date Analyzed: 12-JAN-95
Matrix: WATER Operator: TW
Batch No: 18503 435012145007

Compound	Instrdg	SpikeAmt	% Rec	Limits
1,1-Dichloroethene	55.1	50	110 %	61-145%
Trichloroethene	50.5	50	101 %	71-120%
Benzene	50.9	50	102 %	76-127%
Toluene	51.7	50	103 %	76-125%
Chlorobenzene	51.1	50	102 %	75-130%
Surrogate Recoveries				
1,2-Dichloroethane-d4	50.1	50	100 %	75-143%
Toluene-d8	53.7	50	107 %	77-134%
Bromofluorobenzene	48.4	50	97 %	65-129%

Results within Specifications - PASS

Note: Instrument C and D surrogates based on LCS data

Curtis & Tompkins, Ltd

Curtis & Tompkins, Ltd.

8240 MS/MSD Report

Matrix Sample Number: 119362-006 Date Analyzed: 12-JAN-95
Lab No: QC82809 QC82810 Spike File: DAC11
Matrix: WATER Spike Dup File: DAC12
Batch No: 18503 435012171011 435012177012 435012140006 Analyst: TW

	Instrdg	SpikeAmt	% Rec	Limits
MS RESULTS				
1,1-Dichloroethene	52.7838	50	106 %	61-145%
Trichloroethene	51.2623	50	103 %	71-120%
Benzene	125.2161	50	103 %	76-127%
Toluene	182.8251	50	99 %	76-125%
Chlorobenzene	50.9677	50	102 %	75-130%
Surrogate Recoveries				
1,2-Dichloroethane-d4	50.2427	50	100 %	75-143%
Toluene-d8	53.7004	50	107 %	77-134%
Bromofluorobenzene	50.4722	50	101 %	65-129%
MSD RESULTS				
1,1-Dichloroethene	50.2356	50	101 %	61-145%
Trichloroethene	48.8443	50	98 %	71-120%
Benzene	122.145	50	97 %	76-127%
Toluene	176.666	50	87 %	76-125%
Chlorobenzene	49.6319	50	99 %	75-130%
Surrogate Recoveries				
1,2-Dichloroethane-d4	50.5313	50	101 %	75-143%
Toluene-d8	53.5918	50	107 %	77-134%
Bromofluorobenzene	50.5344	50	101 %	65-129%
MATRIX RESULTS				
1,1-Dichloroethene	0			
Trichloroethene	0			
Benzene	73.6121			
Toluene	133.3666			
Chlorobenzene	0			
RPD DATA				
1,1-Dichloroethene	5 %			< 14%
Trichloroethene	5 %			< 14%
Benzene	2 %			< 11%
Toluene	3 %			< 13%
Chlorobenzene	3 %			< 13%

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119474
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY

DATE SAMPLED: 01/11/95
DATE RECEIVED: 01/11/95
DATE ANALYZED: 01/12/95
DATE REPORTED: 01/26/95

ANALYSIS: SULFATE
ANALYSIS METHOD: EPA 300.0

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
119474-001	5	0.9	mg/L	0.5
METHOD BLANK		ND	mg/L	0.5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY:

RPD, %	2
RECOVERY, %	102

CHAIN OF CUSTODY FORM

1994

PAGE ____ OF ____

PROJECT NAME: 5200 Coliseum Way

JOB NUMBER: 911.001 LAB: Curtis & Tompkins

PROJECT CONTACT: Tom Cundey TURNAROUND: Normal

SAMPLED BY: Dennis Alexander REQUESTED BY: Tom Cundey

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX: WATER	MATRIX: SOIL	MATRIX: WASTE	MATRIX: AIR	CONTAINERS: VOA	CONTAINERS: LITER	CONTAINERS: PINT	CONTAINERS: TUBE	METHOD PRESERVED: HCL	METHOD PRESERVED: H_2SO_4 (Nitric)	METHOD PRESERVED: HNO_3	METHOD PRESERVED: ICE	METHOD PRESERVED: NONE	SAMPLING DATE: MONTH	SAMPLING DATE: DAY	SAMPLING DATE: YEAR	SAMPLING DATE: TIME	NOTES	ANALYSIS REQUESTED: TEH	ANALYSIS REQUESTED: O&G	ANALYSIS REQUESTED: Title 26 Metals	ANALYSIS REQUESTED: PH	ANALYSIS REQUESTED: Cyanide	ANALYSIS REQUESTED: 8270 w/ PCBs	ANALYSIS REQUESTED: 8240	ANALYSIS REQUESTED: Sulfate	ANALYSIS REQUESTED: Total Sulfur
-1	5	X				4	7			X	X	X	X		01	11	95	1245	X	X	X	X	X	X	X	X	X	X

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
Dennis Alexander	1/11/95 2:15 pm.		
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
		Tuaz Batsia	1/11/95 2:20

COMMENTS & NOTES: X Samples have not been filtered.

Subsurface Consultants, Inc.

171 12TH STREET, SUITE 201, OAKLAND, CALIFORNIA 94607

(510) 268-0461 • FAX: 510-268-0137

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

A N A L Y T I C A L R E P O R T

Prepared for:

Subsurface Consultants
171 12th Street
Suite 201
Oakland, CA 94608

Date: 26-JAN-95
Lab Job Number: 119452
Project ID: 911.001
Location: 5200 Coliseum Way

Reviewed by: _____

Reviewed by: _____

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119452
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY

DATE SAMPLED: 01/04,06/95
DATE RECEIVED: 01/10/95
DATE EXTRACTED: 01/12/95
DATE ANALYZED: 01/14,16/95
DATE REPORTED: 01/25/95
BATCH NO: 18510

Extractable Petroleum Hydrocarbons in Soils & Wastes
California DOHS Method
LUFT Manual October 1989

LAB ID	SAMPLE ID	KEROSENE RANGE (mg/Kg)	DIESEL RANGE (mg/Kg)	REPORTING LIMIT (mg/Kg)
119452-001	1 @ 7.5	**	190*	10
119452-002	2 @ 9.5	**	28*	1
119452-003	3 @ 9.5	**	32,000*	100
119452-004	4 @ 9.5	**	160*	1
119452-005	5 @ 6	**	8*	1
119452-006	6 @ 8.5	**	40*	10
METHOD BLANK		ND	ND	1

* Sample chromatogram does not resemble diesel standard. Components in oil range contributed to diesel range quantitation.
** Kerosene range not reported due to overlap of hydrocarbon ranges.

ND = Not detected at or above reporting limit; reporting limit applies to all analytes.

QA/QC SUMMARY

RPD,%	9
RECOVERY, %	75

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119452
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY

DATE SAMPLED: 01/05,06/95
DATE RECEIVED: 01/10/95
DATE EXTRACTED: 01/12/95
DATE ANALYZED: 01/14/95
DATE REPORTED: 01/25/95
BATCH NO: 18509

Extractable Petroleum Hydrocarbons in Aqueous Solutions
California DOHS Method
LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (ug/L)	DIESEL RANGE (ug/L)	REPORTING LIMIT (ug/L)
119452-007	2	**	580*	50
119452-008	3	34,000	***	500
METHOD BLANK		ND	ND	50

* Sample chromatogram does not match diesel standard. Components in oil range contributed to diesel range quantitation.
** Kerosene range not reported due to overlap of hydrocarbon ranges.
*** Diesel range not reported due to overlap of hydrocarbon ranges.
ND = Not detected at or above reporting limit. Reporting limit applies to all analytes.

QA/QC SUMMARY:

RPD, %	6
RECOVERY, %	104

Curtis & Tompkins, Ltd.

Client: Subsurface Consultants

Laboratory Login Number: 119452

Project Name: 5200 Coliseum Way

Report Date: 25 January 95

Project Number: 911.001

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) METHOD: SMWW 17:5520EF

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	RL	Analyst	QC Batch
119452-001	1 @ 7.5	Soil	04-JAN-95	10-JAN-95	17-JAN-95	480	mg/Kg	50	TR	18607
119452-002	2 @ 9.5	Soil	04-JAN-95	10-JAN-95	17-JAN-95	1300	mg/Kg	50	TR	18607
119452-003	3 @ 9.5	Soil	04-JAN-95	10-JAN-95	17-JAN-95	1500	mg/Kg	50	TR	18607
119452-004	4 @ 9.5	Soil	06-JAN-95	10-JAN-95	17-JAN-95	98.	mg/Kg	50	TR	18607
119452-005	5 @ 6	Soil	06-JAN-95	10-JAN-95	17-JAN-95	60.	mg/Kg	50	TR	18607
119452-006	6 @ 8.5	Soil	06-JAN-95	10-JAN-95	17-JAN-95	670	mg/Kg	50	TR	18607

ND = Not Detected at or above Reporting Limit (RL).

Curtis & Tompkins, Ltd.

QC Batch Report

Client: Subsurface Consultants
Project Name: 5200 Coliseum Way
Project Number: 911.001

Laboratory Login Number: 119452
Report Date: 25 January 95

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric)

QC Batch Number: 18607

Blank Results

Sample ID	Result	MDL	Units	Method	Date Analyzed
BLANK	ND	50	mg/Kg	SMWW 17:5520EF	17-JAN-95

Spike/Duplicate Results

Sample ID	Recovery	Method	Date Analyzed
BS	89%	SMWW 17:5520EF	17-JAN-95
BSD	85%	SMWW 17:5520EF	17-JAN-95

		Control Limits
Average Spike Recovery	87%	80% - 120%
Relative Percent Difference	4.4%	< 20%

Curtis & Tompkins, Ltd.

Client: Subsurface Consultants

Laboratory Login Number: 119452

Project Name: 5200 Coliseum Way

Report Date: 25 January 95

Project Number: 911.001

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) METHOD: SMWW 17:5520BF

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	RL	Analyst	QC Batch
119452-007	2	Water	05-JAN-95	10-JAN-95	17-JAN-95	ND	mg/L	5	TR	18606
119452-008	3	Water	06-JAN-95	10-JAN-95	17-JAN-95	12.	mg/L	5	TR	18606

ND = Not Detected at or above Reporting Limit (RL).

Curtis & Tompkins, Ltd.

QC Batch Report

Client: Subsurface Consultants
Project Name: 5200 Coliseum Way
Project Number: 911.001

Laboratory Login Number: 119452
Report Date: 25 January 95

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric)

QC Batch Number: 18606

Blank Results

Sample ID	Result	MDL	Units	Method	Date Analyzed
BLANK	ND	5	mg/L	SMWW 17:5520BF	17-JAN-95

Spike/Duplicate Results

Sample ID	Recovery	Method	Date Analyzed
BS	84%	SMWW 17:5520BF	17-JAN-95
BSD	89%	SMWW 17:5520BF	17-JAN-95

		Control Limits
Average Spike Recovery	86%	80% - 120%
Relative Percent Difference	5.7%	< 20%

Curtis & Tompkins, Ltd.

SAMPLE ID: 1 @ 7.5
LAB ID: 119452-001
CLIENT: Subsurface Consultants
PROJECT ID: 911.001
LOCATION: 5200 Coliseum Way
MATRIX: Soil

DATE SAMPLED: 01/04/95
DATE RECEIVED: 01/10/95
DATE REPORTED: 01/25/95

California TITLE 26 Metals

Compound	Result (mg/Kg)	Reporting Limit (mg/Kg)	QC Batch	Method	Analysis Date
Antimony	ND	3.0	18492	EPA 6010A	01/16/95
Arsenic	160	13	18490	EPA 7060	01/12/95
Barium	3300	0.50	18492	EPA 6010A	01/16/95
Beryllium	1.1	0.10	18492	EPA 6010A	01/16/95
Cadmium	200	0.25	18492	EPA 6010A	01/16/95
Chromium (total)	8.4	0.50	18492	EPA 6010A	01/16/95
Cobalt	40	1.0	18492	EPA 6010A	01/16/95
Copper	6200	2.5	18492	EPA 6010A	01/16/95
Lead	2800	50	18492	EPA 7420	01/13/95
Mercury	2.6	0.10	18586	EPA 7471	01/17/95
Molybdenum	11	1.0	18492	EPA 6010A	01/16/95
Nickel	86	1.0	18492	EPA 6010A	01/16/95
Selenium	ND	2.5	18490	EPA 7740	01/12/95
Silver	26	0.50	18492	EPA 6010A	01/16/95
Thallium	ND	2.5	18490	EPA 7841	01/12/95
Vanadium	270	0.50	18492	EPA 6010A	01/16/95
Zinc	62000	5.0	18492	EPA 6010A	01/16/95

ND = Not detected at or above reporting limit

Curtis & Tompkins, Ltd.

