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**Addendum to the Corrective Action Plan for
355 North San Pedro Street to Include the
Wayne Property at 170 Bassett Street
San Jose, California**

May 22, 2003
AZ102-024

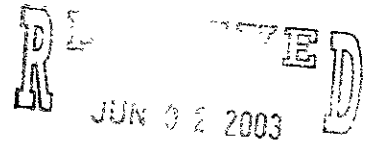
Prepared for:
Brandenburg Family Associates 1
1122 Willow Street, Suite 200
San Jose, CA 95125-3157



May 22, 2003



Michelle Rembaum-Fox
California Regional Water Quality Control Board -
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, California 94612



Re: Addendum to the Corrective Action Plan for 355 North San Pedro Street,
To Include the Wayne Property at 170 Bassett Street, San Jose, California

Dear Ms. Rembaum-Fox:

Enclosed is a copy of the report entitled "Addendum to the Corrective Action Plan for 355 North San Pedro Street, to Include the Wayne Property at 170 Bassett Street, San Jose, California" (CAP Addendum). This CAP Addendum report is submitted on behalf of the property owner, Brandenburg Family Associates 1 ("BFA").

This CAP Addendum report presents the results of soil and ground-water investigations conducted at the property with the address 170 Bassett Street ("170 Bassett"), located adjacent to the 355 North San Pedro property. Investigations were conducted at 170 Bassett to supplement the investigation data presented in the Corrective Action Plan (CAP) report prepared for 355 North San Pedro dated November 27, 2001. The CAP was approved by the California Regional Water Quality Control Board - San Francisco Bay Region (RWQCB) in their letter to BFA dated February 6, 2002. Results of investigations conducted at 170 Bassett were conducted to assess whether corrective actions in addition to those presented in the CAP are warranted. The 170 Bassett property is owned by James W. Wayne Family, a California general partnership and is located in a redevelopment project area within the City of San Jose.

Please feel free to contact me at 415/460-1561 if you have any questions regarding the enclosed document.

Sincerely,

A handwritten signature in black ink, appearing to read "JH", followed by a horizontal line.

Jeff Hennier, R.G., C.H.G.
Principal Hydrogeologist

cc: Ron Zraick, Brandenburg Family Associates 1
James S. Crowley, SCVWD



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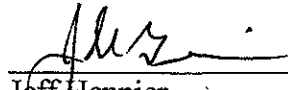
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SIGNATURE PAGE

All hydrogeologic and geologic information, conclusions, and recommendations contained in this report have been prepared by or under the direction of a California Certified Hydrogeologist.



Jeff Hennier
California Registered Geologist (4605)
California Certified Hydrogeologist (105)

5/22/03
Date

May 22, 2003

102-024

**Addendum to the Corrective Action Plan for 355 North San Pedro Street to
Include the Wayne Property at 170 Bassett Street
San Jose, California**

1.0 INTRODUCTION

This report entitled "Addendum to the Corrective Action Plan for 355 North San Pedro Street to Include the Wayne Property at 170 Bassett Street, San Jose, California" (CAP Addendum), is submitted on behalf of Brandenburg Family Associates ("BFA"). This report presents the results of soil and ground-water investigations conducted at 170 Bassett Street ("170 Bassett"), located adjacent to the 355 North San Pedro Street property owned by BFA (Figures 1 and 2). The 170 Bassett property is owned by James W. Wayne Family, a California general partnership and both properties are located in a redevelopment project area within the City of San Jose. Results of investigations conducted at 170 Bassett were evaluated and this report prepared to supplement the investigation data presented in the Corrective Action Plan (CAP) report prepared for 355 North San Pedro dated November 27, 2001. The CAP was approved by the California Regional Water Quality Control Board – San Francisco Bay Region (RWQCB) in their letter to BFA dated February 6, 2002.

Historical operations of a warehouse, restaurant equipment storage, auto wrecking yard and light manufacturing facility have been conducted at 170 Bassett. No underground storage tanks (USTs) are known to be present at 170 Bassett. Soil and ground-water investigations were conducted at 170 Bassett and evaluated with investigation results at 355 North San Pedro to assess whether corrective actions in addition to those presented in the CAP are warranted. The presence of petroleum hydrocarbons is primarily limited to soil and ground water in the area of 170 Bassett that is proximate to a fuel UST that was formerly located and removed from 355 North San Pedro. The primary chemical constituents found in soil and ground water include total petroleum hydrocarbons as gasoline (TPHg) and diesel (TPHd) and benzene, toluene, ethylbenzene and xylene (BTEX) compounds.

This report includes the following: 1) an assessment of impacts to soil and ground water at 170 Bassett; 2) comparison of 170 Bassett investigation data to soil and ground-water remedial goals developed for the CAP; and 3) assessment and recommendation of supplemental corrective actions to the CAP, if any, to address petroleum hydrocarbons in soil and ground water at 170 Bassett.

2.0 BACKGROUND

2.1 Property Description

The 170 Bassett property consists of an approximately 7,000 square foot vacant lot along Bassett Street between Terraine and North San Pedro Streets in downtown San Jose (Figure 2). The ground surface is approximately 75 feet above mean sea level and gently slopes toward the north. The nearest surface water feature includes Guadalupe Creek located approximately 1,500 feet to



the southwest (Figure 1). San Francisco Bay is located approximately 12 miles northwest of the property.

The 170 Bassett property is located in the City of San Jose downtown business district in an area that consists primarily of one- and two-story warehouses and buildings used for light industrial and commercial activities. 170 Bassett is located within an area designated as a redevelopment project area by the City of San Jose Redevelopment Agency (SJRD). The 170 Bassett property consists of a partially paved vacant lot surrounded by a fence on two sides, and a warehouse building with the address 380 Terraine Street at the corner of Bassett and Terraine Streets (Figure 2). The assessor parcel number for 170 Bassett is 259-32-54.

2.2 Historical Use

The 170 Bassett property is owned by James W. Wayne Family, a California general partnership. During a site visit in July 2002, the property was observed to consist of a vacant, undeveloped lot. The lot was most recently used to store restaurant equipment. Historical Sanborn Fire Insurance maps and aerial photographs were reviewed as part of a Phase I Site Assessment conducted in 1999 (Azure, 1999). Historical information from the Sanborn Maps indicate the property was occupied by several types of businesses since the early-1900's. Historical uses of the property building include a lumber company in the 1915 Sanborn map and a warehouse in the 1950 map. It is unclear if the warehouse building is located on the property in the 1969 Sanborn map.

Information obtained from review of selected historical aerial photographs indicates that a warehouse building appears to cover the property during the period of the aerial photograph coverage between 1954 and 1966. The property appears as an empty lot in the 1971 photograph. The types of operations conducted at the property are not apparent from review of the aerial photographs. Prior to the use of the property as an automobile wrecking yard beginning in the late 1980's or early 1990's until approximately 2000, a miniature scale electric race car track was located on the property.

Results of an underground utility search conducted in March 1999 as part of environmental site assessment activities indicated the possible presence of UST(s) at two locations along Bassett Street adjacent to the property. No records of fuel USTs were located in regulatory agency files. Therefore, it appears that the UST(s), if present, may have been used for heating oil storage. Results of further UST search activities conducted in April 2000 and May 2002 did not indicate the presence of USTs on the property. Descriptions of the UST search activities conducted at 170 Bassett are further described below in Section 3.2.

3.0 SUMMARY OF SOIL AND GROUND-WATER INVESTIGATION RESULTS

3.1 Introduction

Soil and ground-water investigations were conducted at 170 Bassett in April 2000 by Brown and Caldwell on behalf of Legacy Partners (Brown and Caldwell, 2000). Investigations were conducted by Brown and Caldwell as part of due diligence for a potential property transfer. The April 2000 investigations included collection of soil samples from five borings and ground-water

grab samples from two borings to assess the possible presence of petroleum hydrocarbons and other chemical compounds. Based on results of the Brown and Caldwell investigations, additional soil and ground-water investigations were conducted in May 2002 by Azure Environmental on behalf of BFA. Additional investigations included collection of soil and ground-water samples from five borings to further assess the extent of petroleum hydrocarbons in soil and ground water at 170 Bassett. In addition, UST search activities were conducted in April 2000 and May 2002 to assess the possible presence of a UST at 170 Bassett.

Investigations and remedial actions were previously conducted at the adjacent 355 North San Pedro property (Figure 2). The 355 North San Pedro property is owned by BFA and is the former location of fuel USTs that were removed from two locations on the property. USTs were removed from the area adjacent to North San Pedro Street in July 1985 and from along Bassett Street in March 2000 (Azure, 2001). The use history of the USTs is unknown, though it appears that the USTs along Bassett Street may have been initially used for heating oil storage (Azure, 1999) and the USTs along North San Pedro Street were used by a former tenant Structural Hardware and Supply to fuel delivery vehicles (Azure, 2001). Soil and ground-water investigations at 355 North San Pedro, including installation of monitoring well 355-MW-1, were conducted during the period between March and September, 2000. Well 355-MW-1 was sampled on a periodic basis between March 2000 and August 2001 (Brown and Caldwell, 2000a, 2000b; Azure, 2001). Results of soil and ground-water investigations at 355 North San Pedro were used to develop of risk-based remedial goals and recommended soil excavation corrective actions presented in the RWQCB-approved CAP for 355 North San Pedro (Azure, 2001).

3.2 UST Investigation

Search activities were conducted by Brown and Caldwell and Azure Environmental to investigate the possible presence of a UST at 170 Bassett. The UST searches were conducted based on information obtained during a walk-through reconnaissance of Bassett Street conducted in March 1999 as part of a Phase I investigation of neighboring properties (Azure, 1999). An underground utility locating company, DownUnder Technologies, used metal locating equipment to identify the possible presence of USTs along Bassett Street. Results of the underground utility search along Bassett Street adjacent to the 170 Bassett property boundary indicated the presence of underground metal pipes that were suspected to possibly represent abandoned fill pipes to former heating oil UST(s) (Azure, 1999).

Brown and Caldwell and Cruz Brothers Underground Utility Locators conducted a UST search of 170 Bassett in April 2000. Brown and Caldwell concluded that the metal pipe features identified in the Azure Environmental Phase I report may have represented a "disconnected roof drain" and a "San Jose Water Department utility box containing a water shutoff valve" (Brown and Caldwell, 2000). Brown and Caldwell concluded that there were no surface indications of USTs at 170 Bassett (Brown and Caldwell, 2000).

Additional UST search activities were conducted by Azure Environmental and Cruz Brothers Underground Utility Locators at 170 Bassett in May 2002. Cruz Brothers used metal detection equipment to survey the 170 Bassett property boundary along Bassett Street. No surface indications of USTs were observed, including the metal pipe features identified in March 1999 or

the roof drain and utility box features identified in April 2000. Based on these results, it appears unlikely that a UST is present at 170 Bassett.

3.3 Results of Soil Investigations

Soil investigations were conducted by Brown and Caldwell in April 2000 to assess whether current or past use of 170 Bassett resulted in releases of hazardous materials to soil (Brown and Caldwell, 2000). Brown and Caldwell soil investigations included installation and sampling from 5 borings (B1 through B5) to a maximum depth of 25-feet below grade (Figure 3). The borings were located in Bassett Street (borings B1 and B4), and in the central (borings B2 and B3) and southeast (boring B5) areas of 170 Bassett. Azure Environmental soil investigations included sampling from 5 borings (WA-1 through WA-5) to a maximum depth of 10 feet (Figure 3). The borings were located along Bassett Street (borings WA-1 and WA-5) and at the east (boring WA-2), southwest (boring WA-3) and west (boring WA-4) property boundaries. Lithologic data from soil borings at 170 Bassett are included in Appendix A. Soil investigation results for petroleum hydrocarbons, including total petroleum hydrocarbons as gasoline (TPHg), diesel (TPHd) and motor oil (TPHmo), and benzene, toluene, ethylbenzene and total xylenes (BTEX); volatile organic compounds (VOCs); semivolatile organic compounds (SVOCs); methyl-tert butyl ether (MTBE); and total lead analysis are summarized in Table 1. Metals analysis results are summarized in Table 2. Laboratory certificates are included in Appendix B.

Unsaturated- and capillary-zone sediments at the Property (between ground surface and approximately 16-feet below grade) consist predominantly of relatively fine-grained clay and silt sediments (Appendix A). Depth to ground water was encountered at approximately 16-feet below grade during ground-water investigations and monitoring conducted during 2000 and 2001 at 355 North San Pedro. Unsaturated-zone sediments were encountered in the depth interval between ground surface and approximately 10-feet below grade; water saturated capillary-zone sediments were encountered adjacent to the soil/ground-water interface within the depth interval between approximately 10- and 16-feet below grade. Soil samples collected deeper than 16-feet below grade represent saturated-zone soil from the shallow ground-water zone.

