650657

SOLUTIA

Applied Chemistry, Creative Solutions

Solutia Inc.
575 Maryville Centre Drive
St. Louis, Missouri 63141

P.O. Box 66760
St. Louis, Missouri 63166-6760
Tel 314-674-1000

July 13, 2000

Mr. Michael McAteer (SR-6J)
U. S. EPA - Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Re: <u>Undeveloped Area Sample Results / Locations</u>

Mike,

Per your request, enclosed are figures showing the locations of the Undeveloped Area sample results, which were submitted to the Agencies in the April 2000 monthly report for Sauget Sites Area I, dated April 10, 2000. Included in the enclosed figures are:

Broad Scan / Ecological Sediments
Figure 1 - Total VOAs
Figure 2 - Total SVOAs
Figure 3 - Total PCBs
Figure 4 - Total Pesticides
Figure 5 - Total Herbicides
Figure 6 - Arsenic
Figure 7 - Copper
Figure 8 - Nickel
Figure 9 - Zinc
Figure 10 - Dioxin - not yet available
Figure 11 - Reference areas

Surface Soils
Figure 1 - Total VOAs
Figure 2 - Total SVOCs
Figure 3 - Total PCBs
Figure 4 - Total Pesticides
Figure 5 - Total Herbicides
Figure 6 - Arsenic
Figure 7 - Copper
Figure 8 - Nickel
Figure 9 - Zinc
Figure 10 - Dioxin TEQs

Sub-surface Soil
Figure 1 - Total VOAs
Figure 2 - Total SVOAs
Figure 3 - Total PCBs
Figure 4 - Total Pesticides
Figure 5 - Total Herbicides
Figure 6 - Arsenic
Figure 7 - Copper
Figure 8 - Nickel
Figure 9 - Zinc
Figure 10 - Dioxin TEQs

We will also provide identical location information for the Developed Data when the validation process is complete. If you have additional questions, please call.

On a related topic and as I mentioned in my voice mail today, we recommend that Solutia and the Agencies meet periodically with our technical teams - perhaps once per month over the next 4-6 months - to informally review the interim data sets as the validation process is completed . Our intent would be to develop as much understanding of the data as possible - on a real time basis - such that there are no surprises in the next formal submittal. Also, as you are well aware, there is continuing interest from the community and other stakeholders on the results of the studies. We may be better able to more effectively communicate any early information the Agencies might deem appropriate and/or necessary, if all parties have a common understanding of the interim results.

Let me know your thoughts on this proposal and we will proceed accordingly.

Sincerely,

D. M. Light
Coordinator, Sauget Sites Area I

cc: (w/o enclosure)

Bruce Yare - 6S

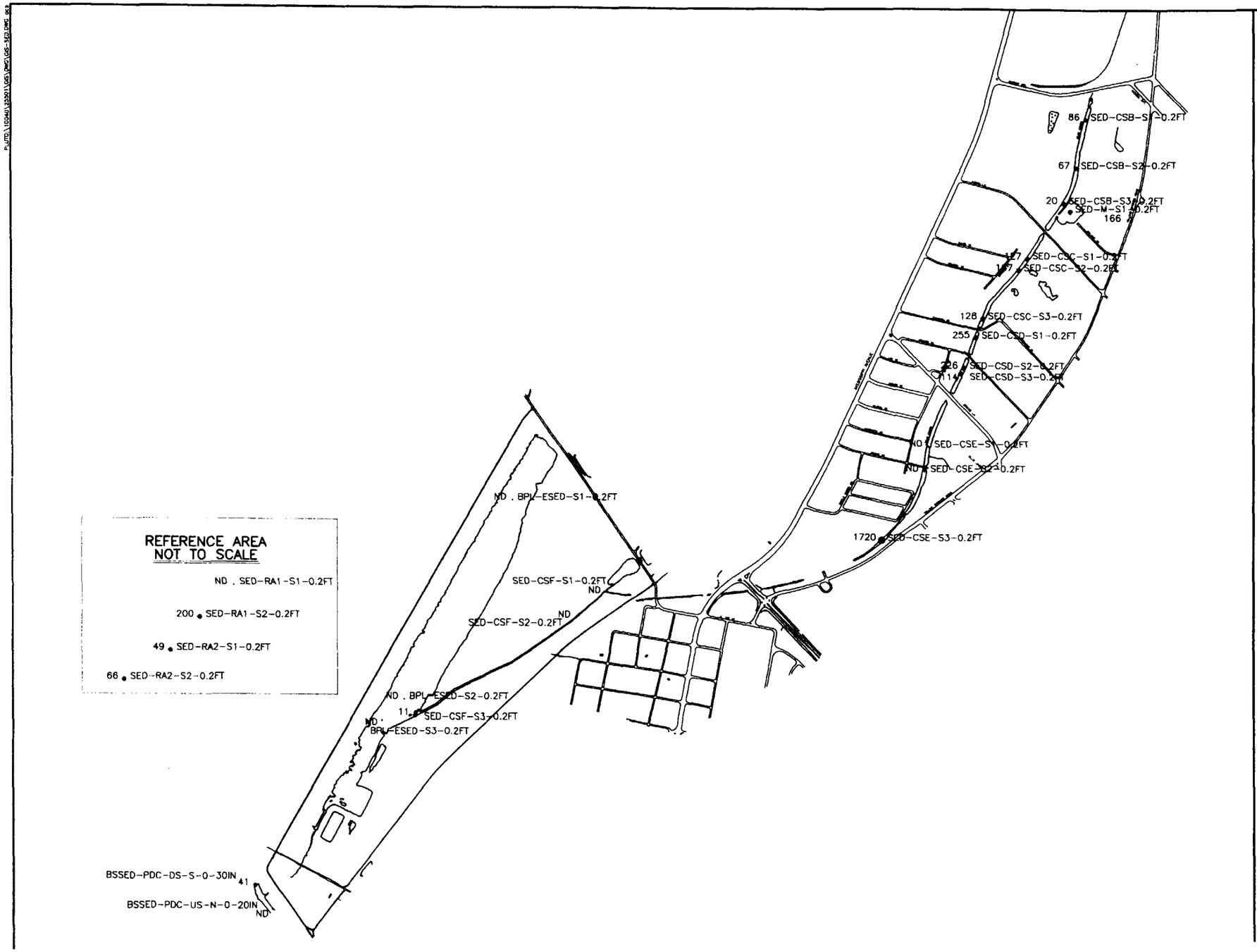

FIGURE 1

LEGEND
- NOT DETECTED
- < 1
- 1 – 10
- 10 – 100
- 100 – 1000
- > 1000

NOTE: UNITS = ug/Kg

SOLUTIA INC.
REMEDIATION TECHNOLOG
ST. LOUIS, MISSOU

SAUGET AREA
SUPPORT SAMPLING
SAUGET AND CAHOKIA,

BROAD SCAN/ECOL
SEDMENTS
TOTAL VOAs

600 0
SCALE IN FEET

FILE NO. 25501.SED.A
June 2000

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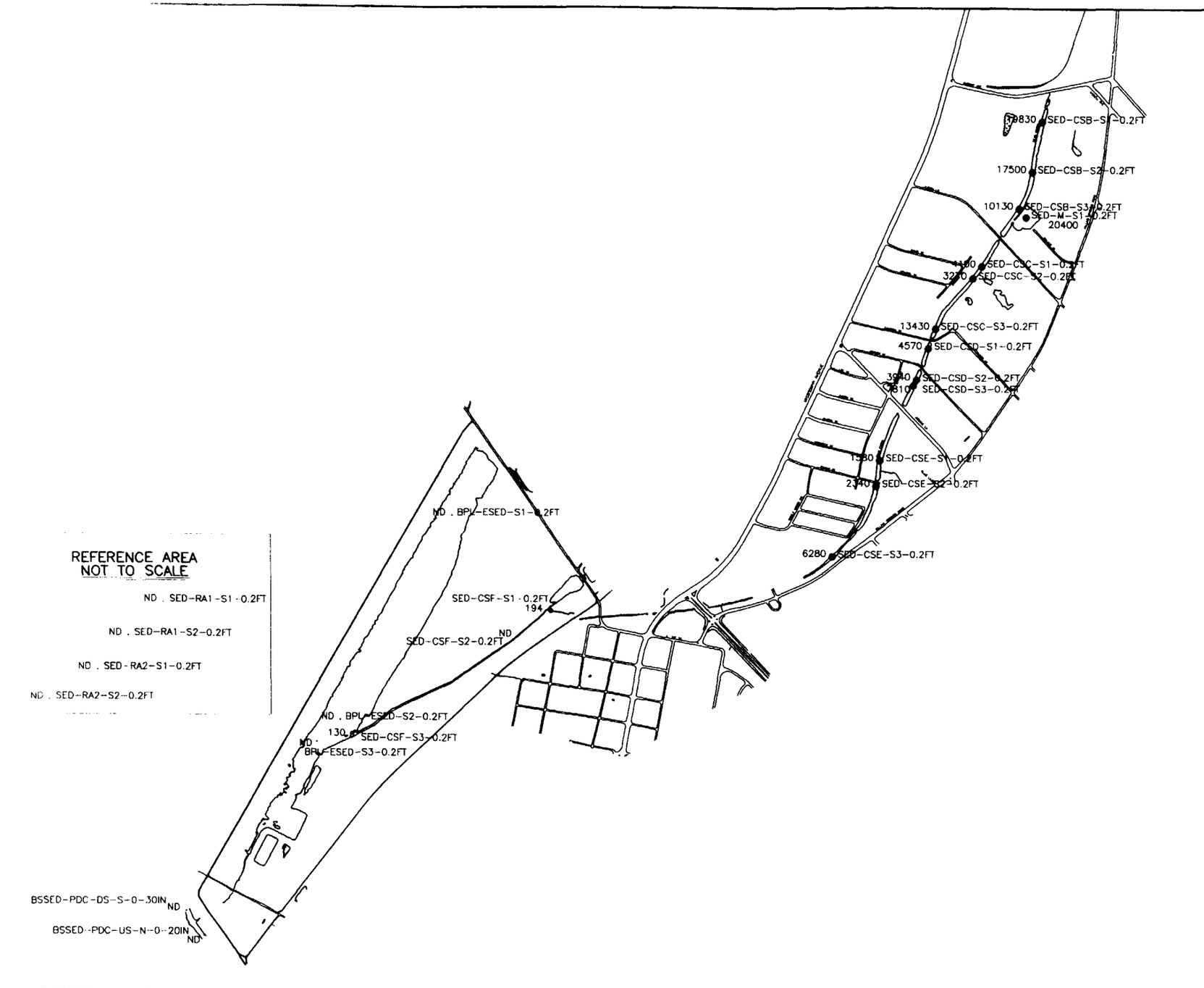
FIGURE 2



LEGEND

- NOT DETECTED
- < 1
- 1 - 10
- 10 - 100
- 100 - 1000
- > 1000

NOTE: UNITS = ug/Kg

SOLUTIA INC.
REMEDIATION TECHNOLOGY GROUP
ST. LOUIS, MISSOURI

SAUGET AREA 1
SUPPORT SAMPLING PLAN
SAUGET AND CAHOKIA, ILLINOIS

BROAD SCAN/ECOLOGICAL SEDIMENTS TOTAL SVOAs

600 0 600
SCALE IN FEET

FILE NO. 25501.SED.B
June 2000

O'BRIEN & GERE ENGINEERS, INC.

