



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

PO Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300

October 31, 2011

Mr. Terry Pyle
Plaid Pantries, Inc.
10025 SW Allen Boulevard
Beaverton, Oregon 97005

Re: Further Action at the following Site:

- **Site Name:** Plaid Pantry 23
- **Site Address:** 5210 East Fourth Plain Boulevard, Vancouver, Washington
- **Facility/Site No.:** 78978458
- **VCP Project No.:** SW1166

Dear Mr. Pyle:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your independent cleanup of the Plaid Pantry 23 facility (Site). This letter provides our opinion. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

Issue Presented and Opinion

Is further remedial action necessary to clean up contamination at the Site?

YES. Ecology has determined that further remedial action is necessary to clean up contamination at the Site.

This opinion is based on an analysis of whether the remedial action meets the substantive requirements of MTCA, Chapter 70.105D RCW, and its implementing regulations, Chapter 173-340 WAC (collectively "substantive requirements of MTCA"). The analysis is provided below.

Description of the Site

This opinion applies only to the Site described below. The Site is defined by the nature and extent of contamination associated with the following releases:

- Total petroleum hydrocarbons in the gasoline-range (TPH-G) into the Soil and Groundwater.
- Volatile Organic Compounds (VOCs) into the Soil and Groundwater.
- Metals into the Groundwater.



Enclosure A includes a detailed description and diagram of the Site, as currently known to Ecology.

Please note a parcel of real property can be affected by multiple sites. At this time, we have no information that the parcel(s) associated with this Site are affected by other sites.

Basis for the Opinion

This opinion is based on the information contained in the following documents:

1. PNG Environmental, Inc., **Environmental Assessment, Plaid Pantry No. 23, 5210 East Fourth Plain Boulevard, Vancouver, Washington**, dated November 5, 1997.
2. PNG Environmental, Inc., **Site Check, Plaid Pantries #23, 5210 East Fourth Plain Boulevard, Vancouver, Washington**, dated March 31, 1998.
3. PNG Environmental, Inc., **Site Characterization Report, Plaid Pantry No. 23, 5210 East Fourth Plain Boulevard, Vancouver, Washington**, dated April 9, 2002.
4. GeoPotential Environmental & Exploration Geophysics, **Subsurface Mapping Survey**, dated March 2005.
5. Rengogenesis [Proposal], **Application of ORC Advanced to Accelerate Natural Attenuation of Contaminants of Concern (COCs) at the Former Plaid Pantry Site, Vancouver, Washington**, dated April 6, 2005.
6. PNG Environmental, Inc., **Site Investigation Report, September 26, 2005, Plaid Pantry # 23**, dated September 26, 2005 (PNG 2005).
7. PNG Environmental, Inc., **UST Decommissioning and Site Assessment Report, Former Plaid Pantry #23, 5210 East Fourth Plain Boulevard, Vancouver, Washington**, dated January 24, 2007.
8. PNG Environmental, Inc., **In-Situ Remedial Actions and Monitoring Summary Report, January – December 2009, Plaid Pantries Store # 23, Vancouver, Washington**, dated February 20, 2009.
9. PNG Environmental, Inc., **Groundwater Monitoring Summary Report, January 2009 – March 2010**, dated April 12, 2010.
10. PNG Environmental, Inc., **Final Site Characterization and Closure Report, Plaid Pantries Store # 23, Vancouver, Washington**, dated March 4, 2011.

Those documents are kept in the Central Files of the Southwest Regional Office of Ecology (SWRO) for review by appointment only. You can make an appointment by calling the SWRO resource contact at (360) 407-6365.

This opinion is void if any of the information contained in those documents is materially false or misleading.

Analysis of the Cleanup

Ecology has concluded that **further remedial action** is necessary to clean up contamination at the Site. That conclusion is based on the following analysis:

1. Characterization of the Site.

Ecology has determined your characterization of the Site is not sufficient to establish cleanup standards and select a cleanup action. The Site is described above and in **Enclosure A**.

The Site is located at 5210 East Fourth Plain Boulevard in Vancouver, Washington. The Site was operated as a Plaid Pantry convenience store and refueling station from 1982 to 2002. Plaid Pantry operated three gasoline underground storage tanks (USTs) at the Site during that time: one 10,000-gallon and two 12,000-gallon single-wall steel tanks with single-wall distribution piping. From 1998 to 2002, when the USTs were removed from service, the USTs were out of compliance with *WAC 173-360-310 Upgrading requirements for existing UST systems* by not being upgraded with a lining and/or cathodic protection.

In 1991, PEMCO conducted an environmental assessment of the adjacent, down-gradient Gramor parcel west of the Site and found VOC soil contamination. Laboratory analytical results for boring B-7 indicated benzene was present in the soil at 1.9 milligrams per kilogram (mg/kg) and above the MTCA Method A Soil Cleanup Level (CUL) for unrestricted land uses of 0.03 mg/kg; TPH-G was not analyzed for. A follow on investigation by Dames and Moore in 1995 found benzene in groundwater at 290 micrograms per liter ($\mu\text{g/L}$) and total xylenes at 1,300 $\mu\text{g/L}$. MTCA Method A Groundwater CULs for benzene and total xylenes were 5 $\mu\text{g/L}$ and 1,000 $\mu\text{g/L}$, respectively, and there was no mention if TPH-G was analyzed for (see Figure 3, Table 1, and Table 2). The consultant determined that the parcel was not the source of the contamination and notified the Ecology. In January 1997, Ecology notified Plaid Pantry that their Site was placed on the *Confirmed and Suspected Contaminated Sites* list.

In November 1997, PNG Environmental, Inc. (PNG) provided an Environmental Assessment of the Site and concluded that there could be multiple off-Site sources to explain the contamination on the Gramor parcel. In February 1998, PNG conducted a Site Check of the Plaid Pantry parcel and concluded there were TPH-G and VOCs present in the groundwater at location boring B-5. Analytical results indicated total lead was also present in the

groundwater at three locations, all above the MTCA Method A CUL of 15 µg/L; the highest lead concentration was 317 µg/L at B-1. Also during their investigation, the driller penetrated a fuel distribution line at the location of B-6. The investigation advanced at total of six borings using direct-push methods and found TPH-G and VOCs in the Site soil at one location, B-6, at 10 feet below ground surface (bgs). PNG estimated a release of eight gallons of gasoline. The B-6 soil sample had the highest reported TPH-G soil concentration at the Site with a concentration of 4,400 mg/kg; the MTCA Method A Soil CUL for TPH-G was 30 mg/kg due to benzene being present at the Site (see Figure 3, Table 1, and Table 2). PNG installed two soil vapor extraction (SVE) wells at B-6 to remediate petroleum-contaminated soil (PCS). Ecology was notified of a leaking UST (LUST) at the Site (LUST identification number 4379070).

From 2002 to 2010, PNG conducted activities at the Site, including a Site Characterization in 2005, UST decommissioning activities (removing three USTs and associated piping) in 2006, in-situ remedial actions by injecting oxygenating compounds in solution into the subsurface in June 2008, and groundwater monitoring activities from 2007 to 2010. During the UST decommissioning and removal, three USTs and associated piping were removed and disposed of. PNG collected soil samples from the excavation pit side walls and floor. The excavation soil samples submitted for analysis indicated the contamination was removed (see Figure 5).

The 2008 in-situ remedy action involved the injection of 3,125 pounds of a RegenOx®/ORC-A[dvanced]™ mix of material blended with 5,000 gallons of water into 35 locations in the southwestern corner of the parcel. The oxygen reducing compound (ORC) mix was injected between 10 feet and 20 feet bgs (see Figure 4). The injection was conditionally rule authorized under an Ecology Underground Injection Control Program Well registration Letter dated May 1, 2008, which authorized the injection of ORC blended material into the subsurface and required the meeting of groundwater quality standards under Chapter 173-200 WAC.

From 2007 to 2010, PNG conducted quarterly groundwater monitoring at six monitoring wells on the Site. The last four quarters indicated the constituents of concern (COCs) were at all wells were either not detected at the laboratory reporting limit or were not detected above their applicable MTCA Method A CUL (see Table 2).

Based on a review of the available information, Ecology has the following comments:

1. In April 2002, North Creek Analytical, Inc. (NCA) performed a forensic analysis of soil and water samples from the Site to differentiate similarities and differences of the samples to establish dates of the releases for samples collected from MW1 and B12. NAC found that there appeared to be at least two separate release events temporally separated by 10 years; however, NCA could not make a determination as to whether the releases were attributable to separate sources. The forensic analysis also discussed the presence of gasoline range organics at 121 parts per billion (ppb) and

tetrachloroethene at 1.81 ppb in the groundwater at MW-1. Tetrachloroethene is a notable COC often associated with parts cleaning operations. Although this halogenated hydrocarbon is not found in commercial gasoline, diesel, or lube oil, it is often a contaminant of waste oil.

The findings of the March 2005 *Subsurface Mapping Survey* (found in Appendix A in PNG 2005) indicated there were two large subsurface anomalies, one metal object (MO) and one ground penetrating radar (GPR) anomaly (see Figure 3[IM]). GPR and hand-held metal detectors identified the MO, and the size of the MO was estimated to be 11 feet long by 3 feet wide; it was located near monitoring well MW-1 (just outside the footprint of the former service station). There was no narrative discussing the GPR anomaly; however, it was identified in Figure 3[IM] as being near the historic service station UST location.

During the 2005 UST removal, a single, uncapped, steel fuel distribution pipe was uncovered at the bottom of the UST excavation pit. It was attributed to being part of the historic UST system; the pipe was reported to enter into the excavation's north sidewall in the general direction towards the historic UST and GPR location. PNG reported the pipe to have been severed and removed, and the remaining portion capped in place in the northern excavation wall.

WAC 173-340-740 (b) requires a cleanup action be conducted to address all areas where the concentration of hazardous substances in the soil exceeds cleanup levels at the relevant point of compliance. The information discussed above indicates that the area around MW-1 was not thoroughly characterized nor was any remedial action applied at that location. TPH-G soil contamination above the MTCA cleanup level remains at MW-1. The source of that contamination was not determined. The information seems to indicate the MO as a potential source near MW-1 and future releases cannot be ruled out. Per WAC 173-360-395, if previously closed or abandoned USTs pose a current or potential threat to human health and the environment, Ecology can require that the UST be decommissioned and/or removed. The Ecology database does not contain any information on the historic USTs.

