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**VIA HAND DELIVERY AND FAX**

October 18, 2002

**CHRISTINE MOSELEY SHIKER**
202-457-7167
Internet Address:
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Maxine Brown Roberts
Office of Planning
801 N. Capitol Street, NE
Suite 4000
Washington, DC 20002

Re: Board of Zoning Adjustment Case No. 16931
2327 Champlain Street, N.W.
**Additional Requested Information**

Dear Maxine:

As we discussed in our meeting with morning, enclosed please find the following additional requested information:

**Exhibit A: Summary of Lot Occupancy Variance**. This summary indicates that the lot occupancy variance has been overstated. The application proposed a lot occupancy of 67.3% (a footprint of 15,211 square feet); however, the actual footprint of the project is 14,925 square feet. Accordingly, the proposed lot occupancy is 66%.

Furthermore, when the square footage of the building footprint that is permitted to project into the Champlain Street and Kalorama Road right-of-ways as a matter of right is excluded from this lot occupancy calculation, the requested relief is reduced to a variance of only 2.8%. This calculation is reflected in the attached summary.

Finally, as discussed in the Prehearing Statement, the building can be designed such that the lot occupancy requirements are satisfied. However, such a building would be built to the property line along the street frontage, would include projecting bays into the Champlain Street and Kalorama Road

BZA
Case No. 16931
Exhibit No. 35

Board of Zoning Adjustment
District of Columbia
CASE NO.16931
EXHIBIT NO.35

right-of-ways, and would not include any setbacks, which are strongly supported by the community.

**Exhibit B: Summary of FAR Calculations**. This summary shows those items that have been provided as a result of extensive work with the community which impact the FAR variance requested as part of this application. The summary reflects that if these community amenities were not included as part of the project, the FAR variance would be only .61 FAR.

**Exhibit C: Executive Summary of Phase I Environmental Soil Assessment Report.** A highlighted copy of the executive summary of the Phase I Environmental Soil Assessment Report, prepared by E.A.I., Inc., and dated July, 1999, details the contaminated soil condition on the site.

**Exhibit D: Synopsis of Subsurface Exploration and Foundation Recommendations**. A highlighted copy of the synopsis of the Subsurface Exploration and Foundation Recommendations, prepared by The Eddy Group, Inc, and dated August 28, 2002, details the subsurface soil conditions on the site. This document was attached to the Prehearing Submission as Exhibit H.

Thank you for your consideration of these materials. By copy of this letter, I have filed this documents with the Board of Zoning Adjustment. Should you have any questions or need additional information, please do not hesitate to call me.

Sincerely,

Christine Moseley Shiker

Enclosures

cc: Board of Zoning Adjustment (Via Hand Delivery; w/enclosures)
Jennifer Steingasser, Office of Planning (Via Hand Delivery; w/enc)

A

# LOT OCCUPANCY CALCULATIONS

**2327 Champlain Street, N.W.**
**Board of Zoning Adjustment Case No. 16931**

| | | |
|---|---|---|
| Permitted Lot Occupancy | 60% | 13,561 square feet |
| Proposed Lot Occupancy | 66% | 14,925 square feet |
| Lot Occupancy Variance | appx. 6% | 1,364 square feet |

## Lot Occupancy Deductions:

| | | |
|---|---|---|
| Lot Occupancy Variance | appx. 6% | 1,364 square feet |
| Square footage permitted to project into the Champlain Street and Kalorama Road right-of-ways forgone as a result of community requested setbacks | 3.2% | 731 square feet |
| **TOTAL LOT OCCUPANCY VARIANCE AFTER DEDUCTION** | **2.8%** | **633 square feet** |



# FAR CALCULATIONS

**2327 Champlain Street, N.W.**
**Board of Zoning Adjustment Case No. 16931**

| | | |
|---|---|---|
| Permitted FAR | 1.8 FAR | 40,684 square feet |
| Proposed FAR | 2.75 FAR | 62,156 square feet |
| FAR Variance | 0.95 FAR | 21,472 square feet |

## FAR Deductions:

| | | |
|---|---|---|
| FAR Variance: | 0.95 FAR | 21,472 square feet |
| Forgone square footage from permitted bay windows placed in private property in response to community: | 0.13 FAR | (2,924 square feet) |
| Affordable Housing Units provided in response to community | 0.14 FAR | (3,108 square feet) |
| FAR devoted to parking Provided in response to community; see Section 402.5 | 0.07 FAR | (1,667 square feet) |
| **TOTAL FAR AFTER DEDUCTIONS** | **0.61 FAR** | **13,773 square feet** |



# PHASE I

## ENVIRONMENTAL SITE ASSESSMENT REPORT

[redacted]

[redacted]

[redacted]

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## 1.0 EXECUTIVE SUMMARY

EAI, Inc. has performed a Phase I Environmental Site Assessment using the ASTM Standard Practice for Environmental Site Assessments, E 1527-97 as a guidance document for the property identified as 2327 Champlain Street NW, Washington D.C. The assessment was requested by Mr. Marc Williams of Breen Capital Services Corporation and was authorized on June 14, 1999. The assessed structure is an attached, occupied, two (2) story residential and commercial use structure used as "Eshetie Motors." The site is located in a residential and commercial use area. The property is currently owned by Charles J. Blum. This assessment was performed to investigate the surficial conditions at the site to identify any recognized environmental conditions such as evidence of an existing release, past release, or material threat of release of oil and/or hazardous materials at or in the immediate vicinity of the site which would affect either the use or value of the subject property.

The following items were included in the scope of work:

- Conducted a visual inspection of surface and interior conditions at the structure on the site property on June 21, 1999
- Reviewed a report of federal and state environmental records conducted by a database search contractor to identify any federal or state listed sites within the search radii specified in ASTM E 1527-97
- Interviewed local agency officials regarding recognized environmental conditions at and in the immediate vicinity of the site
- Reviewed readily available local records and site historical information including aerial photographs, topographic maps, and Sanborn maps
- Reviewed available soils information from maps provided by the United States Department of Agriculture and the United States Geologic Survey

### 1.1 Findings

*EAI, Inc. identified the following evidence of a release or threat of release of oils and/or hazardous substances at the site:*

- The current commercial use of the site as "Eshetie Motors" and "Capital City Motorcars," which contains an above ground storage tank (AST), a registered underground storage tank (UST), and two (2) 55-gallon chemical storage drums containing anti-freeze and one (1) 55-gallon drum containing engine coolant. "Eshetie Motors" is a listed RCRA Small Quantity Generator of regulated hazardous waste.
- Friable ACM poses a potential health risk to site occupants and workers who breathe ambient air. Non-friable ACM could pose a potential health risk to site occupants and workers in the event of a renovation or demolition project which could disturb the asbestos.

- LBP poses a potential health risk to site occupants, especially to children under the age of six who may ingest paint chips or inhale LBP dust, and workers in the event of an abatement project would disturb the paint.