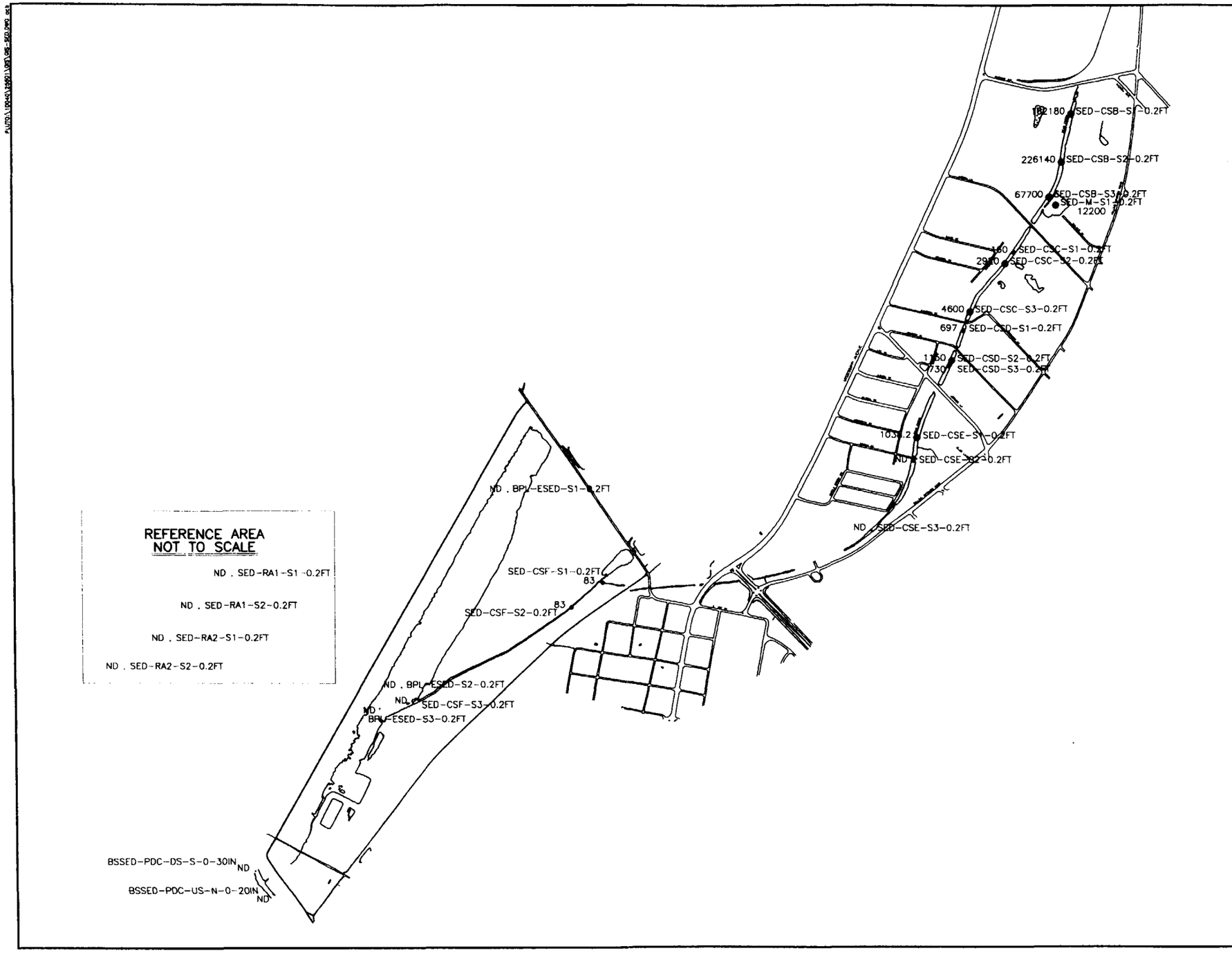


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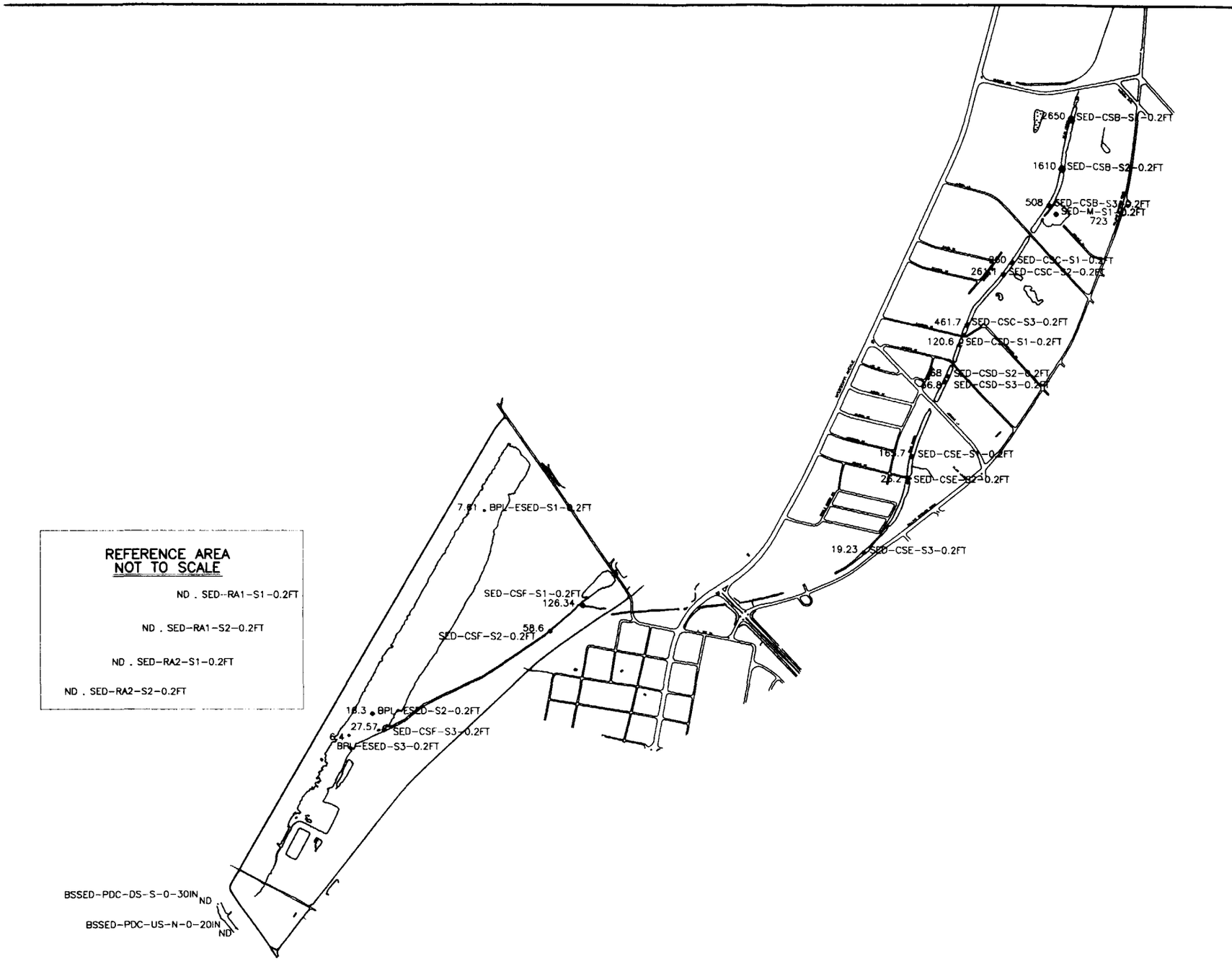
FIGURE 4



LEGEND

- NOT DETECTED
- < 1
- 1 - 10
- 10 - 100
- 100 - 1000
- > 1000

NOTE: UNITS = ug/Kg

SOLUTIA INC.
REMEDIATION TECHNOLOGY GROU
ST. LOUIS, MISSOURI

SAUGET AREA 1
SUPPORT SAMPLING PLA
SAUGET AND CAHOKIA, ILLIN

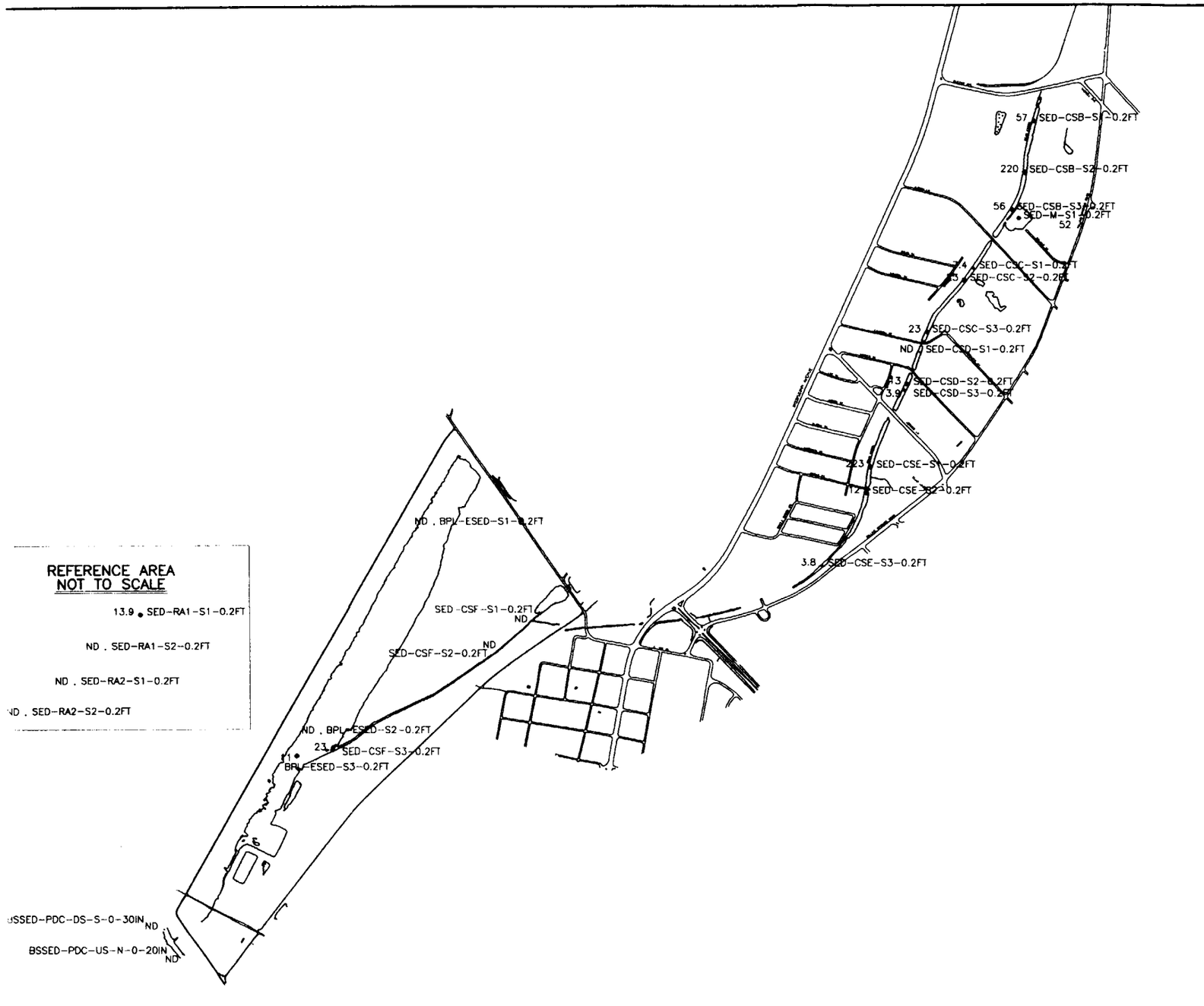
BROAD SCAN/ECOLOGIC
SEDIMENTS
TOTAL PESTICIDES

600 0 600
SCALE IN FEET

FILE NO. 25501.SED.D
June 2000

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 5



LEGEND

- NOT DETECTED
- < 1
- 1 - 10
- 10 - 100
- 100 - 1000
- > 1000

NOTE: UNITS = ug/Kg

SOLUTIA INC.
REMEDIATION TECHNOLOGY GROUP
ST. LOUIS, MISSOURI

SAUGET AREA 1
SUPPORT SAMPLING PLAN
SAUGET AND CAHOKIA, ILLINOIS

BROAD SCAN/ECOLOGICAL SEDIMENTS TOTAL HERBICIDES

600 0 600
SCALE IN FEET

FILE NO. 25501.SED.E
June 2000

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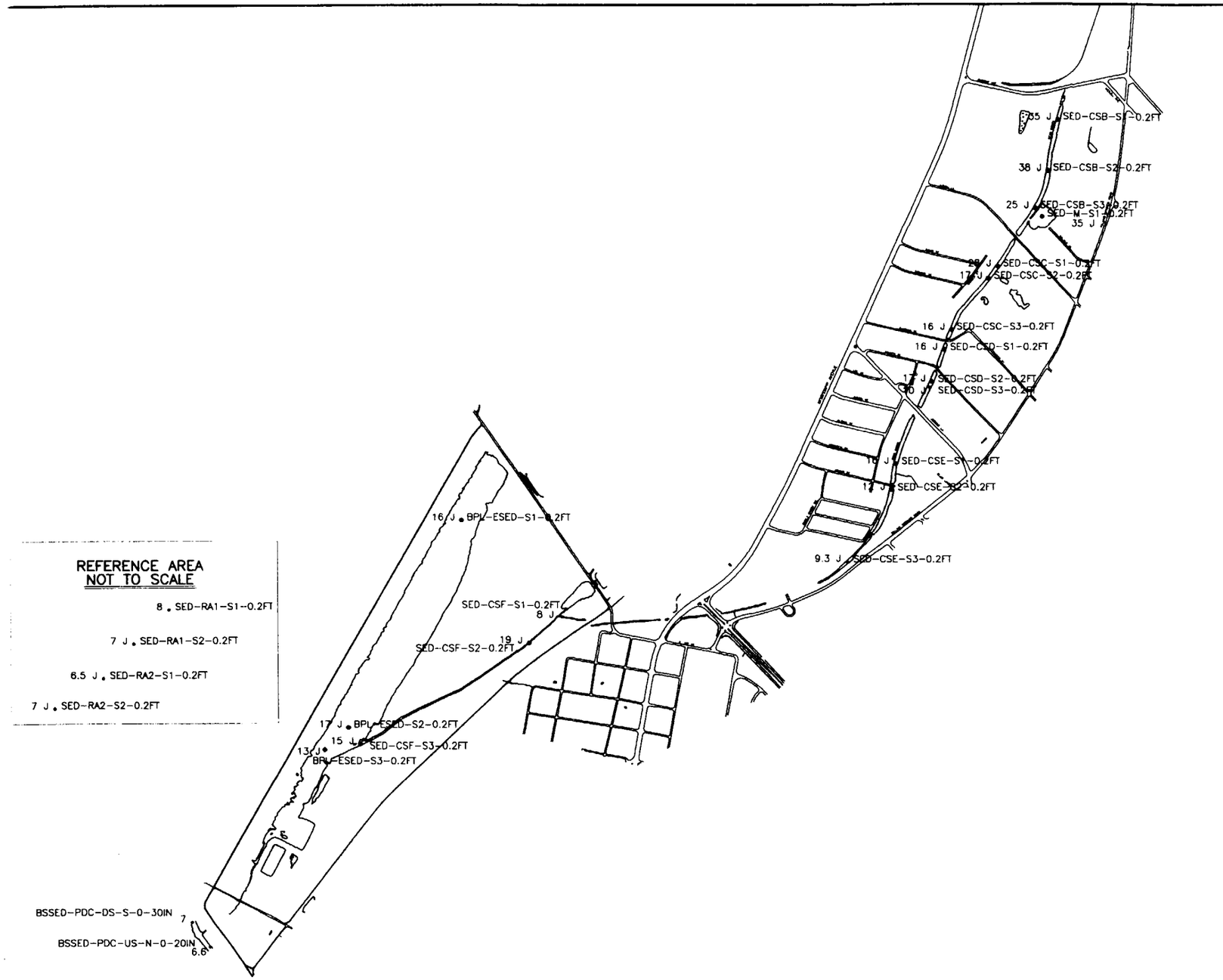
7

FIGURE 6



LEGEND

- NOT DETECTED
- < 1
- 1 – 10
- 10 – 100
- 100 – 1000
- > 1000

NOTE: UNITS = mg/Kg

SOLUTIA INC.
REMEDIATION TECHNOLOGY GROUP
ST. LOUIS, MISSOURI

SAUGET AREA 1
SUPPORT SAMPLING PLAN
SAUGET AND CAHOKIA, ILLINO

BROAD SCAN/ECOLOGICAI
SEDIMENTS
ARSENIC

600 0 600
SCALE IN FEET

FILE NO. 25501.SED.F
June 2000

O'BRIEN & GERE ENGINEERS, INC.

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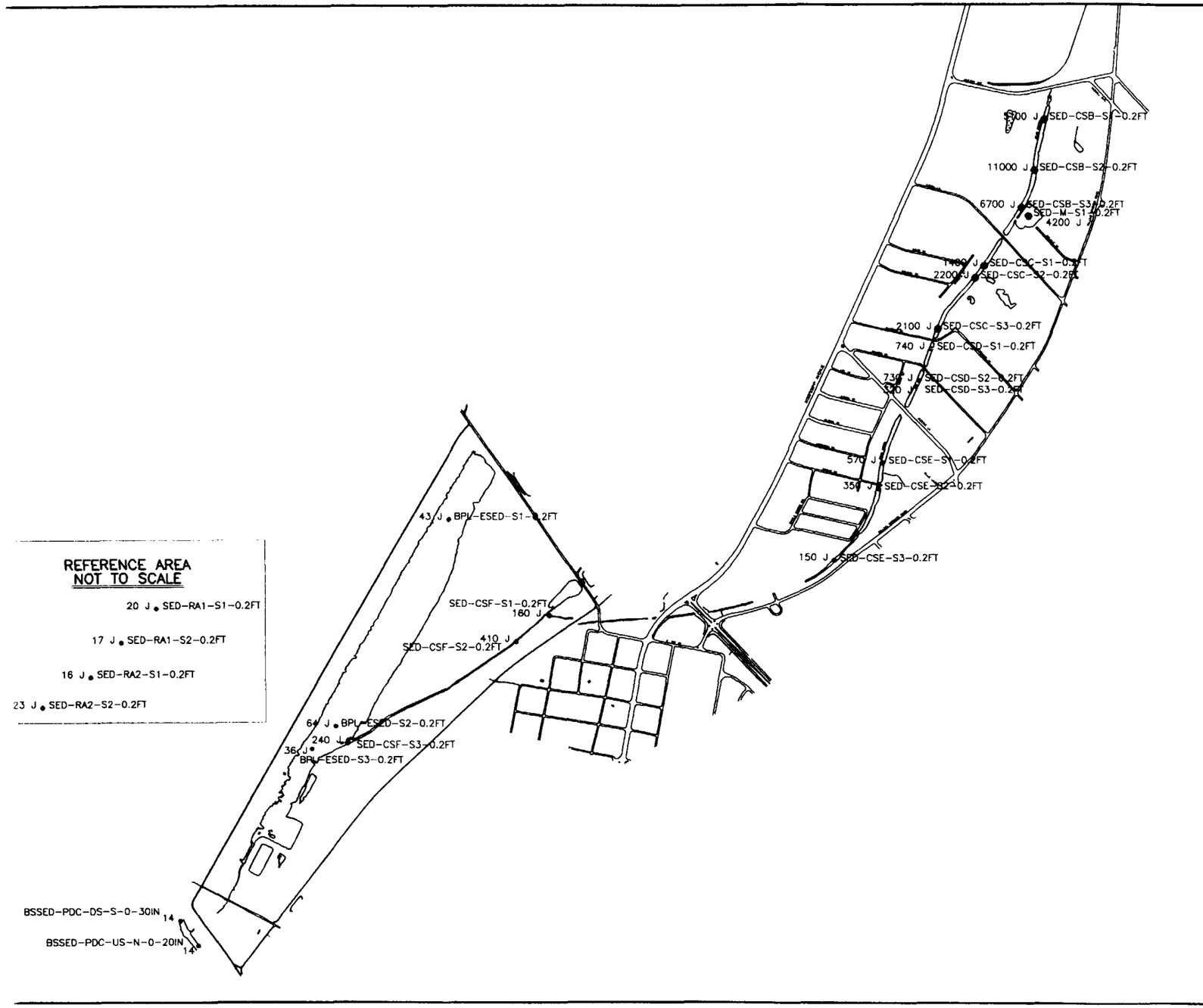
FIGURE 7