Available information indicates characterization of the MO near MW-1 and the GPR anomaly are warranted. The true nature of both anomalies should be characterized by physical examination, and if they are confirmed as the historic UST and waste oil tank, they should be removed per WAC 173-360-395.

Analytical data also indicates PCS above the MTCA Method A CULs remains at 15 feet bgs at the Site. TPH-G and benzene were identified above their applicable MTCA Method A CULs. Areas of concern are B7/P2, where the benzene

concentration in the soil was above the MTCA CUL, and B-6¹ and B-13, where the TPH-G concentration was above the MTCA CUL. Soil sample analytical results indicated the PCS was removed from the UST excavation; however, no confirmation soil sample was collected from the southwest corner of the UST excavation near B-6, the location with the highest TPH-G concentration. Confirmation soil samples should be collected from B7/P2 at 15 to 16 feet bgs, B-6 at 10 feet bgs, and B-13 at 15 feet bgs. The COCs for the soil at these locations will be TPH-G, BTEX, and lead.

If any USTs are confirmed present, they will need to be characterized and decommissioned; confirmation soil and groundwater samples will be needed. Due to the potential for the MO anomaly to be a former waste oil UST, the soil and groundwater should be analyzed for applicable constituents listed on MTCA Table 830-1. The COCs for the Site groundwater near MW-1 will be TPH-G, TPH-D, TPH-O, benzene, toluene, ethylbenzene, and total xylenes (BTEX), ethylene dibromide (EDB) (via EPA Method 8011), ethylene dichloride (EDC), methyl tertiary-butyl ether (MTBE), total lead, carcinogenic polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and halogenated VOCs. The COCs for the Site soil around MW-1 will be TPH-G, TPH-D, TPH-O, BTEX, and lead. If EDB, EDC, MTBE, carcinogenic PAHs, PCBs, and halogenated VOCs are present in the groundwater then those COCs will have to be evaluated for also. The COCs for the Site groundwater near the historic UST location will be TPH-G, TPH-D, TPH-O, BTEX, EDB (via EPA Method 8011), EDC, MTBE, and total lead. The COCs for the Site soil around the historic UST location will be TPH-G, TPH-D, TPH-O, BTEX, and lead. If EDB, EDC, MTBE are present in the groundwater then those COCs will have to be evaluated for also.

2. PNG provided four quarters of groundwater analytical results where COC concentrations were below the applicable MTCA Method A CULs or not detected; however, Ecology noted that COC concentrations at MW-7 indicated a rebound effect in September and December 2009. There was also a demonstrated pattern where COC concentrations increased above the applicable MTCA Method A CULs when the depth to groundwater at that well was measured at 14 feet bgs or deeper. Groundwater sampling events for the last four quarters were above 13.50 feet bgs and followed the variable concentration pattern consistently displayed at the well. Ecology recommends that downgradient wells MW-6 and MW-7 be sampled again

¹ Because of the limited release of TPH-G caused by the push probe penetration into the fuel distribution pipeline at the B-6 location, PNG singularly remediated the soil at this location via a SVE system; however, no operational or performance reports, field logs, results tables, SVE well installation logs, analytical results, or soil confirmation samples were provided to Ecology for review to demonstrate compliance with MTCA. Once a remedial action is determined to have remediated the Site media to comply with the MTCA cleanup standards, Ecology requires that confirmation sample analytical results demonstrate the affected media concentrations are below the applicable MTCA CULs before a no further action opinion will be provided.

when the groundwater depth is below 14 feet bgs to confirm that the implemented remedy is permanent (see Table 2, Table 4, and Figure 9). Ecology recognizes the variable nature of the groundwater table and suggests that the depth to water be evaluated for the next year, if the groundwater table does not reach the desired depth, Ecology will accept the available groundwater data as representative of Site conditions.

Please note that Ecology requires *at least* four consecutive quarters of clean groundwater monitoring analytical results to demonstrate compliance with the MTCA cleanup regulations. The reason for this is to determine any seasonal variations or long-term patterns in the contaminant concentration fluctuations, so that Ecology can determine whether the implemented remedy is permanent.

3. PNG used an arbitrary vertical datum for this Site investigation. MTCA requires the use of United States Geological Survey (USGS) datum as a basis for all elevations. Please calibrate all elevation points used in the investigation to a known USGS datum point per *WAC 173-340-840 General Submittal Requirements*.
4. Please provide Ecology with an updated work plan for the remedial activities identified above for review and approval to ensure that the proposed activities will likely meet the substantive requirements of MTCA.
5. MTCA requires the submittal of three copies of a plan or report. Please submit two bound hard copies and one electronic copy (portable document format [pdf]) for future plans or reports provided to Ecology for review per *WAC 173-340-840 General Submittal Requirements*.
6. In accordance with *WAC 173-340-840(5)* and Ecology Toxics Cleanup Program *Policy 840 (Data Submittal Requirements)*, all data generated for Independent Remedial Actions shall be submitted simultaneously in both a written and electronic format. For additional information regarding electronic format requirements, see the website <http://www.ecy.wa.gov/eim>. Be advised that according to the policy, any reports containing sampling data that are submitted for Ecology review are considered incomplete until the electronic data has been entered. Please ensure that data generated during on-site activities is submitted pursuant to this policy. **Data must be submitted to Ecology in this format for Ecology to issue a No Further Action determination.** Please be sure to submit all soil and groundwater data collected to date, as well as any future data, in this format. Data collected prior to August 2005 (effective date of this policy) is not required to be submitted; however, you are encouraged to do so if it is available. Be advised that Ecology requires up to two weeks to process the data once it is received.

2. Establishment of cleanup standards.

Ecology has determined the cleanup levels and points of compliance you established for the Site do not meet the substantive requirements of MTCA.

Applicable MTCA Method A CULs for soil and groundwater shall be used to characterize the Site. Standard points of compliance are being used for the Site. The point of compliance for protection of groundwater will be established in the soils throughout the Site. For soil cleanup levels based on human exposure via direct contact or other exposure pathways where contact with the soil is required to complete the pathway, the point of compliance shall be established in the soils throughout the Site from the ground surface to 15 feet bgs. In addition, the point of compliance for the groundwater is established throughout the Site from the uppermost level of the saturated zone extending vertically to the lowest most depth that could potentially be affected by the Site.

3. Selection of cleanup action.

Ecology has determined the cleanup action you selected for the Site does not meet the substantive requirements of MTCA.

The affected Site media must be fully characterized prior to selecting any final cleanup action. For a Site cleanup action to qualify for a no further action opinion, it must meet one or more of the minimum cleanup requirements in WAC 173-340-360(2). MTCA requires the use of permanent solutions to the maximum extent practicable. If permanent solutions are not part of the remedy, it will be necessary to develop a feasibility study based on the information collected in the characterization phase. The feasibility study should include all practicable methods of treatment in addressing the Site cleanup. Please note that monitored natural attenuation is a cleanup alternative that must be approved by Ecology before implementation.

4. Cleanup.

Ecology has determined the cleanup you performed does not meet any cleanup standards at the Site.

The Site was not fully characterized prior to initiating cleanup activities. PNG decommissioned and removed three USTs from the Site. PNG excavated approximately 590 tons of PCS from the Site and disposed of it the Wasco County Landfill in Oregon. PNG applied ORCs to the UST excavation floor and sidewalls prior to backfilling the excavation. Finally, PNG injected approximately 3,000 pounds of ORCs into subsurface soil and groundwater to help remove residual groundwater impacts. Soil sample analytical results indicated the PCS was removed from the UST excavation; however, no confirmation soil

sample was collected from the southwest corner of the UST excavation near B-6, the location with the highest TPH-G concentration.

After a review of the available data, Ecology determined the CSM was not developed enough to define the Site nor did the analytical data define the Site. MTCA defines a Site as wherever the contamination has come to lie. Laboratory analytical results indicated a source of the Site contamination near the Plaid Pantry USTs or fuel dispenser pad; however, there was speculation that more than one source was responsible for the Site contamination. A review of the groundwater gradient history would suggest the UST excavation or fuel pad was an unlikely source for the soil contamination at MW-1.

Limitations of the Opinion

1. Opinion does not settle liability with the state.

Liable persons are strictly liable, jointly and severally, for all remedial action costs and for all natural resource damages resulting from the release or releases of hazardous substances at the Site. This opinion does not:

- Resolve or alter a person's liability to the state.
- Protect liable persons from contribution claims by third parties.

To settle liability with the state and obtain protection from contribution claims, a person must enter into a consent decree with Ecology under RCW 70.105D.040(4).

2. Opinion does not constitute a determination of substantial equivalence.

To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or Ecology-supervised action. This opinion does not determine whether the action you performed is substantially equivalent. Courts make that determination. See RCW 70.105D.080 and WAC 173-340-545.

3. State is immune from liability.

The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. See RCW 70.105D.030(1)(i).

Mr. Terry Pyle
October 31, 2011
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Contact Information

Thank you for choosing to clean up the Site under the Voluntary Cleanup Program (VCP). After you have addressed our concerns, you may request another review of your cleanup. Please do not hesitate to request additional services as your cleanup progresses. We look forward to working with you.

For more information about the VCP and the cleanup process, please visit our web site: www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm. If you have any questions about this opinion, please contact me by phone at (360) 407-7404 or e-mail at erad461@ecy.wa.gov.