*EAI, Inc. identified the following evidence of a release or threat of release of oils and/or hazardous materials in the immediate vicinity of the site:*

- The listing of the adjacent property, 2329 Champlain Street NW, as a Leaking Underground Storage Tank (LUST) site and a registered underground storage tank (UST) site

- The database search identified no National Priority List (i.e. Superfund) sites within one (1) mile; no Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) listings within one (1) mile; one (1) CERCLA No Further Remedial Action Planned (NFRAP) site within one (1) mile; fifteen (15) Resource Conservation and Recovery Act (RCRA) generators of hazardous waste within one-quarter (1/4) mile; no RCRA Treatment, Storage, and Disposal (TSD) facilities within one (1) mile; one (1) Emergency Response Notification System (ERNS) site within one-quarter (1/4) mile; no Hazardous Waste Sites (HWS) within one (1) mile of the site; fifty-six (56) underground storage tank (UST) sites within one-quarter (1/4) mile; and thirty-eight (38) leaking underground storage tank (LUST) sites within one-half (½) mile of the target property.

## 1.2 Conclusions

*EAI, Inc. concludes the following as to releases or threats of release of oils and/or hazardous substances at the site:*

- The current commercial use of the site as "Eshetie Motors" and "Capital City Motorcars," and the presence of an AST, a registered UST, and three (3) 55-gallon chemical storage drums, and the listing of the site property as a RCRA Small Quantity Generator of regulated hazardous waste pose threats of soil and/or groundwater contamination.

- Friable ACM poses a potential health risk to site occupants and workers who breathe ambient air. Non-friable ACM could pose a potential health risk to site occupants and workers in the event of a renovation or demolition project which could disturb the asbestos.

- LBP poses a potential health risk to site occupants, especially to children under the age of six who may ingest paint chips or inhale LBP dust, and workers in the event of an abatement project would disturb the paint.

*EAI, Inc. concludes the following as to releases or threats of release of oils and/or hazardous substances in the immediate vicinity of the site:*

- The listing of the adjacent site as a registered UST site and a LUST site pose threats of soil and/or groundwater contamination

- Based on the inferred cross-gradient location and/or distance, the site property, which is listed as a RCRA Generator and a registered UST site, and the adjacent property, 2329 Champlain Street NW, which is listed as a LUST and a registered UST site, may pose a threat of release to the target property. The CERCLA/NFRAP site, ERNS incident, remaining RCRA Generators, remaining LUSTs, and remaining USTs do not pose a threat of release to the target property.

## 1.3 Recommendations

- Confirmation through chemical manifests and chain-of-custody reports that the site property manufactures between one hundred (100) and one thousand (1000) kilograms of regulated hazardous waste per month and that all wastes are transported and disposed of in accordance with the Resource Conservation and Recovery Act (RCRA) of 1976. An EPA database search is also recommended to determine if any violations have occurred at this facility and if any remedial action was necessary on the site.

- Obtain documentation regarding the installation, contents, use, and inspection record for the one (1) AST on the site property, as well as a sampling and analysis of the soil within the vicinity of the tank to determine if contamination is present due to spills and/or tank releases.

- Due to the confirmed existence of an underground storage tank (RST) on the site property, an investigation is recommended in order to determine the type of tank present on the site and its contents, as well as a record of violations, if any, incurred since the tank's installation. Soil sampling and analysis are also recommended in order to determine if contamination is present on the property due to spills and/or tank releases.

- Due to confirmed leakage of the underground storage tank (LUST) on the adjacent property, an investigation is recommended in order to determine what actions have been taken, if any, to contain the leakage and how many violations have occurred since the tank's installation. Soil sampling and analysis are also recommended to determine if any residual contamination remains on the property.

- Prior to any renovation or demolition activities which have the potential to disturb known or suspect ACBM building materials, EAI Inc. recommends conducting a comprehensive ACBM inspection. In addition, any suspect ACBM materials should be handled as if they are ACBM. The ACBM should be repaired or abated by a licensed asbestos contractor in accordance with all applicable federal, state, and local regulations.

- EAI, Inc. did not recommend a comprehensive lead based paint (LBP) abatement for this property due to the fact that the structure is slated to be razed for eventual rebuilding. When the structure is razed, all Occupational Safety and Health Administration (OSHA) construction codes will be adhered to.

| | | | |
|---|---|---|---|
| 2431 18th Street NW | 0-1/8/ WNW | Higher | 1-003392 |
| 2305 18th Street NW | 0-1/8/ SW | Lower | 1-003390 |
| 2447-53 18th Street NW | 0-1/8/ WNW | Higher | 1-002937 |
| 1701 Kalorama Road NW | 0-1/8/ E | Higher | 1-003889 |
| Kalorama Company/ 1700 Kalorama Road NW | 0-1/8/ E | Higher | 1-003888 |
| Former Gas Station/ 17th & Kalorama Road NW | 0-1/8/ E | Higher | 9-000039 |
| 2320 17th Street NW | 0-1/8/ E | Higher | 1-003354 |
| 2412 17th Street NW | 0-1/8/ ENE | Higher | 1-003355 |