SAMPLE ID: 2 @ 9.5
LAB ID: 119452-002
CLIENT: Subsurface Consultants
PROJECT ID: 911.001
LOCATION: 5200 Coliseum Way
MATRIX: Soil

DATE SAMPLED: 01/04/95
DATE RECEIVED: 01/10/95
DATE REPORTED: 01/25/95

California TITLE 26 Metals

Compound	Result (mg/Kg)	Reporting Limit (mg/Kg)	QC Batch	Method	Analysis Date
Antimony	ND	12	18492	EPA 6010A	01/16/95
Arsenic	50	5.0	18490	EPA 7060	01/12/95
Barium	16000	2.0	18492	EPA 6010A	01/16/95
Beryllium	0.42	0.40	18492	EPA 6010A	01/16/95
Cadmium	ND	1.0	18492	EPA 6010A	01/16/95
Chromium (total)	27	2.0	18492	EPA 6010A	01/16/95
Cobalt	22	4.0	18492	EPA 6010A	01/16/95
Copper	20	2.0	18492	EPA 6010A	01/16/95
Lead	15	1.5	18490	EPA 7421	01/12/95
Mercury	ND	0.091	18586	EPA 7471	01/17/95
Molybdenum	ND	4.0	18492	EPA 6010A	01/16/95
Nickel	27	4.0	18492	EPA 6010A	01/16/95
Selenium	ND	2.5	18490	EPA 7740	01/12/95
Silver	ND	2.0	18492	EPA 6010A	01/16/95
Thallium	ND	2.5	18490	EPA 7841	01/12/95
Vanadium	26	2.0	18492	EPA 6010A	01/16/95
Zinc	59	4.0	18492	EPA 6010A	01/16/95

ND = Not detected at or above reporting limit

Curtis & Tompkins, Ltd.

SAMPLE ID: 3 @ 9.5
LAB ID: 119452-003
CLIENT: Subsurface Consultants
PROJECT ID: 911.001
LOCATION: 5200 Coliseum Way
MATRIX: Soil

DATE SAMPLED: 01/04/95
DATE RECEIVED: 01/10/95
DATE REPORTED: 01/25/95

California TITLE 26 Metals

Compound	Result (mg/Kg)	Reporting Limit (mg/Kg)	QC Batch	Method	Analysis Date
Antimony	17	3.0	18492	EPA 6010A	01/16/95
Arsenic	92	5.0	18490	EPA 7060	01/12/95
Barium	3000	0.50	18492	EPA 6010A	01/16/95
Beryllium	0.15	0.10	18492	EPA 6010A	01/16/95
Cadmium	1.2	0.25	18492	EPA 6010A	01/16/95
Chromium (total)	21	0.50	18492	EPA 6010A	01/16/95
Cobalt	4.7	1.0	18492	EPA 6010A	01/16/95
Copper	610	0.50	18492	EPA 6010A	01/16/95
Lead	2500	50	18492	EPA 7420	01/13/95
Mercury	2.3	0.095	18586	EPA 7471	01/17/95
Molybdenum	6.6	1.0	18492	EPA 6010A	01/16/95
Nickel	18	1.0	18492	EPA 6010A	01/16/95
Selenium	ND	2.5	18490	EPA 7740	01/12/95
Silver	3.8	0.50	18492	EPA 6010A	01/16/95
Thallium	ND	2.5	18490	EPA 7841	01/12/95
Vanadium	22	0.50	18492	EPA 6010A	01/16/95
Zinc	500	1.0	18492	EPA 6010A	01/16/95

ND = Not detected at or above reporting limit

Curtis & Tompkins, Ltd.

SAMPLE ID: 4 @ 9.5
LAB ID: 119452-004
CLIENT: Subsurface Consultants
PROJECT ID: 911.001
LOCATION: 5200 Coliseum Way
MATRIX: Soil

DATE SAMPLED: 01/06/95
DATE RECEIVED: 01/10/95
DATE REPORTED: 01/25/95

California TITLE 26 Metals

Compound	Result (mg/Kg)	Reporting Limit (mg/Kg)	QC Batch	Method	Analysis Date
Antimony	ND	3.0	18492	EPA 6010A	01/16/95
Arsenic	14	2.5	18490	EPA 7060	01/12/95
Barium	40000	5.0	18492	EPA 6010A	01/17/95
Beryllium	0.41	0.10	18492	EPA 6010A	01/16/95
Cadmium	ND	0.25	18492	EPA 6010A	01/16/95
Chromium (total)	44	0.50	18492	EPA 6010A	01/16/95
Cobalt	73	1.0	18492	EPA 6010A	01/16/95
Copper	65	0.50	18492	EPA 6010A	01/16/95
Lead	35	5.0	18492	EPA 7420	01/13/95
Mercury	ND	0.095	18586	EPA 7471	01/17/95
Molybdenum	1.6	1.0	18492	EPA 6010A	01/16/95
Nickel	64	1.0	18492	EPA 6010A	01/16/95
Selenium	ND	2.5	18490	EPA 7740	01/12/95
Silver	2.6	0.50	18492	EPA 6010A	01/16/95
Thallium	ND	2.5	18490	EPA 7841	01/12/95
Vanadium	66	0.50	18492	EPA 6010A	01/16/95
Zinc	68	1.0	18492	EPA 6010A	01/16/95

ND = Not detected at or above reporting limit

Curtis & Tompkins, Ltd.

SAMPLE ID: 5 @ 6
LAB ID: 119452-005
CLIENT: Subsurface Consultants
PROJECT ID: 911.001
LOCATION: 5200 Coliseum Way
MATRIX: Soil

DATE SAMPLED: 01/06/95
DATE RECEIVED: 01/10/95
DATE REPORTED: 01/25/95

California TITLE 26 Metals

Compound	Result (mg/Kg)	Reporting Limit (mg/Kg)	QC Batch	Method	Analysis Date
Antimony	ND	3.0	18492	EPA 6010A	01/16/95
Arsenic	3.5	2.5	18490	EPA 7060	01/12/95
Barium	30000	4.9	18492	EPA 6010A	01/17/95
Beryllium	0.33	0.099	18492	EPA 6010A	01/16/95
Cadmium	0.32	0.25	18492	EPA 6010A	01/16/95
Chromium (total)	8.3	0.49	18492	EPA 6010A	01/16/95
Cobalt	22	0.99	18492	EPA 6010A	01/16/95
Copper	34	0.49	18492	EPA 6010A	01/16/95
Lead	19	1.5	18490	EPA 7421	01/12/95
Mercury	ND	0.10	18586	EPA 7471	01/17/95
Molybdenum	ND	0.99	18492	EPA 6010A	01/16/95
Nickel	29	0.99	18492	EPA 6010A	01/16/95
Selenium	ND	2.5	18490	EPA 7740	01/12/95
Silver	0.83	0.49	18492	EPA 6010A	01/16/95
Thallium	ND	2.5	18490	EPA 7841	01/12/95
Vanadium	67	0.49	18492	EPA 6010A	01/16/95
Zinc	180	0.99	18492	EPA 6010A	01/16/95

ND = Not detected at or above reporting limit

Curtis & Tompkins, Ltd.

SAMPLE ID: 6 @ 8.5
LAB ID: 119452-006
CLIENT: Subsurface Consultants
PROJECT ID: 911.001
LOCATION: 5200 Coliseum Way
MATRIX: Soil

DATE SAMPLED: 01/06/95
DATE RECEIVED: 01/10/95
DATE REPORTED: 01/25/95

California TITLE 26 Metals

Compound	Result (mg/Kg)	Reporting Limit (mg/Kg)	QC Batch	Method	Analysis Date
Antimony	ND	3.0	18492	EPA 6010A	01/17/95
Arsenic	8.0	2.5	18490	EPA 7060	01/12/95
Barium	22000	5.0	18492	EPA 6010A	01/17/95
Beryllium	1.8	0.10	18492	EPA 6010A	01/17/95
Cadmium	3.8	0.25	18492	EPA 6010A	01/17/95
Chromium (total)	16	0.50	18492	EPA 6010A	01/17/95
Cobalt	33	1.0	18492	EPA 6010A	01/17/95
Copper	180	0.50	18492	EPA 6010A	01/17/95
Lead	77	5.0	18492	EPA 7420	01/13/95
Mercury	ND	0.10	18586	EPA 7471	01/17/95
Molybdenum	4.3	1.0	18492	EPA 6010A	01/17/95
Nickel	240	1.0	18492	EPA 6010A	01/17/95
Selenium	ND	2.5	18490	EPA 7740	01/12/95
Silver	4.5	0.50	18492	EPA 6010A	01/17/95
Thallium	ND	2.5	18490	EPA 7841	01/12/95
Vanadium	550	0.50	18492	EPA 6010A	01/17/95
Zinc	9100	1.0	18492	EPA 6010A	01/17/95

ND = Not detected at or above reporting limit

Curtis & Tompkins, Ltd.

SAMPLE ID: 2
LAB ID: 119452-007
CLIENT: Subsurface Consultants
PROJECT ID: 911.001
LOCATION: 5200 Coliseum Way
MATRIX: Water

DATE SAMPLED: 01/05/95
DATE RECEIVED: 01/10/95
DATE REPORTED: 01/25/95

California TITLE 26 Metals

Compound	Result (ug/L)	Reporting Limit (ug/L)	QC Batch	Method	Analysis Date
Antimony	ND	60	18496	EPA 6010A	01/12/95
Arsenic	320	25	18497	EPA 7060	01/12/95
Barium	260000	50	18496	EPA 6010A	01/13/95
Beryllium	ND	2.0	18496	EPA 6010A	01/12/95
Cadmium	5.3	5.0	18496	EPA 6010A	01/12/95
Chromium (total)	ND	10	18496	EPA 6010A	01/12/95
Cobalt	200	20	18496	EPA 6010A	01/12/95
Copper	ND	10	18496	EPA 6010A	01/12/95
Lead	ND	3.0	18497	EPA 7421	01/12/95
Mercury	ND	0.20	18504	EPA 7470	01/12/95
Molybdenum	ND	20	18496	EPA 6010A	01/12/95
Nickel	ND	20	18496	EPA 6010A	01/12/95
Selenium	ND	5.0	18497	EPA 7740	01/12/95
Silver	ND	10	18496	EPA 6010A	01/12/95
Thallium	ND	5.0	18497	EPA 7841	01/12/95
Vanadium	16	10	18496	EPA 6010A	01/12/95
Zinc	42	20	18496	EPA 6010A	01/12/95

ND = Not detected at or above reporting limit

Curtis & Tompkins, Ltd.

SAMPLE ID: 3
LAB ID: 119452-008
CLIENT: Subsurface Consultants
PROJECT ID: 911.001
LOCATION: 5200 Coliseum Way
MATRIX: Water

DATE SAMPLED: 01/06/95
DATE RECEIVED: 01/10/95
DATE REPORTED: 01/25/95

California TITLE 26 Metals

Compound	Result (ug/L)	Reporting Limit (ug/L)	QC Batch	Method	Analysis Date
Antimony	ND	60	18496	EPA 6010A	01/12/95
Arsenic	2000	500	18496	EPA 6010A	01/12/95
Barium	28000	10	18496	EPA 6010A	01/12/95
Beryllium	ND	2.0	18496	EPA 6010A	01/12/95
Cadmium	14	5.0	18496	EPA 6010A	01/12/95
Chromium (total)	ND	10	18496	EPA 6010A	01/12/95
Cobalt	28	20	18496	EPA 6010A	01/12/95
Copper	ND	10	18496	EPA 6010A	01/12/95
Lead	4.2	3.0	18497	EPA 7421	01/12/95
Mercury	0.42	0.20	18504	EPA 7470	01/12/95
Molybdenum	ND	20	18496	EPA 6010A	01/12/95
Nickel	ND	20	18496	EPA 6010A	01/12/95
Selenium	ND	5.0	18497	EPA 7740	01/12/95
Silver	ND	10	18496	EPA 6010A	01/12/95
Thallium	ND	5.0	18497	EPA 7841	01/12/95
Vanadium	ND	10	18496	EPA 6010A	01/12/95
Zinc	53	20	18496	EPA 6010A	01/12/95

ND = Not detected at or above reporting limit

CLIENT: Subsurface Consultants
PROJECT ID: 911.001
LOCATION: 5200 Coliseum Way
MATRIX: Soil

DATE REPORTED: 01/25/95

Metals Analytical Report

				Sulfur				
Sample ID	Lab ID	Sample Date	Receive Date	Result (mg/Kg)	Reporting Limit (mg/Kg)	QC Batch	Method	Analysis Date
1 @ 7.5	119452-001	01/04/95	01/10/95	3500	5.0	18492	EPA 6010A	01/17/95
2 @ 9.5	119452-002	01/04/95	01/10/95	1000	5.0	18492	EPA 6010A	01/17/95
3 @ 9.5	119452-003	01/04/95	01/10/95	3200	5.0	18492	EPA 6010A	01/17/95
4 @ 9.5	119452-004	01/06/95	01/10/95	1200	5.0	18591	EPA 6010A	01/17/95
5 @ 6	119452-005	01/06/95	01/10/95	750	4.9	18492	EPA 6010A	01/17/95
6 @ 8.5	119452-006	01/06/95	01/10/95	1600	5.0	18492	EPA 6010A	01/17/95

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
PROJECT ID: 911.001
LOCATION: 5200 Coliseum Way
MATRIX: Water

DATE REPORTED: 01/25/95

Metals Analytical Report

				Sulfur				
Sample ID	Lab ID	Sample Date	Receive Date	Result (ug/L)	Reporting Limit (ug/L)	QC Batch	Method	Analysis Date
2	119452-007	01/05/95	01/10/95	6600	100	18558	EPA 6010A	01/17/95
3	119452-008	01/06/95	01/10/95	4500	100	18558	EPA 6010A	01/17/95

Curtis & Tompkins, Ltd.