Sincerely,



Eugene Radcliff, L.G.
Site Manager
SWRO Toxics Cleanup Program

GER/ksc:Plaid Pantry 23 FA Opinion

- Enclosures (10):
- A – Description and Diagrams of the Site
 - Figure 1 Site Vicinity Map
 - Figure 3[IM] 2005 Mapping Survey Interpretation Map
 - Figure 3 Historical Site Features
 - Figure 4 ISCO Injection Locations
 - Figure 5 UST Decommissioning Confirmation Soil Sample Locations (October 2006)
 - Figure 7 Groundwater Elevation Contour Map for September 2010
 - Figure 9 Gasoline & Benzene in Groundwater
 - Table 1 Soil Analytical Results
 - Table 2 Groundwater Analytical Results Summary
 - Table 4 Groundwater Elevation Data for MW-7 [modified]

By certified mail: (7009 3410 0000 1272 3670)

cc: Ms. Louise Piacentini and Mr. Gene McIntosh, C/O M & P Properties
Mr. Bryan DeDoncker, Clark County Health
Mary Shaleen-Hansen – Ecology
Mr. Scott Rose – Ecology
Ms. Dolores Mitchell – Ecology (without enclosures)

Enclosure A

Description and Diagrams of the Site



Site Description

Media of Concern: Soil and Groundwater

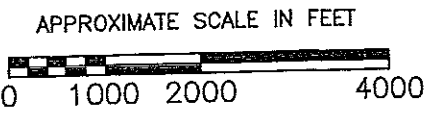
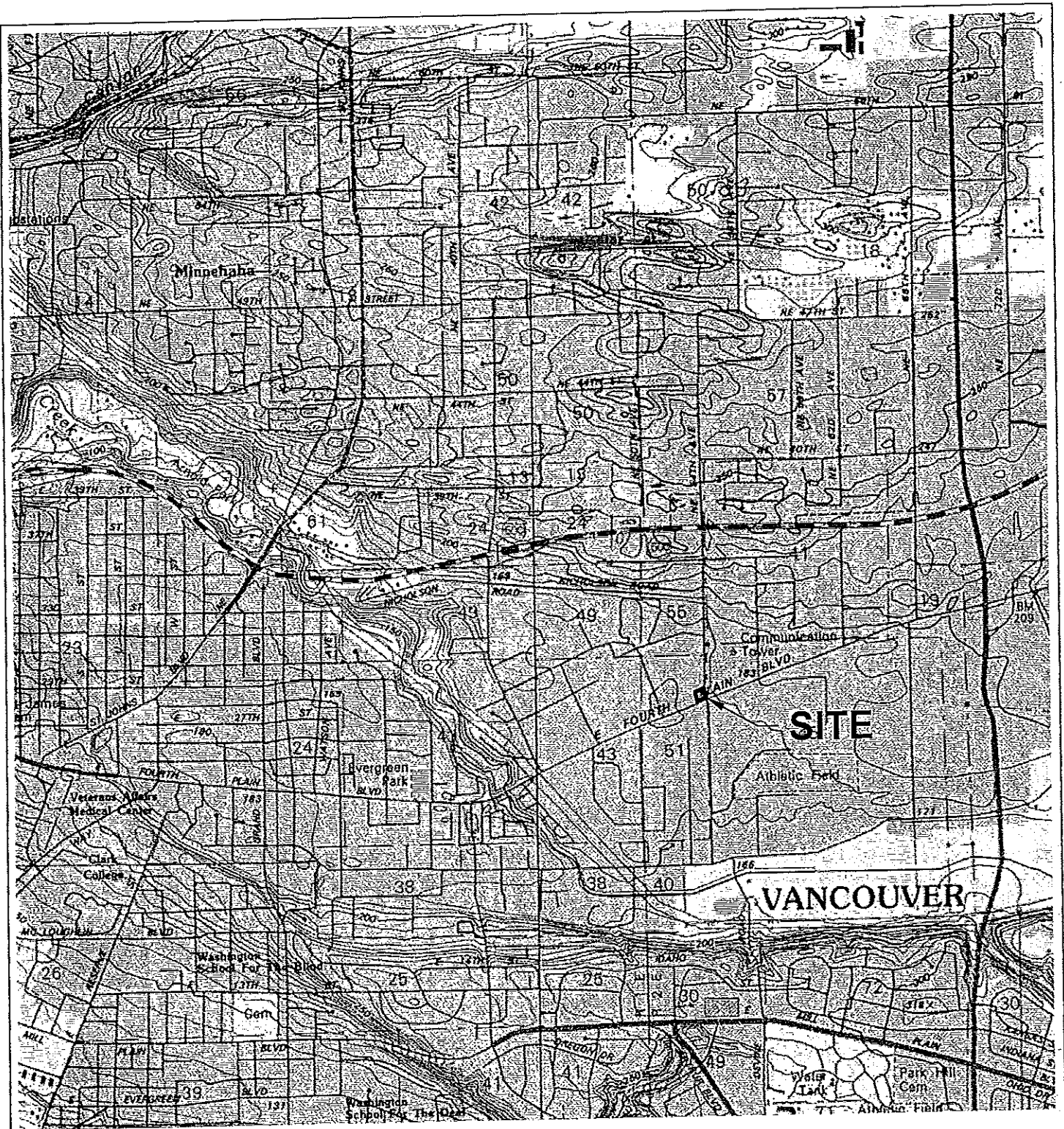
The Plaid Pantry 23 (Site) is located at 5210 East Fourth Plain Boulevard in Vancouver, Clark County, Washington (see Figure 1). The Site has been zoned for general commercial (CG) purposes. The CG zoning district is designed to allow for a full range of retail, office, and civic uses with a citywide to regional trade area. The parcel on which the facility is located encompasses approximately 0.42 acres and contains one building that is currently vacant retail space. Previous commercial enterprises that have operated on the Site include service station operations, convenience store/refueling operations, and other commercial/retail outlet venues. The Site is bordered on the north by commercial/retail parcels, on the east by Stapleton Road, on the south by East Fourth Plain Avenue, and on the west by commercial/retail parcels. The Clark County Assessor's office notes the Site as being comprised of one parcel having an assigned tax parcel number of 30243030.

The Clark County Geographic Information System indicates the Site is approximately 180 feet above sea level and is located in south-central Vancouver on a broad, flat plain that slopes slightly to the southwest. The soil in the area is classified as Lauren gravelly loam, a non-hydric soil with 0 to 8 percent slopes. The soil lies on top of unconsolidated sedimentary deposits (Pleistocene catastrophic flood deposits), the Troutdale Gravel Aquifer, and then the Columbia River Basalt Group as the basement complex. Site boring logs indicate the Site is underlain by layers of silt, sand with silt, silt with clay and sand, and silty sand down to 20 feet below ground surface (bgs).

Groundwater is generally 11 to 16 feet bgs at the Site and groundwater predominantly flows to the southwest (see Figure 7). Most of the area around the Site is well developed and covered with impervious surface. The Site has two dry wells located in the parking lot.

The Site soil and groundwater has been impacted by a discharge of gasoline into the surrounding soil, available data indicates that the source may be directly related to the UST and dispenser system. In addition, review of the historic former service station operations from the 1960s and 1970s at the Site seems to indicate a possible link to the Site contamination.

The Site lies within the Lower Burnt Bridge Creek Sub Watershed, which is part of the Burnt Bridge Creek Watershed. The parcel is designated as a very low risk for flooding, a low risk during an earthquake, and a low risk for liquefaction; the area is reported to have very dense soil. County records also indicate the southwest corner of the Site is within an area with a high archeological probability buffer.



NOTE: USGS, Vancouver Washington / Oregon
7.5 Minute Quadrangle, 1990.
Base map provided by MapTech.

PNG ENVIRONMENTAL, INC.