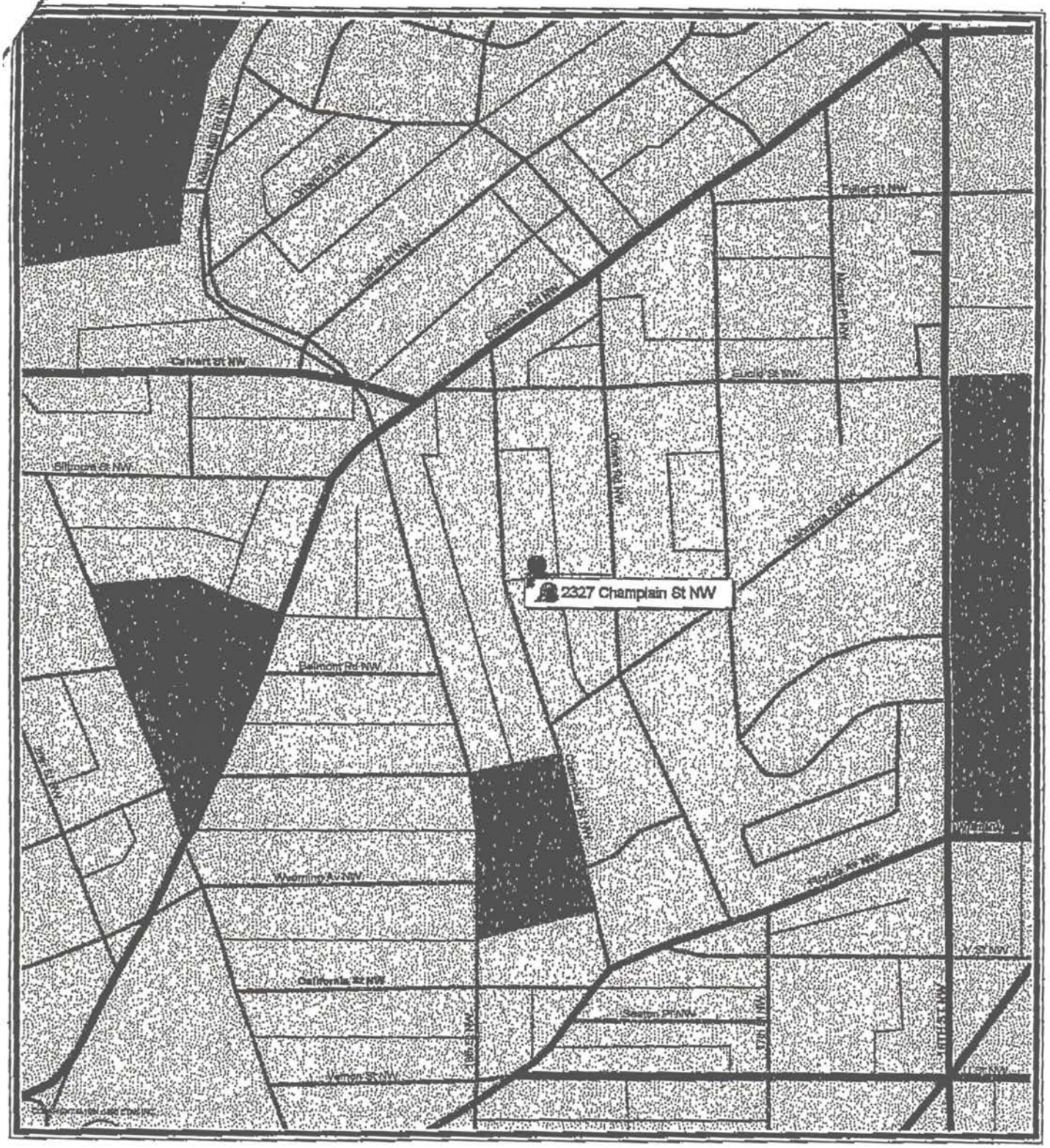
5.2.3 Leaking USTs

The search revealed the presence of thirty-eight (38) Leaking Underground Storage Tank (LUST) sites within one-half (½) mile of the target property. Three (3) are located within one-eighth (1/8) mile of the target property.