Laboratory analysis results for unsaturated-zone soil samples indicate TPHg, BTEX, MTBE, VOCs and SVOCs were not detected (Table 1). Low concentrations of TPHd (up to 9.2 ppm) were detected in unsaturated-zone soil samples from borings B1 through B5, and low concentration of TPHmo (52 ppm) was detected in the 3-foot depth sample from boring B1 (Figure 3). Trace concentrations of pesticides dieldrin (0.0054 ppm), 4,4-DDD (0.0024 ppm) and beta-BHC (up to 0.0064 ppm) were detected in the 3-foot depth samples from B2 or B4 (Table 1). Total lead and other metals concentrations in the soil samples were within the expected range of background concentrations (Table 2).

Soil investigation results indicate higher concentrations of TPHd (130 ppm), TPHg (1,100 ppm) and BTEX compounds (benzene up to 0.21 ppm) were detected in only one sample, the 22-foot depth soil sample from boring B2 (Table 1; Figure 3). Soil samples collected at depths below 16 feet are from the saturated-zone soil below the ground-water surface and are not considered representative of unsaturated-zone soil conditions. Ground-water investigations conducted in the area of boring B2 are summarized below.



3.4 Results of Ground-Water Investigations

3.4.1 Hydrogeologic Setting

The ground surface in the property vicinity gently slopes toward the north in the general direction of San Francisco Bay, located approximately 12 miles from the property. The nearest surface water feature is the Guadalupe River located approximately 1,500 feet to the southwest (Figure 1).

Shallow saturated-zone sediments at the property (between ground surface and 30-feet below grade) consist predominantly of relatively fine-grained clay and silt. Relatively coarser-grained sandy clay to clayey sand sediments were encountered in boring B3 at the depth interval between approximately 17- and 22-feet below grade (Appendix A). At the nearby BFA site, a relatively thin, sand sediment interval was observed at a depth below approximately 25-feet below grade and appears to be laterally continuous beneath the site (Azure, 2000b). A unit comprised primarily of clay and silt sediments and approximately 25-feet thick underlies the shallow zone and separates the relatively coarse-grained intervals of the shallow- and intermediate-depth ground-water zones (Azure, 2000b).

Water-level measurements collected from well 355-MW-1, located at 355 North San Pedro, between March 2000 and August 2001 varied from 16.29- and 16.83-feet below grade (Azure, 2001). Ground-water elevations from the nearby 153 West Julian Street site, located approximately 200 feet southeast of 170 Bassett, indicate the general direction of shallow zone ground-water flow is generally toward the north and northwest (Appendix C).

3.4.2 Ground-Water Sampling Results

Ground-water sampling was conducted to assess the extent of impacts to ground water at 170 Bassett. Ground-water grab samples were collected from the following boring locations at the property:

- Brown and Caldwell collected samples from borings B1 and B3 on April 14, 2000 at locations along Bassett Street and in the central area of the property.
- Brown and Caldwell collected ground-water grab samples from four borings (355-BC-6W through 355-BC-9W) along the north side of Bassett Street on July 27, 2000 to assess the off-site and downgradient extent of petroleum hydrocarbons in ground water.
- Borings WA-1 through WA-5 were drilled on May 3, 2002 along Bassett Street (borings WA-1 and WA-5) and at the east (boring WA-2), southwest (boring WA-3) and west (boring WA-4) property boundaries to assess the lateral extent of petroleum hydrocarbons.

Table 3 summarizes ground-water grab sample results collected at 170 Bassett; laboratory certificates for samples collected from borings WA-1 through WA-5 are included in Appendix B. Previous investigations were conducted to investigate impacts to ground water in the vicinity of the former USTs at 355 North San Pedro, including installation of one monitoring well (Azure, 2001). Petroleum hydrocarbon and BTEX concentrations detected in ground-water samples collected at 170 Bassett and 355 North San Pedro are illustrated in Figure 4.

TPHd, TPHg and low benzene concentrations were detected in ground-water grab samples collected at borings WA-1 and WA-2. Petroleum hydrocarbons were not detected at borings WA-3 through WA-5 (Figure 4). The highest concentrations of TPHd (3.3 ppm), TPHg (5.3 ppm) and benzene (0.1 ppm) were detected in grab sample boring WA-2, located adjacent to the east property boundary adjacent to 355 North San Pedro (Figure 4). Relatively lower concentrations of TPHd (2 ppm), TPHg (3.5 ppm) and benzene (0.07 ppm) were detected in boring WA-1, located along Bassett Street approximately 35 feet northwest of boring WA-2 (Figure 4). Trace concentrations of toluene (up to 0.046 ppm), ethylbenzene (up to 0.048 ppm), and total xylenes (up to 0.078 ppm) were also detected in the ground-water grab samples from borings WA-1 and WA-2 (Table 3). Lower concentrations of TPHd (up to 0.14 ppm), TPHg (up to 0.52 ppm) and benzene (0.0071 ppm) were detected and TPHmo and VOCs were not detected in borings B1 and B3 (Figure 4). MTBE was not detected in borings at 170 Bassett (detection limit <0.005 ppm).

The approximate extent of petroleum hydrocarbons in ground water at 170 Bassett is indicated by non-detect results for TPHg and BTEX compounds and low TPHd concentrations from on-site borings WA-3 through WA-5 and off-site ground-water grab sample borings 355-BC-6W through 355-BC-9W (Figure 4). Samples from off-site borings 355-BC-6W and 355-BC-7W, located along the north side of Bassett Street approximately 50 feet north and northwest (downgradient) of 170 Bassett, indicate relatively low concentrations of TPHd (0.15 ppm and 0.1 ppm) were detected and MTBE (<0.005 ppm) was not detected. The areal extent of petroleum-hydrocarbon impacted ground water at 170 Bassett is restricted to a relatively small area (approximately 60 feet by 60 feet) in the northeast corner of the property adjacent to 355 North San Pedro (Figure 4).

TPHd, TPHg and low benzene concentrations were previously detected in ground-water grab samples collected at 355 North San Pedro (Azure 2001). The highest concentrations of TPHd (up to 0.72 ppm), TPHg (0.56 ppm) and benzene (0.016 ppm) were detected in grab sample boring 355-HP-2, located approximately 5-feet northwest of the former UST location (Figure 4). Relatively lower concentrations of TPHd (up to 0.25 ppm), TPHg (up to 0.43 ppm) and benzene (up to 0.0046 ppm) were detected in other borings located immediately adjacent to the former UST location (Figure 4). Most recent sample analysis results collected in August 2001 from monitoring well 355-MW-1 indicate relatively low to trace concentrations of TPHd (0.19 ppm), TPHg (0.1 ppm) and benzene (0.00087 ppm) were detected (Figure 4). EPA 8260 analytes including fuel additives 1,2-dichloroethane (1,2-DCA) and methyl-tert butyl ether (MTBE) were not detected in the ground-water sample collected from well 355-MW-1 in March 2000 (Azure, 2001).

4.0 INVESTIGATION SUMMARY AND CONCLUSIONS

Soil investigations were conducted to assess whether current or past uses of 170 Bassett resulted in releases of hazardous materials. Soil investigation results indicate only low concentrations of TPHd (up to 9.2 ppm) and a low concentration of TPHmo (52 ppm) were detected in unsaturated-zone soil samples within a limited area of 170 Bassett (Figure 3). TPHg, BTEX, MTBE, VOCs and SVOCs were not detected in unsaturated-zone soil samples (Table 1). Metals concentrations, including total lead, in the soil samples were within the expected range of background concentrations (Tables 1 and 2). Soil investigation results indicate the extent of

petroleum hydrocarbons in soil has been delineated at 170 Bassett and the impacts to soil are below the soil remedial goal concentrations recommended in the CAP (Table 4) (Azure, 2001). Therefore, no soil remedial actions are recommended at 170 Bassett.

Ground-water sampling results indicate the highest concentrations of petroleum hydrocarbons, consisting primarily of TPHd and TPHg, were detected in the grab samples from borings WA-1 and WA-2. Borings WA-1 and WA-2 are located adjacent to the east property boundary and within approximately 30 feet southwest of the former 355 North San Pedro UST location (Figure 4). The highest benzene concentration detected in ground water at 170 Bassett (0.1 ppm at boring WA-2) is below the health risk-based remedial goal for benzene (0.14 ppm) developed in the RWQCB-approved Corrective Action Plan for the nearby Lin Property site at 129-149 West Julian Street (Azure, 2000a). Fuel additives including 1,2-DCA and MTBE were not detected in the ground-water samples collected from 170 Bassett (Table 3). The approximate extent of petroleum hydrocarbons in ground water are indicated by non-detect results for TPHg and BTEX compounds from on-site and off-site ground-water grab sample borings located within approximately 60 feet of the northeast property boundary adjacent to 355 North San Pedro (Figure 4).

The distribution of petroleum hydrocarbons in shallow ground water at 170 Bassett appears to be the result of release(s) of diesel and gasoline from the former UST at 355 North San Pedro. Though past use of 170 Bassett as an automobile wrecking yard could have resulted in surface release(s) of diesel and gasoline, soil investigation data indicating TPHg, BTEX and other compounds were not detected in shallow soil samples indicate surface release(s) on the property, if any, appear to have been relatively minor (Tables 1 and 3).

Results of investigations at 355 North San Pedro indicate petroleum hydrocarbons in ground water do not pose a threat to potential receptors (Azure, 2001). The petroleum hydrocarbon plume appears to be stable, based on data indicating: 1) overall decreasing petroleum hydrocarbon concentrations; 2) the hydrocarbon plume is restricted to the area within approximately 100 feet from the former 355 North San Pedro UST; and 3) biodegradation appears to be occurring (Azure, 2001). Residual petroleum hydrocarbon concentrations in ground water at 170 Bassett and 355 North San Pedro are expected to continue to decrease to concentrations below ground-water remedial goals (Table 4) as a result of biodegradation and other natural attenuation processes. Therefore, impacts to ground water posed by release of petroleum hydrocarbons at 355 North San Pedro appear relatively minor and are not recommended to require remedial actions at 170 Bassett.

5.0 ADDENDUM CORRECTIVE ACTION PLAN RECOMMENDATIONS

The RWQCB-approved CAP report described soil excavation remedial actions planned for 355 North San Pedro (Azure, 2001). Results of soil investigations previously conducted at 355 North San Pedro indicated the presence of residual TPHg and TPHd in soil at concentrations greater than the proposed soil remedial goals in areas adjacent to the UST removed in March 2000 (Azure, 2001). Soil sample data presented in the CAP report indicated TPH-impacted unsaturated zone soil at concentrations greater than the proposed soil remedial goals appears limited to a relatively small area within approximately 5- to 10-feet laterally in the north and west directions from the former UST (Azure, 2001). Based on the soil remedial goal evaluation,



the CAP report described remedial actions to remove and/or reduce TPHg and TPHd in unsaturated-zone soil to protect ground-water quality (Azure, 2001). The area of the CAP soil excavation remedial actions in the vicinity of the UST removed at 355 North San Pedro is illustrated in Figure 5. The planned excavation depth is approximately 10-feet below grade and is estimated to require the excavation of approximately 100 cubic yards of impacted soil and off-site disposal at an appropriate disposal facility (Azure, 2001).

Additional UST search activities at 170 Bassett are proposed to supplement the corrective actions planned for 355 North San Pedro. The objective of additional UST search activities is to confirm the absence of a heating oil UST in the area along the Bassett Street right-of-way where previous investigations indicated the possible presence of underground metal piping near the 170 Bassett/355 North San Pedro property boundary (Figure 6). Additional UST search activities would be conducted by excavating a shallow test pit using backhoe equipment. The test pit is proposed to be excavated to a depth of approximately 1- to 3-feet below grade to search for UST and related piping. It is anticipated that underground utilities (i.e., water lines) will be encountered in the proposed test pit area, which may restrict access in the area adjacent to the utilities. UST search activities within the encountered underground utility area will be completed to the extent feasible using hand digging and restricted access equipment. In the event that a heating oil UST associated with 170 Bassett is located, the UST will be closed in accordance with City of San Jose Fire Department requirements.

Results of the additional UST search activities will be summarized in the 355 North San Pedro corrective action closure report (Azure, 2001). The closure report will be submitted to the RWQCB for review and approval following completion of corrective action activities. Recommended UST search activities at 170 Bassett and soil excavation corrective actions at 355 North San Pedro are scheduled to be completed during the Summer 2003, following receipt of RWQCB approval of this CAP Addendum report.