6665 SW Hampton St., Ste. 101 TEL (503) 620-2387
521 (503) 620-2037
10000 SW 80th St

DATE: 10-11-05
FILE NAME: 839-04

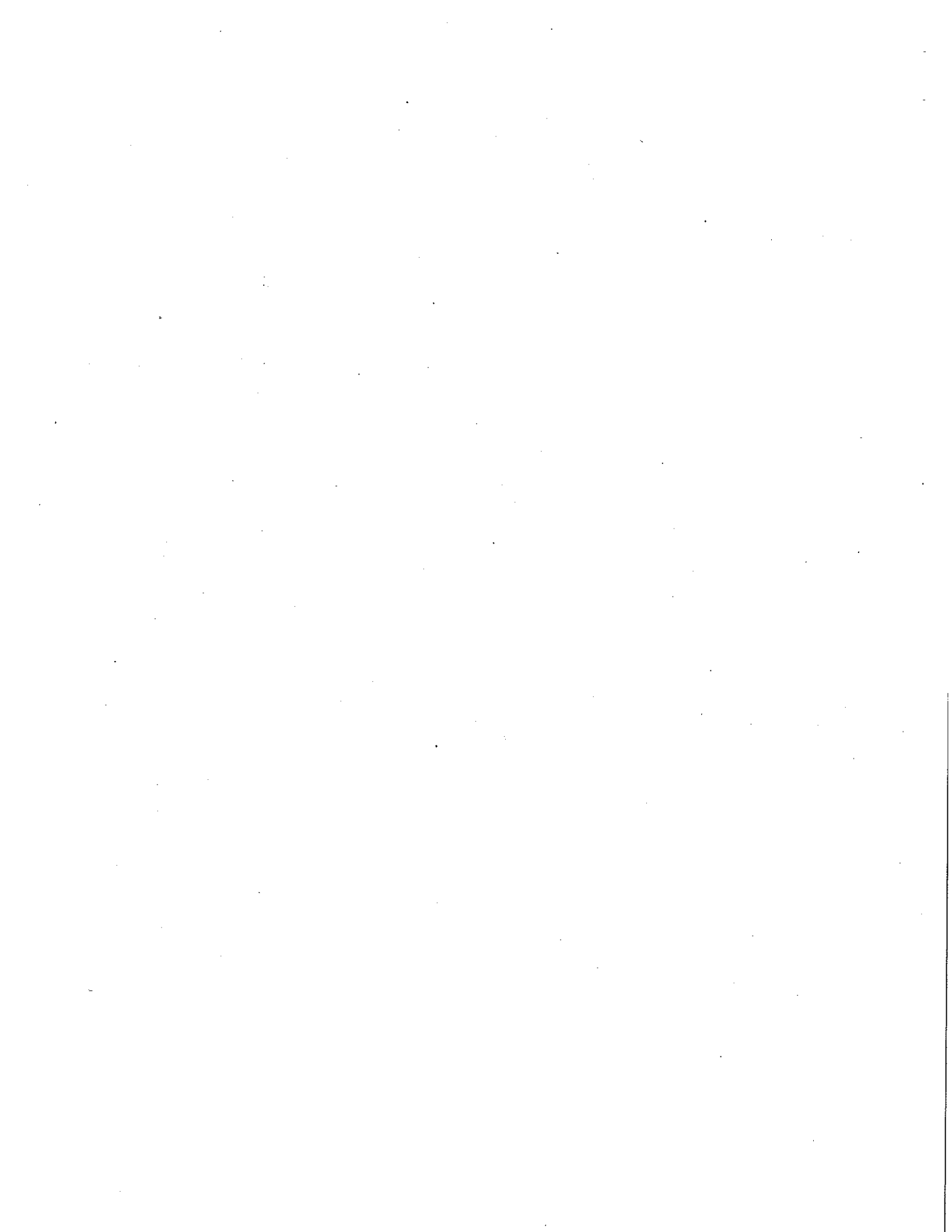
DRAWN BY: JJT
CHECKED BY: JES

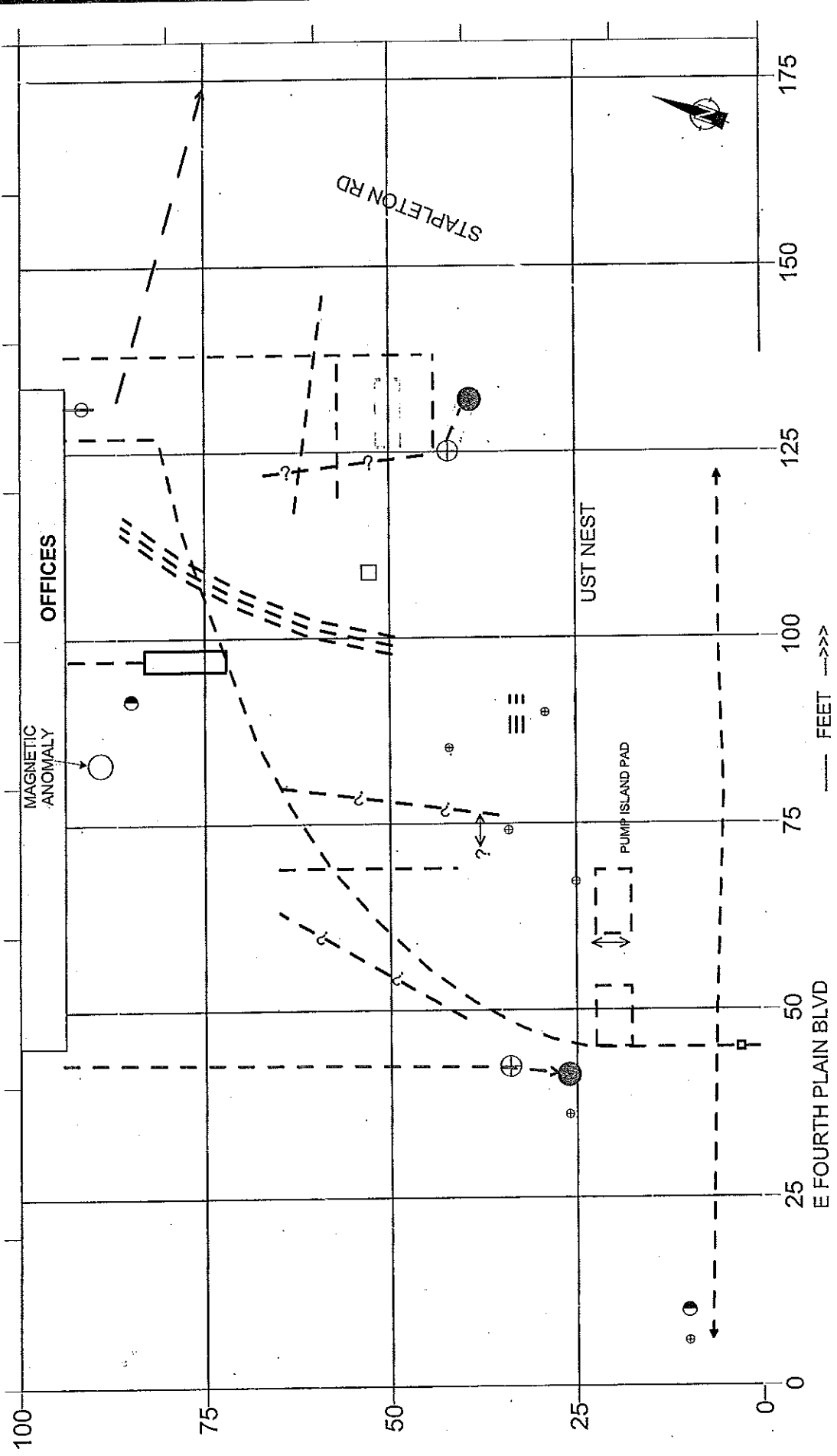
FORMER PLAID PANTRY #23
5210 E FOURTH PLAIN BLVD.
VANCOUVER, WASHINGTON

SITE VICINITY MAP

Project No. 839-04
Figure No. 1

1





LEGEND

- POWER/ELECTRIC CABLE ——— METERVault ——— POLE ——— NATURAL GAS ——— METERVault ——— VALVE
- COMMUNICATION ——— VAULT/REDESTAL ——— POLE ——— WATER ——— METERVault ——— VALVE ——— HYDRANT
- SEWER ——— DRYWELL ——— CATCH BASIN ——— CLEANOUT ——— PRODUCTION ——— UST ——— FILL PORT ——— VENT
- PROPOSED CORE HOLE ——— MAGNETIC ANOMALY ——— UTILITY LINE OF UNKNOWN FUNCTION ——— GPR CONTACT
- MONITORING WELL ——— FORMER PUMP ISLANDS ——— GPR ANOMALY ——— METALLIC OBJECT ——— ZONE CONTAINING METAL

FIGURE 3.
INTERPRETATION MAP

CLIENT: FORMER PLAID PANTRY
5210 Fourth Plain Boulevard
Vancouver, Washington

CONTRACT NO.: ENVIRONMENTAL & EXPLORATION GEOPHYSICS
477 N.E. USHERY AVE. GAINESVILLE, OR 97030 • PH (503) 685-7325 • FAX (503) 682-2404
E-MAIL: Geopoint@net.com

DATE: March 4, 2005

PROJECT: SURFACE SPACE MAPPING SURVEY

PROJ. SET NO.: 7223

CLIENT: PNG Environmental





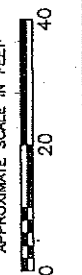
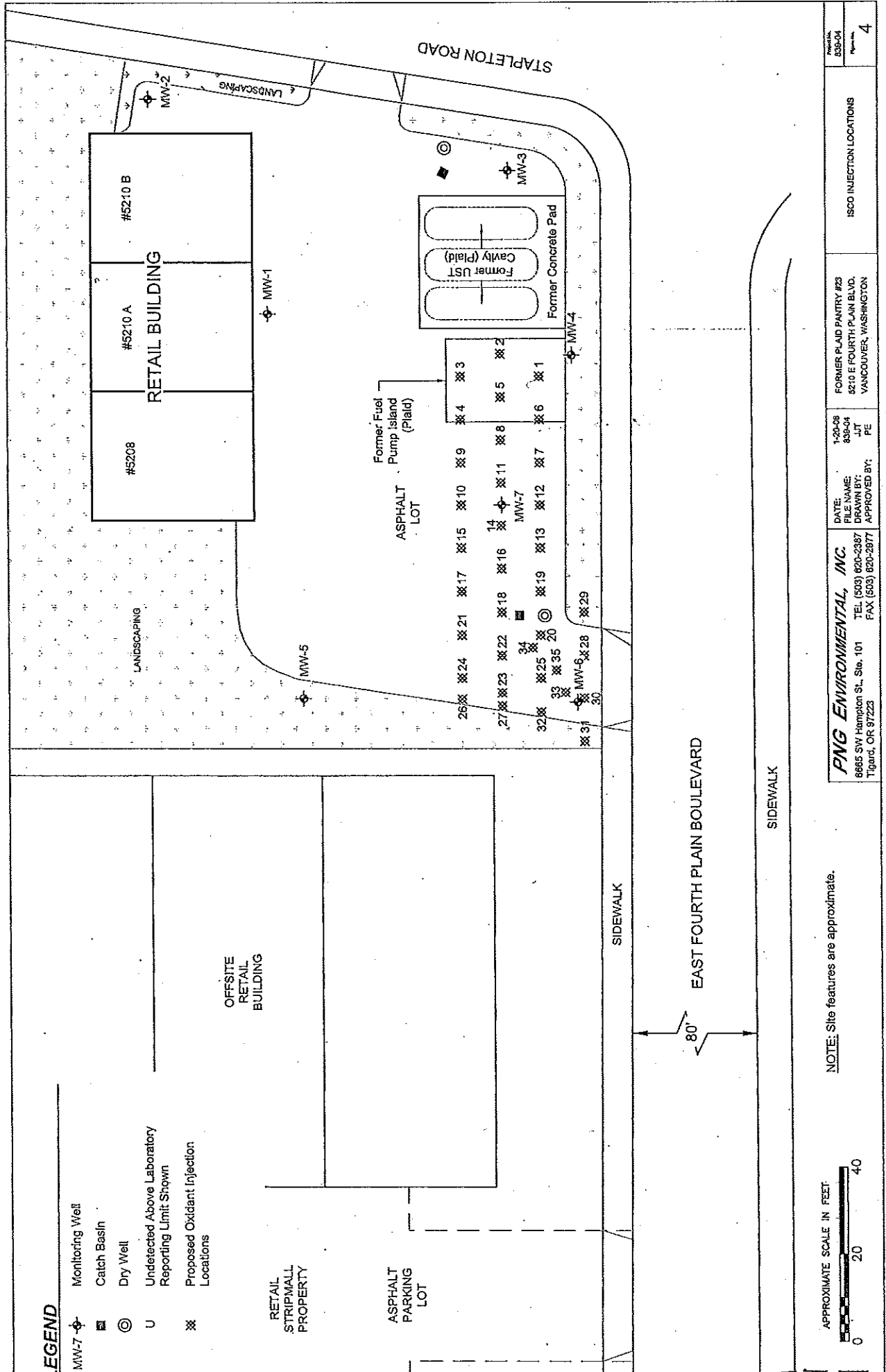
LEGEND

- MW-7 Monitoring Well
- Catch Basin
- Dry Well
- Undetected Above Laboratory Reporting Limit Shown
- Proposed Oxidant Injection Locations