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 119452

DATE REPORTED: 01/25/95

BATCH QC REPORT
PREP BLANK

Compound	Result	Reporting Limit	Units	QC Batch	Method	Analysis Date
Antimony	ND	3	mg/Kg	18492	EPA 6010A	01/16/95
Antimony	ND	60	ug/L	18496	EPA 6010A	01/11/95
Arsenic	ND	2.5	mg/Kg	18490	EPA 7060	01/12/95
Arsenic	ND	500	ug/L	18496	EPA 6010A	01/11/95
Arsenic	ND	5	ug/L	18497	EPA 7060	01/12/95
Barium	1.2	0.5	mg/Kg	18492	EPA 6010A	01/16/95
Barium	ND	10	ug/L	18496	EPA 6010A	01/11/95
Beryllium	ND	0.1	mg/Kg	18492	EPA 6010A	01/16/95
Beryllium	ND	2	ug/L	18496	EPA 6010A	01/11/95
Cadmium	ND	0.25	mg/Kg	18492	EPA 6010A	01/16/95
Cadmium	ND	5	ug/L	18496	EPA 6010A	01/11/95
Chromium (total)	ND	0.5	mg/Kg	18492	EPA 6010A	01/16/95
Chromium (total)	ND	10	ug/L	18496	EPA 6010A	01/11/95
Cobalt	ND	1	mg/Kg	18492	EPA 6010A	01/16/95
Cobalt	ND	20	ug/L	18496	EPA 6010A	01/11/95
Copper	ND	0.5	mg/Kg	18492	EPA 6010A	01/16/95
Copper	ND	10	ug/L	18496	EPA 6010A	01/11/95
Lead	ND	1.5	mg/Kg	18490	EPA 7421	01/12/95
Lead	ND	5	mg/Kg	18492	EPA 7420	01/13/95
Lead	ND	3	ug/L	18497	EPA 7421	01/12/95
Mercury	ND	0.2	ug/L	18504	EPA 7470	01/12/95
Mercury	ND	0.1	mg/Kg	18586	EPA 7471	01/17/95
Molybdenum	ND	1	mg/Kg	18492	EPA 6010A	01/16/95
Molybdenum	ND	20	ug/L	18496	EPA 6010A	01/11/95
Nickel	ND	1	mg/Kg	18492	EPA 6010A	01/16/95
Nickel	ND	20	ug/L	18496	EPA 6010A	01/11/95
Selenium	ND	2.5	mg/Kg	18490	EPA 7740	01/12/95
Selenium	ND	5	ug/L	18497	EPA 7740	01/12/95
Silver	ND	0.5	mg/Kg	18492	EPA 6010A	01/16/95
Silver	ND	10	ug/L	18496	EPA 6010A	01/11/95

ND = Not Detected at or above reporting limit

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 119452

DATE REPORTED: 01/25/95

BATCH QC REPORT
PREP BLANK

Compound	Result	Reporting Limit	Units	QC Batch	Method	Analysis Date
Sulfur	ND	5	mg/Kg	18492	EPA 6010A	01/17/95
Sulfur	120	100	ug/L	18558	EPA 6010A	01/17/95
Sulfur	ND	5	mg/Kg	18591	EPA 6010A	01/17/95
Thallium	ND	2.5	mg/Kg	18490	EPA 7841	01/12/95
Thallium	ND	5	ug/L	18497	EPA 7841	01/12/95
Vanadium	ND	0.5	mg/Kg	18492	EPA 6010A	01/16/95
Vanadium	ND	10	ug/L	18496	EPA 6010A	01/11/95
Zinc	ND	1	mg/Kg	18492	EPA 6010A	01/16/95
Zinc	ND	20	ug/L	18496	EPA 6010A	01/11/95

ND = Not Detected at or above reporting limit

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 119452

DATE REPORTED: 01/25/95

BATCH QC REPORT
BLANK SPIKE / BLANK SPIKE DUPLICATE

Compound	Spike Amount	BS Result	BSD Result	Units	BS % Recovery	BSD % Recovery	Average Recovery	RPD	QC Batch	Method	Analysis Date
Antimony	500	478	456.3	ug/L	96	91	94	5	18492	EPA 6010A	01/16/95
Antimony	500	535.7	579.4	ug/L	107	116	112	8	18496	EPA 6010A	01/11/95
Arsenic	40	425.6	428.9	ug/L	106	107	107	1	18490	EPA 7060	01/12/95
Arsenic	2000	1699	1885	ug/L	85	94	90	10	18496	EPA 6010A	01/11/95
Arsenic	40	44.42	43.11	ug/L	111	108	110	3	18497	EPA 7060	01/12/95
Barium	2000	1886	1910	ug/L	94	96	95	1	18492	EPA 6010A	01/16/95
Barium	2000	2051	2105	ug/L	103	105	104	3	18496	EPA 6010A	01/11/95
Beryllium	50	46.5	47.4	ug/L	93	95	94	2	18492	EPA 6010A	01/16/95
Beryllium	50	47.9	48.9	ug/L	96	98	97	2	18496	EPA 6010A	01/11/95
Cadmium	50	51.3	53.8	ug/L	103	108	106	5	18492	EPA 6010A	01/16/95
Cadmium	50	60	60	ug/L	120	120	120	0	18496	EPA 6010A	01/11/95
Chromium (total)	200	184.3	191.7	ug/L	92	96	94	4	18492	EPA 6010A	01/16/95
Chromium (total)	200	189.1	189.6	ug/L	95	95	95	0	18496	EPA 6010A	01/11/95
Cobalt	500	461.4	467.1	ug/L	92	93	93	1	18492	EPA 6010A	01/16/95
Cobalt	500	471.7	495.1	ug/L	94	99	97	5	18496	EPA 6010A	01/11/95
Copper	250	229.5	232.9	ug/L	92	93	93	2	18492	EPA 6010A	01/16/95
Copper	250	254.7	261.9	ug/L	102	105	104	3	18496	EPA 6010A	01/11/95
Lead	30	288.9	289.5	ug/L	96	97	97	0	18490	EPA 7421	01/12/95
Lead	500	430	420	ug/L	86	84	85	2	18492	EPA 7420	01/13/95
Lead	30	28.1	27.71	ug/L	94	92	93	1	18497	EPA 7421	01/12/95
Mercury	4	4.173	4.126	ug/L	104	103	104	1	18504	EPA 7470	01/12/95
Mercury	4	4.204	4.204	ug/L	105	105	105	0	18586	EPA 7470	01/17/95
Molybdenum	400	389	391.2	ug/L	97	98	98	1	18492	EPA 6010A	01/16/95
Molybdenum	400	396.3	404.8	ug/L	99	101	100	2	18496	EPA 6010A	01/11/95
Nickel	500	447.3	459.4	ug/L	90	92	91	3	18492	EPA 6010A	01/16/95
Nickel	500	465.3	485.6	ug/L	93	97	95	4	18496	EPA 6010A	01/11/95
Selenium	30	314.1	312.9	ug/L	105	104	105	0	18490	EPA 7740	01/12/95
Selenium	30	33.96	34.25	ug/L	113	114	114	1	18497	EPA 7740	01/12/95
Silver	50	42.8	44.4	ug/L	86	89	88	4	18492	EPA 6010A	01/16/95
Silver	50	46.6	49.7	ug/L	93	99	96	6	18496	EPA 6010A	01/11/95
Sulfur	10000	8704	9088	ug/L	87	91	89	4	18492	EPA 6010A	01/17/95
Sulfur	10000	8992	9674	ug/L	90	97	94	7	18558	EPA 6010A	01/17/95
Sulfur	10000	9188	8878	ug/L	92	89	91	3	18591	EPA 6010A	01/17/95
Thallium	40	357.4	389	ug/L	89	97	93	9	18490	EPA 7841	01/12/95
Thallium	40	34.47	33.85	ug/L	86	85	86	2	18497	EPA 7841	01/12/95
Vanadium	500	467.1	482.9	ug/L	93	97	95	3	18492	EPA 6010A	01/16/95
Vanadium	500	483.3	495.4	ug/L	97	99	98	3	18496	EPA 6010A	01/11/95
Zinc	500	451.8	462.1	ug/L	90	92	91	2	18492	EPA 6010A	01/16/95
Zinc	500	468.5	482.3	ug/L	94	97	96	3	18496	EPA 6010A	01/11/95

Curtis & Tompkins, Ltd.

Client: Subsurface Consultants

Laboratory Login Number: 119452

Project Name: 5200 Coliseum Way

Report Date: 25 January 95

Project Number: 911.001

ANALYSIS: pH

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	Method	Analyst	QC Batch
119452-007	2	Water	05-JAN-95	10-JAN-95	10-JAN-95	5.8	SU	EPA 9040	TR	18488
119452-008	3	Water	06-JAN-95	10-JAN-95	10-JAN-95	7.7	SU	EPA 9040	TR	18488

Curtis & Tompkins, Ltd.

QC Batch Report

Client: Subsurface Consultants
Project Name: 5200 Coliseum Way
Project Number: 911.001

Laboratory Login Number: 119452
Report Date: 25 January 95

ANALYSIS: pH

QC Batch Number: 18488

Calibration Verification Results

Sample	Result	TV	Difference	Limit	Analyzed
ICV	7.05	7.00	.05	< 0.10	10-JAN-95
CCV	7.06	7.00	.06	< 0.10	10-JAN-95

Sample Duplicate Results

Sample	Duplicate	RPD	Analyzed
7.70	7.72	.3%	10-JAN-95

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119452
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY

DATE SAMPLED: 01/05,06/95
DATE RECEIVED: 01/10/95
DATE ANALYZED: 01/17/95
DATE REPORTED: 01/25/95

ANALYSIS: CYANIDE
ANALYSIS METHOD: EPA 335.2

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
119452-007	2	ND	ug/L	10
119452-008	3	ND	ug/L	10
METHOD BLANK		ND	ug/L	10

ND = Not detected at or above reporting limit.

QA/QC SUMMARY:

RPD, %	4
RECOVERY, %	96

Curtis & Tompkins, Ltd.

EPA 8270

LABORATORY NUMBER: 119452-002
SAMPLE ID: 2 @ 9.5

BASE/NEUTRAL COMPOUNDS	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Dimethylphthalate	ND	330
Acenaphthylene	ND	330
2,6-Dinitrotoluene	ND	330
3-Nitroaniline	ND	1,700
Acenaphthene	ND	330
Dibenzofuran	ND	330
2,4-Dinitrotoluene	ND	330
Diethylphthalate	ND	330
4-Chlorophenyl-phenylether	ND	330
Fluorene	ND	330
4-Nitroaniline	ND	1,700
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
Phenanthrene	ND	330
Anthracene	ND	330
Di-n-butylphthalate	ND	330
Fluoranthene	ND	330
Pyrene	ND	330
Butylbenzylphthalate	ND	330
3,3'-Dichlorobenzidine	ND	1,700
Benzo(a)anthracene	ND	330
Chrysene	ND	330
Bis(2-ethylhexyl)phthalate	ND	330
Di-n-octylphthalate	ND	330
Benzo(b)fluoranthene	ND	330
Benzo(k)fluoranthene	ND	330
Benzo(a)pyrene	ND	330
Indeno(1,2,3-cd)pyrene	ND	330
Dibenzo(a,h)anthracene	ND	330
Benzo(g,h,i)perylene	ND	330

ND = Not detected at or above reporting limit.