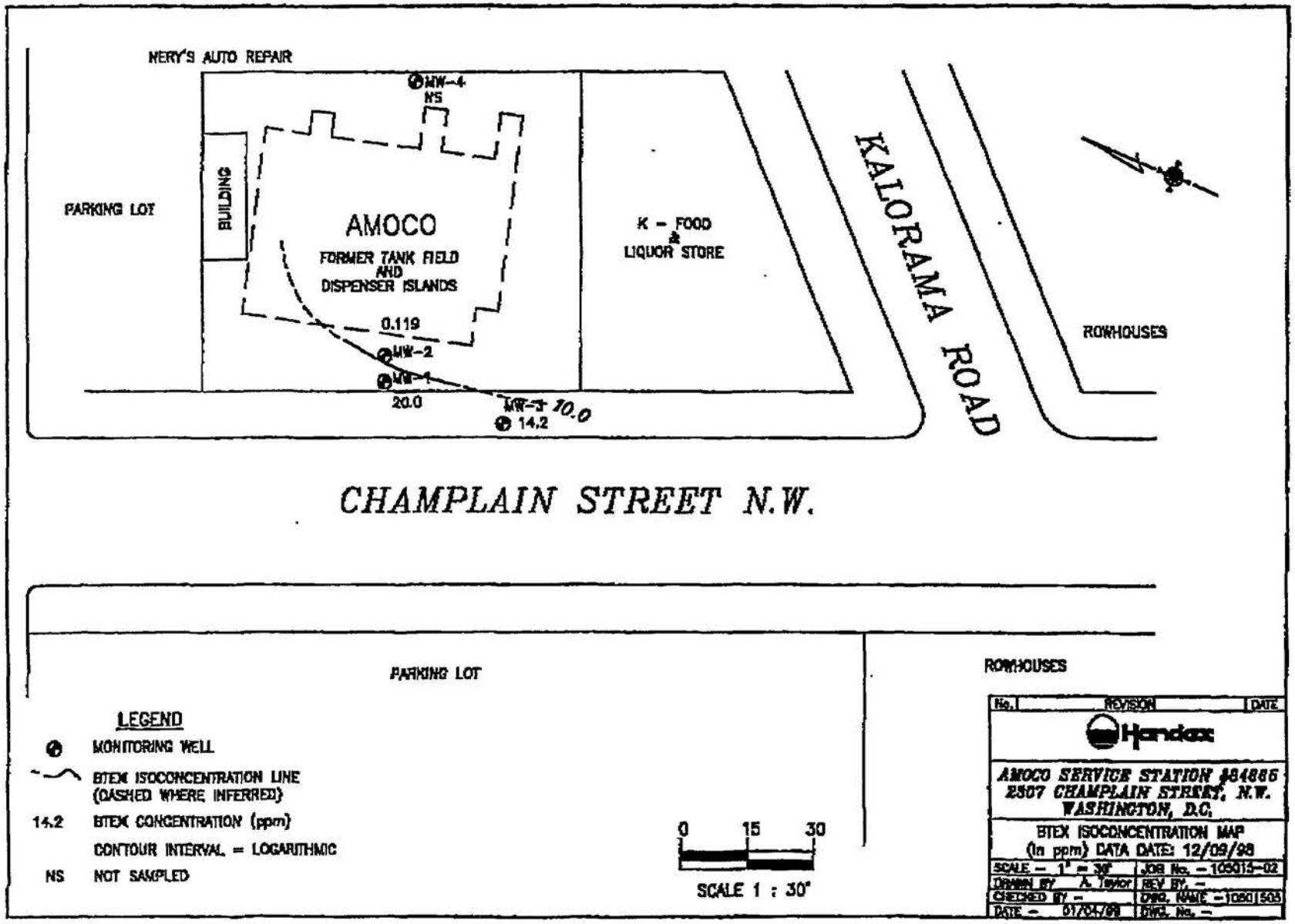
SUMMARY OF LUST FACILITIES

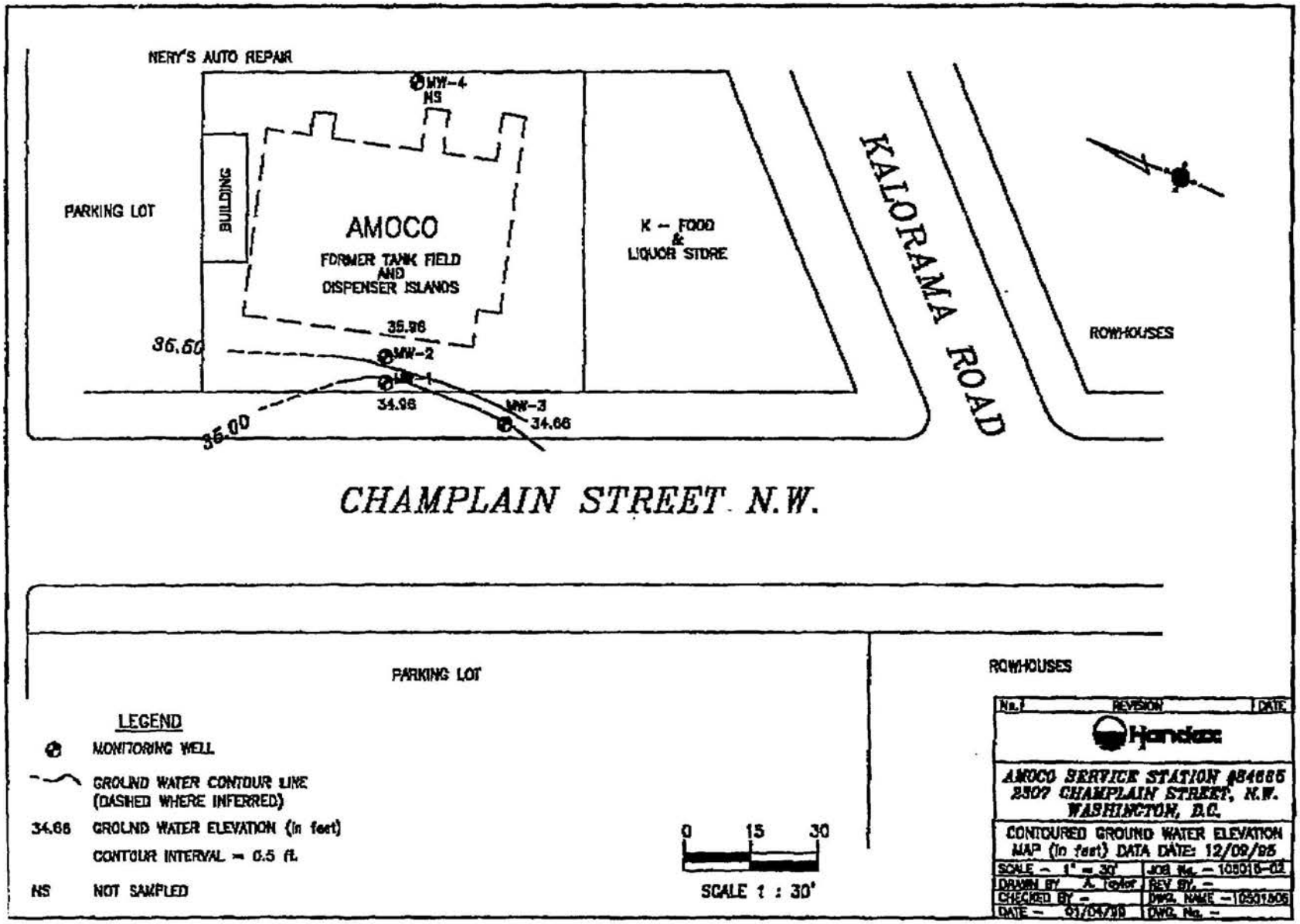
| NAME/ ADDRESS | AGENCY ID NUMBER | DISTANCE/ DIRECTION | GRADIENT | STATUS | TANK CONTENTS |
|---|---|---|---|---|---|
| 2329 Champlain Street LP/ 2329 Champlain Street NW | 96074 | ADJACENT | Higher | Open | Heating Oil Gasoline |
| Amoco-Former/ 2337 Champlain Street NW | 97004 | 0-1/8/ NNW | Higher | Open | Gasoline |
| Amoco/ 2307 Champlain Street NW | 91058 | 0-1/8/ SSE | Lower | Open | Gasoline Diesel |

# FIGURE #1 - SITE LOCATION MAP




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HERY'S AUTO REPAIR
MW-4
NS
BUILDING
PARKING LOT
AMOCO
FORMER TANK FIELD
AND
DISPENSER ISLANDS
0.119
MW-2
MW-1
20.0
MW-3 10.0
14.2
K - FOOD
&
LIQUOR STORE
KALORAMA ROAD
ROWHOUSES
CHAMPLAIN STREET N.W.
PARKING LOT
ROWHOUSES
LEGEND
MONITORING WELL
BTEX ISOCONCENTRATION LINE
(DASHED WHERE INFERRED)
14.2 BTEX CONCENTRATION (ppm)
CONTOUR INTERVAL = LOGARITHMIC
NS NOT SAMPLED
0 15 30
SCALE 1 : 30'
No. REVISION DATE
Handex
AMOCO SERVICE STATION #84666
2507 CHAMPLAIN STREET, N.W.
WASHINGTON, D.C.
BTEX ISOCONCENTRATION MAP
(In ppm) DATA DATE: 12/09/98
SCALE = 1" = 30' JOB No. = 105015-02
DRAWN BY A. Taylor REV BY. =
CHECKED BY = DWG. NAME = 1050505
DATE = 01/04/99 DWG. No. =


NERY'S AUTO REPAIR
MW-4
NS
PARKING LOT
BUILDING
AMOCO
FORMER TANK FIELD
AND
DISPENSER ISLANDS
K – FOOD
&
LIQUOR STORE
KALORAMA ROAD
ROWHOUSES
35.98
36.60
MW-2
MW-1
34.98
MW-3
34.66
35.00
CHAMPLAIN STREET N.W.
PARKING LOT
ROWHOUSES
LEGEND
MONITORING WELL
GROUND WATER CONTOUR LINE
(DASHED WHERE INFERRED)
34.66 GROUND WATER ELEVATION (in feet)
CONTOUR INTERVAL = 0.5 ft.
NS NOT SAMPLED
0 15 30
SCALE 1 : 30'
No. REVISION DATE
Handex
AMOCO SERVICE STATION #84666
2507 CHAMPLAIN STREET, N.W.
WASHINGTON, D.C.
CONTOURED GROUND WATER ELEVATION
MAP (in feet) DATA DATE: 12/09/95
SCALE = 1" = 30' JOB No. = 105016-02
DRAWN BY A. Taylor REV BY, =
CHECKED BY = DWG. NAME = 0501506
DATE = 01/04/96 DWG. No. =