RETAIL STRIP/MALL PROPERTY

ASPHALT PARKING LOT

OFFSITE RETAIL BUILDING



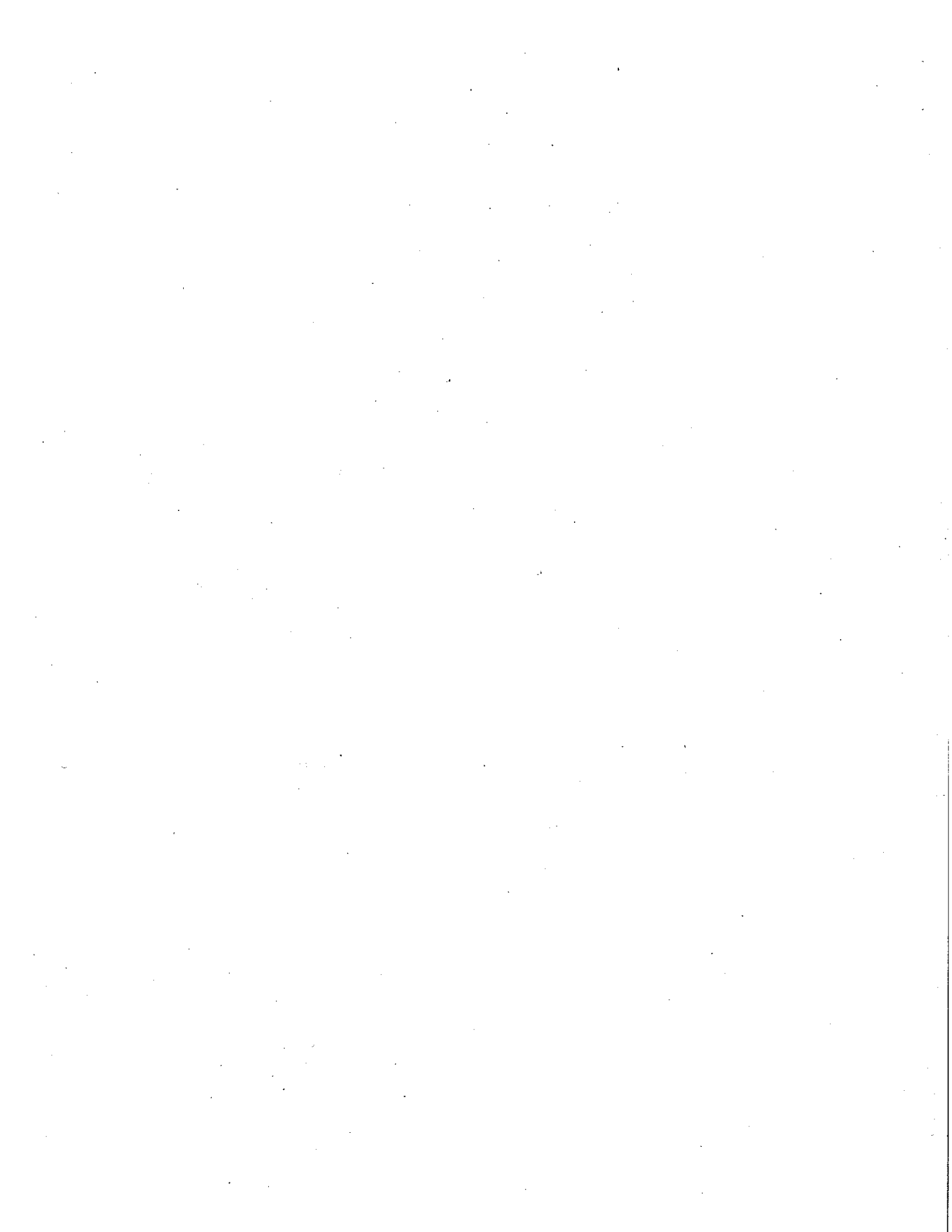
NOTE: Site features are approximate.

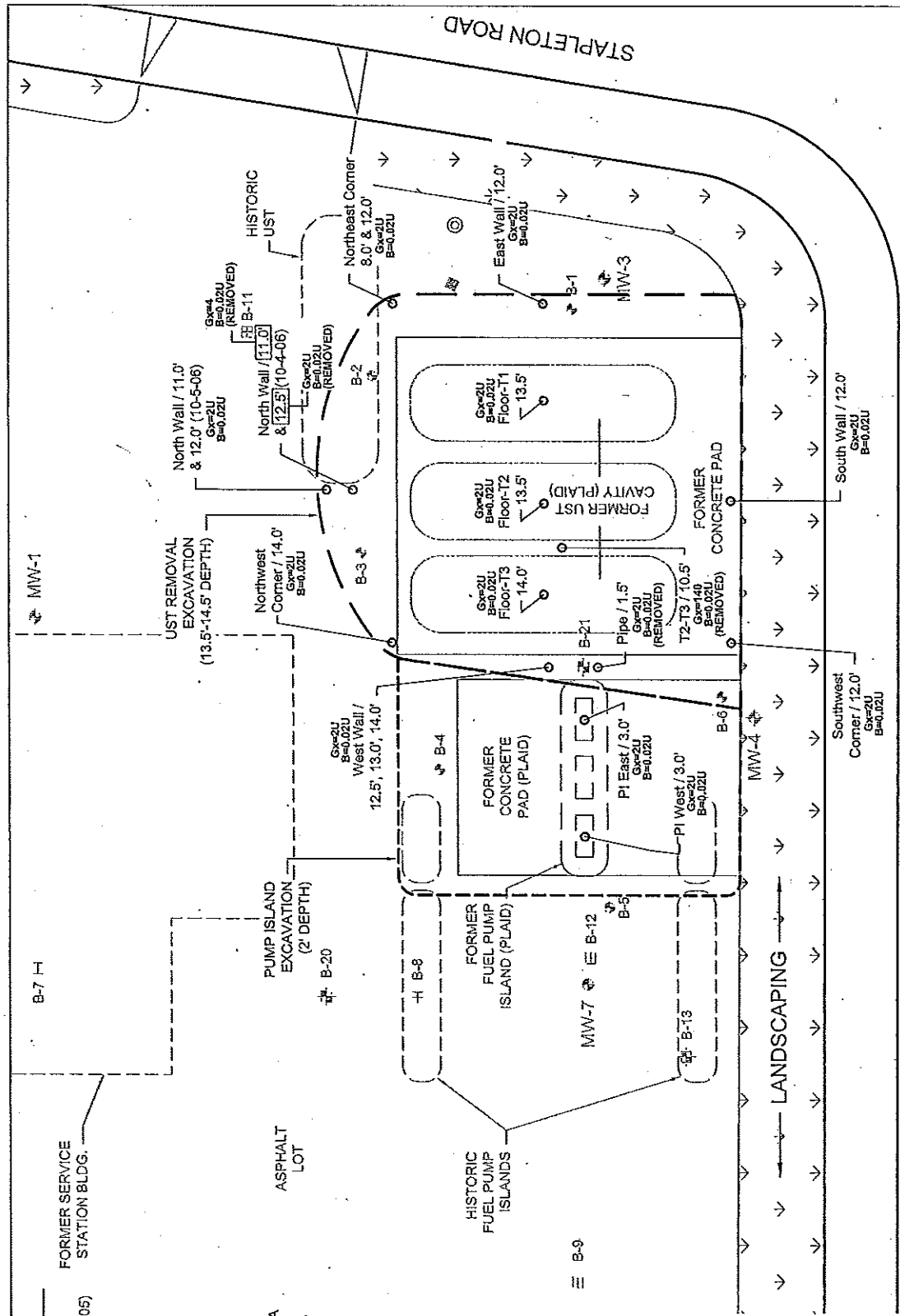
PNG ENVIRONMENTAL, INC.
8665 SW Hampton St., Ste. 101 Tigard, OR 97223
TEL (503) 620-2387
FAX (503) 620-2877