6.0 SELECTED REFERENCES

- Azure Environmental, 1999. Phase I Environmental Site Assessment, North of Julian Redevelopment Project, San Jose, California. September 2.
- Azure Environmental, 2000a. Corrective Action Plan, Lin Property, 129-149 West Julian Street, San Jose, California. January 21.
- Azure Environmental, 2000b. Results of Phase II Soil and Ground-Water Investigations, North of Julian Redevelopment Project, San Jose, California. May 10.
- Azure Environmental, 2001. Corrective Action Plan, 355 North San Pedro Street, San Jose, California. November 27.
- Brown and Caldwell, 2000. Results of Phase II Environmental Site Assessment, 170 Bassett Street, San Jose, California. June 6.
- Brown and Caldwell, 2000a. Results of Investigation of Petroleum Release, 355 North San Pedro Street, San Jose, California. August 14.
- Brown and Caldwell, 2000b. Sampling Results for Monitoring Well 355-MW-1, 355 North San Pedro Street, San Jose, California. September 25.
- California Regional Water Quality Control Board - S.F. Bay Region (RWQCB), 1996. Regional Board Supplemental Instructions to State Water Board December 8, 1995, Interim Guidance on Required Cleanup at Low-Risk Fuel Sites. January 5.
- California Regional Water Quality Control Board - San Francisco Bay Region, 2001. Application of Risk-Based Screening Levels and Decision Making to Sites With Contaminated Soil and Ground Water - Interim Final, December.
- State Water Resources Control Board, 1994. California Underground Storage Tank Regulations, CCR Title 23, Division 3, Chapter 16, Article 11. May.
- State Water Resources Control Board, 1996b. Resolution No. 1021b, (Draft) Policy for Investigation and Cleanup of Petroleum Discharges to Soil and Groundwater. November.
- U.S. Environmental Protection Agency (U.S. EPA), 1997. Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action, and Underground Storage Tank Sites (OSWER Directive 9200.4-17). November.



TABLE 1
SUMMARY OF SOIL SAMPLE ANALYSIS RESULTS (ppm)
170 Bassett Street, San Jose, CA

Sampling Location	Depth (ft.)	Date Sampled	Chemical Concentrations Detected (ppm)										VOCs by 8260	Pesticides by 8080
			TPHmo	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Lead			
Azure Environmental														
WA-1-5'	5	3-May-02	NA	<5	<1	<0.005	<0.005	<0.005	<0.015	NA	7.5	NA	NA	
WA-1-10'	10	3-May-02	NA	<5	<1	<0.005	<0.005	<0.005	<0.015	NA	NA	NA	NA	
WA-2-5'	5	3-May-02	NA	<5	<1	<0.005	<0.005	<0.005	<0.015	NA	7.7	NA	NA	
WA-2-10'	10	3-May-02	NA	<5	<1	<0.005	<0.005	<0.005	<0.015	NA	NA	NA	NA	
WA-3-5'	5	3-May-02	NA	<5	<1	<0.005	<0.005	<0.005	<0.015	NA	8.2	NA	NA	
WA-3-10'	10	3-May-02	NA	<5	<1	<0.005	<0.005	<0.005	<0.015	NA	NA	NA	NA	
WA-4-5'	5	3-May-02	NA	<5	<1	<0.005	<0.005	<0.005	<0.015	NA	7	NA	NA	
WA-4-10'	10	3-May-02	NA	<5	<1	<0.005	<0.005	<0.005	<0.015	NA	NA	NA	NA	
WA-5-5'	5	3-May-02	NA	<5	<1	<0.005	<0.005	<0.005	<0.015	NA	6.2	NA	NA	
WA-5-10'	10	3-May-02	NA	<5	<1	<0.005	<0.005	<0.005	<0.015	NA	NA	NA	NA	
Brown and Caldwell														
B1	3-3.5	14-Apr-00	52	9.2 ^(a)	<1	<0.005	<0.005	<0.005	<0.005	<0.005	NA	ND	ND	
	15-15.5	14-Apr-00	<50	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	
	18.5-19	14-Apr-00	<50	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	
	21.5-22	14-Apr-00	<50	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	NA	ND	NA	
B2	2.5-3	14-Apr-00	<50	3.8	<1	<0.005	<0.005	<0.005	<0.005	<0.005	NA	ND	(c)	
	15-15.5	14-Apr-00	<50	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	
	21.5-22	14-Apr-00	<50	130	1100	0.21	0.057	0.07	0.21	<12	NA	(b)	NA	
	24.5-25	14-Apr-00	<50	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	
B3	2.5-3	14-Apr-00	<50	2.6	<1	<0.005	<0.005	<0.005	<0.005	<0.005	NA	ND	ND	
	18-18.5	14-Apr-00	<50	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	NA	ND	NA	
	21.5-22	14-Apr-00	<50	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	
B4	3-3.5	14-Apr-00	<50	3.4	<50	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA	(d)	
	10-10.5	14-Apr-00	<50	<1	<50	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	
B5	2.5-3	14-Apr-00	<50	5	<1	<0.005	<0.005	<0.005	<0.005	<0.005	NA	ND	ND	
	18-18.5	14-Apr-00	<50	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	
	21-21.5	14-Apr-00	<50	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	NA	ND	NA	

Notes:

NA = Not Analyzed

ND = Not Detected

(a) = Hydrocarbon reported is in the late diesel range and does not match laboratory's diesel standard.

(b) = Naphthalene (0.15 ppm) and isopropylbenzene (0.24 ppm) reported.

(c) = Dieldrin (0.0054 ppm), 4,4-DDD (0.0024 ppm) and beta-BHC (0.0028 ppm) reported.

(d) = beta-BHC (0.0064 ppm) reported.

TABLE 2
SUMMARY OF SOIL SAMPLE ANALYSIS RESULTS FOR METALS (ppm)
170 Bassett Street, San Jose, CA

Sampling Location	Depth (ft.)	Date Sampled	Metals Concentrations Detected (ppm)																
			Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
B1	3-3.5	14-Apr-00	>2	4.2	110	>0.5	>0.5	38	8.1	24	15	0.005	>1	60	>2	>1	>1	24	61
B2	2.5-3	14-Apr-00	>2	8.8	130	>0.5	0.61	170	17	24	41	0.13	>1	230	>2	>1	>1	25	71
B3	2.5-3	14-Apr-00	>2	3.6	140	>0.5	>0.5	63	12	30	8.1	0.16	>1	98	>2	>1	>1	33	51
B4	3-3.5	14-Apr-00	>2	5.1	150	>0.5	>0.5	43	9.5	25	7.3	0.074	>1	69	>2	>1	>1	28	67
B5	2.5-3	14-Apr-00	>2	6.3	140	>0.5	1	200	21	27	60	0.22	>1	300	>2	>1	>1	27	130

Notes:

ppm = parts per million (or mg/kg).

Samples collected by Brown and Caldwell (2000) and analyzed by Chromalab, Inc.

TABLE 3
SUMMARY OF GRAB GROUND-WATER SAMPLE ANALYSIS RESULTS
170 Bassett Street, San Jose, CA

Sample Location	Date Sampled	Chemical Concentrations Detected (ppm)									
		TPH _{mo}	TPH _d	TPH _g	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	VOCs	SVOCs
Azure Environmental											
WA-1-W	3-May-02	NA	2	3.5	0.07	0.033	0.024	0.032	<0.005	NA	NA
WA-2-W	3-May-02	NA	3.3	5.3	0.1	0.046	0.048	0.078	<0.005	NA	NA
WA-3-W	3-May-02	NA	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0015	<0.001	NA	NA
WA-4-W	3-May-02	NA	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0015	<0.001	NA	NA
WA-5-W	3-May-02	NA	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0015	<0.001	NA	NA
Brown and Caldwell											
B1	14-Apr-00	<0.5 ^(a)	0.14 ^(a)	0.52	0.0071	0.0032	<0.0005	<0.0005	<0.005	ND	ND
B3	14-Apr-00	<0.5	0.078 ^(b)	0.32	<0.001	0.00079	<0.0005	0.0008	<0.005	ND	NA
355-BC-6W	27-Jul-00	NA	0.1 ^(c)	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	NA	NA
355-BC-7W	27-Jul-00	NA	0.15 ^(c)	<0.05	<0.0005	0.0012	<0.0005	<0.0005	<0.005	NA	NA
355-BC-8W	27-Jul-00	NA	0.084 ^(c)	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	0.029	NA	NA
355-BC-9W	27-Jul-00	NA	0.11 ^(c)	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	0.0055	NA	NA

Notes:

TPHmo = Total Petroleum Hydrocarbons as Motor Oil.

TPHg = Total Petroleum Hydrocarbons as Gasoline.

TPHd = Total Petroleum Hydrocarbons as Diesel.

VOCs = Volatile organic compounds by EPA Method 8260.

SVOCs = Semivolatile organic compounds by EPA Method 8270.

ppm = parts per million (or mg/l)

NA = Not Analyzed

ND = Not Detected

(a) = Hydrocarbon reported does not match the pattern of laboratory's diesel fuel standard.

(b) = Hydrocarbon reported is in the early diesel fuel range and does not match laboratory's diesel fuel standard.

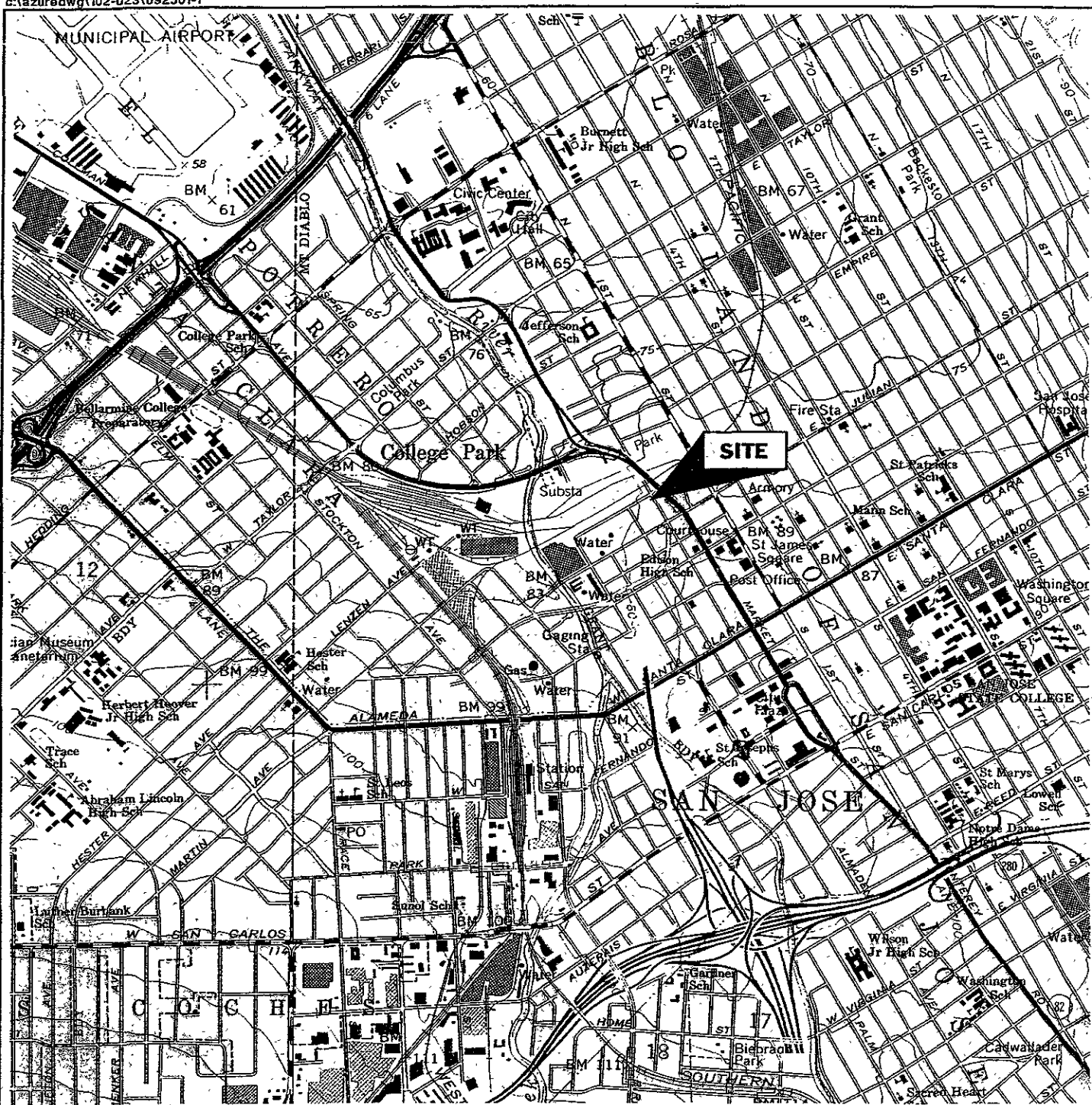
(c) = Compounds reported do not exhibit a pattern characteristic of laboratory's diesel fuel standard.