## HISTORICAL GROUND WATER ANALYTICAL RESULTS

### AMOCO SERVICE STATION #84665
### 2307 CHAMPLAIN STREET, NW
### WASHINGTON, DC

| WELL # | DATE | BENZENE | TOLUENE | ETHYL BENZENE | XYLENES | TOTAL BTEX | MTBE |
|---|---|---|---|---|---|---|---|
| MW-1 | 09/10/91 | 12.8 | 4.72 | 1.33 | 6.18 | 25.03 | |
| | 12/18/91 | 8.19 | 4.41 | 1.66 | 7.02 | 21.28 | |
| | 08/20/92 | 10.8 | 2.64 | 2.48 | 9.5 | 25.42 | |
| | 12/17/92 | 7.4 | 1.27 | 1.34 | 3.19 | 13.2 | |
| | 06/04/93 | 19.2 | 2.62 | 1.87 | 9.35 | 33.04 | |
| | 11/18/93 | 1.49 | 0.092 | 0.277 | 0.279 | 2.138 | |
| | 03/03/94 | 9.29 | 1.5 | 1.65 | 5.62 | 18.06 | |
| | 07/22/94 | 11.5 | 1.96 | 2.02 | 8.63 | 24.11 | |
| | 11/07/94 | 10.3 | 1.54 | 1.93 | 7.56 | 21.33 | |
| | 03/06/95 | 8.5 | 1.12 | 1.79 | 6.64 | 18.05 | |
| | 07/11/95 | 7.35 | 0.673 | 1.82 | 3.51 | 13.353 | |
| | 11/30/95 | 5.95 | 0.579 | 1.61 | 2.79 | 10.929 | |
| | 04/02/96 | 6.95 | 0.655 | 1.65 | 3.42 | 12.7 | |
| | 07/01/96 | 6.94 | 0.577 | 1.71 | 3.48 | 12.7 | |
| | 11/26/96 | 8.01 | 0.749 | 1.55 | 4.5 | 14.8 | |
| | 05/27/97 | 17.7 | 2.6 | 1.79 | 7.86 | 30 | |
| | 11/26/97 | 6.8 | 0.403 | 0.565 | 1.82 | 9.58 | |
| | 12/09/98 | 12.7 | 0.85 | 1.65 | 4.81 | 20 | 0.0851 |
| MW-2 | 09/10/91 | #N/A | #N/A | #N/A | #N/A | #N/A | |
| | 12/16/91 | 4.51 | 0.888 | 1.07 | 3.11 | 9.578 | |
| | 08/20/92 | 3.46 | 0.337 | 1.16 | 1.19 | 6.147 | |
| | 12/17/92 | 8.49 | 3.42 | 1.31 | 5.49 | 18.71 | |
| | 06/04/93 | 0.078 | 0.019 | 0.015 | 0.832 | 0.944 | |
| | 11/18/93 | 3.25 | 0.141 | 0.925 | 1.13 | 5.446 | |
| | 03/03/94 | 1.49 | 0.11 | 0.509 | 0.605 | 2.714 | |
| | 07/22/94 | 1.94 | 0.09 | 0.57 | 0.853 | 3.453 | |
| | 11/07/94 | 1.51 | 0.052 | 0.507 | 0.803 | 2.872 | |
| | 03/06/95 | 1.61 | 0.47 | 0.51 | 0.658 | 3.248 | |
| | 07/11/95 | 1.75 | 0.43 | 0.575 | 0.552 | 3.307 | |
| | 11/30/95 | 1.68 | 0.051 | 0.54 | 0.581 | 2.852 | |
| | 04/02/96 | 0.317 | 0.011 | 0.111 | 0.167 | 0.606 | |
| | 07/01/96 | 0.842 | 0.018 | 0.325 | 0.27 | 1.46 | |
| | 11/26/96 | 0.905 | 0.0178 | 0.337 | 0.0897 | 1.35 | |
| | 05/27/97 | 0.56 | <0.0005 | 0.155 | 0.176 | 0.891 | |
| | 11/26/97 | 0.0078 | 0.00914 | 0.00193 | 0.00845 | 0.0273 | |
| | 12/09/98 | 0.104 | ND | 0.0147 | ND | 0.119 | 0.945 |