DATE: 1-20-08
FILE NAME: 899-04
DRAWN BY: JTT
APPROVED BY: PE

FORMER PLAD PANTRY #23
8210 E FOURTH PLAIN BLVD.
VANCOUVER, WASHINGTON

ISCO INJECTION LOCATIONS





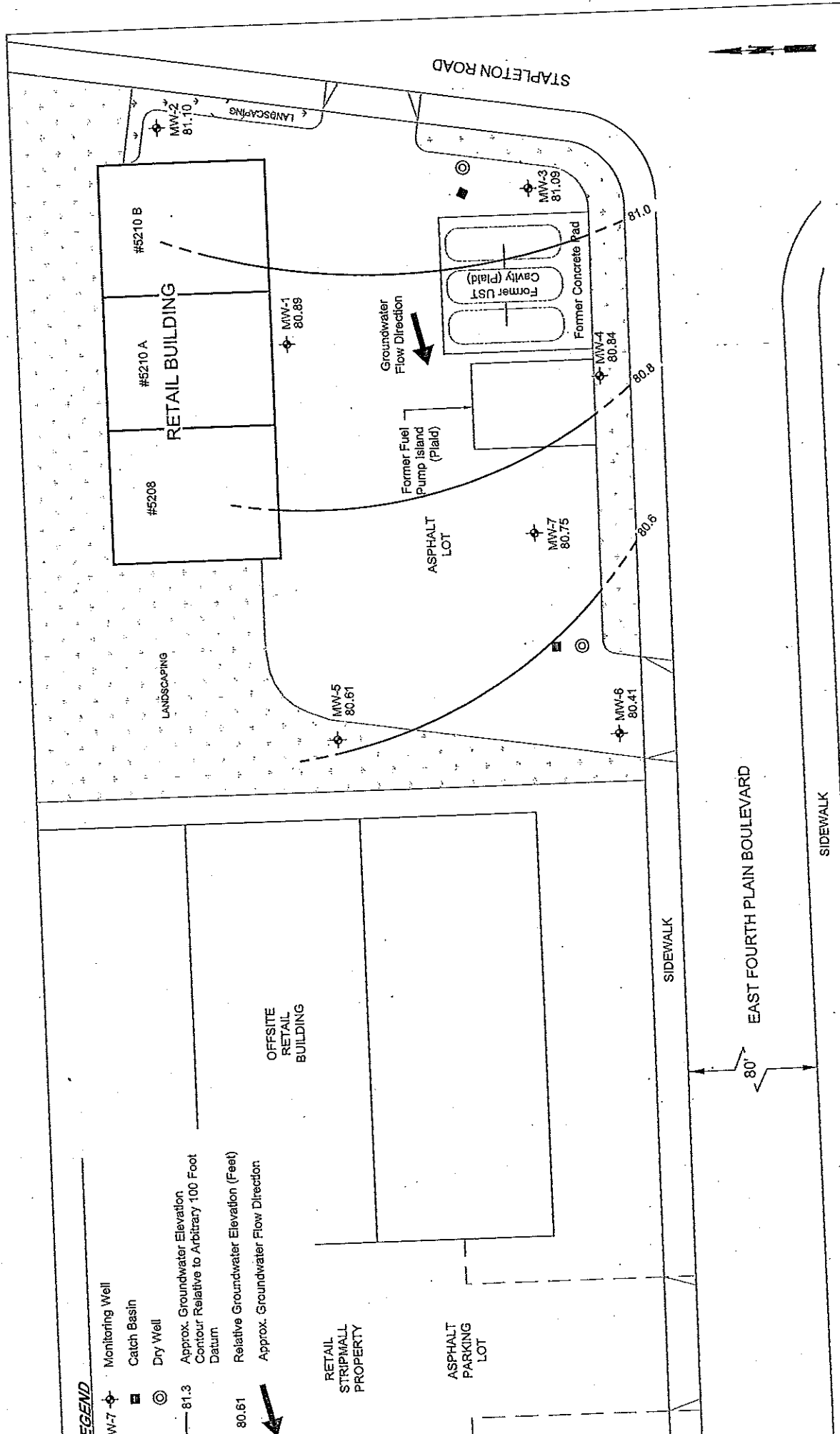
- LEGEND**
- MW-7 MONITORING WELL LOCATION
 - B-9 NEW BORING LOCATION (PNG, 2005)
 - B-9 BORING LOCATION (PNG, 2002)
 - B-6 BORING LOCATION (PNG, 1998)
 - (B-6) 1995 DAMES & MOORE WATER SAMPLE (1991 PEMCO SOIL SAMPLE)
 - SOIL SAMPLE LOCATIONS (OCTOBER 2006)
 - UST REMOVAL EXCAVATION AREA
 - PUMP ISLAND EXCAVATION AREA
 - CATCH BASIN
 - DRY WELL
 - GX# GASOLINE CONCENTRATION (RESULTS IN mg/kg)
 - B# BENZENE CONCENTRATION (RESULTS IN mg/kg)
 - U# UNDETECTED AT LABORATORY REPORTING LIMIT SHOWN

NOTE: Site features are approximate.



PNG ENVIRONMENTAL, INC. 7130 SW Elmhurst Street Tigard, Oregon 97223		DATE: 10-26-06 NAME: 68004 DRAWN BY: JT APPROVED BY: PE	FORMER PLAD PANTRY #23 5210 E FOURTH PLAIN BLVD. VANCOUVER, WASHINGTON	UST DECOMMISSIONING CONFIRMATION SOIL SAMPLE LOCATIONS (OCTOBER 2006)	Page No. 5
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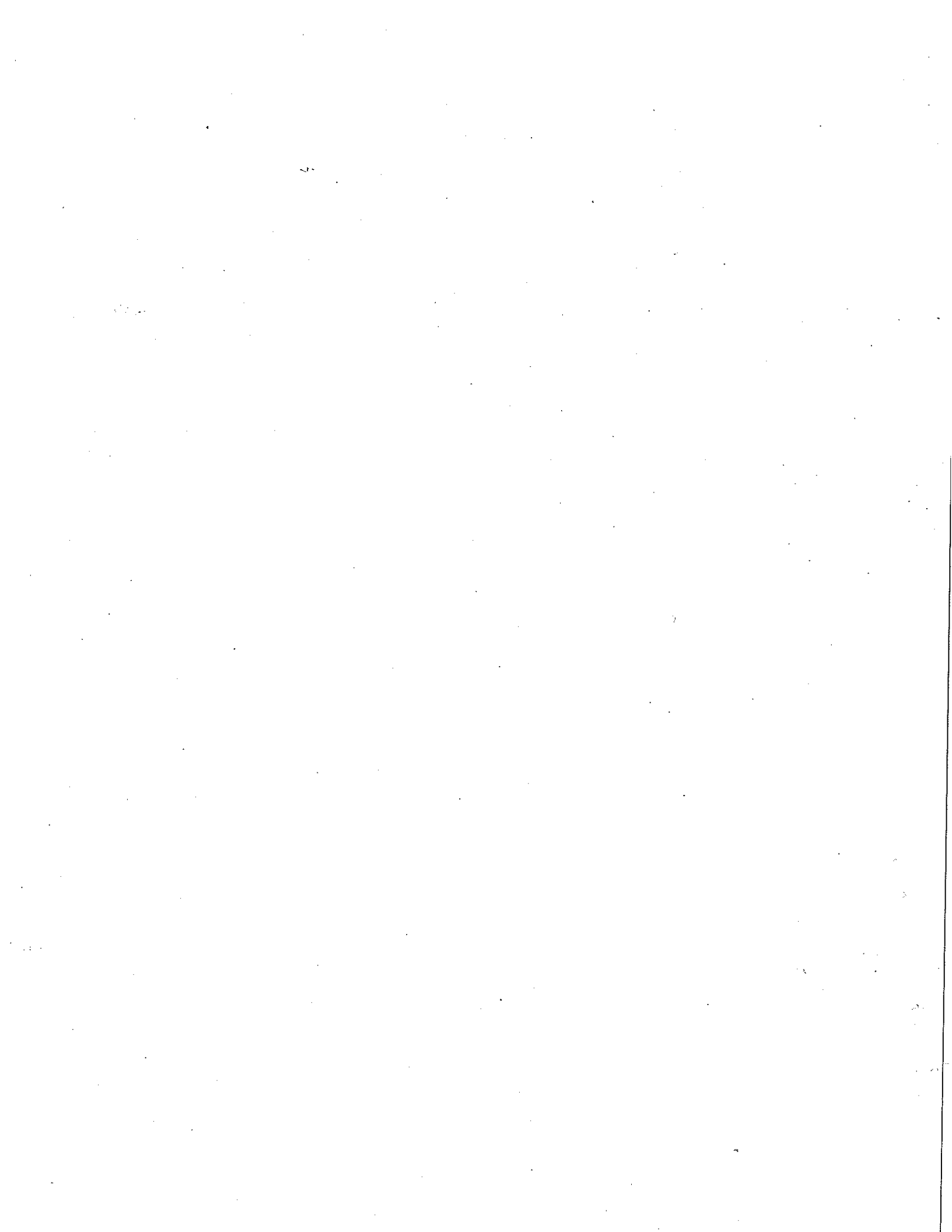
EAST FOURTH PLAIN BOULEVARD



LEGEND

- MW-7 Monitoring Well
- Catch Basin
- Dry Well
- Approx. Groundwater Elevation Contour Relative to Arbitrary 100 Foot Datum
- 81.3
- 80.61

<p>DATE: 10-1-10 FILE NAME: 620-2387 DRAWN BY: JLT APPROVED BY: PE</p>		<p>FORMER BLAD PANTRY #23 6210 E FOURTH PLAIN BLVD. VANCOUVER, WASHINGTON</p>		<p>GROUNDWATER ELEVATION CONTOUR MAP FOR SEPTEMBER 2010</p>	
<p>DATE: 10-1-10 FILE NAME: 620-2387 DRAWN BY: JLT APPROVED BY: PE</p>		<p>FORMER BLAD PANTRY #23 6210 E FOURTH PLAIN BLVD. VANCOUVER, WASHINGTON</p>		<p>GROUNDWATER ELEVATION CONTOUR MAP FOR SEPTEMBER 2010</p>	
<p>6685 SW Hampton St., Ste. 101 Tigard, OR 97223</p>		<p>PNG ENVIRONMENTAL, INC.</p>		<p>PROJECT NO. 620-2387</p>	
<p>NOTE: 1. Site features are approximate. 2. Groundwater elevations measured relative to arbitrary 100.00 foot datum.</p>		<p>APPROXIMATE SCALE IN FEET</p> <p>0 20 40</p>		<p>7</p>	



LEGEND

- MW-7 Monitoring Well
- Catch Basin
- Dry Well
- Undetected Above Laboratory Reporting Limit Shown
- Gasoline & Benzene Concentration (Micrograms per Liter)
- Groundwater Flow Direction

1603.2 =

RETAIL STRIPMALL PROPERTY

ASPHALT PARKING LOT

OFFSITE RETAIL BUILDING

#5208

#5210 A

#5210 B

RETAIL BUILDING

Former Fuel Pump Island (Plaid)

ASPHALT LOT

Former Concrete Pad

Former T Cavity

STAPLETON ROAD

SIDEWALK

EAST FOURTH PLAIN BOULEVARD

SIDEWALK

MW-2

Sept 08	100U/1U
Dec 08	100U/1U
Mar 09	100U/1U
June 09	100U/1U
Sept 09	100U/1U
Dec 09	100U/1U
Mar 10	100U/1U
June 10	100U/0.4U
Sept 10	100U/0.4U
Dec 10	100U/0.4U

MW-3

Sept 08	100U/1U
Dec 08	100U/1U
Mar 09	100U/1U
June 09	100U/1U
Sept 09	100U/1U
Dec 09	100U/1U
Mar 10	100U/1U
June 10	100U/0.4U
Sept 10	100U/0.4U
Dec 10	100U/0.4U

MW-1

Sept 08	100U/1U
Dec 08	100U/1U
Mar 09	100U/1U
June 09	100U/1U
Sept 09	100U/1U
Dec 09	100U/1U
Mar 10	100U/1U
June 10	100U/0.4U
Sept 10	100U/0.4U
Dec 10	100U/0.4U

MW-4

Sept 08	100U/1U
Dec 08	100U/1U
Mar 09	100U/1U
June 09	100U/1U
Sept 09	100U/1U
Dec 09	100U/1U
Mar 10	100U/1U
June 10	100U/0.4U
Sept 10	100U/0.4U
Dec 10	100U/0.4U

MW-7

Sept 08	16,000/3.4
Dec 08	3,900/1U
Mar 09	100U/1U
June 09	100U/1U
Sept 09	9,400/1.1
Dec 09	6,300/1U
Mar 10	100U/1U
June 10	100U/0.4U
Sept 10	100U/0.4U
Dec 10	100U/0.4U

MW-5

Sept 08	100U/1U
Dec 08	100U/1U
Mar 09	100U/1U
June 09	100U/1U
Sept 09	100U/1U
Dec 09	100U/1U
Mar 10	100U/1U
June 10	100U/0.4U
Sept 10	100U/0.4U
Dec 10	100U/0.4U

MW-6

Sept 08	120/3.5
Dec 08	100U/1U
Mar 09	720/18
June 09	100U/1U
Sept 09	100U/1U
Dec 09	160/3.2
Mar 10	100U/1U
June 10	100U/0.4U
Sept 10	110/0.8
Dec 10	100U/0.4U

APPROXIMATE SCALE IN FEET



NOTE: Site features are approximate.