TABLE 4
SUMMARY OF SOIL AND GROUND-WATER
RISK-BASED REMEDIAL GOALS
170 Bassett/355 North San Pedro, San Jose, CA

	TPH gasoline	TPH diesel
SOIL (ppm)	100	100
GROUND WATER (ppm)	0.1	0.1

Notes:

Soil and ground-water remedial goals based on RWQCB Tier-1 RBSLs (RWQCB, 2001)

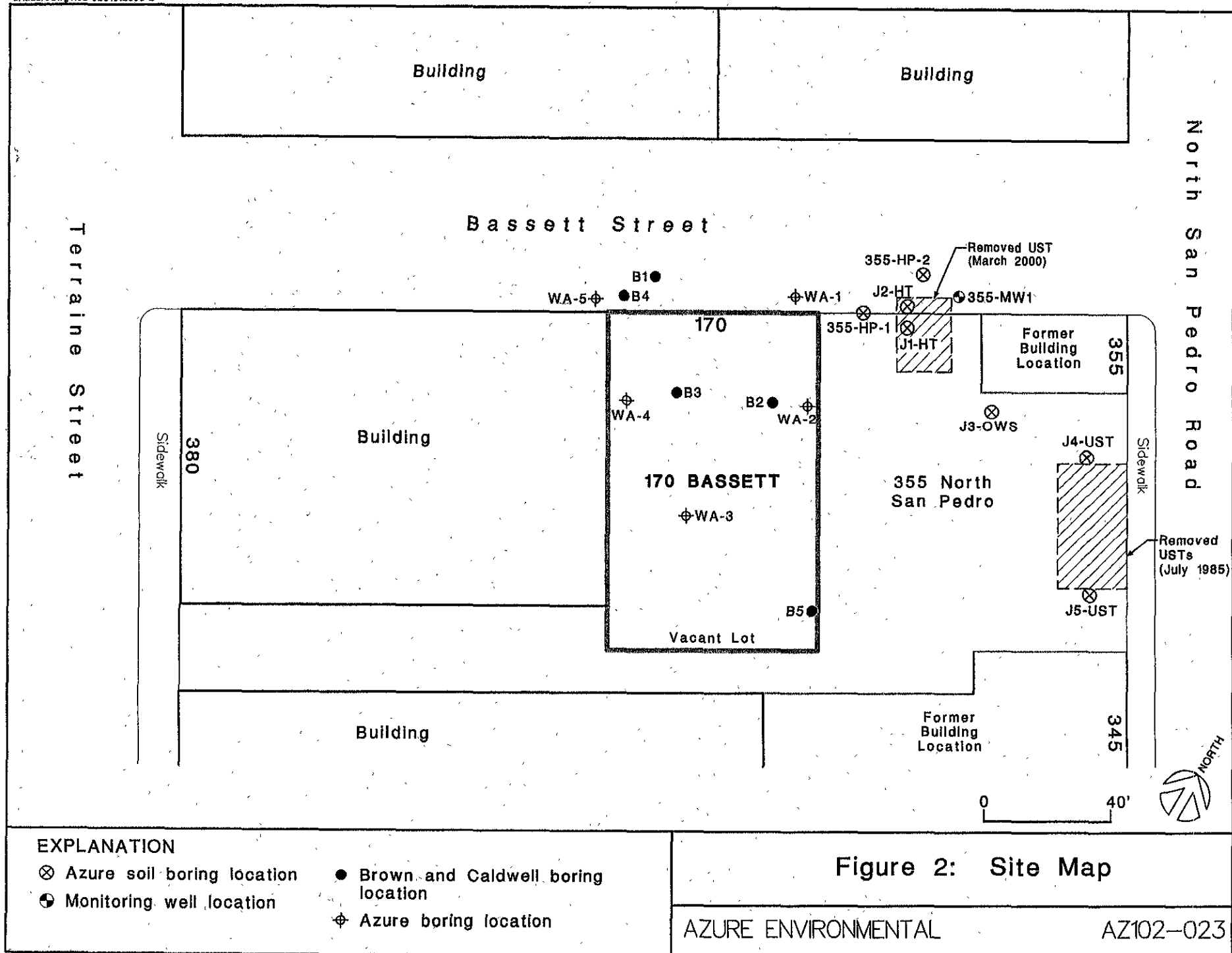


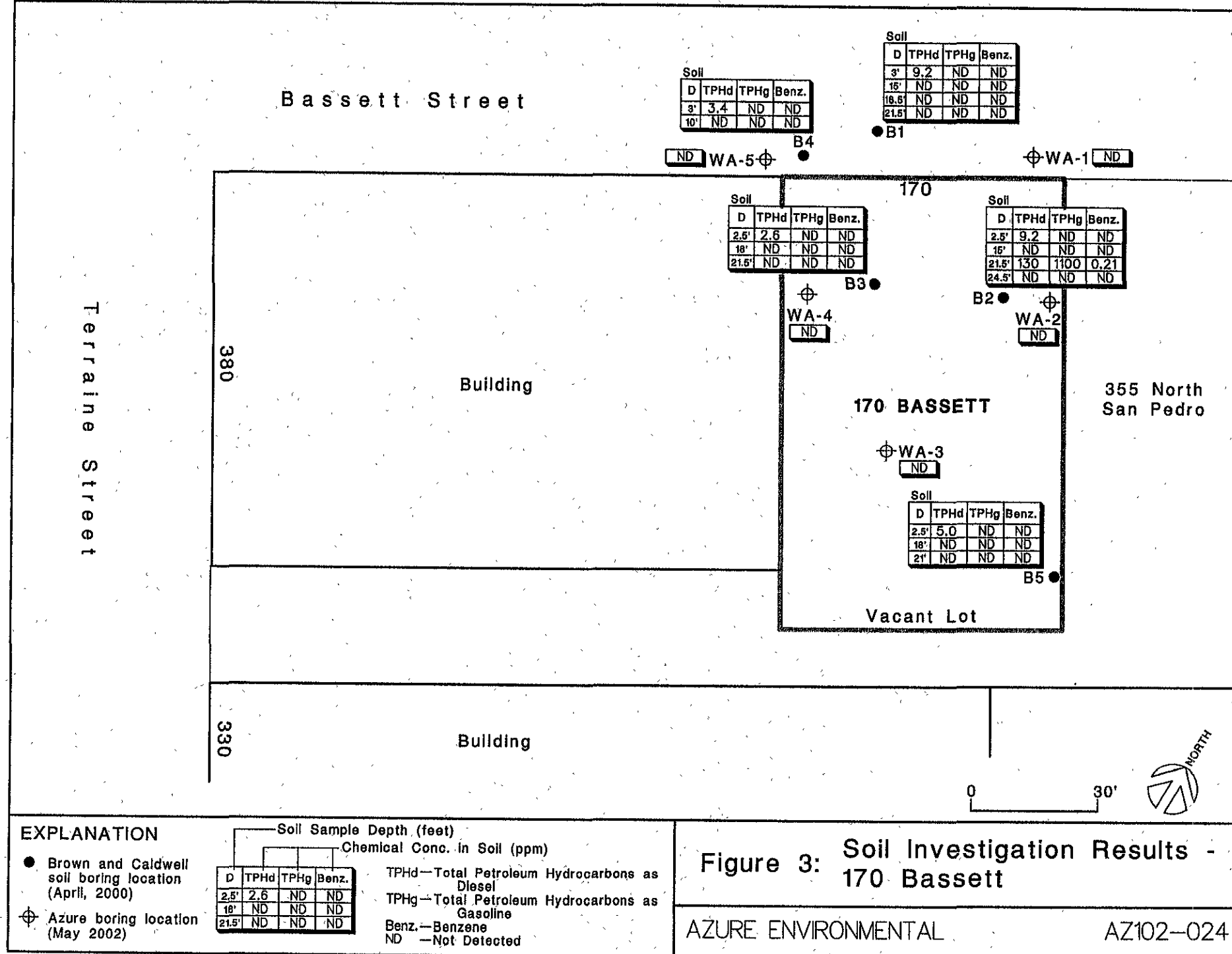
MAP SOURCE:
U.S.G.S. San Jose West, California
1:24,000 - Scale Series (Topographic)
1961 Edition (photorevised 1980)