% SURROGATE RECOVERIES

2-Fluorophenol	83	Nitrobenzene-d5	80
Phenol-d5	92	2-Fluorobiphenyl	81
2,4,6-Tribromophenol	86	Terphenyl-d14	105
2-Chlorophenol-d4	85	1,2-Dichlorobenzene-d4	79

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119452-003
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY
SAMPLE ID: 3 @ 9.5

DATE SAMPLED: 01/04/95
DATE RECEIVED: 01/10/95
DATE EXTRACTED: 01/13/95
DATE ANALYZED: 01/18/95
DATE REPORTED: 01/25/95
BATCH NO: 18542

EPA 8270: Base/Neutral and Acid Extractables in Soils & Wastes
Extraction Method: EPA 3550 Sonication

	RESULT ug/Kg	REPORTING LIMIT ug/Kg	
ACID COMPOUNDS			
Phenol	ND	6,700	
2-Chlorophenol	ND	6,700	
Benzyl Alcohol	ND	6,700	
2-Methylphenol	ND	6,700	
4-Methylphenol	ND	6,700	
2-Nitrophenol	ND	33,000	
2,4-Dimethylphenol	ND	6,700	
Benzoic Acid	ND	33,000	
2,4-Dichlorophenol	ND	33,000	
4-Chloro-3-methylphenol	ND	6,700	
2,4,6-Trichlorophenol	ND	6,700	
2,4,5-Trichlorophenol	ND	33,000	
2,4-Dinitrophenol	ND	33,000	
4-Nitrophenol	ND	33,000	
4,6-Dinitro-2-methylphenol	ND	33,000	
Pentachlorophenol	ND	33,000	
BASE/NEUTRAL COMPOUNDS			
N-Nitrosodimethylamine	ND	6,700	
Aniline	ND	6,700	
Bis(2-chloroethyl)ether	ND	6,700	
1,3-Dichlorobenzene	ND	6,700	
1,4-Dichlorobenzene	ND	6,700	
1,2-Dichlorobenzene	ND	6,700	
Bis(2-chloroisopropyl)ether	ND	6,700	
N-Nitroso-di-n-propylamine	ND	6,700	
Hexachloroethane	ND	6,700	
Nitrobenzene	ND	6,700	
Isophorone	ND	6,700	
Bis(2-chloroethoxy)methane	ND	6,700	
1,2,4-Trichlorobenzene	ND	6,700	
Naphthalene	91,000	33,000	*
4-Chloroaniline	ND	6,700	
Hexachlorobutadiene	ND	6,700	
2-Methylnaphthalene	26,000	6,700	
Hexachlorocyclopentadiene	ND	6,700	
2-Chloronaphthalene	ND	6,700	
2-Nitroaniline	ND	33,000	

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119452-003
SAMPLE ID: 3 @ 9.5

EPA 8270

BASE/NEUTRAL COMPOUNDS	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Dimethylphthalate	ND	6,700
Acenaphthylene	ND	6,700
2,6-Dinitrotoluene	ND	6,700
3-Nitroaniline	ND	33,000
Acenaphthene	21,000	6,700
Dibenzofuran	11,000	6,700
2,4-Dinitrotoluene	ND	6,700
Diethylphthalate	ND	6,700
4-Chlorophenyl-phenylether	ND	6,700
Fluorene	13,000	6,700
4-Nitroaniline	ND	33,000
N-Nitrosodiphenylamine	ND	6,700
Azobenzene	ND	6,700
4-Bromophenyl-phenylether	ND	6,700
Hexachlorobenzene	ND	6,700
Phenanthrene	11,000	6,700
Anthracene	ND	6,700
Di-n-butylphthalate	ND	6,700
Fluoranthene	ND	6,700
Pyrene	ND	6,700
Butylbenzylphthalate	ND	6,700
3,3'-Dichlorobenzidine	ND	33,000
Benzo(a)anthracene	ND	6,700
Chrysene	ND	6,700
Bis(2-ethylhexyl)phthalate	ND	6,700
Di-n-octylphthalate	ND	6,700
Benzo(b)fluoranthene	ND	6,700
Benzo(k)fluoranthene	ND	6,700
Benzo(a)pyrene	ND	6,700
Indeno(1,2,3-cd)pyrene	ND	6,700
Dibenzo(a,h)anthracene	ND	6,700
Benzo(g,h,i)perylene	ND	6,700

* From 1:100 dilution analyzed on 01/18/95.
ND = Not detected at or above reporting limit. Reporting limits raised due to matrix interference.

% SURROGATE RECOVERIES

2-Fluorophenol	78	Nitrobenzene-d5	82
Phenol-d5	91	2-Fluorobiphenyl	82
2,4,6-Tribromophenol	93	Terphenyl-d14	96
2-Chlorophenol-d4	74	1,2-Dichlorobenzene-d4	68

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119452-004
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY
SAMPLE ID: 4 @ 9.5

DATE SAMPLED: 01/06/95
DATE RECEIVED: 01/10/95
DATE EXTRACTED: 01/13/95
DATE ANALYZED: 01/17/95
DATE REPORTED: 01/25/95
BATCH NO: 18542

EPA 8270: Base/Neutral and Acid Extractables in Soils & Wastes
Extraction Method: EPA 3550 Sonication

	RESULT ug/Kg	REPORTING LIMIT ug/Kg	
ACID COMPOUNDS			
Phenol	ND	330	
2-Chlorophenol	ND	330	
Benzyl Alcohol	ND	330	
2-Methylphenol	ND	330	
4-Methylphenol	ND	330	
2-Nitrophenol	ND	1,700	
2,4-Dimethylphenol	ND	330	
Benzoic Acid	ND	1,700	
2,4-Dichlorophenol	ND	1,700	
4-Chloro-3-methylphenol	ND	330	
2,4,6-Trichlorophenol	ND	330	
2,4,5-Trichlorophenol	ND	1,700	
2,4-Dinitrophenol	ND	1,700	
4-Nitrophenol	ND	1,700	
4,6-Dinitro-2-methylphenol	ND	1,700	
Pentachlorophenol	ND	1,700	
BASE/NEUTRAL COMPOUNDS			
N-Nitrosodimethylamine	ND	330	
Aniline	ND	330	
Bis(2-chloroethyl)ether	ND	330	
1,3-Dichlorobenzene	ND	330	
1,4-Dichlorobenzene	ND	330	
1,2-Dichlorobenzene	ND	330	
Bis(2-chloroisopropyl)ether	ND	330	
N-Nitroso-di-n-propylamine	ND	330	
Hexachloroethane	ND	330	
Nitrobenzene	ND	330	
Isophorone	ND	330	
Bis(2-chloroethoxy)methane	ND	330	
1,2,4-Trichlorobenzene	ND	330	
Naphthalene	26,000	3,300	*
4-Chloroaniline	ND	330	
Hexachlorobutadiene	ND	330	
2-Methylnaphthalene	4,000	3,300	*
Hexachlorocyclopentadiene	ND	330	
2-Chloronaphthalene	ND	330	
2-Nitroaniline	ND	1,700	

Curtis & Tompkins, Ltd.
EPA 8270

LABORATORY NUMBER: 119452-004
SAMPLE ID: 4 @ 9.5

BASE/NEUTRAL COMPOUNDS	RESULT ug/Kg	REPORTING LIMIT ug/Kg	
Dimethylphthalate	ND	330	
Acenaphthylene	Detected(190)	330	
2,6-Dinitrotoluene	ND	330	
3-Nitroaniline	ND	1,700	
Acenaphthene	2,400	330	
Dibenzofuran	1,500	330	
2,4-Dinitrotoluene	ND	330	
Diethylphthalate	ND	330	
4-Chlorophenyl-phenylether	ND	330	
Fluorene	2,500	330	
4-Nitroaniline	ND	1,700	
N-Nitrosodiphenylamine	ND	330	
Azobenzene	ND	330	
4-Bromophenyl-phenylether	ND	330	
Hexachlorobenzene	ND	330	
Phenanthrene	7,200	3,300	*
Anthracene	1,200	330	
Di-n-butylphthalate	ND	330	
Fluoranthene	2,500	330	
Pyrene	2,500	330	
Butylbenzylphthalate	ND	330	
3,3'-Dichlorobenzidine	ND	1,700	
Benzo(a)anthracene	550	330	
Chrysene	550	330	
Bis(2-ethylhexyl)phthalate	ND	330	
Di-n-octylphthalate	ND	330	
Benzo(b)fluoranthene	Detected(260)	330	
Benzo(k)fluoranthene	Detected(320)	330	
Benzo(a)pyrene	Detected(280)	330	
Indeno(1,2,3-cd)pyrene	ND	330	
Dibenzo(a,h)anthracene	ND	330	
Benzo(g,h,i)perylene	ND	330	

* From 1:10 dilution analyzed on 01/18/95.
ND = Not detected at or above reporting limit.

% SURROGATE RECOVERIES

2-Fluorophenol	66	Nitrobenzene-d5	82
Phenol-d5	86	2-Fluorobiphenyl	72
2,4,6-Tribromophenol	67	Terphenyl-d14	119
2-Chlorophenol-d4	71	1,2-Dichlorobenzene-d4	71

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119452-005
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY
SAMPLE ID: 5 @ 6

DATE SAMPLED: 01/06/95
DATE RECEIVED: 01/10/95
DATE EXTRACTED: 01/13/95
DATE ANALYZED: 01/17/95
DATE REPORTED: 01/25/95
BATCH NO: 18542

EPA 8270: Base/Neutral and Acid Extractables in Soils & Wastes
Extraction Method: EPA 3550 Sonication

	RESULT ug/Kg	REPORTING LIMIT ug/Kg
ACID COMPOUNDS		
Phenol	ND	330
2-Chlorophenol	ND	330
Benzyl Alcohol	ND	330
2-Methylphenol	ND	330
4-Methylphenol	ND	330
2-Nitrophenol	ND	1,700
2,4-Dimethylphenol	ND	330
Benzoic Acid	ND	1,700
2,4-Dichlorophenol	ND	1,700
4-Chloro-3-methylphenol	ND	330
2,4,6-Trichlorophenol	ND	330
2,4,5-Trichlorophenol	ND	1,700
2,4-Dinitrophenol	ND	1,700
4-Nitrophenol	ND	1,700
4,6-Dinitro-2-methylphenol	ND	1,700
Pentachlorophenol	ND	1,700
BASE/NEUTRAL COMPOUNDS		
N-Nitrosodimethylamine	ND	330
Aniline	ND	330
Bis(2-chloroethyl)ether	ND	330
1,3-Dichlorobenzene	ND	330
1,4-Dichlorobenzene	ND	330
1,2-Dichlorobenzene	ND	330
Bis(2-chloroisopropyl)ether	ND	330
N-Nitroso-di-n-propylamine	ND	330
Hexachloroethane	ND	330
Nitrobenzene	ND	330
Isophorone	ND	330
Bis(2-chloroethoxy)methane	ND	330
1,2,4-Trichlorobenzene	ND	330
Naphthalene	440	330
4-Chloroaniline	ND	330
Hexachlorobutadiene	ND	330
2-Methylnaphthalene	Detected(200)	330
Hexachlorocyclopentadiene	ND	330
2-Chloronaphthalene	ND	330
2-Nitroaniline	ND	1,700

Curtis & Tompkins, Ltd.

EPA 8270

LABORATORY NUMBER: 119452-005
SAMPLE ID: 5 @ 6

BASE/NEUTRAL COMPOUNDS	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Dimethylphthalate	ND	330
Acenaphthylene	ND	330
2,6-Dinitrotoluene	ND	330
3-Nitroaniline	ND	1,700
Acenaphthene	ND	330
Dibenzofuran	ND	330
2,4-Dinitrotoluene	ND	330
Diethylphthalate	ND	330
4-Chlorophenyl-phenylether	ND	330
Fluorene	ND	330
4-Nitroaniline	ND	1,700
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
Phenanthrene	Detected(290)	330
Anthracene	ND	330
Di-n-butylphthalate	ND	330
Fluoranthene	ND	330
Pyrene	ND	330
Butylbenzylphthalate	ND	330
3,3'-Dichlorobenzidine	ND	1,700
Benzo(a)anthracene	ND	330
Chrysene	ND	330
Bis(2-ethylhexyl)phthalate	ND	330
Di-n-octylphthalate	ND	330
Benzo(b)fluoranthene	ND	330
Benzo(k)fluoranthene	ND	330
Benzo(a)pyrene	ND	330
Indeno(1,2,3-cd)pyrene	ND	330
Dibenzo(a,h)anthracene	ND	330
Benzo(g,h,i)perylene	ND	330

ND = Not detected at or above reporting limit.