PNG ENVIRONMENTAL, INC.
 8685 SW Hampton St., Ste. 101
 Tigard, OR 97223

DATE: 11/31/11
 FILE NAME: 88004
 DRAWN BY: JLT
 APPROVED BY: PE

FORMER PLAND PANTRY #23
 5210 E FOURTH PLAIN BLVD.
 VANCOUVER, WASHINGTON

GASOLINE & BENZENE
 IN GROUNDWATER

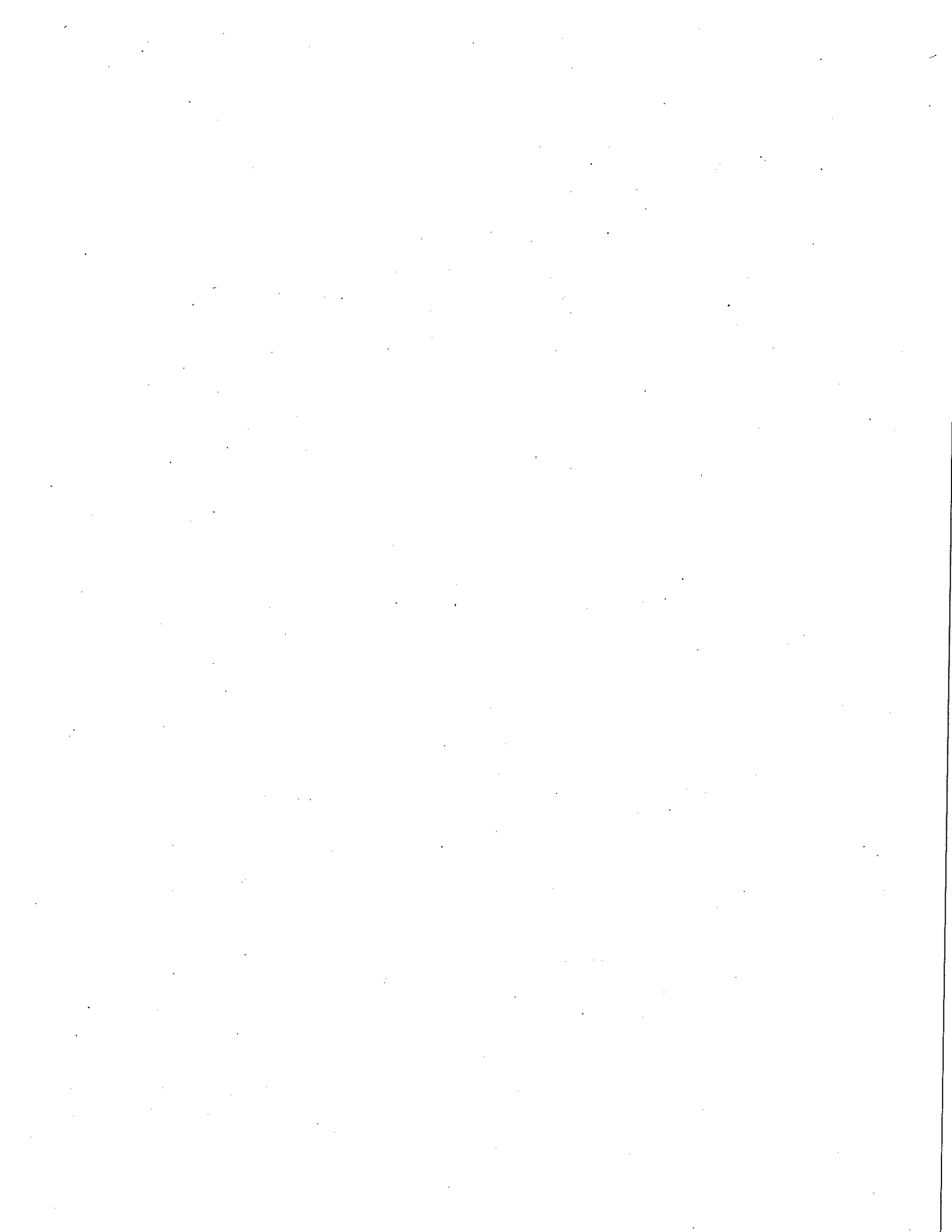


Table 1
Soil Analytical Results - Gasoline and Related Constituents (mg/Kg)
Former Plaid Pantry #23
Vancouver, Washington

Location	Date	Depth ^a	Field Headspace ^b	Gasoline	Benzene	Toluene	Ethylbenzene	Xylenes	PCE	MTBE	Naphthalene	EDB	EDC	1,2,4-TMB	1,3,5-TMB	Lead
Temporary Borings																
PEMCO Offsite Investigation (1991)																
B-5P4 (PEMCO)	1992	10-11	NA	-	ND	0.003	ND	0.002	-	-	-	-	-	-	-	-
B-5P4 (PEMCO)	1992	15-16	NA	-	ND	0.003	ND	ND	-	-	-	-	-	-	-	-
B-6P3 (PEMCO)	1992	10-11	NA	-	ND	0.006	0.002	0.011	-	-	-	-	-	-	-	-
B-6P3 (PEMCO)	1992	15-16	NA	-	ND	ND	ND	ND	-	-	-	-	-	-	-	-
B-7P2 (PEMCO)	1992	10-11	NA	-	ND	0.005	ND	0.008	-	-	-	-	-	-	-	-
B-7P2 (PEMCO)	1992	15-16	NA	-	1.9	2.8	0.17	1.0	-	-	-	-	-	-	-	-
PNG Site Check (1998)																
B-1	02/19/2002	12.0	NA	20 U ^b	-	-	-	-	-	-	-	-	-	-	-	-
B-2	02/19/2002	12.0	NA	20 U ^b	-	-	-	-	-	-	-	-	-	-	-	-
B-3	02/19/2002	13.0	NA	20 U ^b	-	-	-	-	-	-	-	-	-	-	-	20 U
B-4	02/19/2002	13.0	NA	20 U ^b	-	-	-	-	-	-	-	-	-	-	-	-
B-5	02/19/2002	10.0	NA	4,400	3.0	170	75	430	-	-	-	-	-	-	-	-
B-6	02/19/2002	10.0	NA	20 U	-	-	-	-	-	-	-	-	-	-	-	-
Stockpile																
PNG Well Installation (2002)																
MW-1	01/29/2002	15.0	NA	236	0.20 U	0.20 U	0.20 U	0.30	0.10 U	0.10 U	0.21	0.10 U	0.10 U	-	-	-
MW-2	01/29/2002	13.0	NA	2.0 U	0.05 U	0.05 U	0.05 U	0.05 U	-	-	-	-	-	-	-	-
MW-3	01/29/2002	13.5	NA	2.0 U	0.05 U	0.05 U	0.05 U	0.05 U	0.10 U	0.10 U	0.20 U	0.10 U	0.10 U	-	-	-
MW-4	01/29/2002	13.0	NA	2.8	0.05 U	0.05 U	0.05 U	0.05 U	-	-	-	-	-	-	-	-
MW-5	01/29/2002	13.0	NA	2.0 U	0.05 U	0.05 U	0.05 U	0.05 U	-	-	-	-	-	-	-	-
MW-6	01/29/2002	12.0	NA	2.0 U	0.05 U	0.05 U	0.05 U	0.05 U	-	-	-	-	-	-	-	-
PNG Site Investigation (2002)																
B-7	01/21/2002	14.0	NA	2.0 U	0.05 U	0.05 U	0.05 U	0.05 U	-	-	-	-	-	-	-	-
B-8	01/21/2002	14.0	NA	2.0 U	0.05 U	0.05 U	0.05 U	0.05 U	-	-	-	-	-	-	-	-
B-9	01/21/2002	14.0	NA	2.0 U	0.05 U	0.05 U	0.05 U	0.05 U	-	-	-	-	-	-	-	-
B-11	01/21/2002	14.0	NA	2.0 U	0.05 U	0.05 U	0.05 U	0.05 U	0.10 U	0.10 U	0.20 U	0.10 U	0.10 U	-	-	-
B-12	01/21/2002	14.0	NA	2.0 U	0.05 U	0.05 U	0.05 U	0.05 U	-	-	-	-	-	-	-	-
PNG Monitoring Well Installation (2005)																
MW7/5	03/09/2005	5.0	NA	1.0 U	-	-	-	-	-	-	-	-	-	-	-	-
MW7/10	03/09/2005	10.0	NA	1.0 U	0.03 U	0.05 U	0.05 U	1.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	-
MW7/12.5	03/09/2005	12.5	NA	1.0 U	0.03 U	0.05 U	0.05 U	1.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	-
DB (IDW soil)																
PNG Site Investigation (2005)																
B-13/5	03/09/2005	5.0	NA	1.0 U	0.03 U	0.05 U	0.05 U	1.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	-
B-13/12.5	03/09/2005	12.5	NA	1.0 U	0.03 U	0.05 U	0.05 U	1.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	-
B-13/15	03/09/2005	15.0	NA	1,700	0.03 U	0.05 U	0.05 U	1.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	-
B-14/12.5	03/09/2005	12.5	NA	2.0	-	-	-	-	-	-	-	-	-	-	-	-
B-14/15	03/09/2005	15.0	NA	2.0	-	-	-	-	-	-	-	-	-	-	-	-
B-15/5	03/09/2005	5.0	NA	1.0 U	0.03 U	0.05 U	0.05 U	1.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	-
B-15/12.5	03/09/2005	12.5	NA	1.0 U	0.03 U	0.05 U	0.05 U	1.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	-
B-15/16	03/09/2005	18.0	NA	1.0 U	0.03 U	0.05 U	0.05 U	1.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	-
B-16/12.5	03/09/2005	12.5	NA	1.0 U	0.03 U	0.05 U	0.05 U	1.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	-
B-16/18	03/09/2005	18.0	NA	1.0 U	0.03 U	0.05 U	0.05 U	1.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	-
B-20/5	03/09/2005	5.0	NA	1.0 U	0.03 U	0.05 U	0.05 U	1.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	-
B-20/13.5	03/09/2005	13.5	NA	1.0 U	0.03 U	0.05 U	0.05 U	1.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	-
B-21/5	03/09/2005	5.0	NA	1.0 U	0.03 U	0.05 U	0.05 U	1.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	-
B-21/13.5	03/09/2005	13.5	NA	1.0 U	0.03 U	0.05 U	0.05 U	1.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	-