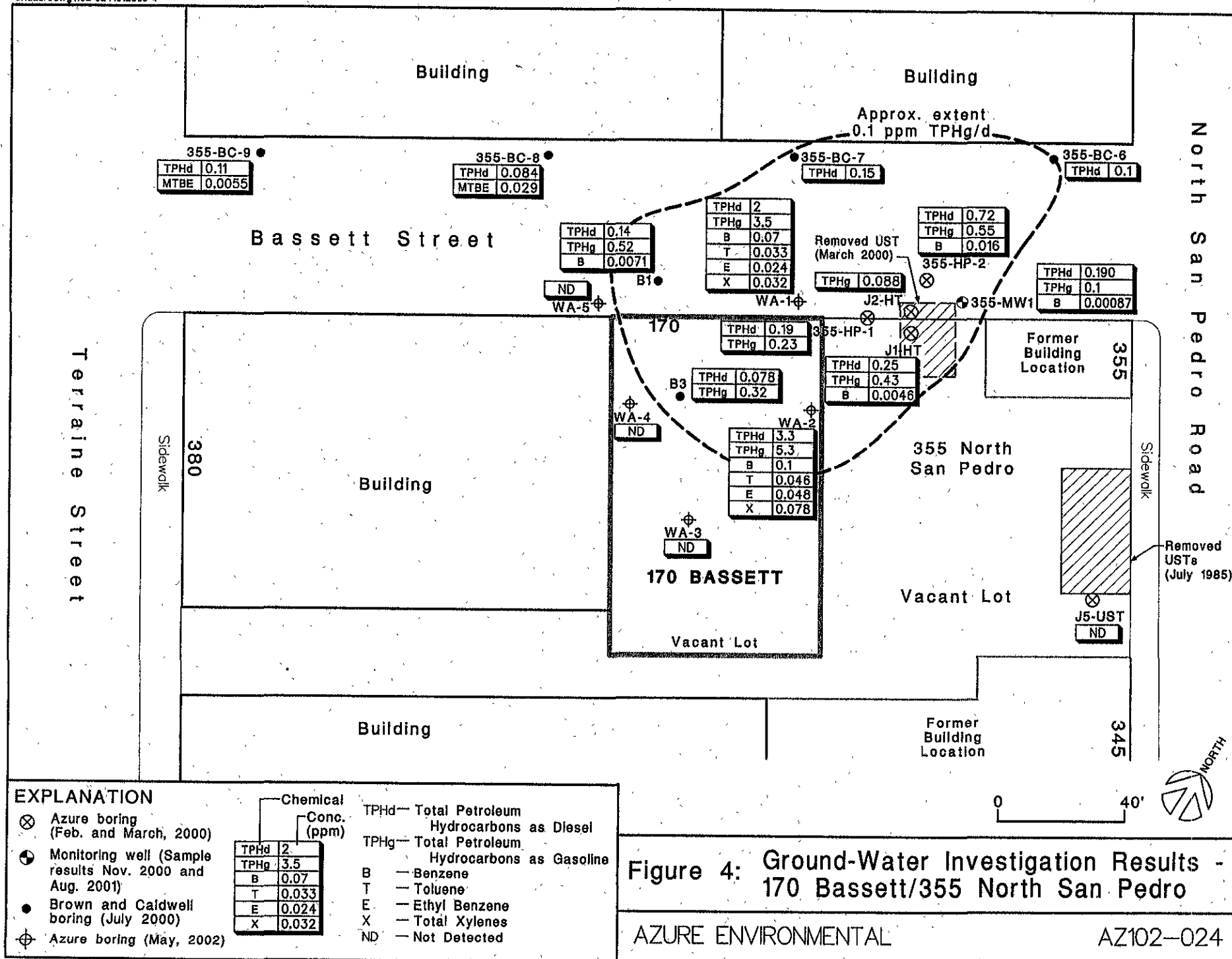


0 1/2 mile
Scale

Figure 1: Site Vicinity Map







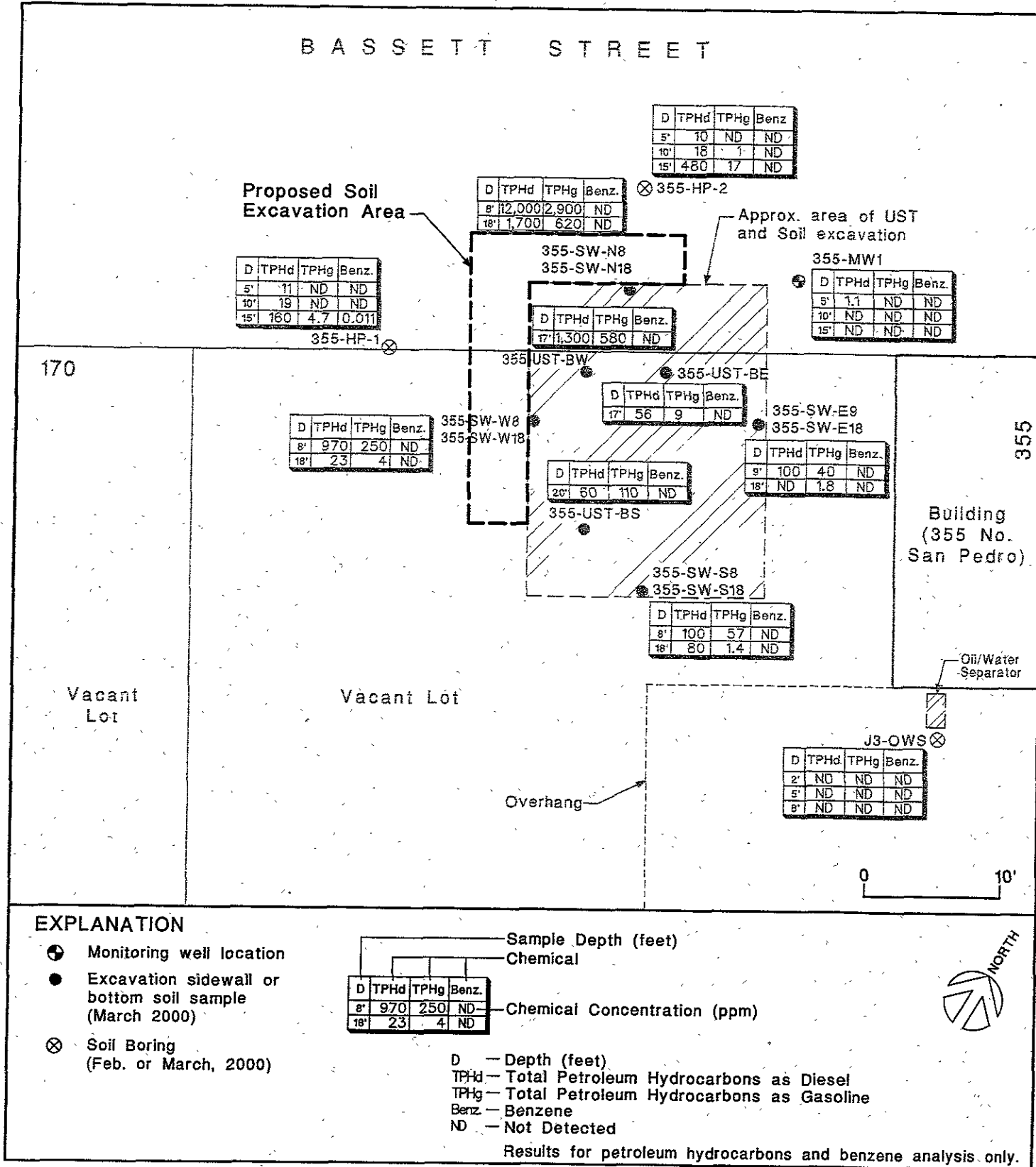
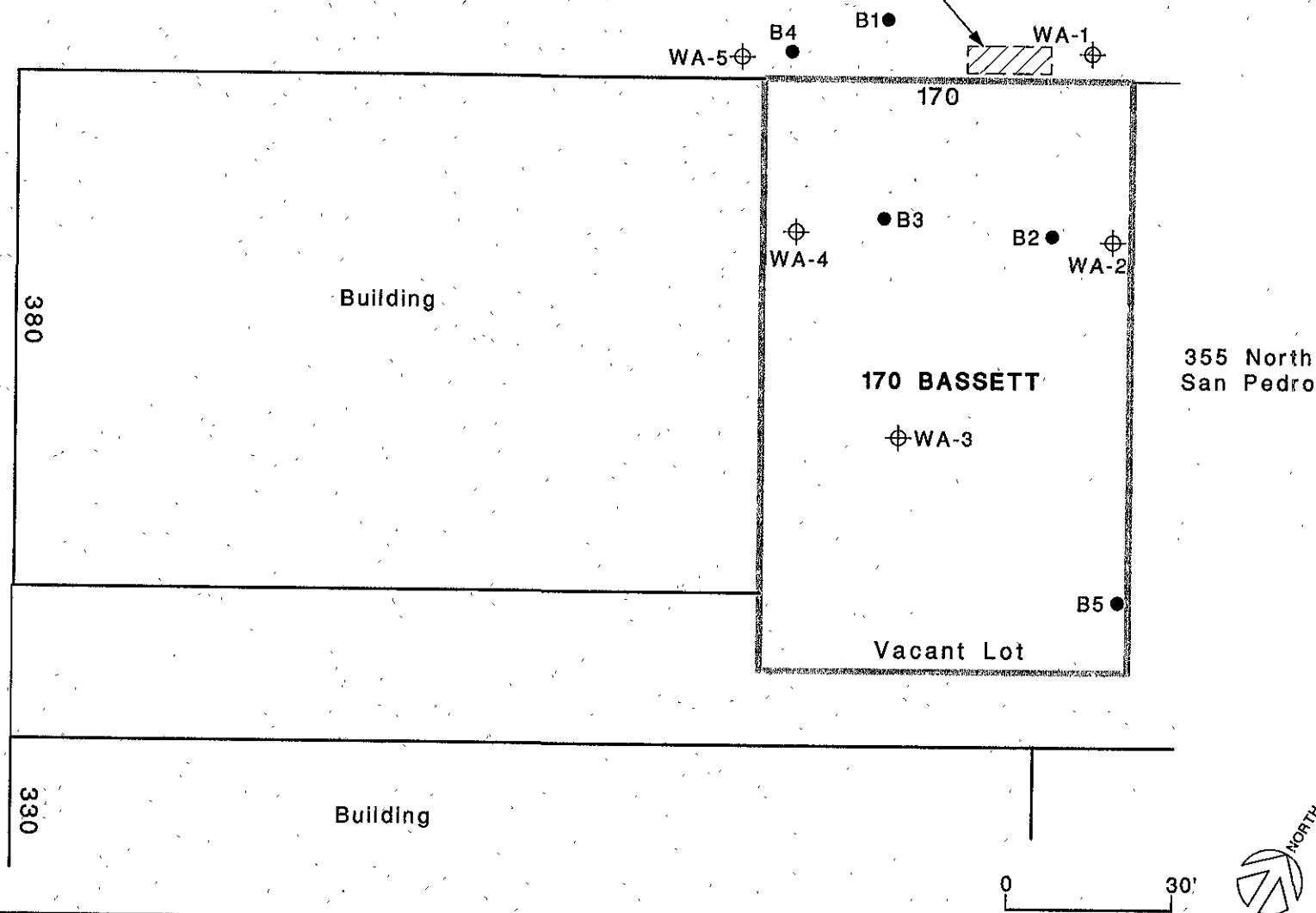


Figure 5: Planned Soil Excavation Corrective Actions - 355 North San Pedro

Terrain Street

Bassett Street

Approximate Area of
Additional UST Search
Activities



EXPLANATION

● Brown and Caldwell soil boring location

⊕ Azure boring location

Figure 6: Area of Additional UST Search Activities - 170 Bassett

AZURE ENVIRONMENTAL

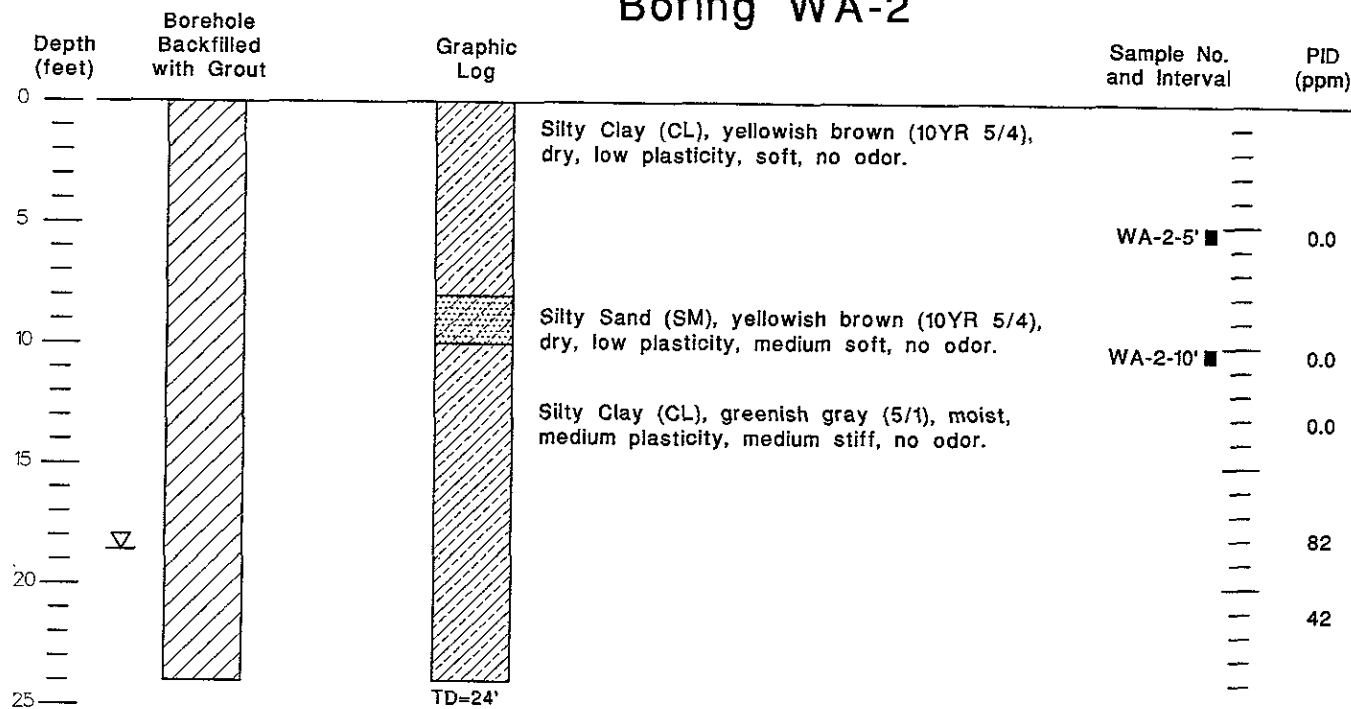
AZ102-024

APPENDIX A
SOIL BORING LITHOLOGIC LOGS

LITHOLOGY

SAMPLE DATA

Boring WA-2



Explanation:

Clay



Silt



Sand



Gravel



▽ Water level measured at time of drilling

Drilling Method: Geoprobe
 Sampling Method: Continuous
 Drilling company: Gregg Drilling
 Drillers: Rich

Permit No.: NA
 Geologist: Ben Wells

Azure Environmental

Figure A-2: Soil Boring Lithology
and Sample Data

Project No. 102-024

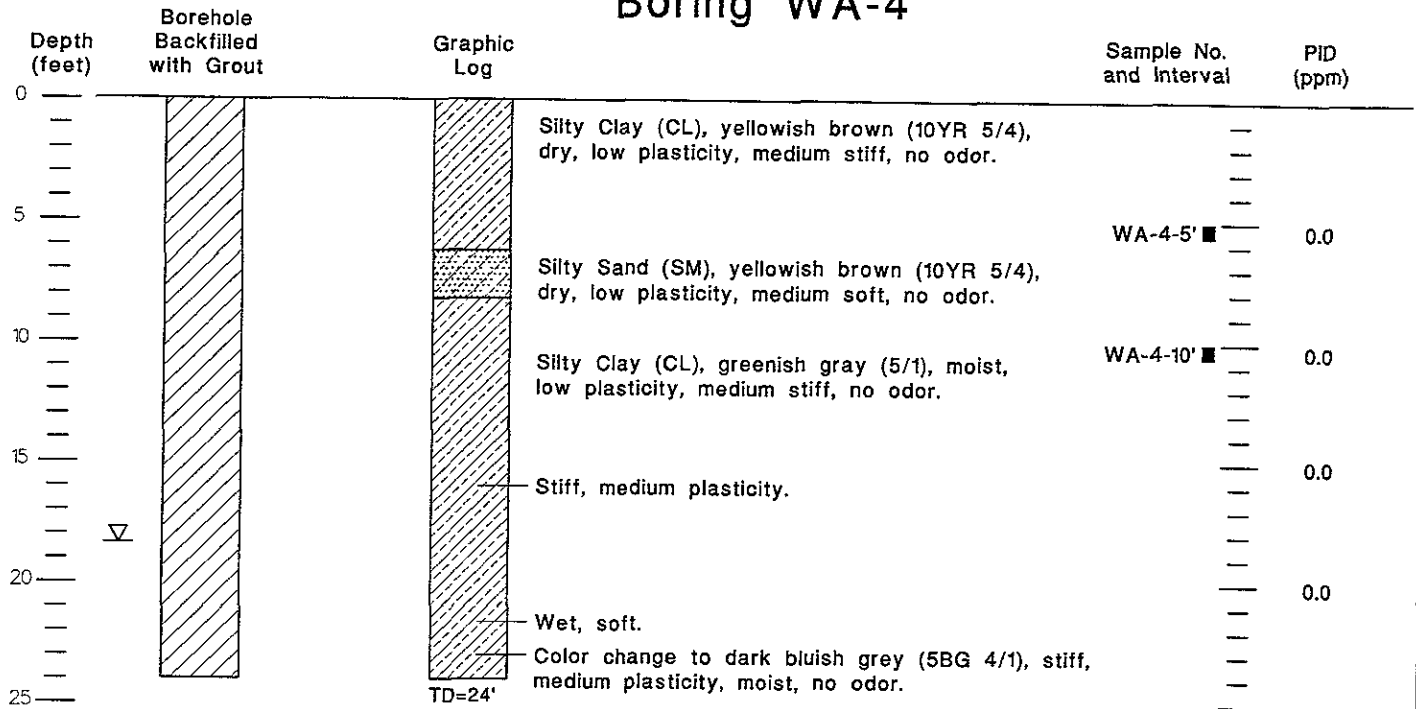
May 3, 2002

170 Bassett Street, San Jose

LITHOLOGY

SAMPLE DATA

Boring WA-4



Explanation:

Clay



Silt



Sand



Gravel



Water level measured at time of drilling

Drilling Method: Geoprobe
 Sampling Method: Continuous
 Drilling company: Gregg Drilling
 Drillers: Rich

Permit No.: NA
 Geologist: Ben Wells

Azure Environmental

Figure A-4: Soil Boring Lithology and Sample Data

Project No. 102-024

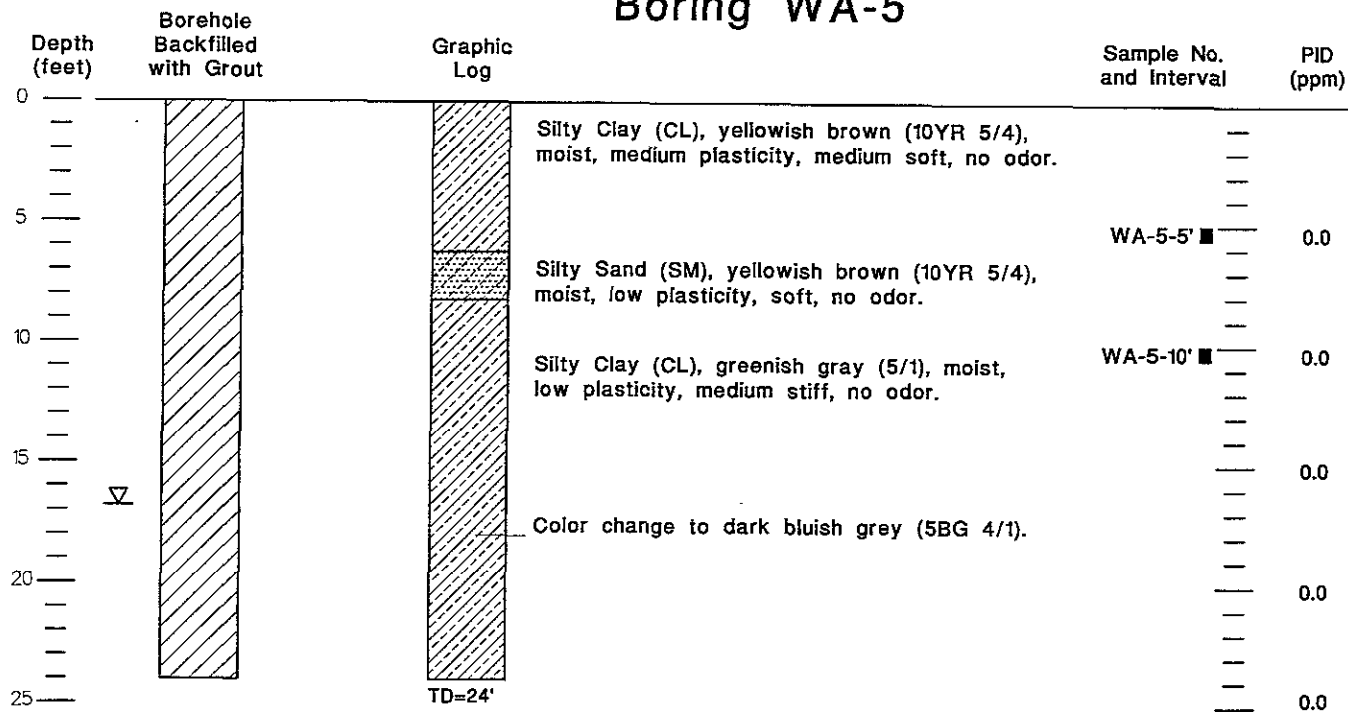
May 3, 2002

170 Bassett Street, San Jose

LITHOLOGY

SAMPLE DATA

Boring WA-5



Explanation:



▽ Water level measured at time of drilling

Drilling Method: Geoprobe
 Sampling Method: Continuous
 Drilling company: Gregg Drilling
 Drillers: Rich

Permit No.: NA
 Geologist: Ben Wells

Azure Environmental

Figure A-5: Soil Boring Lithology and Sample Data

Project No. 102-024

May 3, 2002

170 Bassett Street, San Jose

APPENDIX B
LABORATORY CERTIFICATES



Report Date: May 15, 2002

Azure Environmental
150 Fearing Street, Suite 6
Amherst, MA 01002
ATTN: Jeff Hennier

LABORATORY REPORT

Project Name: **Wayne Building 170 102-024**

Lab Project Number: **2050602**

This 19 page report of analytical data has been reviewed and approved for release.

Mark A. Valentini, Ph.D.
Laboratory Director



TPH Gasoline in Soil

Lab #	Sample ID	Analysis	Result (mg/kg)	RDL (mg/kg)
07116	WA-1-5'	TPH/Gasoline	ND	1.0
		Benzene	ND	0.005
		Toluene	ND	0.005
		Ethyl Benzene	ND	0.005
		Xylenes	ND	0.015

Date Sampled: 05/03/02	Date Analyzed: 05/09/02	QC Batch #: 2569
Date Received: 05/06/02	Method: EPA 8015M/8020	

Lab #	Sample ID	Analysis	Result (mg/kg)	RDL (mg/kg)
07117	WA-1-10'	TPH/Gasoline	ND	1.0
		Benzene	ND	0.005
		Toluene	ND	0.005
		Ethyl Benzene	ND	0.005
		Xylenes	ND	0.015

Date Sampled: 05/03/02	Date Analyzed: 05/09/02	QC Batch #: 2569
Date Received: 05/06/02	Method: EPA 8015M/8020	

Lab #	Sample ID	Analysis	Result (mg/kg)	RDL (mg/kg)
07118	WA-2-5'	TPH/Gasoline	ND	1.0
		Benzene	ND	0.005
		Toluene	ND	0.005
		Ethyl Benzene	ND	0.005
		Xylenes	ND	0.015

Date Sampled: 05/03/02	Date Analyzed: 05/09/02	QC Batch #: 2569
Date Received: 05/06/02	Method: EPA 8015M/8020	



Lab #	Sample ID	Analysis	Result (mg/kg)	RDL (mg/kg)
07119	WA-2-10'	TPH/Gasoline	ND	1.0
		Benzene	ND	0.005
		Toluene	ND	0.005
		Ethyl Benzene	ND	0.005
		Xylenes	ND	0.015

Date Sampled: 05/03/02	Date Analyzed: 05/09/02	QC Batch #: 2569
Date Received: 05/06/02	Method: EPA 8015M/8020	

Lab #	Sample ID	Analysis	Result (mg/kg)	RDL (mg/kg)
07120	WA-3-5'	TPH/Gasoline	ND	1.0
		Benzene	ND	0.005
		Toluene	ND	0.005
		Ethyl Benzene	ND	0.005
		Xylenes	ND	0.015

Date Sampled: 05/03/02	Date Analyzed: 05/09/02	QC Batch #: 2569
Date Received: 05/06/02	Method: EPA 8015M/8020	

Lab #	Sample ID	Analysis	Result (mg/kg)	RDL (mg/kg)
07121	WA-3-10'	TPH/Gasoline	ND	1.0
		Benzene	ND	0.005
		Toluene	ND	0.005
		Ethyl Benzene	ND	0.005
		Xylenes	ND	0.015

Date Sampled: 05/03/02	Date Analyzed: 05/09/02	QC Batch #: 2569
Date Received: 05/06/02	Method: EPA 8015M/8020	



Lab #	Sample ID	Analysis	Result (mg/kg)	RDL (mg/kg)
07122	WA-4-5'	TPH/Gasoline	ND	1.0
		Benzene	ND	0.005
		Toluene	ND	0.005
		Ethyl Benzene	ND	0.005
		Xylenes	ND	0.015

Date Sampled: 05/03/02	Date Analyzed: 05/09/02	QC Batch #: 2569
Date Received: 05/06/02	Method: EPA 8015M/8020	

Lab #	Sample ID	Analysis	Result (mg/kg)	RDL (mg/kg)
07123	WA-4-10'	TPH/Gasoline	ND	1.0
		Benzene	ND	0.005
		Toluene	ND	0.005
		Ethyl Benzene	ND	0.005
		Xylenes	ND	0.015

Date Sampled: 05/03/02	Date Analyzed: 05/09/02	QC Batch #: 2569
Date Received: 05/06/02	Method: EPA 8015M/8020	

Lab #	Sample ID	Analysis	Result (mg/kg)	RDL (mg/kg)
07124	WA-5-5'	TPH/Gasoline	ND	1.0
		Benzene	ND	0.005
		Toluene	ND	0.005
		Ethyl Benzene	ND	0.005
		Xylenes	ND	0.015

Date Sampled: 05/03/02	Date Analyzed: 05/09/02	QC Batch #: 2569
Date Received: 05/06/02	Method: EPA 8015M/8020	



Lab #	Sample ID	Analysis	Result (mg/kg)	RDL (mg/kg)
07125	WA-5-10'	TPH/Gasoline	ND	1.0
		Benzene	ND	0.005
		Toluene	ND	0.005
		Ethyl Benzene	ND	0.005
		Xylenes	ND	0.015

Date Sampled: 05/03/02 Date Analyzed: 05/09/02 QC Batch #: 2569
Date Received: 05/06/02 Method: EPA 8015M/8020

TPH Gasoline in Water

Lab #	Sample ID	Analysis	Result (ug/L)	RDL (ug/L)
07126	WA-1-W	TPH/Gasoline	3,500	250
		Benzene	70	2.5
		Toluene	33	2.5
		Ethyl Benzene	24	2.5
		Xylenes	32	7.5

Date Sampled: 05/03/02 Date Analyzed: 05/08/02 QC Batch #: 2565
Date Received: 05/06/02 Method: EPA 5030/8015M/8020

Lab #	Sample ID	Analysis	Result (ug/L)	RDL (ug/L)
07127	WA-2-W	TPH/Gasoline	5,300	250
		Benzene	100	2.5
		Toluene	46	2.5
		Ethyl Benzene	48	2.5
		Xylenes	78	7.5

Date Sampled: 05/03/02 Date Analyzed: 05/08/02 QC Batch #: 2565
Date Received: 05/06/02 Method: EPA 5030/8015M/8020



Lab #	Sample ID	Analysis	Result (ug/L)	RDL (ug/L)
07128	WA-3-W	TPH/Gasoline	ND	50
		Benzene	ND	0.5
		Toluene	ND	0.5
		Ethyl Benzene	ND	0.5
		Xylenes	ND	1.5

Date Sampled: 05/03/02
Date Received: 05/06/02

Date Analyzed: 05/07/02
Method: EPA 5030/8015M/8020

QC Batch #: 2565

Lab #	Sample ID	Analysis	Result (ug/L)	RDL (ug/L)
07129	WA-4-W	TPH/Gasoline	ND	50
		Benzene	ND	0.5
		Toluene	ND	0.5
		Ethyl Benzene	ND	0.5
		Xylenes	ND	1.5

Date Sampled: 05/03/02
Date Received: 05/06/02

Date Analyzed: 05/07/02
Method: EPA 5030/8015M/8020

QC Batch #: 2565

Lab #	Sample ID	Analysis	Result (ug/L)	RDL (ug/L)
07130	WA-5-W	TPH/Gasoline	ND	50
		Benzene	ND	0.5
		Toluene	ND	0.5
		Ethyl Benzene	ND	0.5
		Xylenes	ND	1.5