LEGEND

- NOT DETECTED
- < 1
- 1 - 10
- 10 - 100
- 100 - 1000
- > 1000

NOTE: UNITS = mg/Kg

SOLUTIA INC.
REMEDIATION TECHNOLOGY GROUP
ST. LOUIS, MISSOURI

SAUGET AREA 1
SUPPORT SAMPLING PLAN
SAUGET AND CAHOKIA, ILLINOIS

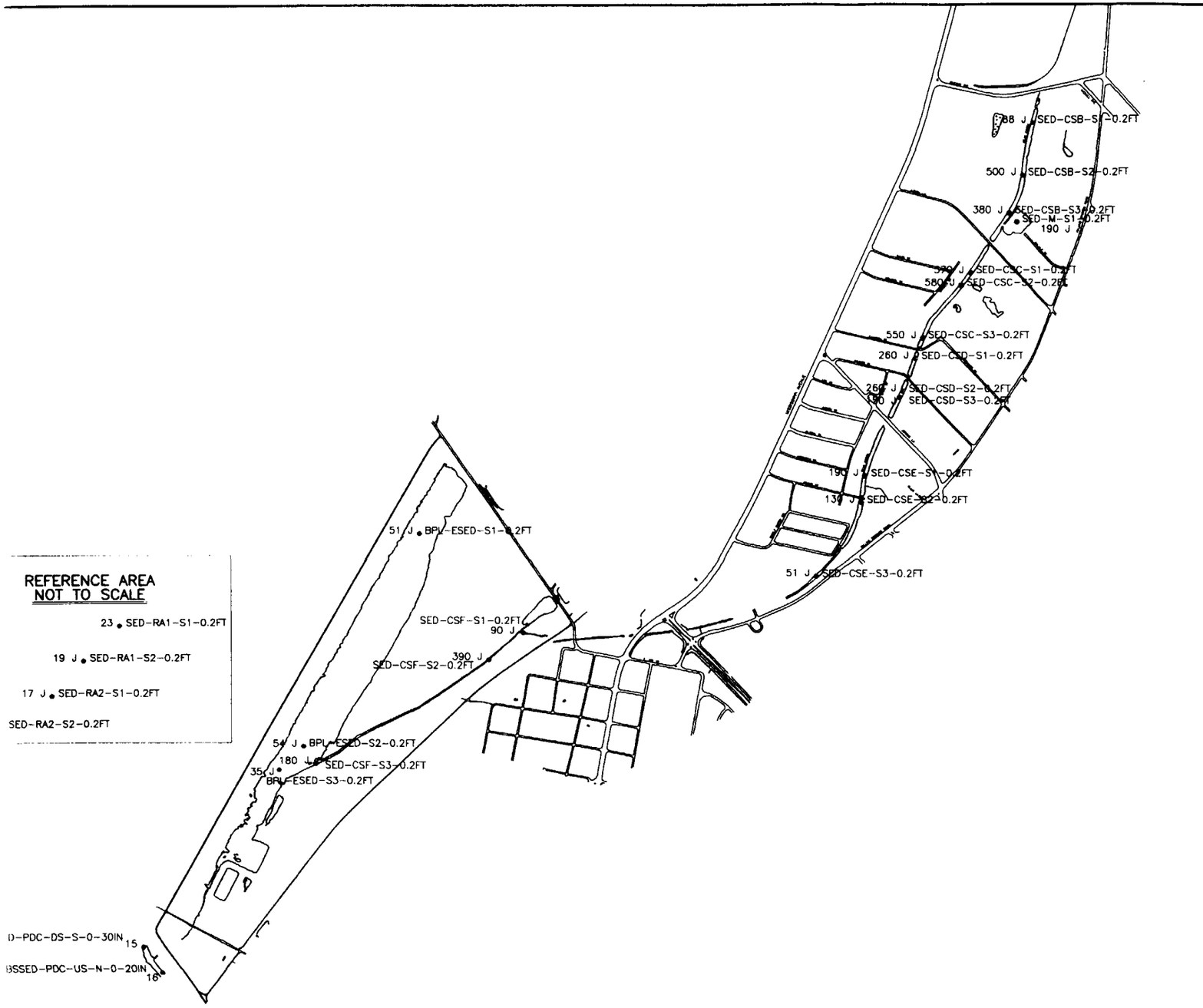
BROAD SCAN/ECOLOGICAL SEDIMENTS COPPER

600 0 600
SCALE IN FEET

FILE NO. 25501.SED.G
June 2000

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 8



LEGEND

- NOT DETECTED
- < 1
- 1 – 10
- 10 – 100
- 100 – 1000
- > 1000

NOTE: UNITS = mg/Kg

SOLUTIA INC.
REMEDIATION TECHNOLOGY GROUP
ST. LOUIS, MISSOURI

SAUGET AREA 1
SUPPORT SAMPLING PLAN
SAUGET AND CAHOKIA, ILLINOIS

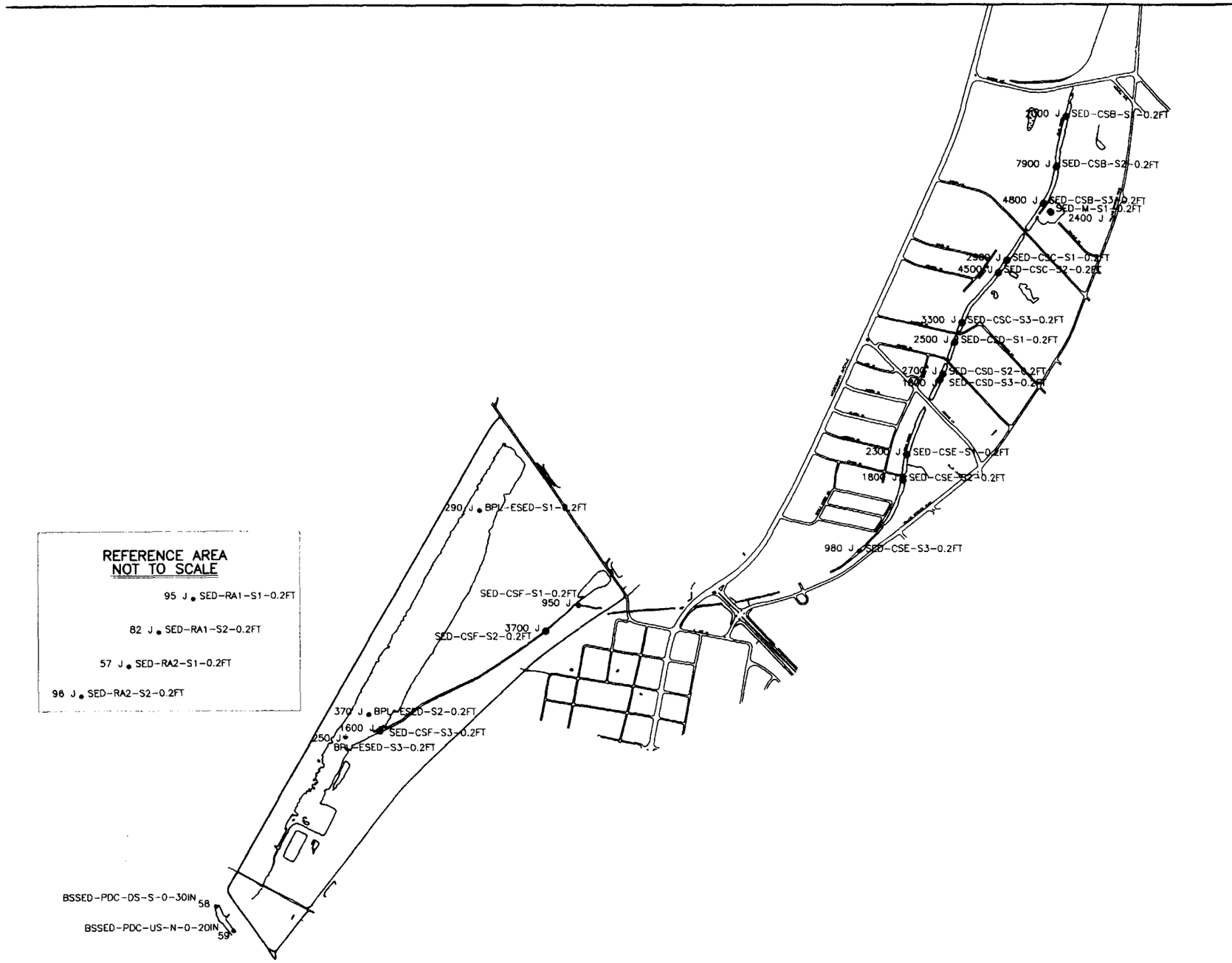
BROAD SCAN/ECOLOGICAL SEDIMENTS NICKEL

600 0 600
SCALE IN FEET

FILE NO. 25501.SED.H
June 2000

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 9



LEGEND

- NOT DETECTED
- < 1
- 1 - 10
- 10 - 100
- 100 - 1000
- > 1000

NOTE: UNITS = mg/Kg

SOLUTIA INC.
REMEDIATION TECHNOLOGY GROUP
ST. LOUIS, MISSOURI

SAUGET AREA 1
SUPPORT SAMPLING PLAN
SAUGET AND CAHOKIA, ILLINOIS

BROAD SCAN/ECOLOGICAL SEDIMENTS ZINC

600 0 600
SCALE IN FEET

FILE NO. 25501.SED.I
June 2000

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 11

SED-RA1-S1-0.2FT

SED-RA1-S2-0.2FT

SED-RA2-S1-0.2FT

SED-RA2-S2-0.2FT

SOLUTIA INC.
REMEDIATION TECHNOLOGY GROUP
ST. LOUIS, MISSOURI

SAUGET AREA 1
SUPPORT SAMPLING PLAN
SAUGET AND CAHOKIA, ILLINOIS

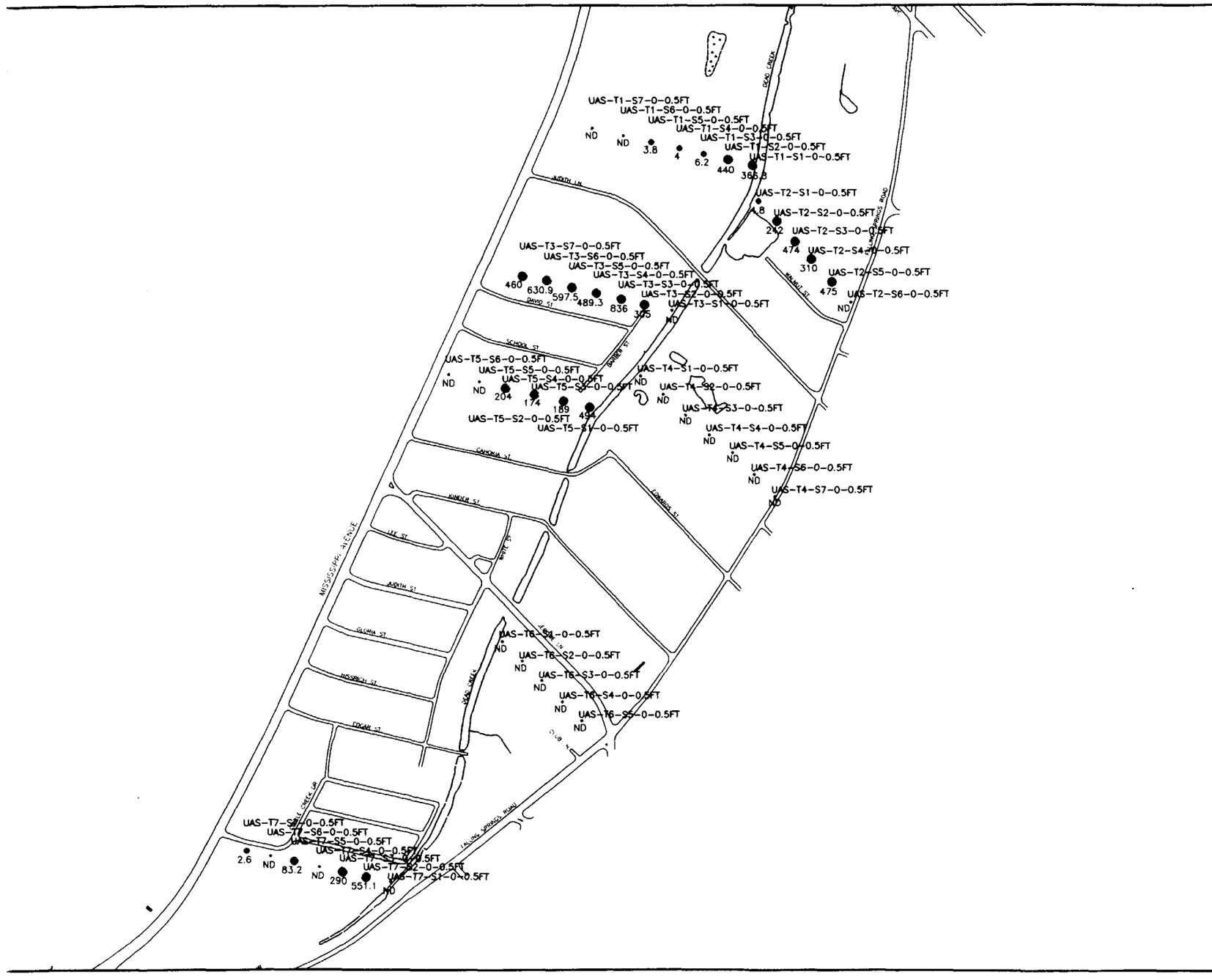
BROAD SCAN/ECOLOGICAL SEDIMENTS REFERENCE AREA LOCATION MAP

1 0 1 2
SCALE IN MILES

FILE NO. 25501.SED-BIG
June 2000

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 1



LEGEND

- NOT DETECTED
- < 1
- 1 – 10
- 10 – 100
- 100 – 1000
- > 1000

NOTE: UNITS = ug/Kg

SOLUTIA INC.
REMEDIATION TECHNOLOGY GROUP
ST. LOUIS, MISSOURI

SAUGET AREA 1
SUPPORT SAMPLING PLAN
SAUGET AND CAHOKIA, ILLINOIS

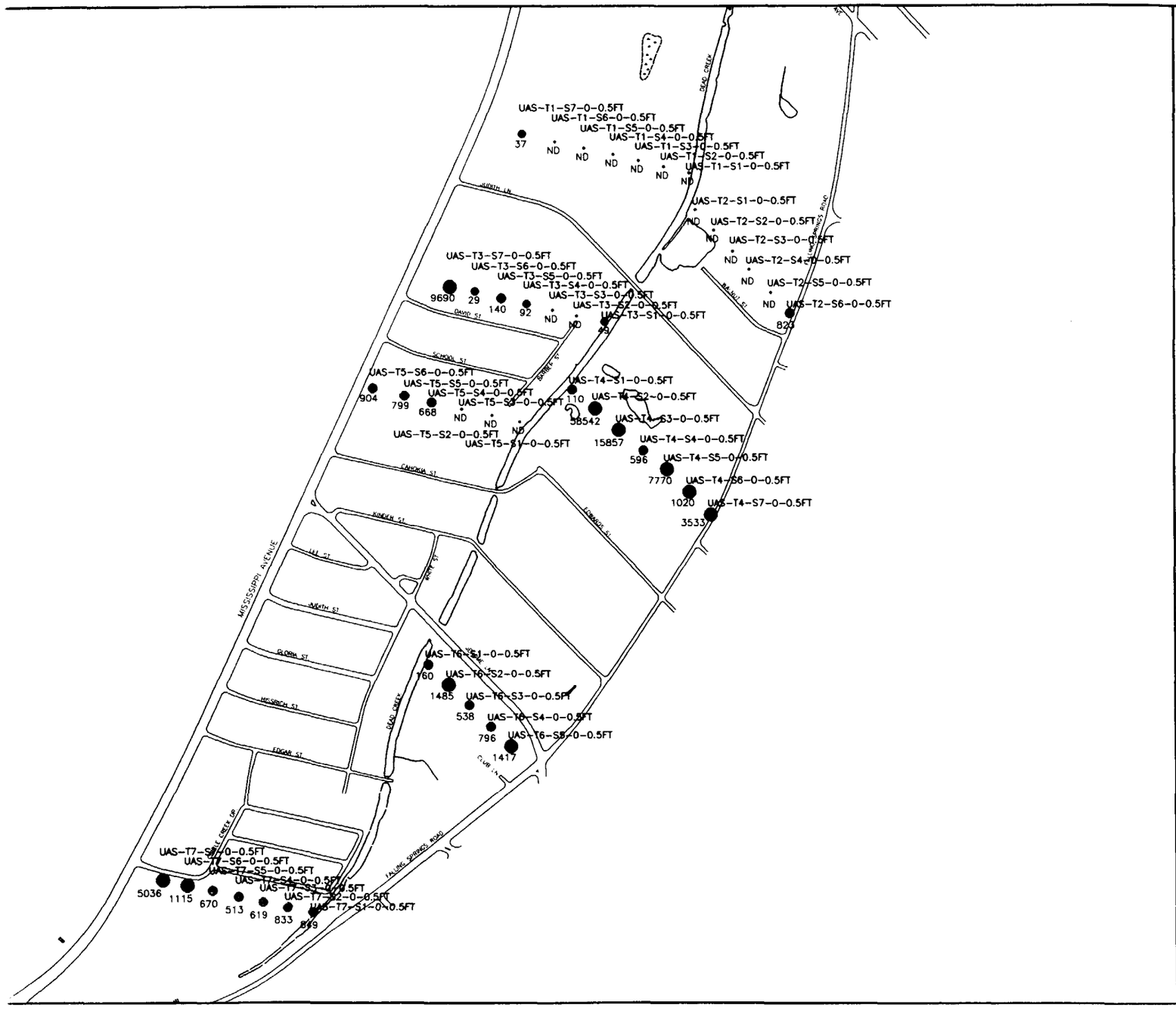
UNDEVELOPED AREA
SURFACE SOIL
TOTAL VOAs