HANDEX

## HISTORICAL GROUND WATER ANALYTICAL RESULTS

### AMOCO SERVICE STATION #84665
### 2307 CHAMPLAIN STREET, NW
### WASHINGTON, DC

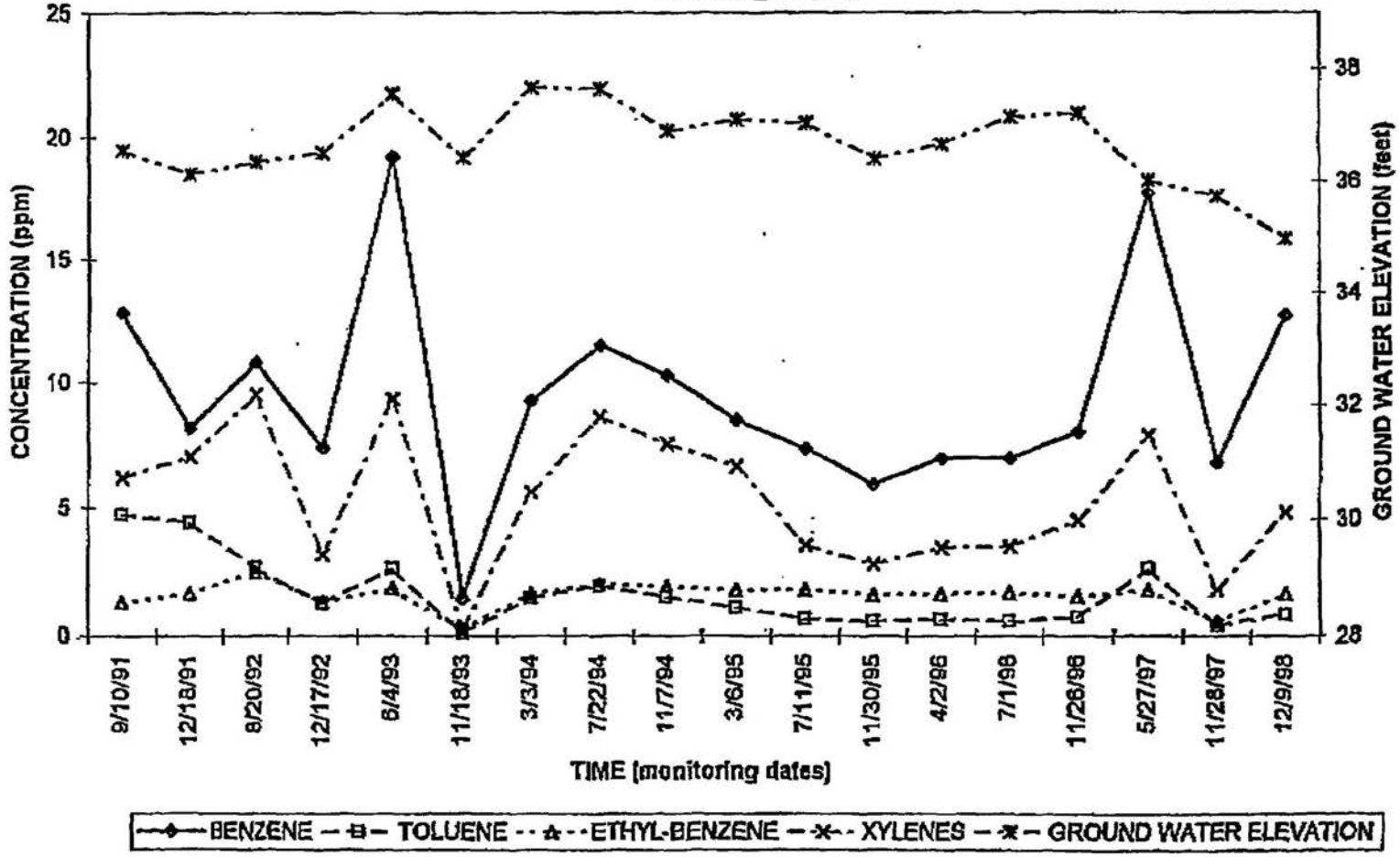
| WELL # | DATE | BENZENE | TOLUENE | ETHYL BENZENE | XYLENES | TOTAL BTEX | MTBE |
|---|---|---|---|---|---|---|---|
| MW-3 | 09/10/91 | 13.6 | 2.22 | 1.12 | 5.51 | 22.45 | |
| | 12/18/91 | 8.2 | 1.81 | 0.955 | 4.82 | 15.785 | |
| | 08/20/92 | 11.3 | 3.17 | 1.82 | 6.76 | 23.05 | |
| | 12/17/92 | 0.377 | 0.051 | 0.112 | 0.203 | 0.743 | |
| | 06/04/93 | 21.9 | 3.75 | 1.4 | 8.14 | 35.19 | |
| | 11/18/93 | 15 | 2.35 | 1.3 | 6 | 24.65 | |
| | 03/03/94 | 14 | 2.04 | 1.19 | 6.06 | 23.29 | |
| | 07/22/94 | 14.2 | 2.11 | 1.33 | 6.67 | 24.31 | |
| | 11/07/94 | 14.5 | 1.37 | 1.31 | 6.35 | 23.53 | |
| | 03/06/95 | 11.5 | 1.26 | 1.12 | 5.84 | 19.72 | |
| | 07/11/95 | 9.61 | 1.01 | 1.24 | 5.47 | 17.33 | |
| | 11/30/95 | 9.24 | 1.06 | 1.19 | 5.1 | 16.59 | |
| | 04/02/96 | 10.2 | 1.59 | 1.07 | 4.78 | 17.6 | |
| | 07/01/96 | 11.7 | 1.96 | 1.31 | 4.85 | 19.8 | |
| | 11/26/96 | 12.4 | 3.31 | 1.13 | 4.83 | 21.7 | |
| | 05/27/97 | 25.2 | 3.62 | 1.3 | 8.75 | 38.9 | |
| | 11/28/97 | 17 | 1.13 | 0.464 | 6.77 | 25.3 | |
| | 12/09/98 | 8.82 | 0.33 | 0.426 | 4.62 | 14.2 | 0.122 |
| MW-4 | 09/10/91 | 4.17 | 0.561 | 0.77 | 5.09 | 10.591 | |
| | 12/18/91 | 3.28 | 0.403 | 0.613 | 3.84 | 8.136 | |
| | 08/20/92 | 3.75 | 0.397 | 0.864 | 5.62 | 10.631 | |
| | 12/17/92 | 2.58 | 0.17 | 1.31 | 2.42 | 6.48 | |
| | 06/04/93 | 0.53 | 0.002 | 0.02 | 0.015 | 0.567 | |
| | 11/18/93 | 0.377 | 0.023 | 0.172 | 0.074 | 0.646 | |
| | 03/03/94 | 0.16 | 0.01 | 0.067 | 0.052 | 0.289 | |
| | 07/22/94 | 0.158 | 0.003 | 0.037 | 0.016 | 0.214 | |
| | 11/07/94 | 0.13 | 0.007 | 0.035 | 0.016 | 0.188 | |
| | 03/06/95 | 0.047 | 0.093 | 0.164 | 0.635 | 0.939 | |
| | 07/11/95 | 0.028 | 0.003 | 0.091 | 0.301 | 0.423 | |
| | 11/30/95 | 0.028 | 0 | 0.021 | 0.012 | 0.061 | |
| | 04/02/96 | 0.041 | 0.001 | 0.028 | 0.02 | 0.09 | |
| | 07/01/96 | 0.019 | ND | 0.014 | 0.004 | 0.037 | |
| | 11/26/96 | 0.0253 | <0.0005 | <0.0005 | <0.0005 | 0.0253 | |
| | 05/27/97 | 0.0427 | <0.0005 | <0.0005 | <0.0005 | <0.0005 | |
| | 11/28/97 | 0.121 | 0.00266 | 0.016 | 0.0131 | 0.153 | |
| | 12/09/98 | NS | NS | NS | NS | NS | NS |

Notes: . NS: Well not found during sampling event
NA - Not Analyzed
ND - Not Detected
All results presented as parts per million (ppm)
MTBE: Methyl Tertiary Butyl Ether