Date Sampled: 05/03/02
Date Received: 05/06/02

Date Analyzed: 05/07/02
Method: EPA 5030/8015M/8020

QC Batch #: 2565



TPH Diesel in Soil

Lab #	Sample ID	Analysis	Result (mg/kg)	RDL (mg/kg)
07116	WA-1-5'	TPH/Diesel	ND	5.0

Date Sampled: 05/03/02	Date Extracted: 05/07/02	QC Batch #: 2576
Date Received: 05/06/02	Date Analyzed: 05/08/02	Method: EPA 3550/8015M

Lab #	Sample ID	Analysis	Result (mg/kg)	RDL (mg/kg)
07117	WA-1-10'	TPH/Diesel	ND	5.0

Date Sampled: 05/03/02	Date Extracted: 05/07/02	QC Batch #: 2576
Date Received: 05/06/02	Date Analyzed: 05/08/02	Method: EPA 3550/8015M

Lab #	Sample ID	Analysis	Result (mg/kg)	RDL (mg/kg)
07118	WA-2-5'	TPH/Diesel	ND	5.0

Date Sampled: 05/03/02	Date Extracted: 05/07/02	QC Batch #: 2576
Date Received: 05/06/02	Date Analyzed: 05/08/02	Method: EPA 3550/8015M

Lab #	Sample ID	Analysis	Result (mg/kg)	RDL (mg/kg)
07119	WA-2-10'	TPH/Diesel	ND	5.0

Date Sampled: 05/03/02	Date Extracted: 05/07/02	QC Batch #: 2576
Date Received: 05/06/02	Date Analyzed: 05/08/02	Method: EPA 3550/8015M



Lab #	Sample ID	Analysis	Result (mg/kg)	RDL (mg/kg)
07120	WA-3-5'	TPH/Diesel	ND	5.0

Date Sampled: 05/03/02	Date Extracted: 05/07/02	QC Batch #: 2576
Date Received: 05/06/02	Date Analyzed: 05/08/02	Method: EPA 3550/8015M

Lab #	Sample ID	Analysis	Result (mg/kg)	RDL (mg/kg)
07121	WA-3-10'	TPH/Diesel	ND	5.0

Date Sampled: 05/03/02	Date Extracted: 05/07/02	QC Batch #: 2576
Date Received: 05/06/02	Date Analyzed: 05/08/02	Method: EPA 3550/8015M

Lab #	Sample ID	Analysis	Result (mg/kg)	RDL (mg/kg)
07122	WA-4-5'	TPH/Diesel	ND	5.0

Date Sampled: 05/03/02	Date Extracted: 05/07/02	QC Batch #: 2576
Date Received: 05/06/02	Date Analyzed: 05/08/02	Method: EPA 3550/8015M

Lab #	Sample ID	Analysis	Result (mg/kg)	RDL (mg/kg)
07123	WA-4-10'	TPH/Diesel	ND	5.0

Date Sampled: 05/03/02	Date Extracted: 05/07/02	QC Batch #: 2576
Date Received: 05/06/02	Date Analyzed: 05/08/02	Method: EPA 3550/8015M



Lab #	Sample ID	Analysis	Result (mg/kg)	RDL (mg/kg)
07124	WA-5-5'	TPH/Diesel	ND	5.0

Date Sampled: 05/03/02	Date Extracted: 05/07/02	QC Batch #: 2576
Date Received: 05/06/02	Date Analyzed: 05/08/02	Method: EPA 3550/8015M

Lab #	Sample ID	Analysis	Result (mg/kg)	RDL (mg/kg)
07125	WA-5-10'	TPH/Diesel	ND	5.0

Date Sampled: 05/03/02	Date Extracted: 05/07/02	QC Batch #: 2576
Date Received: 05/06/02	Date Analyzed: 05/08/02	Method: EPA 3550/8015M

TPH Diesel in Water

Lab #	Sample ID	Analysis	Result (ug/L)	RDL (ug/L)
07126	WA-1-W	TPH/Diesel	2,000 ①	50

Date Sampled: 05/03/02	Date Extracted: 05/07/02	QC Batch #: 2575
Date Received: 05/06/02	Date Analyzed: 05/07/02	Method: EPA 3510/8015M

Lab #	Sample ID	Analysis	Result (ug/L)	RDL (ug/L)
07127	WA-2-W	TPH/Diesel	3,300 ①	50

Date Sampled: 05/03/02	Date Extracted: 05/07/02	QC Batch #: 2575
Date Received: 05/06/02	Date Analyzed: 05/07/02	Method: EPA 3510/8015M



Lab #	Sample ID	Analysis	Result (ug/L)	RDL (ug/L)
07128	WA-3-W	TPH/Diesel	ND	50

Date Sampled: 05/03/02	Date Extracted: 05/07/02	QC Batch #: 2575
Date Received: 05/06/02	Date Analyzed: 05/07/02	Method: EPA 3510/8015M

Lab #	Sample ID	Analysis	Result (ug/L)	RDL (ug/L)
07129	WA-4-W	TPH/Diesel	ND	50

Date Sampled: 05/03/02	Date Extracted: 05/07/02	QC Batch #: 2575
Date Received: 05/06/02	Date Analyzed: 05/07/02	Method: EPA 3510/8015M

Lab #	Sample ID	Analysis	Result (ug/L)	RDL (ug/L)
07130	WA-5-W	TPH/Diesel	ND	50

Date Sampled: 05/03/02	Date Extracted: 05/07/02	QC Batch #: 2575
Date Received: 05/06/02	Date Analyzed: 05/07/02	Method: EPA 3510/8015M

- ① The sample chromatogram does not exhibit a characteristic pattern for diesel. Higher boiling point constituents of weathered gasoline are present.



Total Lead in Soil

Lab #	Sample ID	Analysis	Result (mg/kg)	RDL (mg/kg)
07116	WA-1-5'	Lead (Pb)	7.5	3.0

Date Sampled: 05/03/02 Date Digested: 05/10/02 QC Batch #: 2583
Date Received: 05/06/02 Date Analyzed: 05/10/02
Method: EPA 3050/6010

Lab #	Sample ID	Analysis	Result (mg/kg)	RDL (mg/kg)
07118	WA-2-5'	Lead (Pb)	7.7	3.0

Date Sampled: 05/03/02 Date Digested: 05/10/02 QC Batch #: 2583
Date Received: 05/06/02 Date Analyzed: 05/10/02
Method: EPA 3050/6010

Lab #	Sample ID	Analysis	Result (mg/kg)	RDL (mg/kg)
07120	WA-3-5'	Lead (Pb)	8.2	3.0

Date Sampled: 05/03/02 Date Digested: 05/10/02 QC Batch #: 2583
Date Received: 05/06/02 Date Analyzed: 05/10/02
Method: EPA 3050/6010

Lab #	Sample ID	Analysis	Result (mg/kg)	RDL (mg/kg)
07122	WA-4-5'	Lead (Pb)	7.0	3.0

Date Sampled: 05/03/02 Date Digested: 05/10/02 QC Batch #: 2583
Date Received: 05/06/02 Date Analyzed: 05/10/02
Method: EPA 3050/6010

Lab #	Sample ID	Analysis	Result (mg/kg)	RDL (mg/kg)
07124	WA-5-5'	Lead (Pb)	6.2	3.0

Date Sampled: 05/03/02 Date Digested: 05/10/02 QC Batch #: 2583
Date Received: 05/06/02 Date Analyzed: 05/10/02
Method: EPA 3050/6010



Oxygenated Gasoline Additives by GC/MS in Water

Lab #	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
07126	WA-1-W	methyl tert-butyl ether (MTBE)	ND ②	5.0

Surrogates (ug/L)	Result (ug/L)	% Recovery	Acceptance Range (%)
dibromofluoromethane (20)	21.8	109	70 – 130

Date Sampled: 05/03/02	Date Analyzed: 05/08/02	QC Batch #: 2574
Date Received: 05/06/02	Method: EPA 8260M	

Lab #	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
07127	WA-2-W	methyl tert-butyl ether (MTBE)	ND ②	5.0

Surrogates (ug/L)	Result (ug/L)	% Recovery	Acceptance Range (%)
dibromofluoromethane (20)	22.0	110	70 – 130

Date Sampled: 05/03/02	Date Analyzed: 05/08/02	QC Batch #: 2574
Date Received: 05/06/02	Method: EPA 8260M	

Lab #	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
07128	WA-3-W	methyl tert-butyl ether (MTBE)	ND	1.0

Surrogates (ug/L)	Result (ug/L)	% Recovery	Acceptance Range (%)
dibromofluoromethane (20)	22.0	110	70 – 130

Date Sampled: 05/03/02	Date Analyzed: 05/07/02	QC Batch #: 2574
Date Received: 05/06/02	Method: EPA 8260M	



Lab #	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
07129	WA-4-W	methyl tert-butyl ether (MTBE)	ND	1.0

Surrogates (ug/L)	Result (ug/L)	% Recovery	Acceptance Range (%)
dibromofluoromethane (20)	21.7	109	70 – 130

Date Sampled: 05/03/02	Date Analyzed: 05/07/02	QC Batch #: 2574
Date Received: 05/06/02	Method: EPA 8260M	

Lab #	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
07130	WA-5-W	methyl tert-butyl ether (MTBE)	ND	1.0

Surrogates (ug/L)	Result (ug/L)	% Recovery	Acceptance Range (%)
dibromofluoromethane (20)	21.7	109	70 – 130

Date Sampled: 05/03/02	Date Analyzed: 05/07/02	QC Batch #: 2574
Date Received: 05/06/02	Method: EPA 8260M	

- ② A dilution was necessary due to the presence of non-target hydrocarbons resulting in an elevated detection limit.



LABORATORY QUALITY ASSURANCE REPORT

QC Batch #: 2569

Lab Project #: 2050602

Sample ID	Compound	Result (mg/kg)
MB	TPH/Gas	ND
MB	MTBE	ND
MB	Benzene	ND
MB	Toluene	ND
MB	Ethyl Benzene	ND
MB	Xylenes	ND

Sample ID	Compound	Result (mg/kg)	Spike Level	% Recv.
LCS	TPH/Gas		NS	
LCS	Benzene	0.0945	0.100	94.5
LCS	Toluene	0.100	0.100	100
LCS	Ethyl Benzene	0.103	0.100	103
LCS	Xylenes	0.313	0.300	104

Sample ID	Compound	Result (mg/kg)	Spike Level	% Recv.	RPD
LCSD	TPH/Gas		NS		
LCSD	Benzene	0.105	0.100	105	11
LCSD	Toluene	0.107	0.100	107	6.7
LCSD	Ethyl Benzene	0.110	0.100	110	5.9
LCSD	Xylenes	0.329	0.300	110	5.0

MB = Method Blank; LCS = Laboratory Control Sample; CMS = Client Matrix Spike; CMSD = Client Matrix Spike Duplicate
NS = Not Spiked; OR = Over Calibration Range

QC Batch #: 2576Lab Project #: 2050602

<u>Sample ID</u>	<u>Compound</u>	<u>Result (mg/kg)</u>			
MB	TPH/Diesel	ND			
<u>Sample ID</u>	<u>Compound</u>	<u>Result (mg/kg)</u>	<u>Spike Level</u>	<u>% Recv.</u>	
LCS	TPH/Diesel	270	246	110	
<u>Sample ID</u>	<u>Compound</u>	<u>Result (mg/kg)</u>	<u>Spike Level</u>	<u>% Recv.</u>	<u>RPD</u>
LCSD	TPH/Diesel	269	246	110	0.4

MB = Method Blank; LCS = Laboratory Control Sample; CMS = Client Matrix Spike; CMSD = Client Matrix Spike Duplicate
NS = Not Spiked; OR = Over Calibration Range

QC Batch #: 2575Lab Project #: 2050602

<u>Sample ID</u>	<u>Compound</u>	<u>Result (ug/L)</u>			
MB	TPH/Diesel	ND			
<u>Sample ID</u>	<u>Compound</u>	<u>Result (ug/L)</u>	<u>Spike Level</u>	<u>% Recv.</u>	
LCS	TPH/Diesel	3,040	2,730	111	
<u>Sample ID</u>	<u>Compound</u>	<u>Result (ug/L)</u>	<u>Spike Level</u>	<u>% Recv.</u>	<u>RPD</u>
LCSD	TPH/Diesel	3,040	2,730	111	0.0

MB = Method Blank; LCS = Laboratory Control Sample; CMS = Client Matrix Spike; CMSD = Client Matrix Spike Duplicate
NS = Not Spiked; OR = Over Calibration Range

QC Batch #: 2565Lab Project #: 2050602

Sample ID	Compound	Result (ug/L)
MB	TPH/Gas	ND
MB	MTBE	ND
MB	Benzene	ND
MB	Toluene	ND
MB	Ethyl Benzene	ND
MB	Xylenes	ND