300 0 300
SCALE IN FEET

FILE NO. 25501.UASS.A
June 2000

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 2



LEGEND

- ND NOT DETECTED
- < 1
- 1 - 10
- 10 - 100
- 100 - 1000
- > 1000

NOTE: UNITS = ug/Kg

SOLUTIA INC.
REMEDIATION TECHNOLOGY GROUP
ST. LOUIS, MISSOURI

SAUGET AREA 1
SUPPORT SAMPLING PLAN
SAUGET AND CAHOKIA, ILLINOIS

UNDEVELOPED AREA
SURFACE SOIL
TOTAL SVOAs

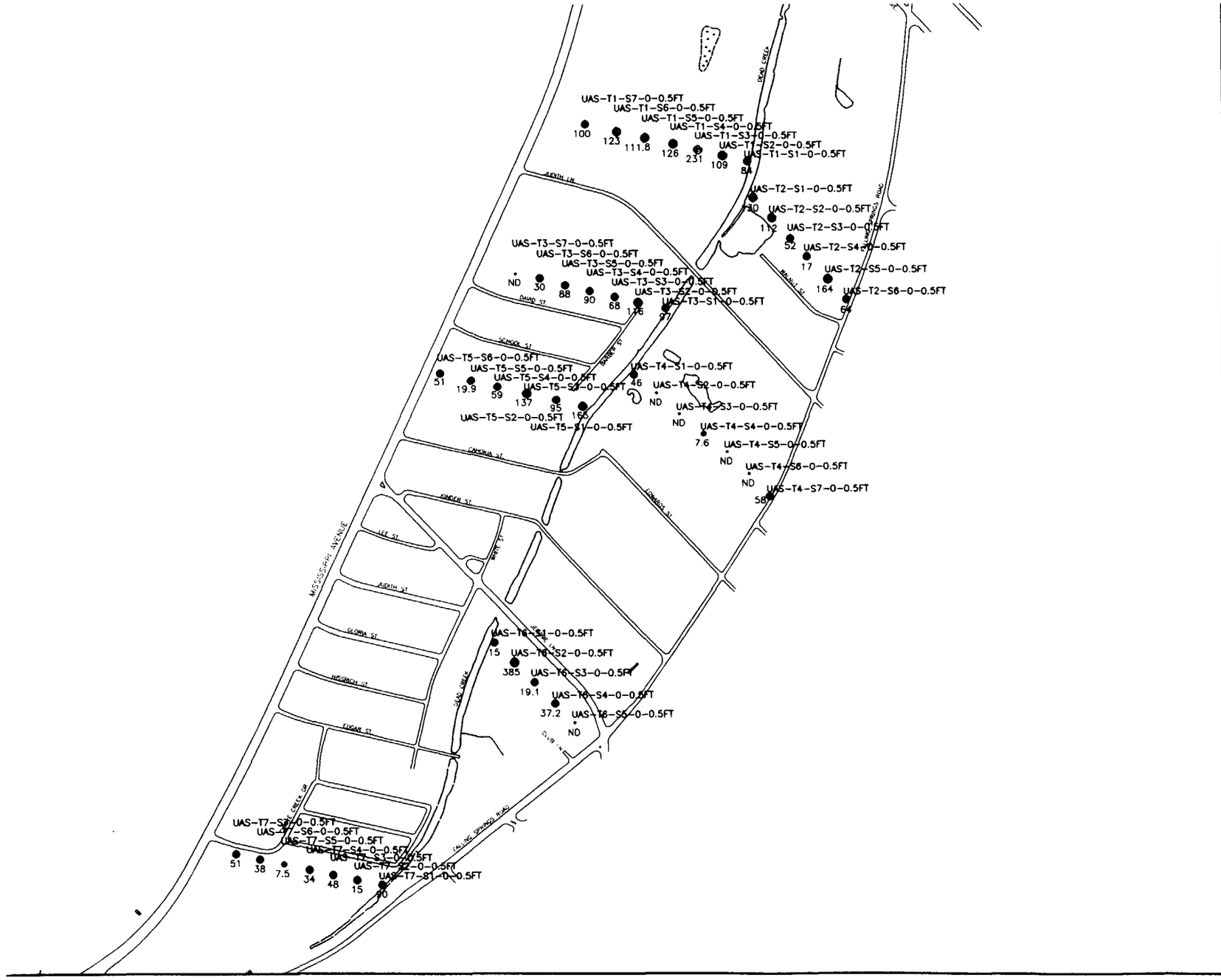
300 0 300
SCALE IN FEET

FILE NO. 25501.UASS.B
June 2000

O'BRIEN & GERE ENGINEERS, INC.

14

FIGURE 3



LEGEND

- • NOT DETECTED
- ● < 1
- ● 1 – 10
- ● 10 – 100
- ● 100 – 1000
- ● > 1000

NOTE: UNITS = ug/Kg

SOLUTIA INC.
REMEDIATION TECHNOLOGY GROUP
ST. LOUIS, MISSOURI

SAUGET AREA 1
SUPPORT SAMPLING PLAN
SAUGET AND CAHOKIA, ILLINOIS

UNDEVELOPED AREA
SURFACE SOIL
TOTAL PCBs

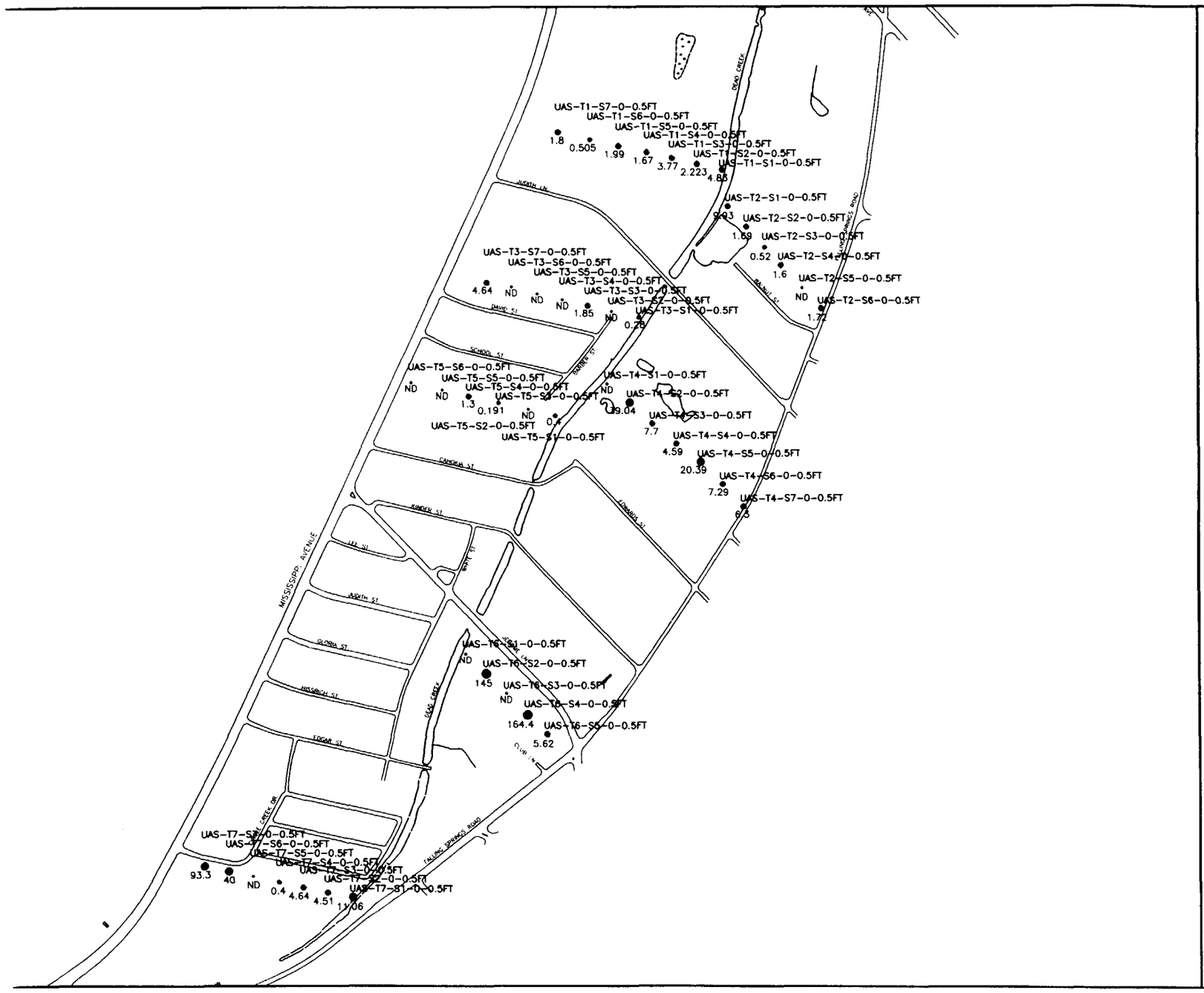
300 0 300
SCALE IN FEET

FILE NO. 25501.UASS.C
June 2000

OBERMEYER & GERE
ENGINEERS, INC.

VS

FIGURE 4



LEGEND

- • NOT DETECTED
- ● < 1
- ● 1 - 10
- ● 10 - 100
- ● 100 - 1000
- ● > 1000

NOTE: UNITS = ug/Kg

SOLUTIA INC.
REMEDIATION TECHNOLOGY GROUP
ST. LOUIS, MISSOURI

SAUGET AREA 1
SUPPORT SAMPLING PLAN
SAUGET AND CAHOKIA, ILLINOIS

UNDEVELOPED AREA
SURFACE SOIL
TOTAL PESTICIDES

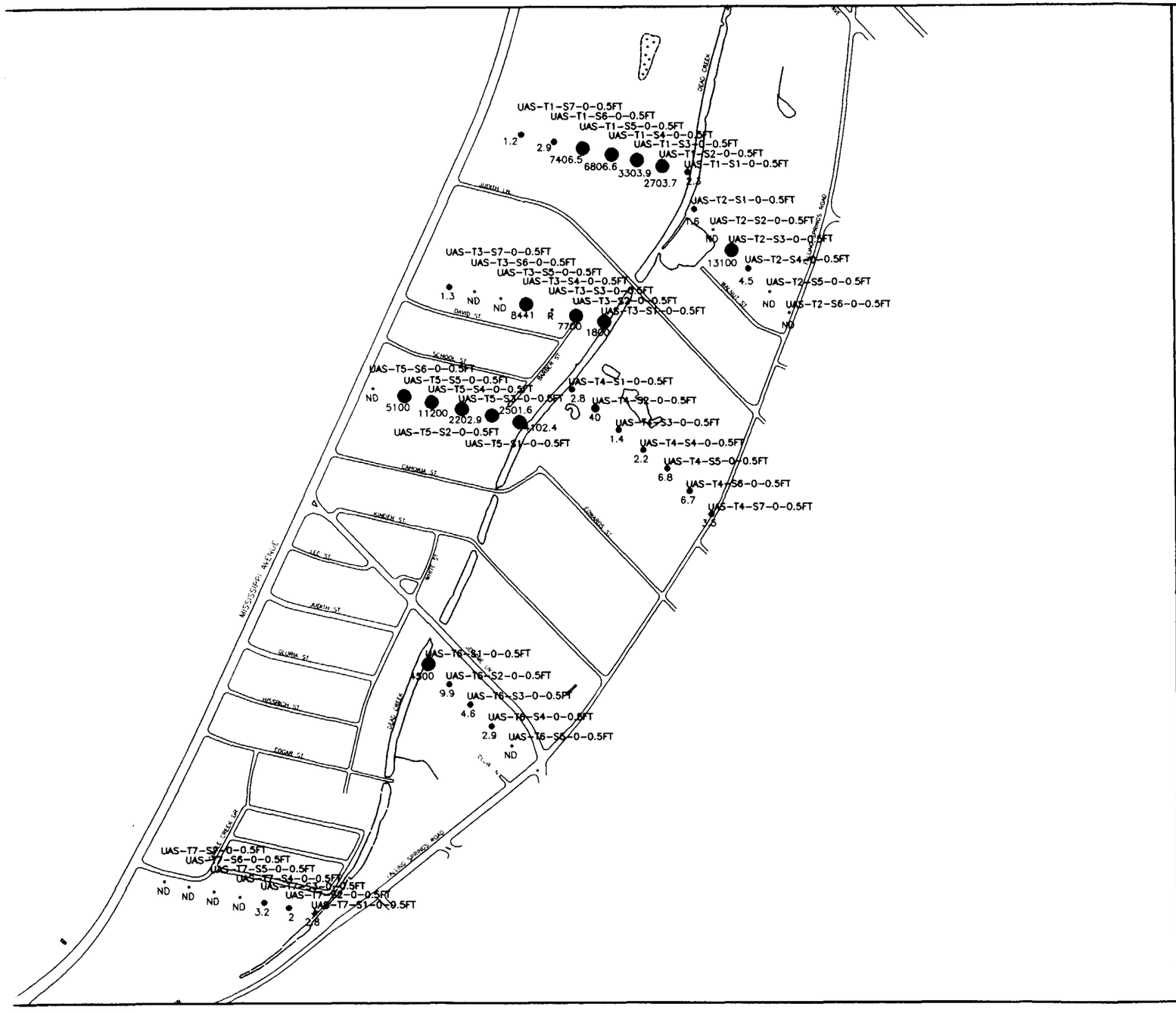
300 0 300
SCALE IN FEET

FILE NO. 25501.UASS.D
June 2000

O'BRIEN & GERE ENGINEERS, INC.