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## GROUND WATER ELEVATION AND BTEX CONCENTRATION vs TIME, MW-1

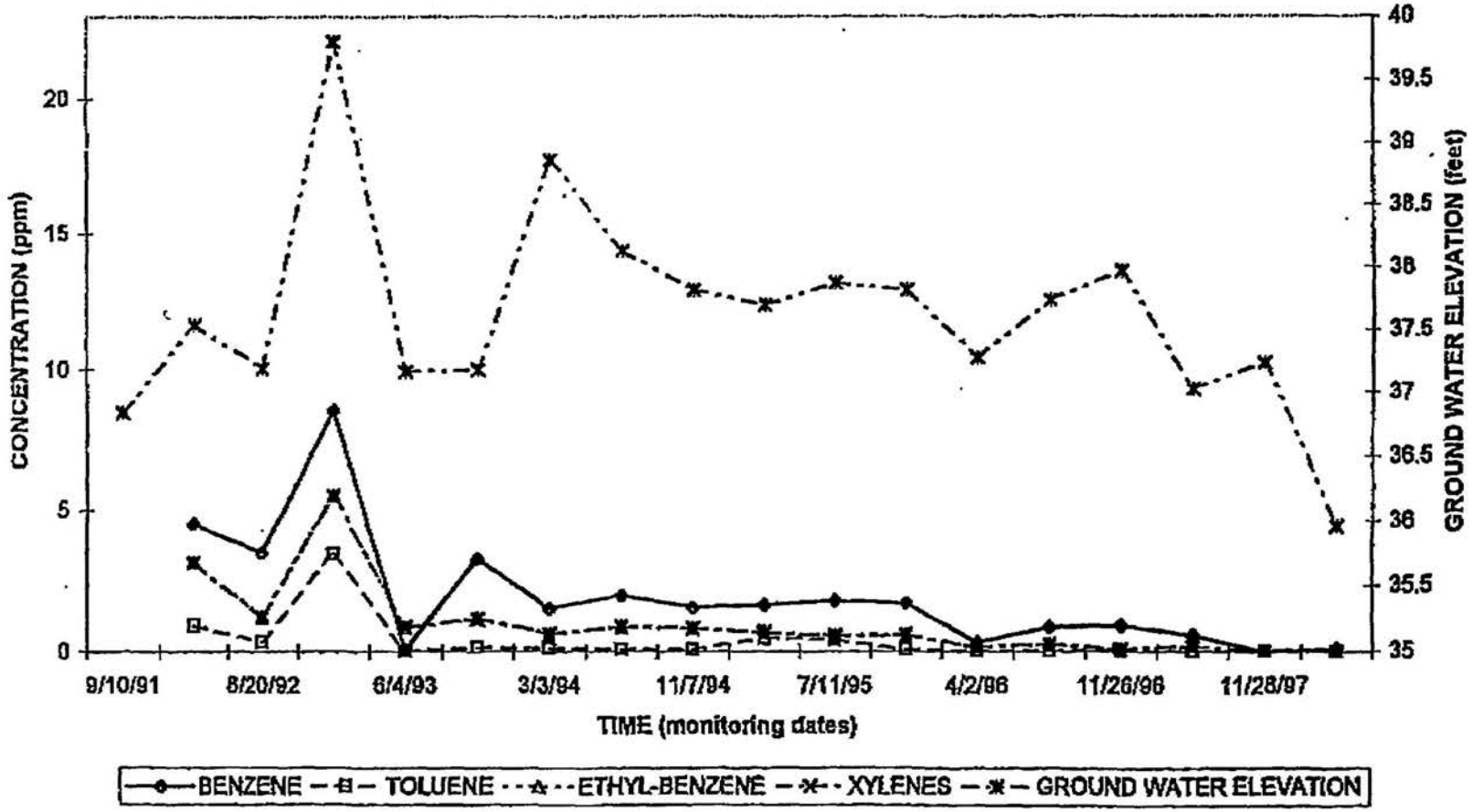
**Former Amoco Service Station #84665**
**2307 Champlain Street, NW**
**Washington, DC**




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## GROUND WATER ELEVATION AND BTEX CONCENTRATION vs TIME, MW-2

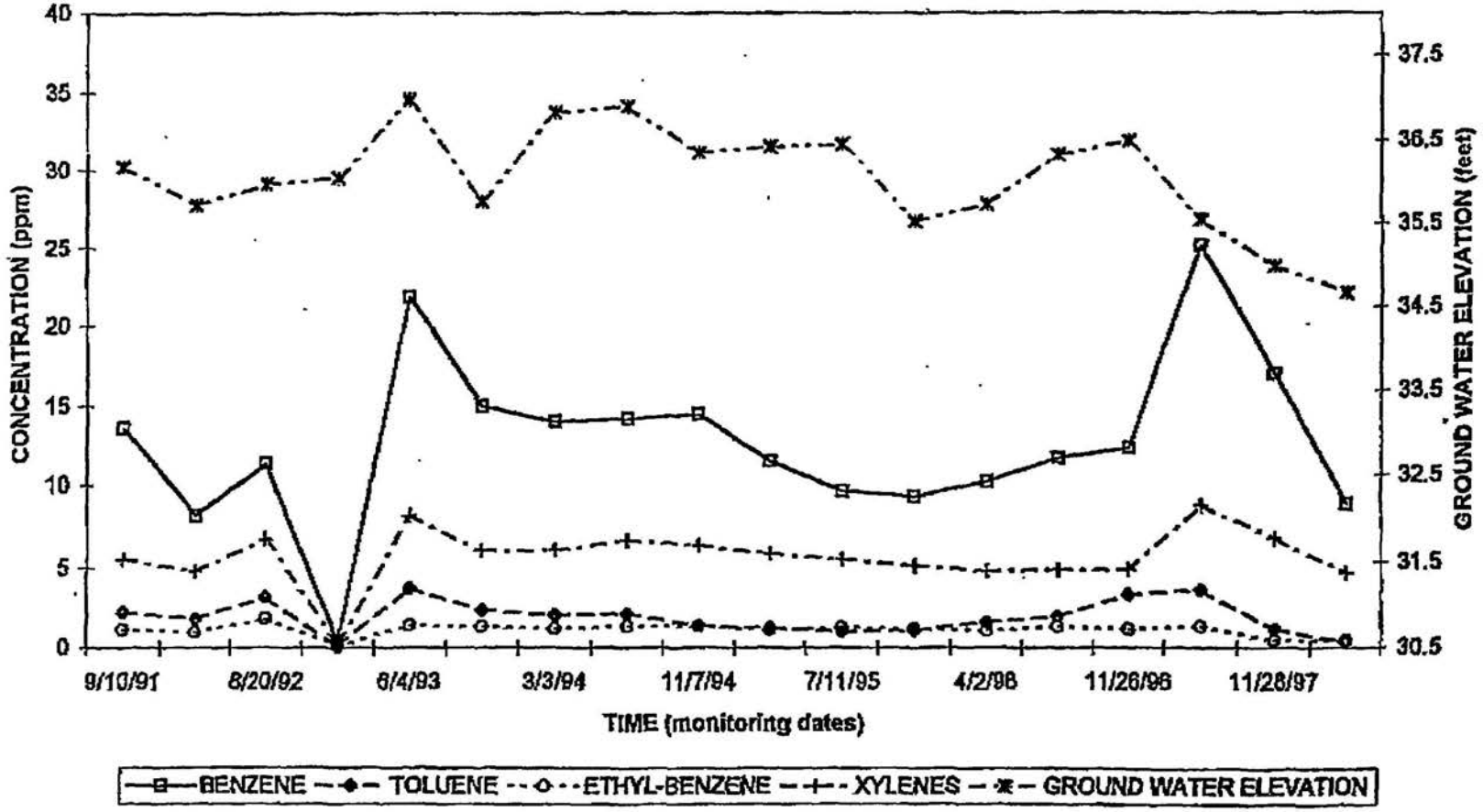
**Former Amoco Service Station #84665**
**2307 Champlain Street, NW**
**Washington, DC**