Sample #	Sample ID	Compound	Result (ug/L)	Spike Level	% Recv.
07114	CMS	TPH/Gas		NS	
	CMS	Benzene	10.2	10.0	102
	CMS	Toluene	10.3	10.0	103
	CMS	Ethyl Benzene	10.9	10.0	109
	CMS	Xylenes	31.7	30.0	106

Sample #	Sample ID	Compound	Result (ug/L)	Spike Level	% Recv.	RPD
07114	CMSD	TPH/Gas		NS		
	CMSD	Benzene	10.9	10.0	109	6.6
	CMSD	Toluene	10.4	10.0	104	0.96
	CMSD	Ethyl Benzene	11.1	10.0	111	1.8
	CMSD	Xylenes	32.1	30.0	107	1.3

MB = Method Blank; LCS = Laboratory Control Sample; CMS = Client Matrix Spike; CMSD = Client Matrix Spike Duplicate
NS = Not Spiked; OR = Over Calibration Range

QC Batch #: 2583Lab Project #: 2050602

<u>Sample ID</u>	<u>Compound</u>	<u>Result (mg/kg)</u>
MB	Lead (Pb)	ND

<u>Sample ID</u>	<u>Compound</u>	<u>Result (mg/kg)</u>	<u>Spike Level</u>	<u>% Recv.</u>
LCS	Lead (Pb)	24.8	25.0	99.2

<u>Sample ID</u>	<u>Compound</u>	<u>Result (mg/kg)</u>	<u>Spike Level</u>	<u>% Recv.</u>	<u>RPD</u>
LCSD	Lead (Pb)	27.0	25.0	108	8.5

MB = Method Blank; LCS = Laboratory Control Sample; CMS = Client Matrix Spike; CMSD = Client Matrix Spike Duplicate
NS = Not Spiked; OR = Over Calibration Range



QC Batch #: 2574

Lab Project #: 2050602

Sample ID	Compound Name	Result (ug/L)
MB	1,1-dichloroethene	ND
MB	benzene	ND
MB	trichloroethene	ND
MB	toluene	ND
MB	chlorobenzene	ND

Surrogates	Result (ug/L)	% Recovery	Acceptance Range (%)
dibromofluoromethane (20)	23.3	117	70 - 130
toluene-d ₈ (20)	18.6	93.0	70 - 130
4-bromofluorobenzene (20)	24.3	121	70 - 130

Sample #	Sample ID	Compound Name	Result (ug/L)	Spike Level	% Recv.
07114	CMS	1,1-dichloroethene	20.2	25.0	80.8
	CMS	benzene	31.5	25.0	126
	CMS	trichloroethene	23.9	25.0	95.6
	CMS	toluene	26.5	25.0	106
	CMS	chlorobenzene	27.2	25.0	109

Surrogates	Result (ug/L)	% Recovery	Acceptance Range (%)
dibromofluoromethane (20)	24.1	121	70 - 130
toluene-d ₈ (20)	19.3	96.5	70 - 130
4-bromofluorobenzene (20)	24.6	123	70 - 130



Sample #	Sample ID	Compound Name	Result (ug/L)	Spike Level	% Recv.	RPD
07114	CMSD	1,1-dichloroethene	21.1	25.0	84.4	4.3
	CMSD	benzene	31.2	25.0	125	0.96
	CMSD	trichloroethene	24.0	25.0	96.0	0.42
	CMSD	toluene	26.5	25.0	106	0.0
	CMSD	chlorobenzene	26.2	25.0	105	3.7

Surrogates	Result (ug/L)	% Recovery	Acceptance Range (%)
dibromofluoromethane (20)	23.9	120	70 – 130
toluene-d ₈ (20)	19.8	99.0	70 – 130
4-bromofluorobenzene (20)	24.4	122	70 – 130

MB = Method Blank; LCS = Laboratory Control Sample; CMS = Client Matrix Spike; CMSD = Client Matrix Spike Duplicate
NS = Not Spiked; OR = Over Calibration Range



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Fax (707) 769-8093

CHAIN OF CUSTODY

LAB PROJECT NUMBER: 2050602

CLIENT'S PROJECT NAME: Wayne Building 170

CLIENT'S PROJECT NUMBER: 102-024

CLIENT INFORMATION

COMPANY NAME: AZURE ENVIRONMENTAL

ADDRESS: 150 FEARING STREET, SUITE 6

AMHERST, MA 01002

CONTACT: JEFF HENNIER

PHONE#: (413) 549-1056

FAX #: (413) 549-1057

TURNAROUND TIME (check one)

MOBILE LAB ☐

SAME DAY ☐

48 HOURS ☐

5 DAYS ☐

24 HOURS ☐

72 HOURS ☐

NORMAL ☒

COOLER TEMPERATURE

Fed °C

COC

PAGE 1 OF 2

ANALYSIS

ITEM	CLIENT SAMPLE I.D.	DATE SAMPLED	TIME	MATRIX	# CONT.	PRESV. YES/NO	TPH/GAS/BTEX EPA 8015M/8020	TPH DIESEL EPA 8015M	OXYGENATED FUEL ADDITIVES EPA 8260M	VOLATILE HYDROCARBONS EPA 8260	CHLORINATED SOLVENTS EPA 8010	TPH SM 5520F	SEMI-VOLATILE HYDROCARBONS EPA 8270	TOTAL LEAD	5 LUFT METALS	CAM 17 METALS	COMMENTS	LAB SAMPLE #
1	WA-1-5'	5/3/02	0915	soil	1	no	X	X						X				07116
2	WA-1-10'		0920															07117
3	WA-2-5'		1035											X				07118
4	WA-2-10'		1045															07119
5	WA-3-5'		1110											X				07120
6	WA-3-10'		1115															07121
7	WA-4-5'		1135											X				07122
8	WA-4-10'		1145															07123
9	WA-5-5'		0830											X				07124
10	WA-5-10'		0840															07125
11																		
12																		

SIGNATURES

RELINQUISHED BY:

SIGNATURE

DATE

TIME

RECEIVED BY LABORATORY:

SIGNATURE

DATE

TIME



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CHAIN OF CUSTODY

CLIENT INFORMATION

COMPANY NAME: AZURE ENVIRONMENTAL

ADDRESS: 150 FEARING STREET, SUITE 6

AMHERST, MA 01002

CONTACT: JEFF HENNIER

PHONE#: (413) 549-1056

FAX #: (413) 549-1057

LAB PROJECT NUMBER: 2050602

CLIENT'S PROJECT NAME: Wayne Building 170

CLIENT'S PROJECT NUMBER: 102-024

TURNAROUND TIME (check one)

MOBILE LAB

SAME DAY

48 HOURS

5 DAYS

24 HOURS

72 HOURS

NORMAL

COOLER TEMPERATURE

Ice ^{°C}

COC

PAGE 2 OF 2

ITEM	CLIENT SAMPLE I.D.	DATE SAMPLED	TIME	MATRIX	# CONT.	PRESV. YES/NO	ANALYSIS										COMMENTS	LAB SAMPLE #
							TPH/GAS/TEX EPA 8015M/8020 4-MPHS	TPH DIESEL EPA 8015M	OXYGENATED FUEL ADDITIVES EPA 8260M	VOLATILE HYDROCARBONS EPA 8260	CHLORINATED SOLVENTS EPA 8010	TRPH SM 5520F	SEMI-VOLATILE HYDROCARBONS EPA 8270	TOTAL LEAD	5 LUFT METALS	CAM 17 METALS		
1	WA-1-W	5/3/02	1015	H ₂ O	5	1040-HCl Amber-10	X	X	X								6/126	6/127
2	WA-2-W		1215														07/27	07/28
3	WA-3-W		1240															07/28
4	WA-4-W		1230															6/129
5	WA-5-W	N	1000															6/130
6																		
7																		
8																		
9																		
10																		
11																		
12																		

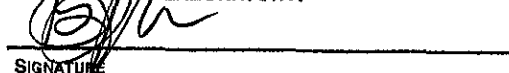
SIGNATURES

RELINQUISHED BY:


SIGNATURE

5/6/02 1240
DATE TIME

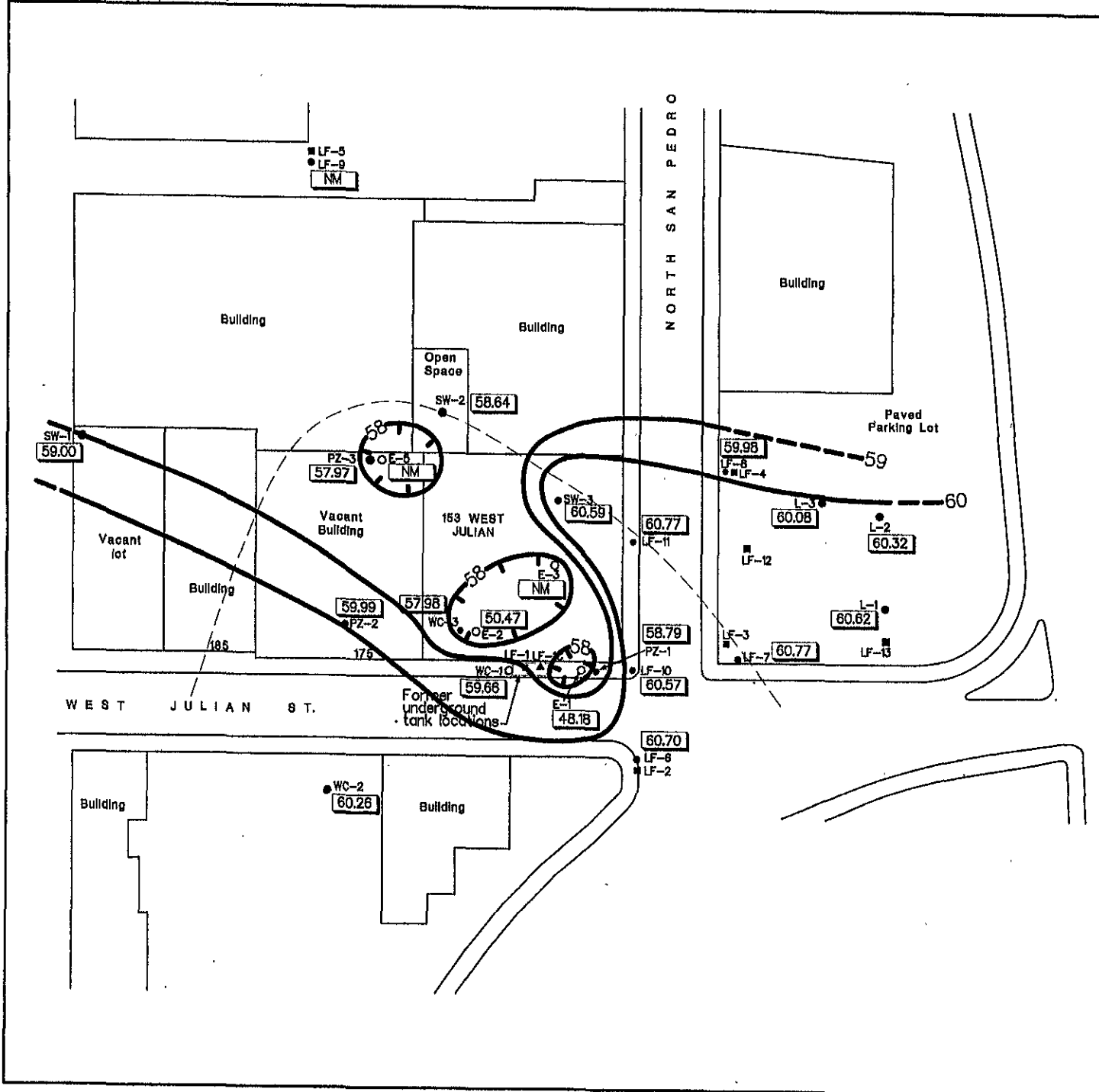
RECEIVED BY LABORATORY:


SIGNATURE

5/6/02 1240
DATE TIME

APPENDIX C

**GROUND-WATER ELEVATION MAP
153 WEST JULIAN STREET SITE**



EXPLANATION

- Shallow Monitoring Well
- Intermediate Monitoring Well
- ▲ Deep Monitoring Well
- Shallow Extraction Well

60.08 Ground-water Elevation (feet MSL)

NM Not Measured

— 59 — Ground-water Elevation Contour (feet MSL) (dashed where inferred)

--- Estimated Extraction System Capture Area on Feb. 12, 2002

Extraction well WC-1 was not operating on the date of water level measurement.



SCALE: 1" = 80'

FIGURE 3:
Ground-water Elevations
in Shallow-Zone
Sediments Measured
on February 12, 2002

AZURE ENVIRONMENTAL
AZ102-001