% SURROGATE RECOVERIES

2-Fluorophenol	76	Nitrobenzene-d5	85
Phenol-d5	99	2-Fluorobiphenyl	87
2,4,6-Tribromophenol	71	Terphenyl-d14	131
2-Chlorophenol-d4	76	1,2-Dichlorobenzene-d4	78

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119452-007
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY
SAMPLE ID: 2

DATE SAMPLED: 01/05/95
DATE RECEIVED: 01/10/95
DATE EXTRACTED: 01/11/95
DATE ANALYZED: 01/17/95
DATE REPORTED: 01/25/95
BATCH NO: 18498

EPA 8270: Base/Neutral and Acid Extractables in Water
Extraction Method: EPA 3520 Continuous Liquid/Liquid

	RESULT ug/L	REPORTING LIMIT ug/L
ACID COMPOUNDS		
Phenol	ND	10
2-Chlorophenol	ND	10
Benzyl Alcohol	ND	10
2-Methylphenol	ND	10
4-Methylphenol	ND	10
2-Nitrophenol	ND	50
2,4-Dimethylphenol	ND	10
Benzoic Acid	ND	50
2,4-Dichlorophenol	ND	10
4-Chloro-3-methylphenol	ND	10
2,4,6-Trichlorophenol	ND	10
2,4,5-Trichlorophenol	ND	50
2,4-Dinitrophenol	ND	50
4-Nitrophenol	ND	50
4,6-Dinitro-2-methylphenol	ND	50
Pentachlorophenol	ND	50
BASE/NEUTRAL COMPOUNDS		
N-Nitrosodimethylamine	ND	10
Aniline	ND	10
Bis(2-chloroethyl)ether	ND	10
1,3-Dichlorobenzene	ND	10
1,4-Dichlorobenzene	ND	10
1,2-Dichlorobenzene	ND	10
Bis(2-chloroisopropyl)ether	ND	10
N-Nitroso-di-n-propylamine	ND	10
Hexachloroethane	ND	10
Nitrobenzene	ND	10
Isophorone	ND	10
Bis(2-chloroethoxy)methane	ND	10
1,2,4-Trichlorobenzene	ND	10
Naphthalene	ND	10
4-Chloroaniline	ND	10
Hexachlorobutadiene	ND	10
2-Methylnaphthalene	ND	10
Hexachlorocyclopentadiene	ND	10
2-Chloronaphthalene	ND	10
2-Nitroaniline	ND	50

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119452-007
SAMPLE ID: 2

EPA 8270

BASE/NEUTRAL COMPOUNDS	RESULT ug/L	REPORTING LIMIT ug/L
Dimethylphthalate	ND	10
Acenaphthylene	ND	10
2,6-Dinitrotoluene	ND	10
3-Nitroaniline	ND	50
Acenaphthene	ND	10
Dibenzofuran	ND	10
2,4-Dinitrotoluene	ND	10
Diethylphthalate	ND	10
4-Chlorophenyl-phenylether	ND	10
Fluorene	ND	10
4-Nitroaniline	ND	50
N-Nitrosodiphenylamine	ND	10
Azobenzene	ND	10
4-Bromophenyl-phenylether	ND	10
Hexachlorobenzene	ND	10
Phenanthrene	ND	10
Anthracene	ND	10
Di-n-butylphthalate	ND	10
Fluoranthene	ND	10
Pyrene	ND	10
Butylbenzylphthalate	ND	10
3,3'-Dichlorobenzidine	ND	50
Benzo(a)anthracene	ND	10
Chrysene	ND	10
Bis(2-ethylhexyl)phthalate	ND	10
Di-n-octylphthalate	ND	10
Benzo(b)fluoranthene	ND	10
Benzo(k)fluoranthene	ND	10
Benzo(a)pyrene	ND	10
Indeno(1,2,3-cd)pyrene	ND	10
Dibenzo(a,h)anthracene	ND	10
Benzo(g,h,i)perylene	ND	10

ND = Not detected at or above reporting limit.

% SURROGATE RECOVERIES

2-Fluorophenol	64	Nitrobenzene-d5	79
Phenol-d5	74	2-Fluorobiphenyl	65
2,4,6-Tribromophenol	63	Terphenyl-d14	31
2-Chlorophenol-d4	71	1,2-Dichlorobenzene-d4	67

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119452-008
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY
SAMPLE ID: 3

DATE SAMPLED: 01/06/95
DATE RECEIVED: 01/10/95
DATE EXTRACTED: 01/11/95
DATE ANALYZED: 01/17/95
DATE REPORTED: 01/25/95
BATCH NO: 18498

EPA 8270: Base/Neutral and Acid Extractables in Water
Extraction Method: EPA 3520 Continuous Liquid/Liquid

	RESULT ug/L	REPORTING LIMIT ug/L	
ACID COMPOUNDS			
Phenol	880	500	**
2-Chlorophenol	ND	10	
Benzyl Alcohol	ND	10	
2-Methylphenol	620	100	*
4-Methylphenol	770	500	**
2-Nitrophenol	ND	50	
2,4-Dimethylphenol	430	100	*
Benzoic Acid	ND	50	
2,4-Dichlorophenol	ND	10	
4-Chloro-3-methylphenol	Detected(6)	10	
2,4,6-Trichlorophenol	ND	10	
2,4,5-Trichlorophenol	ND	50	
2,4-Dinitrophenol	ND	50	
4-Nitrophenol	ND	50	
4,6-Dinitro-2-methylphenol	ND	50	
Pentachlorophenol	ND	50	
BASE/NEUTRAL COMPOUNDS			
N-Nitrosodimethylamine	ND	10	
Aniline	200	100	*
Bis(2-chloroethyl)ether	ND	10	
1,3-Dichlorobenzene	ND	10	
1,4-Dichlorobenzene	ND	10	
1,2-Dichlorobenzene	ND	10	
Bis(2-chloroisopropyl)ether	ND	10	
N-Nitroso-di-n-propylamine	ND	10	
Hexachloroethane	ND	10	
Nitrobenzene	ND	10	
Isophorone	ND	10	
Bis(2-chloroethoxy)methane	ND	10	
1,2,4-Trichlorobenzene	ND	10	
Naphthalene	11,000	2,500	***
4-Chloroaniline	ND	10	
Hexachlorobutadiene	ND	10	
2-Methylnaphthalene	1,700	500	**
Hexachlorocyclopentadiene	ND	10	
2-Chloronaphthalene	ND	10	
2-Nitroaniline	ND	50	

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119452-008
SAMPLE ID: 3

EPA 8270

BASE/NEUTRAL COMPOUNDS	RESULT ug/L	REPORTING LIMIT ug/L	
Dimethylphthalate	ND	10	
Acenaphthylene	38	10	
2,6-Dinitrotoluene	ND	10	
3-Nitroaniline	ND	50	
Acenaphthene	700	500	**
Dibenzofuran	410	100	*
2,4-Dinitrotoluene	ND	10	
Diethylphthalate	ND	10	
4-Chlorophenyl-phenylether	ND	10	
Fluorene	410	100	*
4-Nitroaniline	ND	50	
N-Nitrosodiphenylamine	ND	10	
Azobenzene	ND	10	
4-Bromophenyl-phenylether	ND	10	
Hexachlorobenzene	ND	10	
Phenanthrene	640	100	*
Anthracene	410	100	*
Di-n-butylphthalate	ND	10	
Fluoranthene	210	100	*
Pyrene	150	100	*
Butylbenzylphthalate	ND	10	
3,3'-Dichlorobenzidine	ND	50	
Benzo(a)anthracene	27	10	
Chrysene	33	10	
Bis(2-ethylhexyl)phthalate	ND	10	
Di-n-octylphthalate	ND	10	
Benzo(b)fluoranthene	13	10	
Benzo(k)fluoranthene	15	10	
Benzo(a)pyrene	15	10	
Indeno(1,2,3-cd)pyrene	ND	10	
Dibenzo(a,h)anthracene	ND	10	
Benzo(g,h,i)perylene	ND	10	

* From 1:10 dilution analyzed on 01/18/95.
** From 1:50 dilution analyzed on 01/18/95.
*** From 1:250 dilution analyzed on 01/19/95.
ND = Not detected at or above reporting limit.

% SURROGATE RECOVERIES

2-Fluorophenol	74	Nitrobenzene-d5	62
Phenol-d5	75	2-Fluorobiphenyl	76
2,4,6-Tribromophenol	67	Terphenyl-d14	32
2-Chlorophenol-d4	76	1,2-Dichlorobenzene-d4	62

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119452 METHOD BLANK
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY
SAMPLE ID: N/A

DATE SAMPLED: N/A
DATE RECEIVED: N/A
DATE EXTRACTED: 01/13/95
DATE ANALYZED: 01/17/95
DATE REPORTED: 01/25/95
BATCH NO: 18542

EPA 8270: Base/Neutral and Acid Extractables in Soils & Wastes
Extraction Method: EPA 3550 Sonication

ACID COMPOUNDS	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Phenol	ND	330
2-Chlorophenol	ND	330
Benzyl Alcohol	ND	330
2-Methylphenol	ND	330
4-Methylphenol	ND	330
2-Nitrophenol	ND	1,700
2,4-Dimethylphenol	ND	330
Benzoic Acid	ND	1,700
2,4-Dichlorophenol	ND	1,700
4-Chloro-3-methylphenol	ND	330
2,4,6-Trichlorophenol	ND	330
2,4,5-Trichlorophenol	ND	1,700
2,4-Dinitrophenol	ND	1,700
4-Nitrophenol	ND	1,700
4,6-Dinitro-2-methylphenol	ND	1,700
Pentachlorophenol	ND	1,700
BASE/NEUTRAL COMPOUNDS		
N-Nitrosodimethylamine	ND	330
Aniline	ND	330
Bis(2-chloroethyl)ether	ND	330
1,3-Dichlorobenzene	ND	330
1,4-Dichlorobenzene	ND	330
1,2-Dichlorobenzene	ND	330
Bis(2-chloroisopropyl)ether	ND	330
N-Nitroso-di-n-propylamine	ND	330
Hexachloroethane	ND	330
Nitrobenzene	ND	330
Isophorone	ND	330
Bis(2-chloroethoxy)methane	ND	330
1,2,4-Trichlorobenzene	ND	330
Naphthalene	ND	330
4-Chloroaniline	ND	330
Hexachlorobutadiene	ND	330
2-Methylnaphthalene	ND	330
Hexachlorocyclopentadiene	ND	330
2-Chloronaphthalene	ND	330
2-Nitroaniline	ND	1,700

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119452 METHOD BLANK
SAMPLE ID: N/A

EPA 8270

BASE/NEUTRAL COMPOUNDS	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Dimethylphthalate	ND	330
Acenaphthylene	ND	330
2,6-Dinitrotoluene	ND	330
3-Nitroaniline	ND	1,700
Acenaphthene	ND	330
Dibenzofuran	ND	330
2,4-Dinitrotoluene	ND	330
Diethylphthalate	ND	330
4-Chlorophenyl-phenylether	ND	330
Fluorene	ND	330
4-Nitroaniline	ND	1,700
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
Phenanthrene	ND	330
Anthracene	ND	330
Di-n-butylphthalate	ND	330
Fluoranthene	ND	330
Pyrene	ND	330
Butylbenzylphthalate	ND	330
3,3'-Dichlorobenzidine	ND	1,700
Benzo(a)anthracene	ND	330
Chrysene	ND	330
Bis(2-ethylhexyl)phthalate	ND	330
Di-n-octylphthalate	ND	330
Benzo(b)fluoranthene	ND	330
Benzo(k)fluoranthene	ND	330
Benzo(a)pyrene	ND	330
Indeno(1,2,3-cd)pyrene	ND	330
Dibenzo(a,h)anthracene	ND	330
Benzo(g,h,i)perylene	ND	330

ND = Not detected at or above reporting limit.