16

FIGURE 5



LEGEND

- • NOT DETECTED
- ● < 1
- ● 1 - 10
- ● 10 - 100
- ● 100 - 1000
- ● > 1000

NOTE: UNITS = ug/Kg

SAMPLE UAS-T3-S3 HERBICIDE RESULTS WERE DETERMINED TO BE UNUSABLE DURING DATA VALIDATION (R)

SOLUTIA INC.
REMEDIATION TECHNOLOGY GROUP
ST. LOUIS, MISSOURI

SAUGET AREA 1
SUPPORT SAMPLING PLAN
SAUGET AND CAHOKIA, ILLINOIS

UNDEVELOPED AREA
SURFACE SOIL
TOTAL HERBICIDES

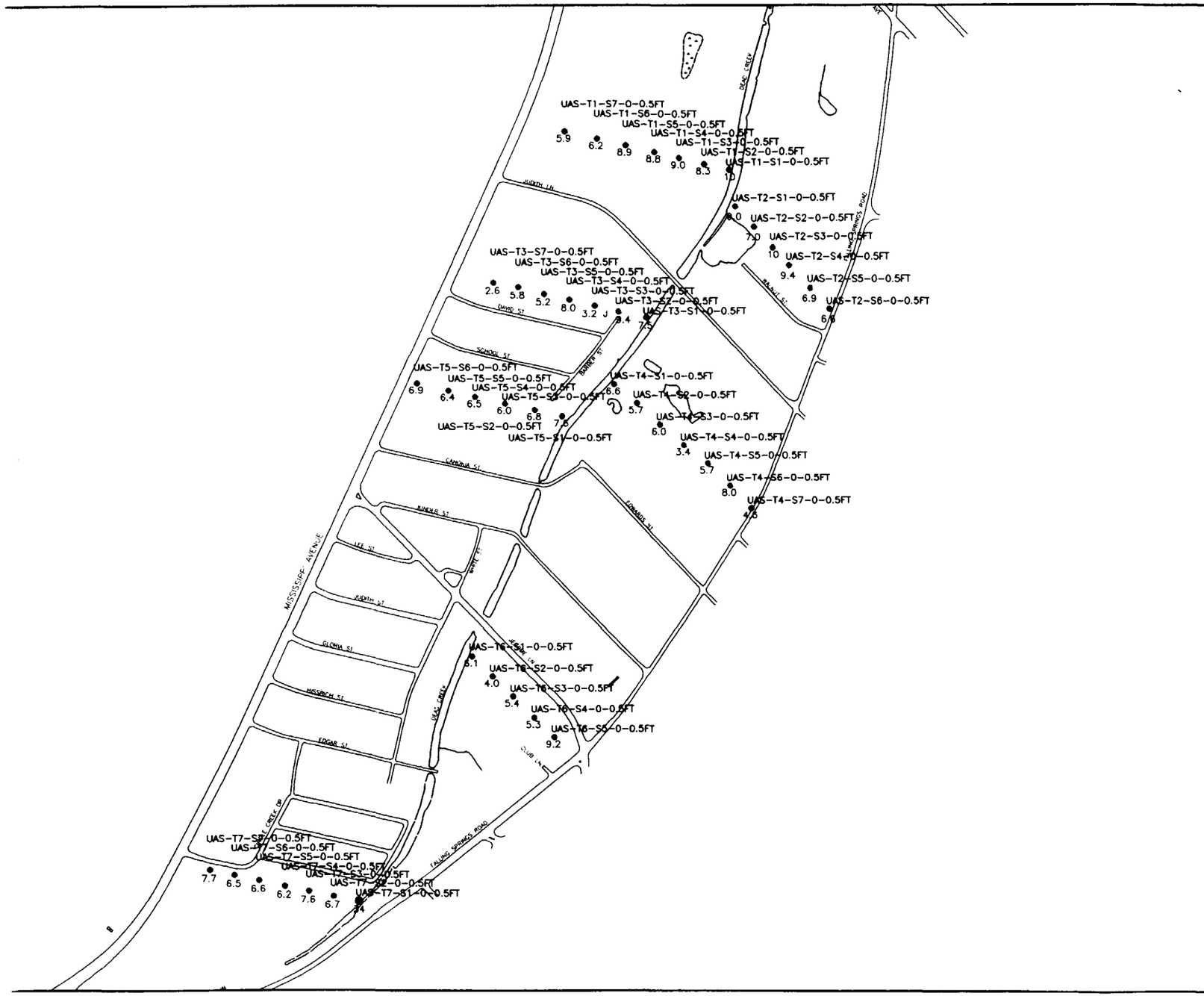
300 0 300
SCALE IN FEET

FILE NO. 25501.UASS.E
June 2000

O'BRIEN & GERE ENGINEERS, INC.

17

FIGURE 6



LEGEND

- • NOT DETECTED
- < 1
- 1 - 10
- 10 - 100
- 100 - 1000
- > 1000

NOTE: UNITS = mg/Kg

SOLUTIA INC.
REMEDIATION TECHNOLOGY GROUP
ST. LOUIS, MISSOURI

SAUGET AREA 1
SUPPORT SAMPLING PLAN
SAUGET AND CAHOKIA, ILLINOIS

UNDEVELOPED AREA SURFACE SOIL ARSENIC

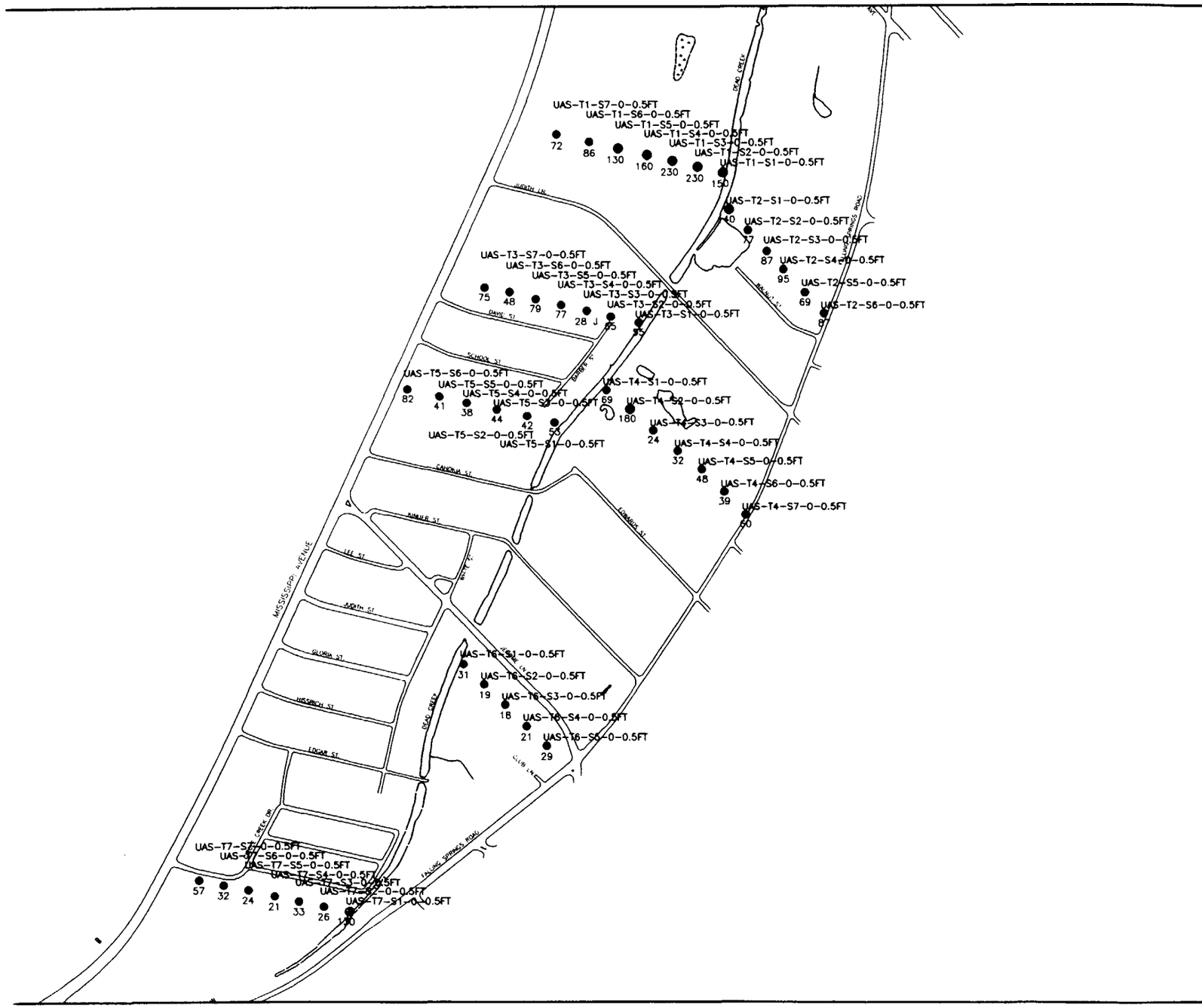
300 0 300
SCALE IN FEET

FILE NO. 25501.UASS.F
June 2000

O'BRIEN & GERE ENGINEERS, INC.

18

FIGURE 7



LEGEND

- NOT DETECTED
- < 1
- 1 - 10
- 10 - 100
- 100 - 1000
- > 1000

NOTE: UNITS = mg/kg

SOLUTIA INC.
REMEDIATION TECHNOLOGY GROUP
ST. LOUIS, MISSOURI

SAUGET AREA 1
SUPPORT SAMPLING PLAN
SAUGET AND CAHOKIA, ILLINOIS

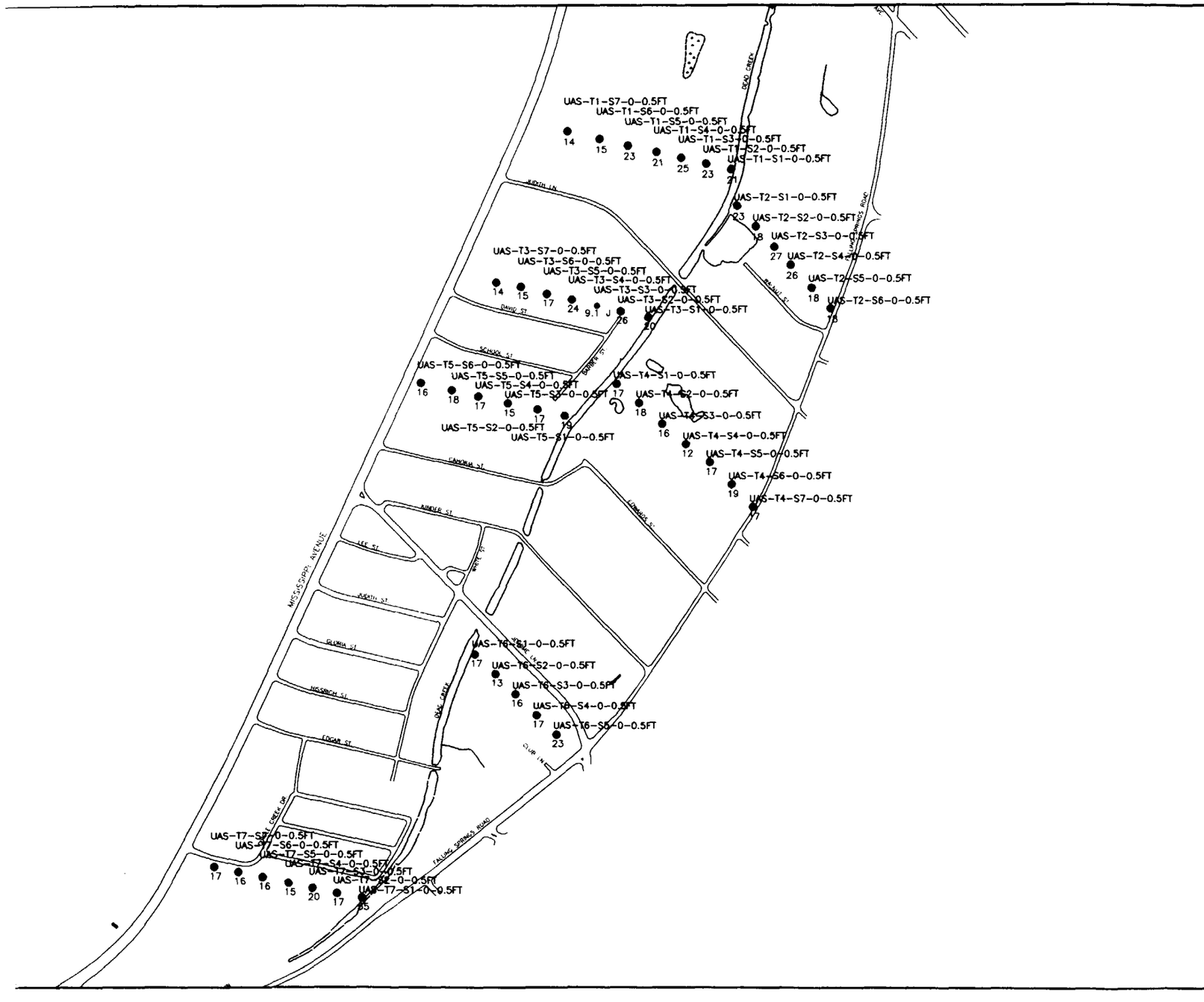
UNDEVELOPED AREA
SURFACE SOIL
COPPER

300 0 300
SCALE IN FEET

FILE NO. 25501.UASS.G
June 2000

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 8



LEGEND

- * NOT DETECTED
- < 1
- 1 – 10
- 10 – 100
- 100 – 1000
- > 1000

NOTE: UNITS = mg/Kg

SOLUTIA INC.
REMEDIATION TECHNOLOGY GROUP
ST. LOUIS, MISSOURI

SAUGET AREA 1
SUPPORT SAMPLING PLAN
SAUGET AND CAHOKIA, ILLINOIS

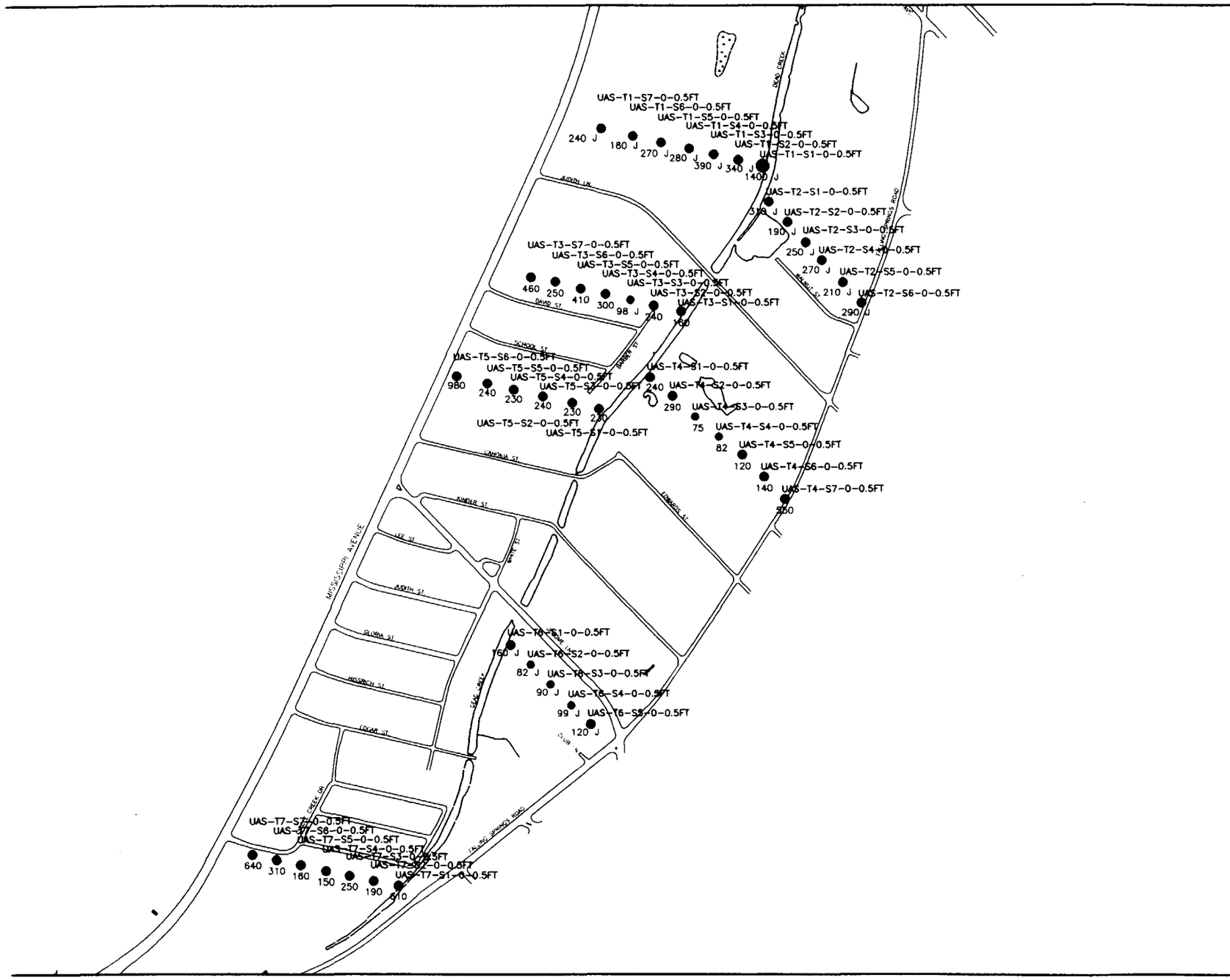
UNDEVELOPED AREA
SURFACE SOIL
NICKEL

300 0 300
SCALE IN FEET

FILE NO. 25501.UASS.H
June 2000

O'BRIEN & GERE ENGINEERS, INC.