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## GROUND WATER ELEVATION AND BTEX CONCENTRATION vs TIME, MW-3

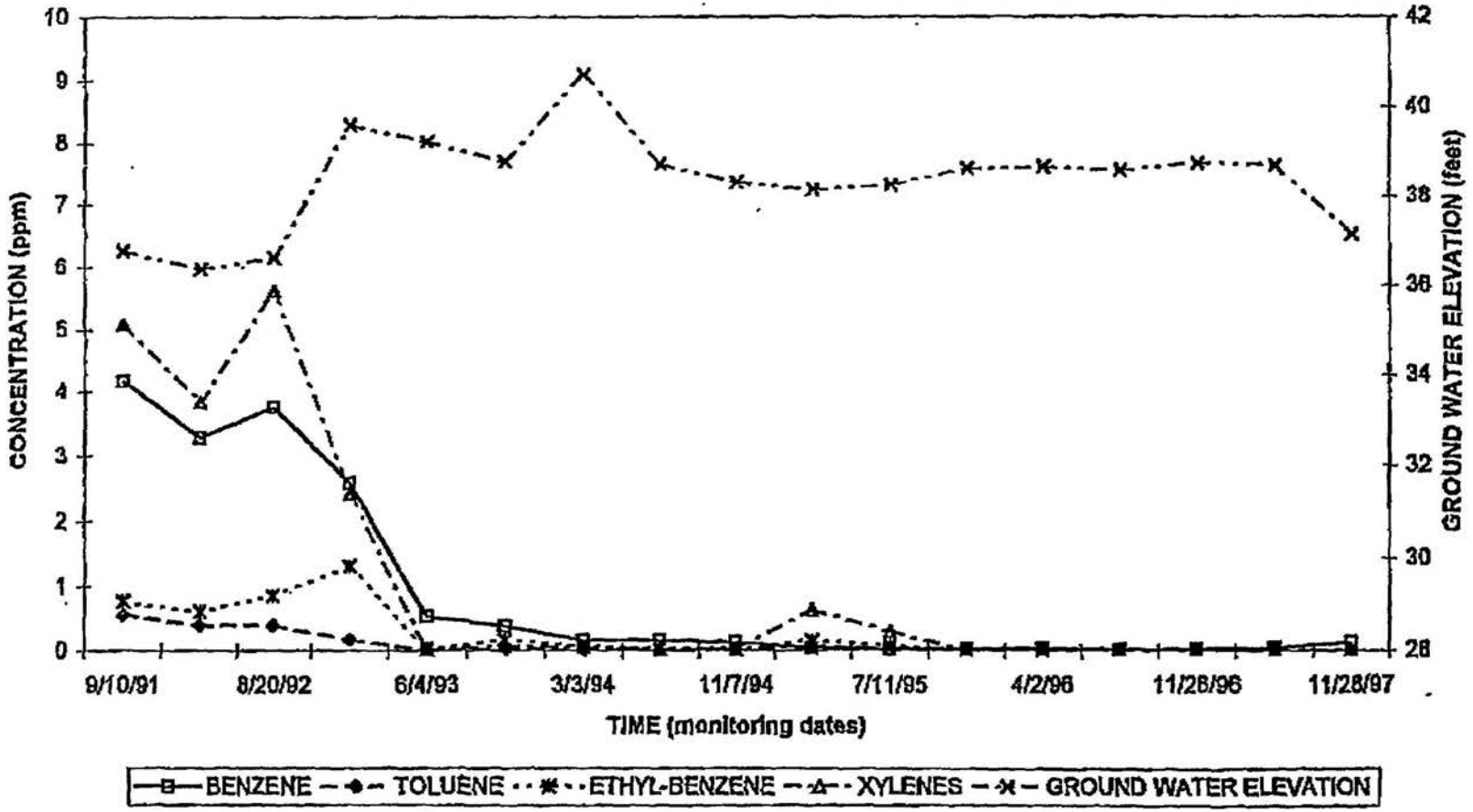
**Former Amoco Service Station #84665**
**2307 Champlain Street, NW**
**Washington, DC**




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## GROUND WATER ELEVATION AND BTEX CONCENTRATION vs TIME, MW-4

**Former Amoco Service Station #84565**
**2307 Champlain Street, NW**
**Washington, DC**




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# SUBSURFACE EXPLORATION
# AND
# FOUNDATION RECOMMENDATIONS

## 2327 CHAMPLAIN STREET, NW
## WASHINGTON, D.C.

Prepared For

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Prepared By

THE EDDY GROUP, INC.
TEG Project Number: 02-01-10031
August 28, 2002

P.N. Hoffman
2327 Champlain Street, Nw
August 28, 2002

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## SYNOPSIS

An exploration and evaluation of the subsurface conditions have been made on the site of the proposed multi-floor structure. Test borings have been drilled and selected soil samples submitted for laboratory tests. The data have been carefully analyzed in light of the project information provided by P.N. Hoffman and Ehlert/Bryan, Inc.

In general, beneath the asphalt cement concrete and Portland cement concrete pavements encountered at the site, existing fill materials were encountered to depths ranging from approximately 5.5 to 13.5 feet below the ground surface. The existing fill typically consisted of very loose to medium dense silty sands and clayey sands with varying amounts of deleterious materials. The existing fill was typically underlain by medium dense clayey sands and clayey gravels typical of the Coastal Plain terrace deposits. A layer of highly plastic silt was encountered in the southern portion of the site at elevations ranging from approximately El 131± to El 132.5±. The highly plastic silt extended to elevations ranging from approximately El 121± to El 123.5±.

Based on conversations with the structural engineer, we understand that the planned garage finished floor elevation is planned for El 129.4±. Based on the results of the test borings, the southern portion of the structure ground slab and foundations are planned to bear within the highly plastic silts. Based on our understanding of the planned construction, these materials are unsuitable for support of the structure. We recommend that all ground slabs in the area of the highly plastic silt soils be constructed with a minimum 2 foot gravel base below the planned slab subgrade elevation. The gravel base can also act as a stable mat to allow for construction as the highly plastic silts will deteriorate rapidly when exposed to inclement weather conditions and construction traffic.

We anticipate that the use of Geo-Piers may be required to modify the settlement characteristics of the highly plastic silt stratum and to lower foundation loads to the underlying medium dense to very dense sand and gravel stratum. Based on the results of the test borings and on our experience with The Lofts at Adams Morgan, we anticipate that the highly plastic silt layer may extend to depths greater than encountered in the test borings at the southern most portion of the site.

Once demolition of the existing one story structure at the southern portion of the site is accomplished, we recommend that additional soils borings be advanced to fully characterize the extent of the highly plastic silt stratum. The results of the soils borings may indicate that the use of alternative foundation remedial measures may be appropriate. If the highly plastic silt stratum is limited in depth, the use of concrete sub foundations may be a viable option.

Based on the groundwater levels encountered in the soil borings, we anticipate that dewatering of the site will be required during construction and on a permanent basis. Additionally, shoring of the adjacent alley, Kalorama Road and Champlain Street will be required and we anticipate that the existing adjacent structures will require foundation underpins.

Detailed analyses of subsurface conditions, recommended foundation types, remedial measure recommendations and pertinent design recommendations are included herein. The final decision as to which foundation type to be used should be based on the design parameters given, costs, risk of foundation movement, and other factors beyond the scope of this study.

THE EDDY GROUP cannot be responsible for the interpretation or implementation of this report by others. THE EDDY GROUP should be retained to perform services sufficient to determine compliance with its recommendations