% SURROGATE RECOVERIES

2-Fluorophenol	77	Nitrobenzene-d5	66
Phenol-d5	74	2-Fluorobiphenyl	70
2,4,6-Tribromophenol	78	Terphenyl-d14	74
2-Chlorophenol-d4	80	1,2-Dichlorobenzene-d4	79

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119452 METHOD BLANK
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY
SAMPLE ID: N/A

DATE SAMPLED: N/A
DATE RECEIVED: N/A
DATE EXTRACTED: 01/11/95
DATE ANALYZED: 01/17/95
DATE REPORTED: 01/25/95
BATCH NO: 18498

EPA 8270: Base/Neutral and Acid Extractables in Water
Extraction Method: EPA 3520 Continuous Liquid/Liquid

	RESULT ug/L	REPORTING LIMIT ug/L
ACID COMPOUNDS		
Phenol	ND	10
2-Chlorophenol	ND	10
Benzyl Alcohol	ND	10
2-Methylphenol	ND	10
4-Methylphenol	ND	10
2-Nitrophenol	ND	50
2,4-Dimethylphenol	ND	10
Benzoic Acid	ND	50
2,4-Dichlorophenol	ND	10
4-Chloro-3-methylphenol	ND	10
2,4,6-Trichlorophenol	ND	10
2,4,5-Trichlorophenol	ND	50
2,4-Dinitrophenol	ND	50
4-Nitrophenol	ND	50
4,6-Dinitro-2-methylphenol	ND	50
Pentachlorophenol	ND	50
BASE/NEUTRAL COMPOUNDS		
N-Nitrosodimethylamine	ND	10
Aniline	ND	10
Bis(2-chloroethyl)ether	ND	10
1,3-Dichlorobenzene	ND	10
1,4-Dichlorobenzene	ND	10
1,2-Dichlorobenzene	ND	10
Bis(2-chloroisopropyl)ether	ND	10
N-Nitroso-di-n-propylamine	ND	10
Hexachloroethane	ND	10
Nitrobenzene	ND	10
Isophorone	ND	10
Bis(2-chloroethoxy)methane	ND	10
1,2,4-Trichlorobenzene	ND	10
Naphthalene	ND	10
4-Chloroaniline	ND	10
Hexachlorobutadiene	ND	10
2-Methylnaphthalene	ND	10
Hexachlorocyclopentadiene	ND	10
2-Chloronaphthalene	ND	10
2-Nitroaniline	ND	50

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119452 METHOD BLANK
SAMPLE ID: N/A

EPA 8270

BASE/NEUTRAL COMPOUNDS	RESULT ug/L	REPORTING LIMIT ug/L
Dimethylphthalate	ND	10
Acenaphthylene	ND	10
2,6-Dinitrotoluene	ND	10
3-Nitroaniline	ND	50
Acenaphthene	ND	10
Dibenzofuran	ND	10
2,4-Dinitrotoluene	ND	10
Diethylphthalate	ND	10
4-Chlorophenyl-phenylether	ND	10
Fluorene	ND	10
4-Nitroaniline	ND	50
N-Nitrosodiphenylamine	ND	10
Azobenzene	ND	10
4-Bromophenyl-phenylether	ND	10
Hexachlorobenzene	ND	10
Phenanthrene	ND	10
Anthracene	ND	10
Di-n-butylphthalate	ND	10
Fluoranthene	ND	10
Pyrene	ND	10
Butylbenzylphthalate	ND	10
3,3'-Dichlorobenzidine	ND	50
Benzo(a)anthracene	ND	10
Chrysene	ND	10
Bis(2-ethylhexyl)phthalate	ND	10
Di-n-octylphthalate	ND	10
Benzo(b)fluoranthene	ND	10
Benzo(k)fluoranthene	ND	10
Benzo(a)pyrene	ND	10
Indeno(1,2,3-cd)pyrene	ND	10
Dibenzo(a,h)anthracene	ND	10
Benzo(g,h,i)perylene	ND	10

ND = Not detected at or above reporting limit.

% SURROGATE RECOVERIES

2-Fluorophenol	85	Nitrobenzene-d5	91
Phenol-d5	90	2-Fluorobiphenyl	88
2,4,6-Tribromophenol	87	Terphenyl-d14	110
2-Chlorophenol-d4	86	1,2-Dichlorobenzene-d4	85

Curtis & Tompkins, Ltd

8270 Laboratory Control Sample Report

Curtis & Tompkins, Ltd.

Lab No: QC82976
Date Analyzed: 17-JAN-95
Matrix: SOIL
Batch No: 18542 515017140005
Dilution Factor : 1

LCS Datafile: 05_lcs_18542.d

Extraction Chemist: CK
MS Operator: KC
Prep Final Vol : 1

Compound	Instrdg	SpikeAmt	% Rec	Limits
Phenol	108	150	72 %	26-90%
2-Chlorophenol	123	150	82 %	25-102%
4-Chloro-3-methylphenol	102	150	68 %	26-103%
4-Nitrophenol	119	150	79 %	11-114%
Pentachlorophenol	87	150	58 %	17-109%
1,4-Dichlorobenzene	70	100	70 %	28-104%
N-Nitroso-di-n-propylamine	66	100	66 %	41-126%
1,2,4-Trichlorobenzene	69	100	69 %	38-107%
Acenaphthene	60	100	60 %	31-137%
2,4-Dinitrotoluene	67	100	67 %	28-89%
Pyrene	66	100	66 %	35-142%
Surrogate Recoveries				
2-Fluorophenol	117	150	78 %	25-121%
Phenol-d5	121	150	80 %	24-113%
2,4,6-Tribromophenol	135	150	90 %	19-122%
Nitrobenzene-d5	71	100	71 %	23-120%
2-Fluorobiphenyl	71	100	71 %	30-115%
Terphenyl-d14	86	100	86 %	18-137%
2-Chlorophenol-d4	127	150	84 %	20-130%
1,2-Dichlorobenzene-d4	75	100	75 %	20-130%

Results within Specifications - PASS
Calculations based on On-Column amounts(ngs)

Curtis & Tompkins, Ltd

8270 BS/BSD Report

Curtis & Tompkins, Ltd.

Lab No: QC82783 QC82784
Date Analyzed: 17-JAN-95
Matrix: WATER
Batch No: 18498 505017138005 505017145006

Spike File: 05_bs_18498.d
Spike Dup File: 06_bsd_18498.d
Analyst: KC

	Instrdg	SpikeAmt	% Rec	Limits	
MS RESULTS					
Phenol	108	150	72 %	12-110%	
2-Chlorophenol	111	150	74 %	27-123%	
4-Chloro-3-methylphenol	101	150	67 %	23-97%	
4-Nitrophenol	461	150	308 %	10-80%	*
Pentachlorophenol	58	150	39 %	9-103%	
1,4-Dichlorobenzene	74	100	74 %	36-97%	
N-Nitroso-di-n-propylamine	66	100	66 %	41-116%	
1,2,4-Trichlorobenzene	74	100	74 %	39-98%	
Acenaphthene	68	100	68 %	46-118%	
2,4-Dinitrotoluene	85	100	85 %	24-96%	
Pyrene	83	100	83 %	26-127%	
Surrogate Recoveries					
2-Fluorophenol	117	150	78 %	21-100%	
Phenol-d5	118	150	79 %	10-94%	
2,4,6-Tribromophenol	120	150	80 %	10-123%	
Nitrobenzene-d5	84	100	84 %	35-114%	
2-Fluorobiphenyl	85	100	85 %	43-116%	
Terphenyl-d14	106	100	106 %	33-141%	
2-Chlorophenol-d4	119	150	79 %	33-110%	
1,2-Dichlorobenzene-d4	81	100	81 %	16-110%	
MSD RESULTS					
Phenol	99	150	66 %	12-110%	
2-Chlorophenol	103	150	69 %	27-123%	
4-Chloro-3-methylphenol	97	150	65 %	23-97%	
4-Nitrophenol	417	150	278 %	10-80%	*
Pentachlorophenol	58	150	39 %	9-103%	
1,4-Dichlorobenzene	68	100	68 %	36-97%	
N-Nitroso-di-n-propylamine	58	100	58 %	41-116%	
1,2,4-Trichlorobenzene	70	100	70 %	39-98%	
Acenaphthene	63	100	63 %	46-118%	
2,4-Dinitrotoluene	78	100	78 %	24-96%	
Pyrene	78	100	78 %	26-127%	
Surrogate Recoveries					
2-Fluorophenol	107	150	72 %	21-100%	
Phenol-d5	113	150	75 %	10-94%	
2,4,6-Tribromophenol	118	150	78 %	10-123%	
Nitrobenzene-d5	80	100	80 %	35-114%	
2-Fluorobiphenyl	80	100	80 %	43-116%	
Terphenyl-d14	101	100	101 %	33-141%	
2-Chlorophenol-d4	112	150	74 %	33-110%	
1,2-Dichlorobenzene-d4	75	100	75 %	16-110%	

RPD DATA		
Phenol	9 %	< 42%
2-Chlorophenol	7 %	< 40%
4-Chloro-3-methylphenol	4 %	< 42%
4-Nitrophenol	10 %	< 50%
Pentachlorophenol	0 %	< 50%
1,4-Dichlorobenzene	8 %	< 28%
N-Nitroso-di-n-propylamine	12 %	< 38%
1,2,4-Trichlorobenzene	4 %	< 28%
Acenaphthene	7 %	< 31%
2,4-Dinitrotoluene	9 %	< 38%
Pyrene	5 %	< 31%

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119452-002
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY
SAMPLE ID: 2 @ 9.5

DATE SAMPLED: 01/04/95
DATE RECEIVED: 01/10/95
DATE EXTRACTED: 01/16/95
DATE ANALYZED: 01/24/95
DATE REPORTED: 01/26/95
BATCH NO: 18547

ANALYSIS: POLYCHLORINATED BIPHENYLS (PCBs)
ANALYSIS METHOD: EPA 8080
EXTRACTION METHOD: EPA 3550

AROCLOR TYPE	RESULT (ug/Kg)	REPORTING LIMIT (ug/Kg)
AROCLOR 1221	ND	20
AROCLOR 1232	ND	20
AROCLOR 1016	ND	20
AROCLOR 1242	ND	20
AROCLOR 1248	ND	20
AROCLOR 1254	ND	20
AROCLOR 1260	ND	20

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

RPD, %	3
RECOVERY, %	98

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119452-003
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY
SAMPLE ID: 3 @ 9.5

DATE SAMPLED: 01/04/95
DATE RECEIVED: 01/10/95
DATE EXTRACTED: 01/16/95
DATE ANALYZED: 01/25/95
DATE REPORTED: 01/26/95
BATCH NO: 18547

ANALYSIS: POLYCHLORINATED BIPHENYLS (PCBs)
ANALYSIS METHOD: EPA 8080
EXTRACTION METHOD: EPA 3550

AROCLOR TYPE	RESULT (ug/Kg)	REPORTING LIMIT (ug/Kg)
AROCLOR 1221	ND	200 *
AROCLOR 1232	ND	200 *
AROCLOR 1016	ND	200 *
AROCLOR 1242	ND	200 *
AROCLOR 1248	ND	200 *
AROCLOR 1254	ND	200 *
AROCLOR 1260	ND	200 *

ND = Not detected at or above reporting limit.
* Elevated reporting limit due to high level of non-target analytes.