FIGURE 9



LEGEND

- • NOT DETECTED
- ● < 1
- ● 1 - 10
- ● 10 - 100
- ● 100 - 1000
- ● > 1000

NOTE: UNITS = mg/Kg

SOLUTIA INC.
REMEDIATION TECHNOLOGY GROUP
ST. LOUIS, MISSOURI

SAUGET AREA 1
SUPPORT SAMPLING PLAN
SAUGET AND CAHOKIA, ILLINOIS

UNDEVELOPED AREA
SURFACE SOIL
ZINC

300 0 300
SCALE IN FEET

FILE NO. 25501.UASS.I
June 2000

O'BRIEN & GERE ENGINEERS, INC.

21

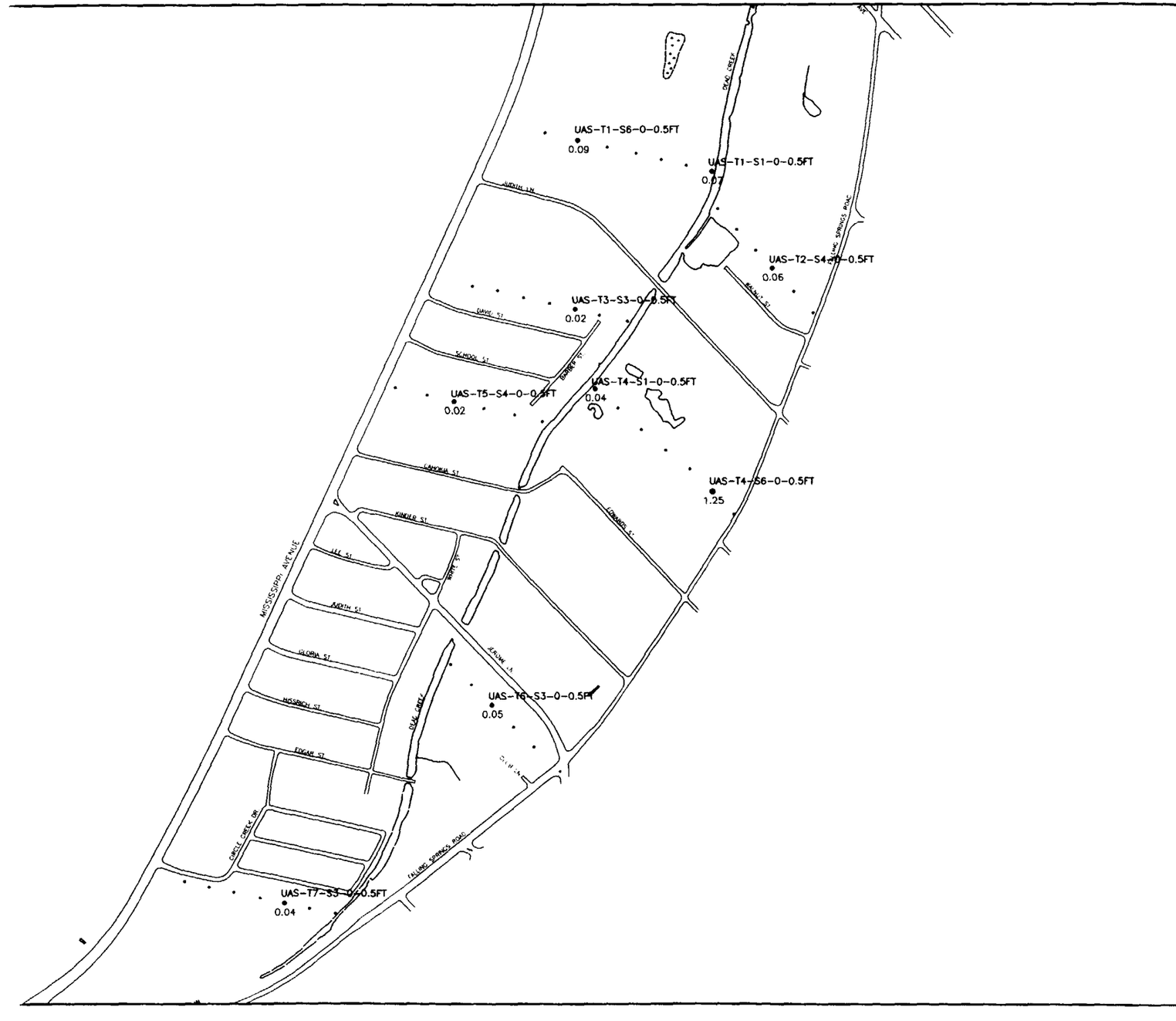


FIGURE 10

LEGEND

- NOT DETECTED
- < 1
- 1 – 10
- 10 – 100
- 100 – 1000
- > 1000

NOTE: UNITS = ug/Kg

SOLUTIA INC.
REMEDIATION TECHNOLOGY GROUP
ST. LOUIS, MISSOURI

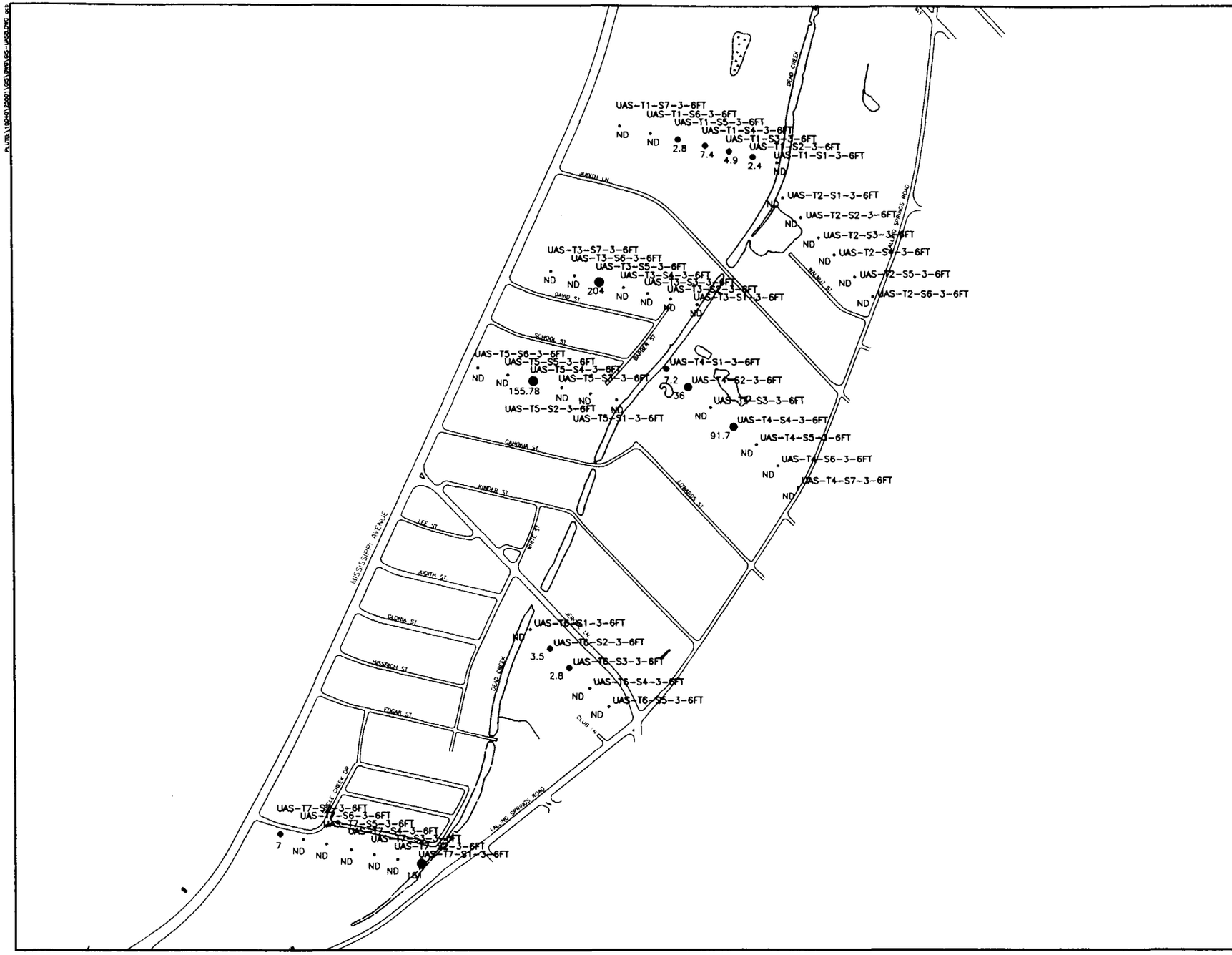
SAUGET AREA 1
SUPPORT SAMPLING PLAN
SAUGET AND CAHOKIA, ILLINOIS

UNDEVELOPED AREA
SURFACE SOIL
DIOXIN TEQs (EPA 1998 TEFs)

300 0 300
SCALE IN FEET

FILE NO. 25501.UASS.J
June 2000

O'BRIEN & GERE ENGINEERS, INC.



FIGURE

LEGEND
- NOT DE
- < 1
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NOTE: UNITS

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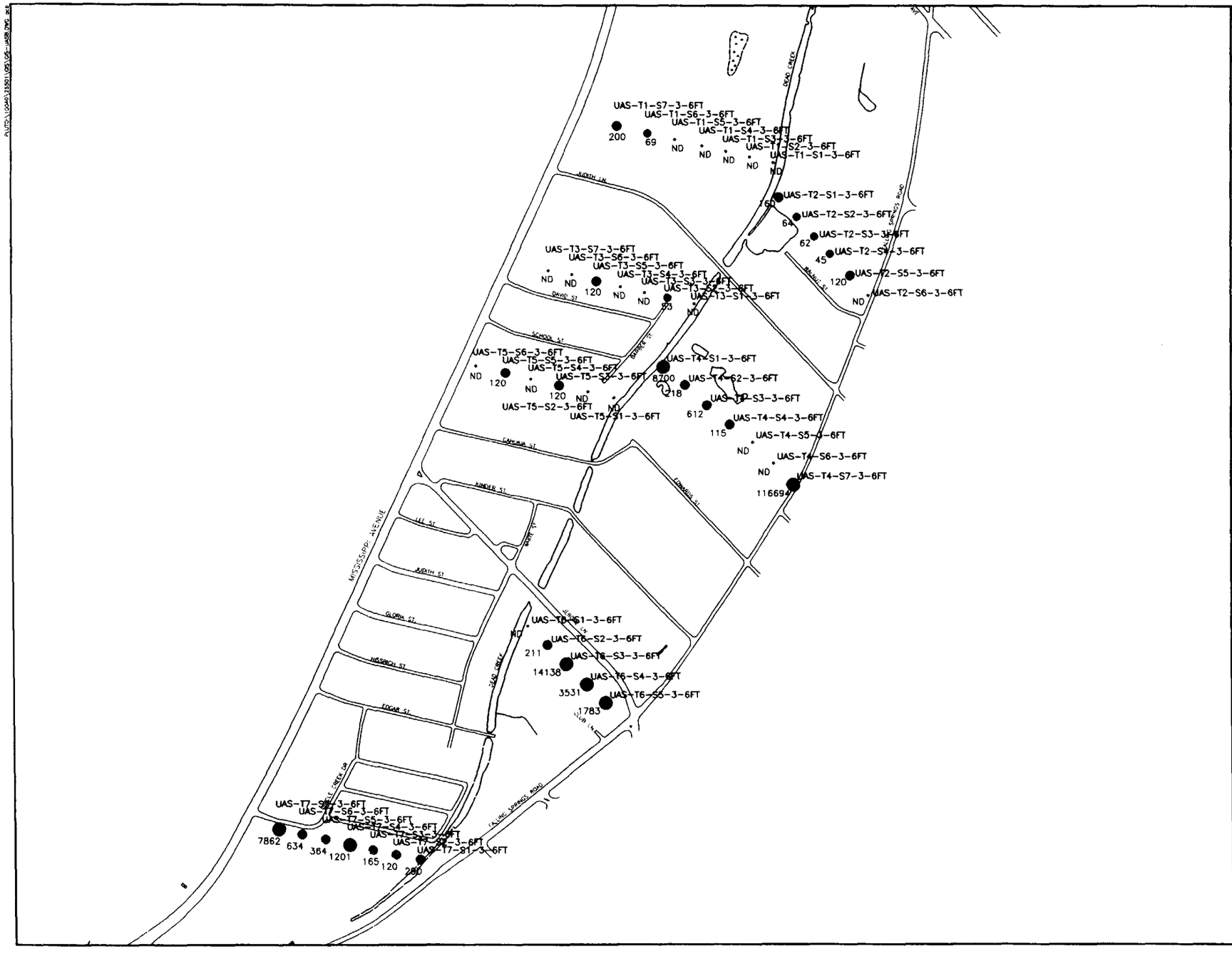


FIGURE 2

LEGEND

- • NOT DETECTED
- ● < 1
- ● 1 – 10
- ● 10 – 100
- ● 100 – 1000
- ● > 1000

NOTE: UNITS = ug/Kg

SOLUTIA INC.
REMEDIATION TECHNOLOGY GROUP
ST. LOUIS, MISSOURI

SAUGET AREA 1
SUPPORT SAMPLING PLAN
SAUGET AND CAHOKIA, ILLINOIS

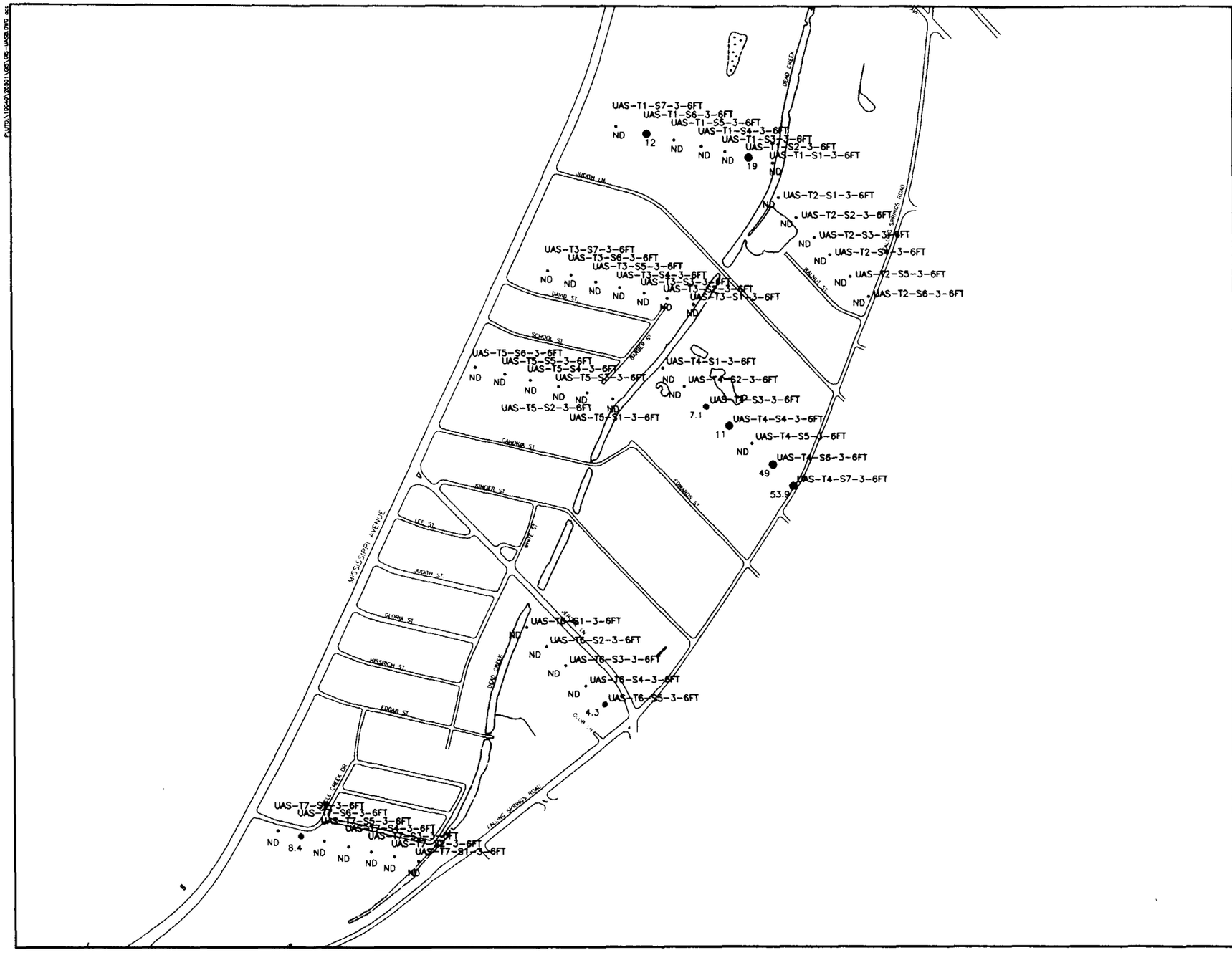
UNDEVELOPED AREA
SUB-SURFACE SOIL
TOTAL SVOAs

300 0 300
SCALE IN FEET

FILE NO. 25501.UASB.B
June 2000

O'BRIEN & GERE ENGINEERS, INC.