QA/QC SUMMARY

RPD, %	3
RECOVERY, %	98

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119452-004
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY
SAMPLE ID: 4 @ 9.5

DATE SAMPLED: 01/06/95
DATE RECEIVED: 01/10/95
DATE EXTRACTED: 01/16/95
DATE ANALYZED: 01/24/95
DATE REPORTED: 01/26/95
BATCH NO: 18547

ANALYSIS: POLYCHLORINATED BIPHENYLS (PCBs)
ANALYSIS METHOD: EPA 8080
EXTRACTION METHOD: EPA 3550

AROCLOR TYPE	RESULT (ug/Kg)	REPORTING LIMIT (ug/Kg)
AROCLOR 1221	ND	20
AROCLOR 1232	ND	20
AROCLOR 1016	ND	20
AROCLOR 1242	ND	20
AROCLOR 1248	ND	20
AROCLOR 1254	ND	20
AROCLOR 1260	ND	20

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

RPD, %	3
RECOVERY, %	98

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119452-005
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY
SAMPLE ID: 5 @ 6

DATE SAMPLED: 01/06/95
DATE RECEIVED: 01/10/95
DATE EXTRACTED: 01/16/95
DATE ANALYZED: 01/24/95
DATE REPORTED: 01/26/95
BATCH NO: 18547

ANALYSIS: POLYCHLORINATED BIPHENYLS (PCBs)
ANALYSIS METHOD: EPA 8080
EXTRACTION METHOD: EPA 3550

AROCLOR TYPE	RESULT (ug/Kg)	REPORTING LIMIT (ug/Kg)
AROCLOR 1221	ND	20
AROCLOR 1232	ND	20
AROCLOR 1016	ND	20
AROCLOR 1242	ND	20
AROCLOR 1248	ND	20
AROCLOR 1254	ND	20
AROCLOR 1260	ND	20

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

RPD, %	3
RECOVERY, %	98

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119452-007
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY
SAMPLE ID: 2

DATE SAMPLED: 01/05/95
DATE RECEIVED: 01/10/95
DATE EXTRACTED: 01/12/95
DATE ANALYZED: 01/24/95
DATE REPORTED: 01/26/95
BATCH NO: 18523

ANALYSIS: POLYCHLORINATED BIPHENYLS (PCBs)
ANALYSIS METHOD: EPA 8080
EXTRACTION METHOD: EPA 3520

AROCLOR TYPE	RESULT (ug/L)	REPORTING LIMIT (ug/L)
AROCLOR 1221	ND	1
AROCLOR 1232	ND	1
AROCLOR 1016	ND	1
AROCLOR 1242	ND	1
AROCLOR 1248	ND	1
AROCLOR 1254	ND	1
AROCLOR 1260	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

RPD, %	15
RECOVERY, %	108

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119452-008
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY
SAMPLE ID: 3

DATE SAMPLED: 01/06/95
DATE RECEIVED: 01/10/95
DATE EXTRACTED: 01/12/95
DATE ANALYZED: 01/24/95
DATE REPORTED: 01/26/95
BATCH NO: 18523

ANALYSIS: POLYCHLORINATED BIPHENYLS (PCBs)
ANALYSIS METHOD: EPA 8080
EXTRACTION METHOD: EPA 3520

AROCLOR TYPE	RESULT (ug/L)	REPORTING LIMIT (ug/L)
AROCLOR 1221	ND	1
AROCLOR 1232	ND	1
AROCLOR 1016	ND	1
AROCLOR 1242	ND	1
AROCLOR 1248	ND	1
AROCLOR 1254	ND	1
AROCLOR 1260	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

RPD, %	15
RECOVERY, %	108

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119452 METHOD BLANK
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY
SAMPLE ID: N/A

DATE SAMPLED: N/A
DATE RECEIVED: N/A
DATE EXTRACTED: 01/16/95
DATE ANALYZED: 01/20/95
DATE REPORTED: 01/24/95
BATCH NO: 18547

ANALYSIS: POLYCHLORINATED BIPHENYLS (PCBs)
ANALYSIS METHOD: EPA 8080
EXTRACTION METHOD: EPA 3550

AROCLOR TYPE	RESULT (ug/Kg)	REPORTING LIMIT (ug/Kg)
AROCLOR 1221	ND	20
AROCLOR 1232	ND	20
AROCLOR 1016	ND	20
AROCLOR 1242	ND	20
AROCLOR 1248	ND	20
AROCLOR 1254	ND	20
AROCLOR 1260	ND	20

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

RPD, %	3
RECOVERY, %	98

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119452 METHOD BLANK
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY
SAMPLE ID: N/A

DATE SAMPLED: N/A
DATE RECEIVED: N/A
DATE EXTRACTED: 01/12/95
DATE ANALYZED: 01/24/95
DATE REPORTED: 01/26/95
BATCH NO: 18523

ANALYSIS: POLYCHLORINATED BIPHENYLS (PCBs)
ANALYSIS METHOD: EPA 8080
EXTRACTION METHOD: EPA 3520

AROCLOR TYPE	RESULT (ug/L)	REPORTING LIMIT (ug/L)
AROCLOR 1221	ND	1
AROCLOR 1232	ND	1
AROCLOR 1016	ND	1
AROCLOR 1242	ND	1
AROCLOR 1248	ND	1
AROCLOR 1254	ND	1
AROCLOR 1260	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

RPD, %	15
RECOVERY, %	108

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119452-003
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY
SAMPLE ID: 3 @ 9.5

DATE SAMPLED: 01/04/95
DATE RECEIVED: 01/10/95
DATE ANALYZED: 01/12/95
DATE REPORTED: 01/25/95
BATCH NO: 18483

EPA METHOD 8240: VOLATILE ORGANICS IN SOILS & WASTES

COMPOUND	Result (ug/Kg)	Reporting Limit (ug/Kg)
Chloromethane	ND	50
Bromomethane	ND	50
Vinyl chloride	ND	50
Chloroethane	ND	50
Methylene chloride	ND	100
Acetone	ND	100
Carbon disulfide	ND	25
Trichlorofluoromethane	ND	25
1,1-Dichloroethene	ND	25
1,1-Dichloroethane	ND	25
trans-1,2-Dichloroethene	ND	25
cis-1,2-Dichloroethene	ND	25
Chloroform	ND	25
Freon 113	ND	25
1,2-Dichloroethane	ND	25
2-Butanone	ND	50
1,1,1-Trichloroethane	ND	25
Carbon tetrachloride	ND	25
Vinyl acetate	ND	250
Bromodichloromethane	ND	25
1,2-Dichloropropane	ND	25
cis-1,3-Dichloropropene	ND	25
Trichloroethene	ND	25
Dibromochloromethane	ND	25
1,1,2-Trichloroethane	ND	25
Benzene	57	25
trans-1,3-Dichloropropene	ND	25
Bromoform	ND	25
2-Hexanone	ND	50
4-Methyl-2-pentanone	ND	50
1,1,2,2-Tetrachloroethane	ND	25
Tetrachloroethene	ND	25
Toluene	100	25
Chlorobenzene	ND	25
Ethyl benzene	610	25
Styrene	ND	25
Total xylenes	1,300	25

ND = Not detected at or above reporting limit.

SURROGATE RECOVERIES

1,2-Dichloroethane-d4	96 %
Toluene-d8	85 %
Bromofluorobenzene	73 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119452-005
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY
SAMPLE ID: 5 @ 6

DATE SAMPLED: 01/06/95
DATE RECEIVED: 01/10/95
DATE ANALYZED: 01/12/95
DATE REPORTED: 01/25/95
BATCH NO: 18483

EPA METHOD 8240: VOLATILE ORGANICS IN SOILS & WASTES

COMPOUND	Result (ug/Kg)	Reporting Limit (ug/Kg)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
trans-1,2-Dichloroethene	ND	5
cis-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	50
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit.

SURROGATE RECOVERIES

1,2-Dichloroethane-d4	101 %
Toluene-d8	107 %
Bromofluorobenzene	54 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119452-006
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY
SAMPLE ID: 6 @ 8.5

DATE SAMPLED: 01/06/95
DATE RECEIVED: 01/10/95
DATE ANALYZED: 01/13/95
DATE REPORTED: 01/25/95
BATCH NO: 18507

EPA METHOD 8240: VOLATILE ORGANICS IN SOILS & WASTES

COMPOUND	Result (ug/Kg)	Reporting Limit (ug/Kg)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	26	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
trans-1,2-Dichloroethene	ND	5
cis-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	50
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit.

SURROGATE RECOVERIES

1,2-Dichloroethane-d4	111 %
Toluene-d8	107 %
Bromofluorobenzene	86 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119452-007
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY
SAMPLE ID: 2

DATE SAMPLED: 01/05/95
DATE RECEIVED: 01/10/95
DATE ANALYZED: 01/12/95
DATE REPORTED: 01/25/95
BATCH NO: 18503

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	25	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
trans-1,2-Dichloroethene	ND	5
cis-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	50
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

SURROGATE RECOVERIES

1,2-Dichloroethane-d4	100 %
Toluene-d8	107 %
Bromofluorobenzene	98 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119452-008
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY
SAMPLE ID: 3

DATE SAMPLED: 01/06/95
DATE RECEIVED: 01/10/95
DATE ANALYZED: 01/12/95
DATE REPORTED: 01/25/95
BATCH NO: 18503

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	20
Bromomethane	ND	20
Vinyl chloride	ND	20
Chloroethane	ND	20
Methylene chloride	ND	40
Acetone	ND	40
Carbon disulfide	ND	10
Trichlorofluoromethane	ND	10
1,1-Dichloroethene	ND	10
1,1-Dichloroethane	ND	10
trans-1,2-Dichloroethene	ND	10
cis-1,2-Dichloroethene	ND	10
Chloroform	ND	10
Freon 113	ND	10
1,2-Dichloroethane	ND	10
2-Butanone	ND	20
1,1,1-Trichloroethane	ND	10
Carbon tetrachloride	ND	10
Vinyl acetate	ND	100
Bromodichloromethane	ND	10
1,2-Dichloropropane	ND	10
cis-1,3-Dichloropropene	ND	10
Trichloroethene	ND	10
Dibromochloromethane	ND	10
1,1,2-Trichloroethane	ND	10
Benzene	120	10
trans-1,3-Dichloropropene	ND	10
Bromoform	ND	10
2-Hexanone	ND	20
4-Methyl-2-pentanone	ND	20
1,1,2,2-Tetrachloroethane	ND	10
Tetrachloroethene	ND	10
Toluene	180	10
Chlorobenzene	ND	10
Ethyl benzene	180	10
Styrene	65	10
Total xylenes	460	10

ND = Not detected at or above reporting limit

SURROGATE RECOVERIES

1,2-Dichloroethane-d4	99 %
Toluene-d8	101 %
Bromofluorobenzene	107 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119452 METHOD BLANK
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY
SAMPLE ID: N/A

DATE SAMPLED: N/A
DATE RECEIVED: N/A
DATE ANALYZED: 01/12/95
DATE REPORTED: 01/25/95
BATCH NO: 18483

EPA METHOD 8240: VOLATILE ORGANICS IN SOILS & WASTES

COMPOUND	Result (ug/Kg)	Reporting Limit (ug/Kg)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
trans-1,2-Dichloroethene	ND	5
cis-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	50
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit.

SURROGATE RECOVERIES

1,2-Dichloroethane-d4	88 %
Toluene-d8	80 %
Bromofluorobenzene	74 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119452 METHOD BLANK
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY
SAMPLE ID: N/A

DATE SAMPLED: N/A
DATE RECEIVED: N/A
DATE ANALYZED: 01/13/95
DATE REPORTED: 01/25/95
BATCH NO: 18507

EPA METHOD 8240: VOLATILE ORGANICS IN SOILS & WASTES

COMPOUND	Result (ug/Kg)	Reporting Limit (ug/Kg)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
trans-1,2-Dichloroethene	ND	5
cis-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	50
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit.

SURROGATE RECOVERIES

1,2-Dichloroethane-d4	107 %
Toluene-d8	102 %
Bromofluorobenzene	99 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119452 METHOD BLANK
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY
SAMPLE ID: N/A

DATE SAMPLED: N/A
DATE RECEIVED: N/A
DATE ANALYZED: 01/12/95
DATE REPORTED: 01/25/95
BATCH NO: 18503

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
trans-1,2-Dichloroethene	ND	5
cis-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	50
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

SURROGATE RECOVERIES

1,2-Dichloroethane-d4	97 %
Toluene-d8	107 %
Bromofluorobenzene	98 %

Curtis & Tompkins, Ltd

8240 Laboratory Control Sample Report

Curtis & Tompkins, Ltd.

Lab No: QC82710 LCS Datafile: CAB03
Date Analyzed: 11-JAN-95
Matrix: SOIL Operator: ATR
Batch No: 18483 425011122003

Compound	Instrdg	SpikeAmt	% Rec	Limits
1,1-Dichloroethene	45.3	50	91 %	59-172%
Trichloroethene	50.5	50	101 %	62-137%
Benzene	50.6	50	101 %	66-142%
Toluene	48.7	50	97 %	59-139%
Chlorobenzene	49.9	50	100 %	60-133%
Surrogate Recoveries				
1,2-Dichloroethane-d4	44.2	50	88 %	75-143%
Toluene-d8	40.2	50	80 %	77-134%
Bromofluorobenzene	35.7	50	71 %	65-129%

Results within Specifications - PASS

Note: Instrument C and D surrogates based on LCS data

Curtis & Tompkins, Ltd

Curtis & Tompkins, Ltd.

8240 Laboratory Control Sample Report

Lab No: QC82807
Date Analyzed: 12-JAN-95
Matrix: WATER
Batch No: 18503 435012145007

LCS Datafile: DAC07

Operator: TW

Compound	Instrdg	SpikeAmt	% Rec	Limits
1,1-Dichloroethene	55.1	50	110 %	61-145%
Trichloroethene	50.5	50	101 %	71-120%
Benzene	50.9	50	102 %	76-127%
Toluene	51.7	50	103 %	76-125%
Chlorobenzene	51.1	50	102 %	75-130%
Surrogate Recoveries				
1,2-Dichloroethane-d4	50.1	50	100 %	75-143%
Toluene-d8	53.7	50	107 %	77-134%
Bromofluorobenzene	48.4	50	97 %	65-129%

Results within Specifications - PASS

Note: Instrument C and D surrogates based on LCS data

Curtis & Tompkins, Ltd

8240 MS/MSD Report

Curtis & Tompkins, Ltd.