24



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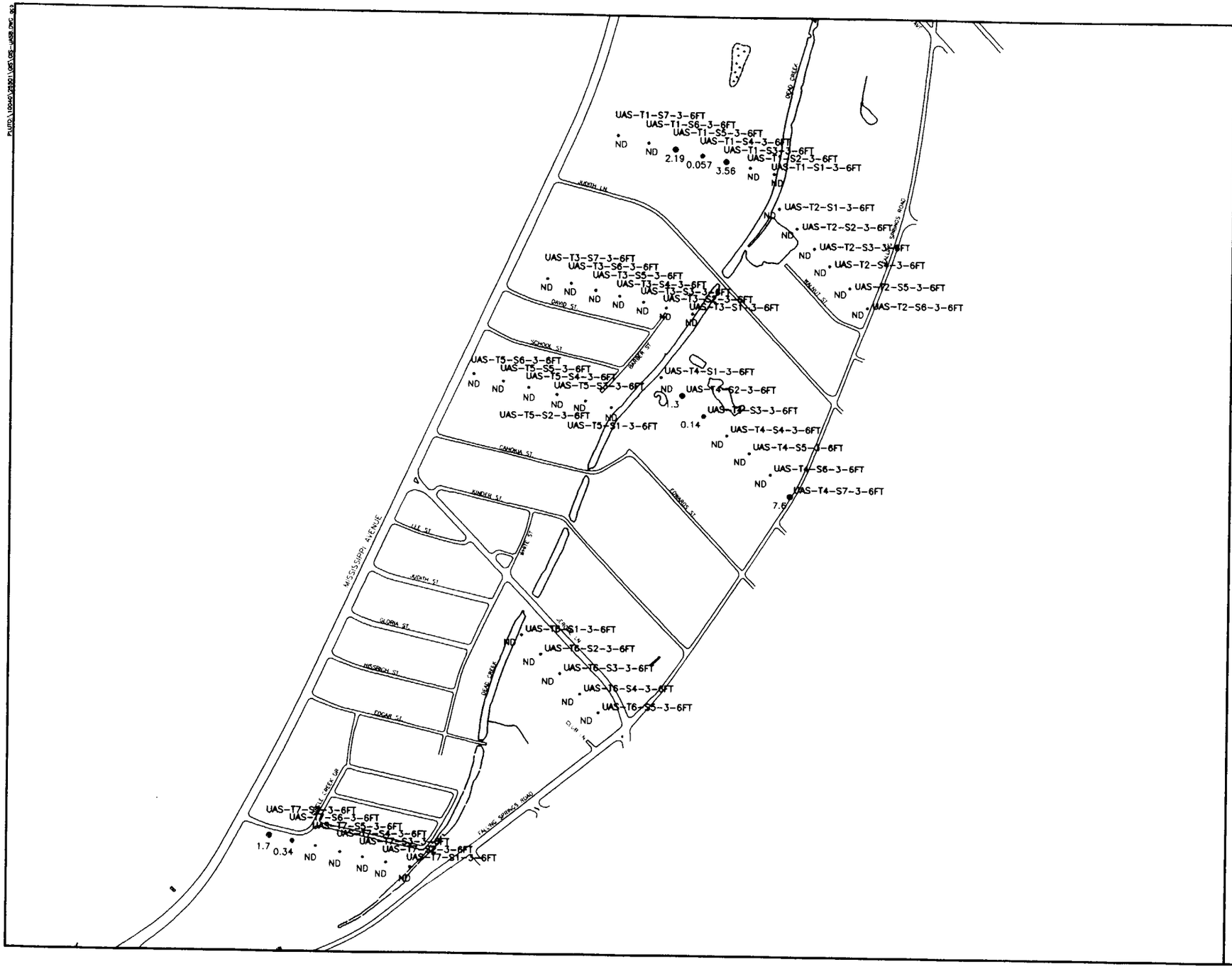

FIGU

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10 -
100
> 1

NOTE: UNIT

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ST. LOUIS.

SAUGET
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UNDEVELO
SUB-SURF
TOTAL PE

300
SCALE

FILE NO. 25
June

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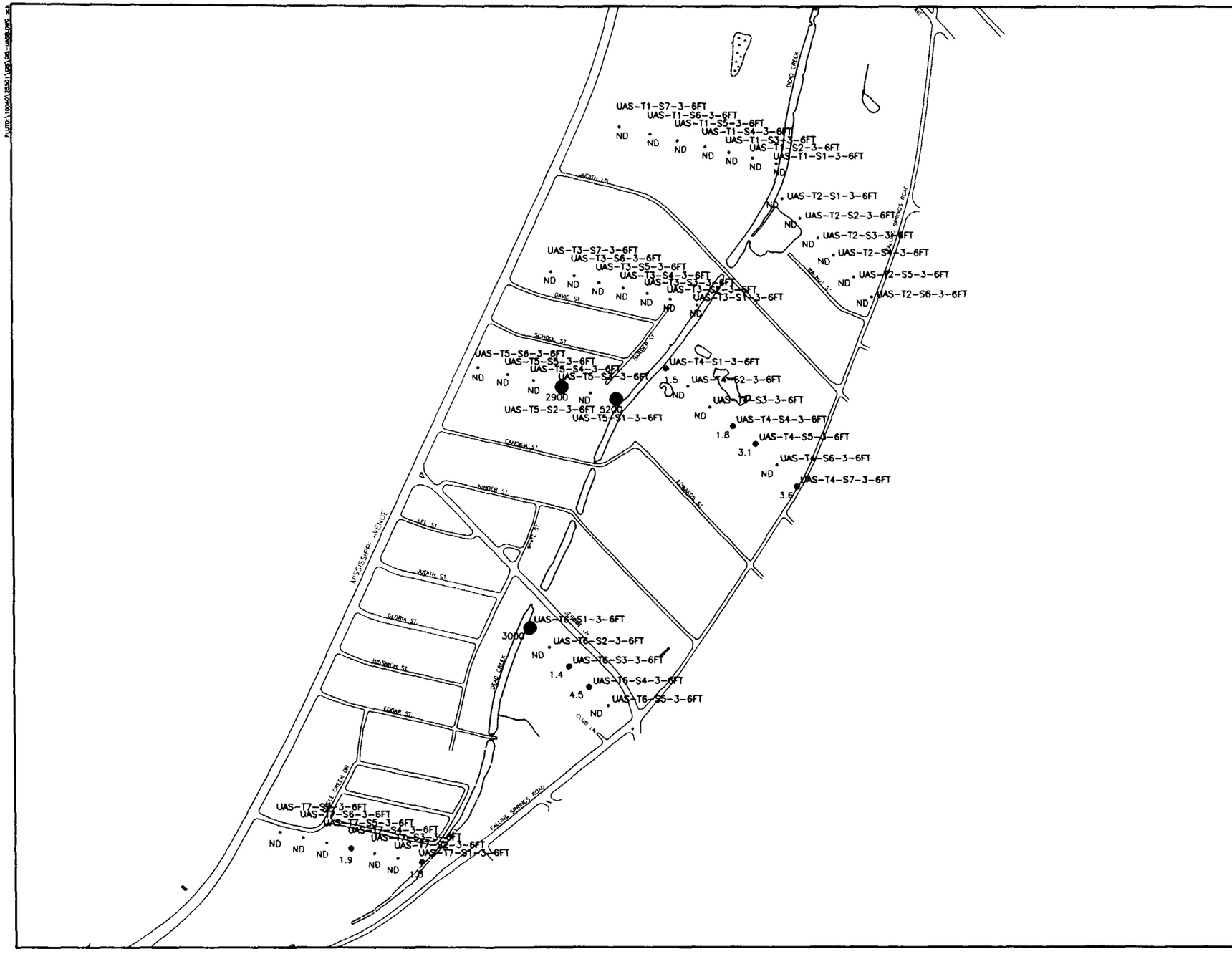

FIGURE 5

LEGEND

- ND NOT DETECTED
- < 1
- 1 - 10
- 10 - 100
- 100 - 1000
- > 1000

NOTE: UNITS = ug/K

SOLUTIA INC.
REMEDIATION TECHNOLOG
ST. LOUIS, MISSO

SAUGET AREA
SUPPORT SAMPLIN
SAUGET AND CAHOKIA

UNDEVELOPED
SUB-SURFACE
TOTAL HERBIC

300 0
SCALE IN FEET

FILE NO. 25501.UAS
June 2000

O'BRIEN & GERE ENGINEERS.

27

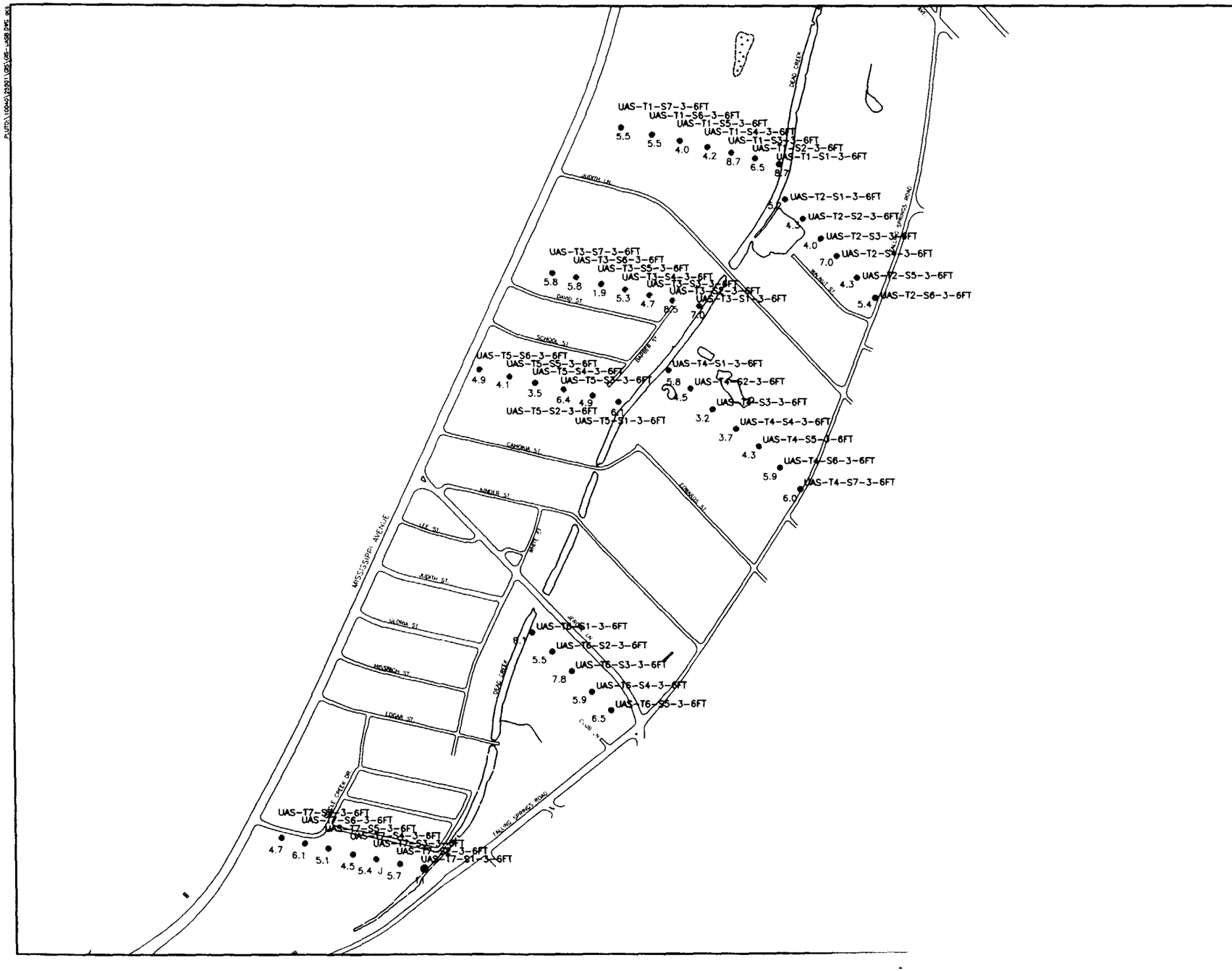

FIGURE 6

LEGEND

- NOT DETECTED
- < 1
- 1 - 10
- 10 - 100
- 100 - 1000
- > 1000

NOTE: UNITS = mg/Kg

SOLUTIA INC.
REMEDIATION TECHNOLOGY GRO
ST. LOUIS, MISSOURI

SAUGET AREA 1
SUPPORT SAMPLING PLA
SAUGET AND CAHOKIA, ILLI

UNDEVELOPED AREA
SUB-SURFACE SOIL
ARSENIC

300 0 300
SCALE IN FEET

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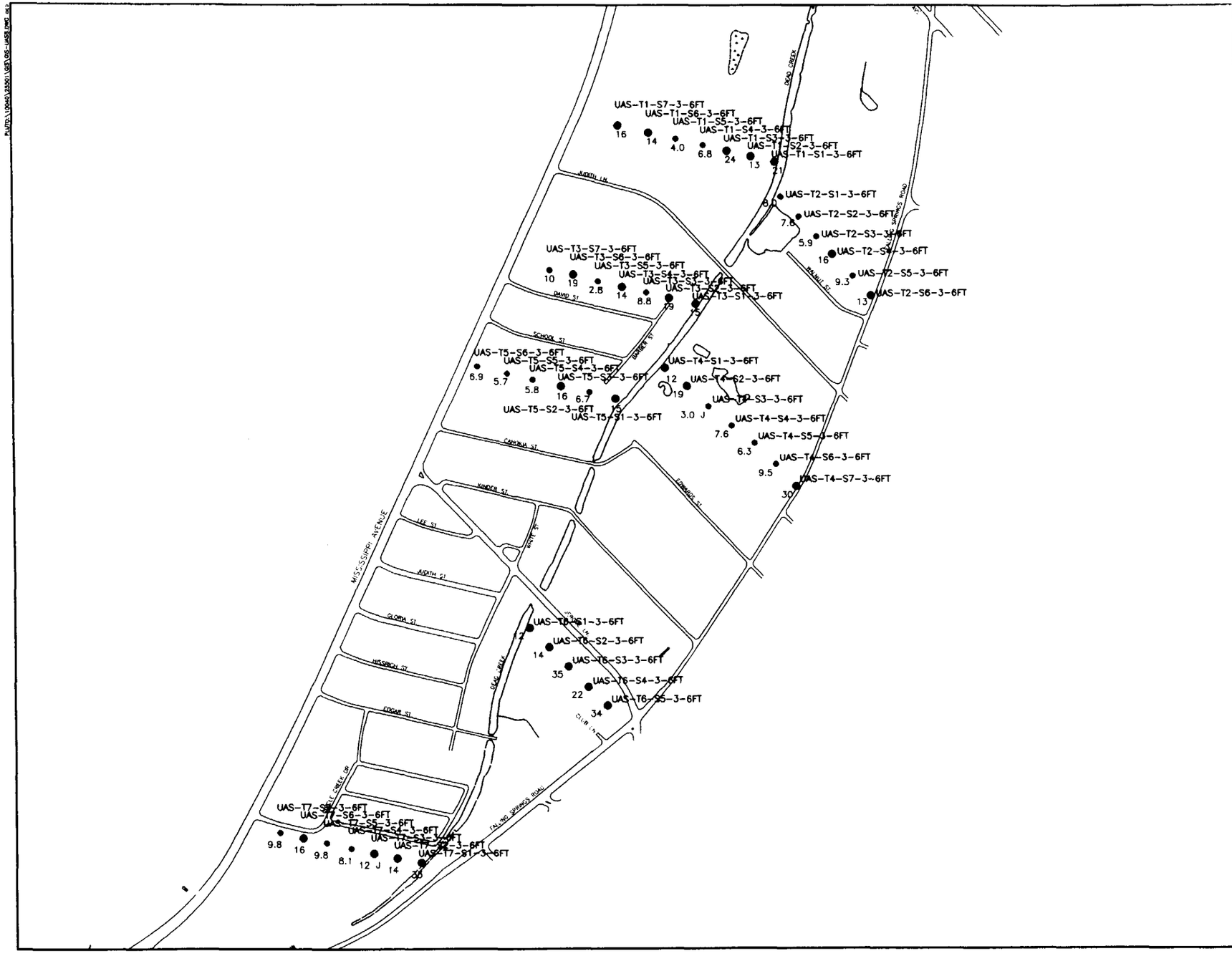
June 2000

O'BRIEN & GERE ENGINEERS, INC.

28



FIGURE

LEGEND
- NOT DET
- < 1
- 1 – 10
- 10 – 1
- 100 –
- > 1000

NOTE: UNITS

SOLUTIA
REMEDIATION TECH
ST. LOUIS, M

SAUGET A
SUPPORT SAM
SAUGET AND CA

UNDEVELOP
SUB-SURF
COPP

300 0
SCALE IN

FILE NO. 255
June 2

ENGIN

29

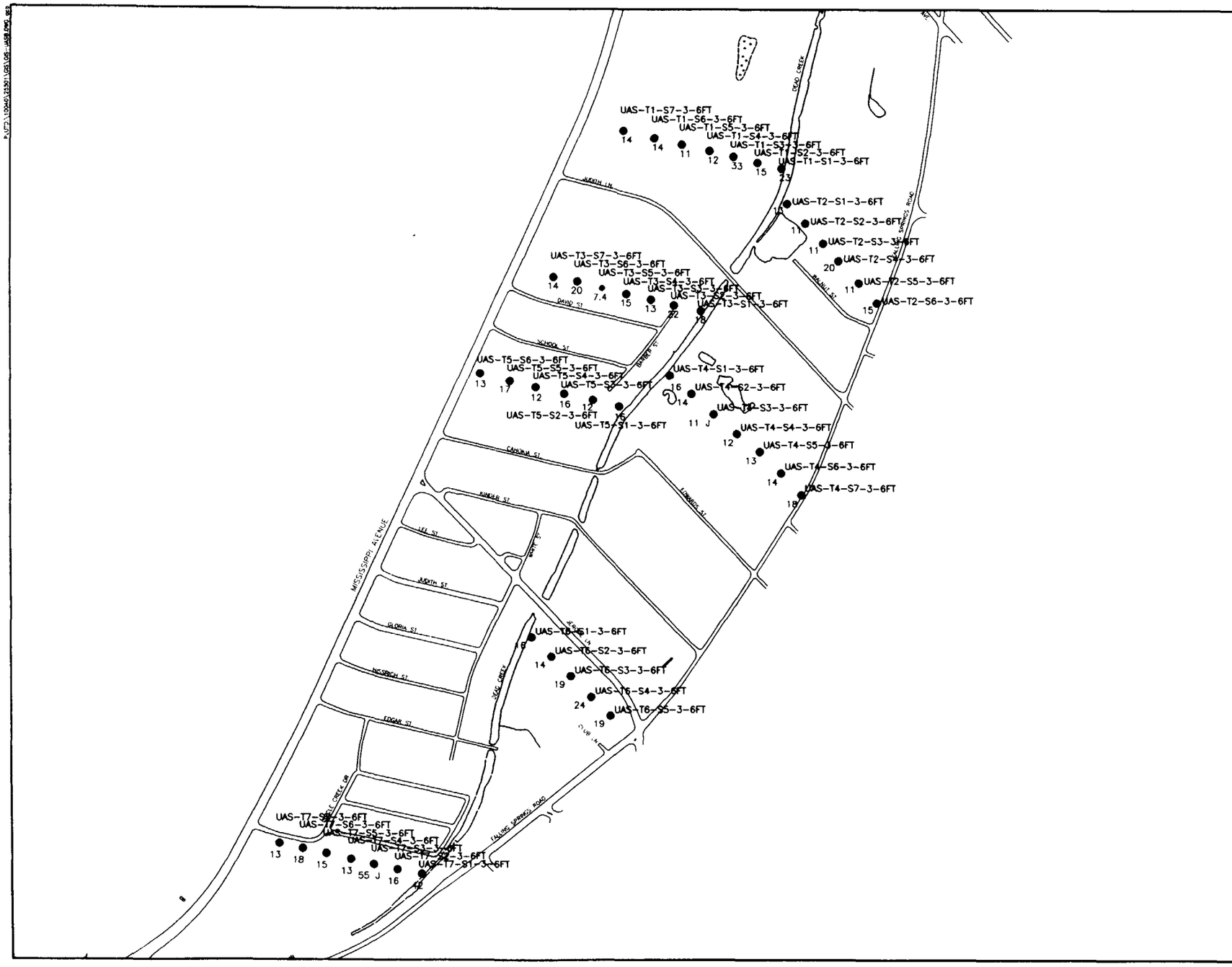


FIGURE 8

LEGEND

- • NOT DETECTED
- ● < 1
- ● 1 – 10
- ● 10 – 100
- ● 100 – 1000
- ● > 1000

NOTE: UNITS = mg/Kg

SOLUTIA INC.
REMEDIATION TECHNOLOGY GRO
ST. LOUIS, MISSOURI

SAUGET AREA 1
SUPPORT SAMPLING PLA
SAUGET AND CAHOKIA, ILLI

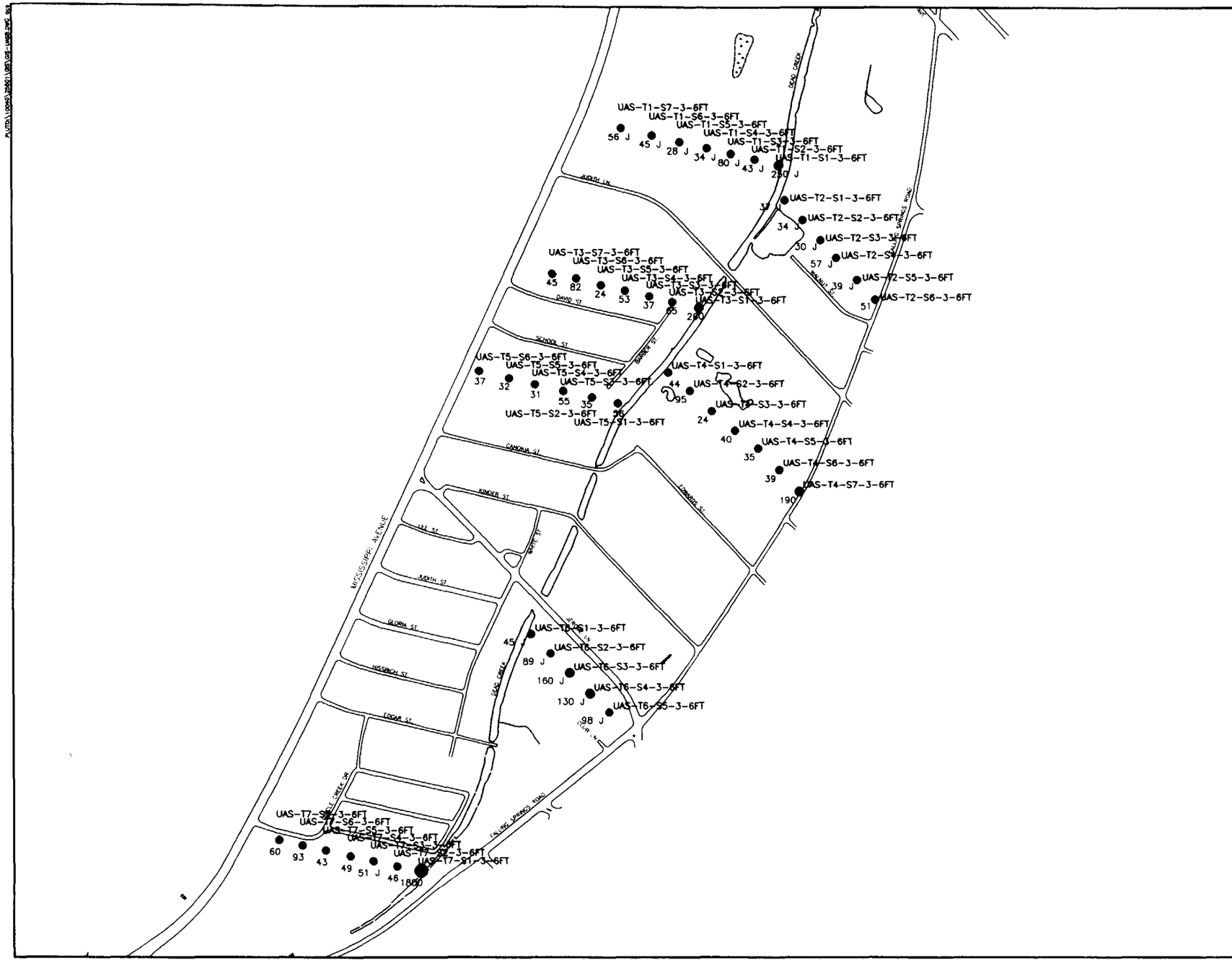
UNDEVELOPED AREA
SUB-SURFACE SOIL
NICKEL

300 0 300
SCALE IN FEET

FILE NO. 25501.UASB.H
June 2000

O'BRIEN & GERE ENGINEERS, INC.

30



FIGURE

LEGEND

- NOT DETE
- < 1
- 1 – 10
- 10 – 100
- 100 – 1
- > 1000

NOTE: UNITS =

SOLUTIA I
REMEDIATION TECHN
ST. LOUIS, MI

SAUGET AR
SUPPORT SAMP
SAUGET AND CAHC

UNDEVELOPE
SUB-SURFAC
ZINC

300 0
SCALE IN F

FILE NO. 25501
June 200

O'BRIEN
ENGINEE

31

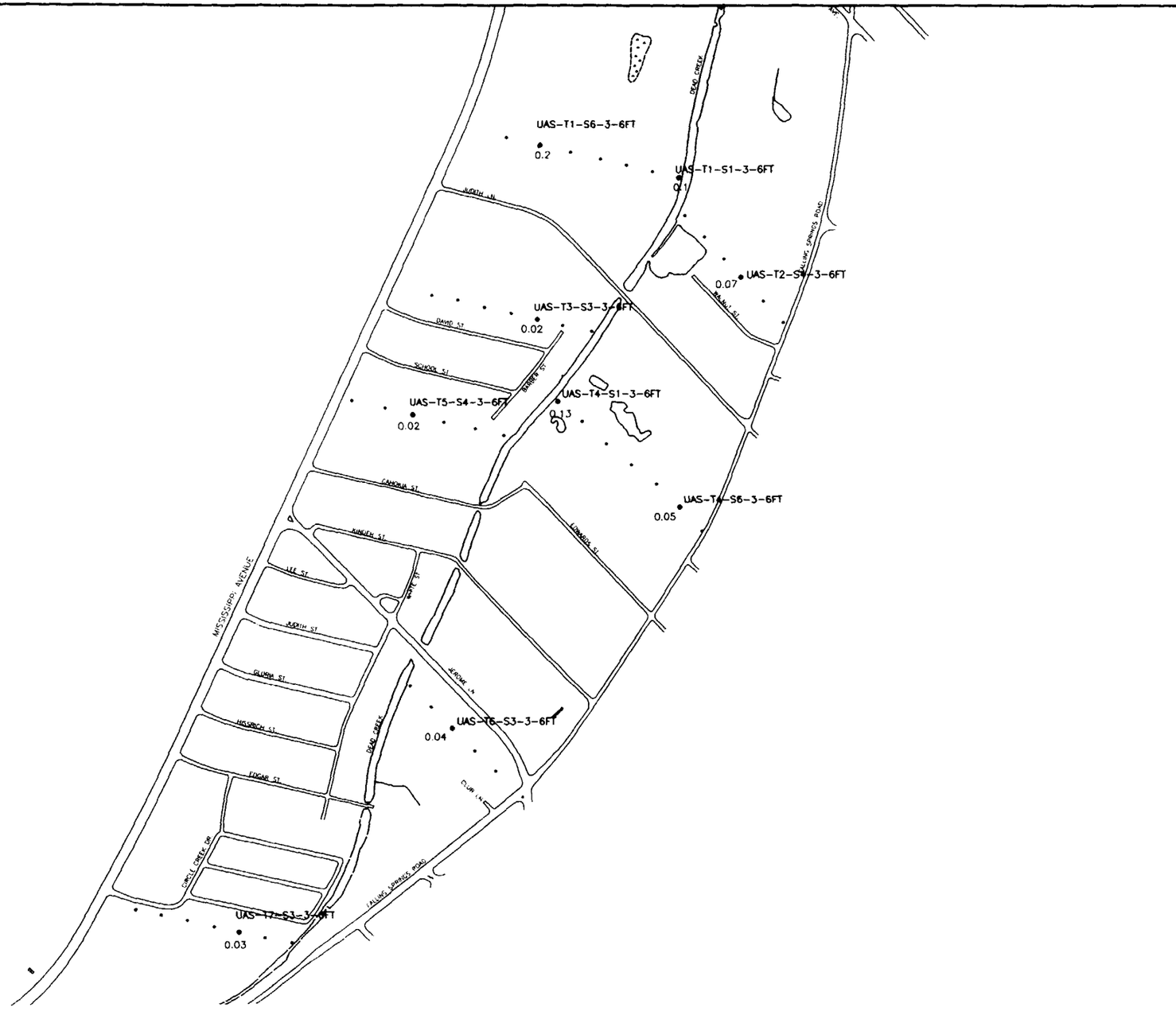


FIGURE 10

LEGEND

- NOT DETECTED
- < 1
- 1 - 10
- 10 - 100
- 100 - 1000
- > 1000

NOTE: UNITS = ug/Kg

SOLUTIA INC.
REMEDIATION TECHNOLOGY GROUP
ST. LOUIS, MISSOURI

SAUGET AREA 1
SUPPORT SAMPLING PLAN
SAUGET AND CAHOKIA, ILLINO

UNDEVELOPED AREA
SUB-SURFACE SOIL
DIOXIN TEQs (EPA 1998 TE

300 0 300
SCALE IN FEET

FILE NO. 25501.UASB.J
June 2000