Matrix Sample Number: 119452-005
Lab No: QC82914 QC82915
Matrix: SOIL
Batch No: 18507 425013168007 425013174008 425013161006 Analyst: ATR

Date Analyzed: 13-JAN-95
Spike File: CAD07
Spike Dup File: CAD08

	Instrdg	SpikeAmt	% Rec	Limits
MS RESULTS				
1,1-Dichloroethene	66.5161	50	133 %	59-172%
Trichloroethene	64.2729	50	129 %	62-137%
Benzene	66.2964	50	131 %	66-142%
Toluene	62.9845	50	124 %	59-139%
Chlorobenzene	56.3536	50	113 %	60-133%
Surrogate Recoveries				
1,2-Dichloroethane-d4	58.693	50	117 %	75-143%
Toluene-d8	57.8622	50	116 %	77-134%
Bromofluorobenzene	44.263	50	89 %	65-129%
MSD RESULTS				
1,1-Dichloroethene	67.7622	50	136 %	59-172%
Trichloroethene	62.8626	50	126 %	62-137%
Benzene	65.465	50	129 %	66-142%
Toluene	67.2396	50	132 %	59-139%
Chlorobenzene	55.5673	50	111 %	60-133%
Surrogate Recoveries				
1,2-Dichloroethane-d4	56.9336	50	114 %	75-143%
Toluene-d8	58.4777	50	117 %	77-134%
Bromofluorobenzene	42.8489	50	86 %	65-129%

MATRIX RESULTS	
1,1-Dichloroethene	0
Trichloroethene	0
Benzene	1.0659
Toluene	1.0245
Chlorobenzene	0

RPD DATA		
1,1-Dichloroethene	2 %	< 22%
Trichloroethene	2 %	< 24%
Benzene	1 %	< 21%
Toluene	7 %	< 21%
Chlorobenzene	1 %	< 21%

Results within Specifications - PASS

Curtis & Tompkins, Ltd

Curtis & Tompkins, Ltd.

8240 MS/MSD Report

Matrix Sample Number: 119362-006 Date Analyzed: 12-JAN-95
Lab No: QC82809 QC82810 Spike File: DAC11
Matrix: WATER Spike Dup File: DAC12
Batch No: 18503 435012171011 435012177012 435012140006 Analyst: TW

	Instrdg	SpikeAmt	% Rec	Limits
MS RESULTS				
1,1-Dichloroethene	52.7838	50	106 %	61-145%
Trichloroethene	51.2623	50	103 %	71-120%
Benzene	125.2161	50	103 %	76-127%
Toluene	182.8251	50	99 %	76-125%
Chlorobenzene	50.9677	50	102 %	75-130%
Surrogate Recoveries				
1,2-Dichloroethane-d4	50.2427	50	100 %	75-143%
Toluene-d8	53.7004	50	107 %	77-134%
Bromofluorobenzene	50.4722	50	101 %	65-129%
MSD RESULTS				
1,1-Dichloroethene	50.2356	50	101 %	61-145%
Trichloroethene	48.8443	50	98 %	71-120%
Benzene	122.145	50	97 %	76-127%
Toluene	176.666	50	87 %	76-125%
Chlorobenzene	49.6319	50	99 %	75-130%
Surrogate Recoveries				
1,2-Dichloroethane-d4	50.5313	50	101 %	75-143%
Toluene-d8	53.5918	50	107 %	77-134%
Bromofluorobenzene	50.5344	50	101 %	65-129%
MATRIX RESULTS				
1,1-Dichloroethene	0			
Trichloroethene	0			
Benzene	73.6121			
Toluene	133.3666			
Chlorobenzene	0			
RPD DATA				
1,1-Dichloroethene	5 %			< 14%
Trichloroethene	5 %			< 14%
Benzene	2 %			< 11%
Toluene	3 %			< 13%
Chlorobenzene	3 %			< 13%

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119452
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY

DATE SAMPLED: 01/04,06/95
DATE RECEIVED: 01/10/95
DATE ANALYZED: 01/12,13/95
DATE REPORTED: 01/25/95

ANALYSIS: SULFATE
ANALYSIS METHOD: EPA 300.0

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
119452-001	1 @ 7.5	1,200	mg/Kg	25
119452-002	2 @ 9.5	13	mg/Kg	5
119452-003	3 @ 9.5	25	mg/Kg	5
119452-004	4 @ 9.5	11	mg/Kg	5
119452-005	5 @ 6	10	mg/Kg	5
119452-006	6 @ 8.5	18	mg/Kg	5
METHOD BLANK		ND	mg/Kg	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY:

RPD, %	<1
RECOVERY, %	94

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119452
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY

DATE SAMPLED: 01/05,06/95
DATE RECEIVED: 01/10/95
DATE ANALYZED: 01/12/95
DATE REPORTED: 01/25/95

ANALYSIS: SULFATE
ANALYSIS METHOD: EPA 300.0

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
119452-007	2	1.2	mg/L	0.5
119452-008	3	3.8	mg/L	0.5
METHOD BLANK		ND	mg/L	0.5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY:

RPD, %	2
RECOVERY, %	102

CHAIN OF CUSTODY FORM

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PAGE | OF

PROJECT NAME: 5200 COLISEUM WAY

JOB NUMBER: 911.001 LAB: CURTIS & TOMPKINS

PROJECT CONTACT: THOMAS CUNDEY TURNAROUND: NORMAL

SAMPLED BY: FERNANDO VELEZ REQUESTED BY: THOMAS CUNDEY

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX: WATER	SOIL	WASTE	AIR			CONTAINERS: VOA	LITER	PINT	TUBE			METHOD PRESERVED: HCL	H_2SO_4	HNO_3	ICE	NONE	SAMPLING DATE: MONTH	DAY	YEAR	TIME				NOTES	ANALYSIS REQUESTED: TEH	OIL & GREASE	TITLE 26 METALS	PH	CYANIDE	8270 W/PCBS	8240	SULFATE	TOTAL SULFIDE	
-1	1085		X								X						X		01	04	95						X	X	X	X	X		X	X	
-2	209.5		X								X						X		01	04	95						X	X	X	X	X	X	X	X	
-3	309.5		X								X						X		01	04	95						X	X	X	X	X	X	X	X	
-4	409.5		X								X						X		01	06	95						X	X	X	X	X	X	X	X	
-5	506		X								X						X		01	06	95						X	X	X	X	X	X	X	X	
-6	608.5		X								X						X		01	06	95						X	X	X	X	X		X	X	
-7	2	X						X	X	X				VARIOUS			X		01	05	95						X	X	X	X	X	X	X	X	X
-8	3	X						X	X	X							X		01	06	95						X	X	X	X	X	X	X	X	X

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
	1/10/95 4:45		1/10/95 4:45 pm
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COMMENTS & NOTES:

Water samples were not filtered.

No voas submitted on 8240 jaw 1/10/95 5pm

Not enough sample for cyanide - see job # 119552

Subsurface Consultants, Inc.

171 12TH STREET, SUITE 201, OAKLAND, CALIFORNIA 94607

(510) 268-0461 • FAX: 510-268-0137

Curtis & Tompkins, Ltd.

VERBAL ADDITIONS/CANCELLATIONS TO ANALYSIS REQUEST SHEET

Client: SCI Date: 1/11/95

Requested By: Tom Cundy Time: 1130 AM PM

Recorded By: MRP

Current Lab ID (Previous Lab ID)	Client ID	Circle Matrix	Specify add or cancel	Analysis	Due Date
11452-2 ( )	2@9.5	~~water~~ (soil) waste oil other	change	PCBs by 8080 (instead of 8270)	
-3 ( )	3@9.5	water (soil) waste oil other			
-4 ( )	4@9.5	water (soil) waste oil other			
-5 ( )	5@6	water (soil) waste oil other			
-7 ( )	2	(water) soil waste oil other			
-8 ( )	3	(water) soil waste oil other	↓		

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710. Phone (510) 486-0900

A N A L Y T I C A L R E P O R T

Prepared for:

Subsurface Consultants
171 12th Street
Suite 201
Oakland, CA 94608

Date: 26-JAN-95
Lab Job Number: 119552
Project ID: 911.001
Location: 5200 Coliseum Way

Reviewed by: _____

Reviewed by: _____

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 119552
CLIENT: SUBSURFACE CONSULTANTS, INC.
PROJECT ID: 911.001
LOCATION: 5200 COLISEUM WAY

DATE SAMPLED: 01/04,06/95
DATE RECEIVED: 01/17/95
DATE ANALYZED: 01/18/95
DATE REPORTED: 01/26/95

ANALYSIS: CYANIDE
ANALYSIS METHOD: EPA 335.2

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
119552-001	1 @ 6.0	ND	mg/Kg	1
119552-002	2 @ 10.0	ND	mg/Kg	1
119552-003	3 @ 8.5	ND	mg/Kg	1
119552-004	4 @ 6.0	ND	mg/Kg	1
119552-005	5 @ 5.5	ND	mg/Kg	1
119552-006	6 @ 9.0	ND	mg/Kg	1
METHOD BLANK		ND	mg/Kg	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY:

RPD, %	<1
RECOVERY, %	90

Curtis & Tompkins, Ltd.

Client: Subsurface Consultants

Laboratory Login Number: 119552

Project Name: 5200 Coliseum Way

Report Date: 26 January 95

Project Number: 911.001

ANALYSIS: pH

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	Method	Analyst	QC Batch
119552-001	1 @ 6.0	Soil	04-JAN-95	17-JAN-95	23-JAN-95	6.1	SU #	EPA 9045	TR	18726
119552-002	2 @ 10.0	Soil	04-JAN-95	17-JAN-95	23-JAN-95	9.2	SU #	EPA 9045	TR	18726
119552-003	3 @ 8.5	Soil	04-JAN-95	17-JAN-95	23-JAN-95	8.1	SU #	EPA 9045	TR	18726
119552-004	4 @ 6.0	Soil	06-JAN-95	17-JAN-95	23-JAN-95	8.1	SU #	EPA 9045	TR	18726
119552-005	5 @ 5.5	Soil	06-JAN-95	17-JAN-95	23-JAN-95	10.5	SU #	EPA 9045	TR	18726
119552-006	6 @ 9.0	Soil	06-JAN-95	17-JAN-95	23-JAN-95	8.4	SU *	EPA 9045	TR	18726

* Soil pH measured as water
\# Soil pH measured in 0.01 M CaCl2

Curtis & Tompkins, Ltd.

Q C B a t c h R e p o r t

Client: Subsurface Consultants
Project Name: 5200 Coliseum Way
Project Number: 911.001

Laboratory Login Number: 119552
Report Date: 26 January 95

ANALYSIS: pH

QC Batch Number: 18726

Calibration Verification Results

Sample	Result	TV	Difference	Limit	Analyzed
ICV	6.98	7.00	.02	< 0.10	23-JAN-95
CCV	7.01	7.00	.01	< 0.10	23-JAN-95
CCV	12.02	12.00	.02	< 0.10	23-JAN-95
CCV	12.01	12.00	.01	< 0.10	23-JAN-95

Sample Duplicate Results

Sample	Duplicate	RPD	Analyzed
10.49	10.53	.4%	23-JAN-95

CHAIN OF CUSTODY FORM

PAGE ____ OF ____

PROJECT NAME: 5200 Coliseum Way

JOB NUMBER: 911.001 LAB: Curtis & Tompkins

PROJECT CONTACT: Tom Cundey TURNAROUND: Normal

SAMPLED BY: Fernando Velez REQUESTED BY: Tom Cundey

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX						CONTAINERS						METHOD PRESERVED					SAMPLING DATE						NOTES	ANALYSIS REQUESTED
		WATER	SOIL	WASTE	AIR			VOA	LITER	PINT	TUBE			HCL	H_2SO_4	HNO_3	ICE	NONE	MONTH	DAY	YEAR	TIME				
119552-1	1@6.0		X								X						X		01	04	95				X	
-2	2@10.0		X								X						X		01	04	95				X	
-3	3@8.5		X								X						X		01	04	95				X	
-4	4@6.0		X								X						X		01	06	95				X	
-5	5@5.5		X								X						X		01	06	95				X	
-6	6@9.0		X								X						X		01	06	95				X	

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
Dennis Alexander	1/17/95 11:35 a.m.		
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
		Trag Bess	1/18/95 8:35 AM

COMMENTS & NOTES: X These are additional samples for previously delivered ones.

for cyanide analysis requested 1/10/95 - see job 119452. MKP

Subsurface Consultants, Inc.

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