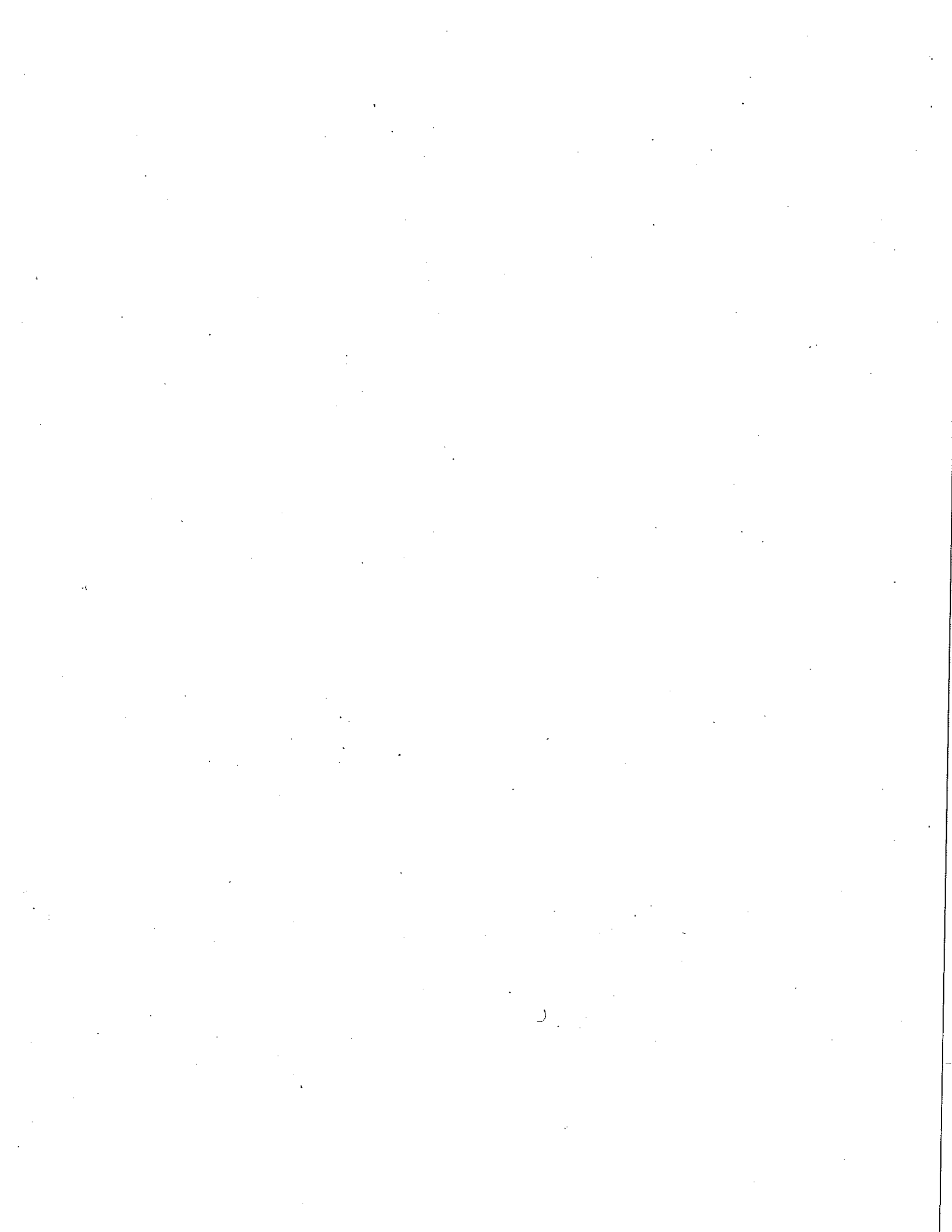


Table 1
Soil Analytical Results - Gasoline and Related Constituents (mg/Kg)
 Former Plaid Pantry #23
 Vancouver, Washington

Location	Date	Depth ^a	Field Headspace ^b	Gasoline	Benzene	Toluene	Ethylbenzene	Xylenes	PCE	MTBE	Naphthalene	EDB	EDC	1,2,4-TMB	1,3,5-TMB	Lead
JUST Decommissioning Confirmatory Samples																
Final Sidewall Samples																
North Wall/11	10/05/2006	11.0	5.6 ^c	2 U	0.02 U	0.02 U	0.02 U	0.06 U	-	0.05 U	0.05 U	0.05 U ^d	0.05 U	0.05 U	0.05 U	-
North Wall/12	10/05/2006	12.0	1 U	2 U	0.02 U	0.02 U	0.02 U	0.06 U	-	0.05 U	0.05 U	-	-	-	-	-
South Wall/12	10/04/2006	12.0	1 U	2 U	0.02 U	0.02 U	0.02 U	0.06 U	-	0.05 U	0.05 U	-	-	-	-	-
East Wall/12	10/04/2006	12.0	1 U	2 U	0.02 U	0.02 U	0.02 U	0.06 U	-	0.05 U	0.05 U	-	-	-	-	-
West Wall/12.5	10/04/2006	12.5	1 U	2 U	0.02 U	0.02 U	0.02 U	0.06 U	-	0.05 U	0.05 U	-	-	-	-	-
West Wall/13	10/06/2006	13.0	1 U ^e	2 U	0.02 U	0.02 U	0.02 U	0.06 U	-	0.05 U	0.05 U	-	-	-	-	-
West Wall/14	10/06/2006	14.0	1 U	2 U	0.02 U	0.02 U	0.02 U	0.06 U	-	0.05 U	0.05 U	-	-	-	-	-
NE Corner/8	10/05/2006	8.0	12.2 ^f	2 U	0.02 U	0.02 U	0.02 U	0.06 U	-	0.05 U	0.05 U	-	-	-	-	-
NE Corner/12	10/05/2006	12.0	1 U	2 U	0.02 U	0.02 U	0.02 U	0.06 U	-	0.05 U	0.05 U	-	-	-	-	-
SW Corner/12	10/06/2006	12.0	1 U	2 U	0.02 U	0.02 U	0.02 U	0.06 U	-	0.05 U	0.05 U	-	-	-	-	-
NW Corner/14	10/06/2006	14.0	1 U	2 U	0.02 U	0.02 U	0.02 U	0.06 U	-	0.05 U	0.05 U	-	-	-	-	-
Final Floor Samples																
Floor-T1/13.5	10/05/2006	13.5	1 U	2 U	0.02 U	0.02 U	0.02 U	0.06 U	-	0.05 U	0.05 U	0.05 U ^g	0.05 U	0.05 U	0.05 U	-
Floor-T2/13.5	10/05/2006	13.5	1 U	2 U	0.02 U	0.02 U	0.02 U	0.06 U	-	0.05 U	0.05 U	-	-	-	-	-
Floor-T3/14	10/06/2006	14.0	1 U ^h	2 U	0.02 U	0.02 U	0.02 U	0.06 U	-	0.05 U	0.05 U	-	-	-	-	-
Final Pump Island Samples																
Pipe/1.5	10/04/2006	1.5	1 U	2 U	0.02 U	0.02 U	0.02 U	0.06 U	-	0.05 U	0.05 U	-	-	-	-	-
PI East/3	10/04/2006	3.0	1 U	2 U	0.02 U	0.02 U	0.02 U	0.06 U	-	0.05 U	0.05 U	-	-	-	-	-
PI West/3	10/04/2006	3.0	1 U	2 U	0.02 U	0.02 U	0.02 U	0.06 U	-	0.05 U	0.05 U	-	-	-	-	-
Excavated PCS Samples																
T2-T3/10.5	10/03/2006	10.5	576 ⁱ	140	0.02 U	0.03	0.14	0.79	-	0.05 U	1.3	0.05 U ^j	0.05 U	4.0	0.8	5.42
North Wall/11	10/04/2006	11.0	131 ^k	4	0.02 U	0.02 U	0.02 U	0.06 U	-	0.05 U	0.05 U	-	-	-	-	-
North Wall/12.5	10/04/2006	12.5	1 U	2 U	0.02 U	0.02 U	0.02 U	0.06 U	-	0.05 U	0.05 U	-	-	-	-	-
Clean Stockpile Sample (1 cubic yard re-used fill)																
Overburden Pile			1 U	2 U	0.02 U	0.02 U	0.02 U	0.06 U	-	0.05 U	0.05 U	-	-	-	-	-
MTCA Method A ^l			NA	30/100 ^m	0.03	7	6	9	0.05	0.1	5	0.005 ⁿ	NA	NA	NA	250

Notes:

- ^a Depth indicates feet below pavement surface
- ^b Field headspace screening for volatile organic compounds using GasTech Explosimeter Model GT303, values in parts per million vapor
- ^c Organic odor and gray discoloration were observed in the field
- ^d Model Toxics Control Act Cleanup Levels For Unrestricted Land Uses (WDOE, October 12, 2007)
- ^e Per MTCA, cleanup values for gasoline are either (1) a default value of 30 mg/Kg where benzene is ≤ 0.03 mg/Kg, or (2) a value of 100 mg/Kg where benzene is not detected and the sum of ethylbenzene + toluene + xylenes is $< 1\%$ of the gasoline concentration
- ^f EDB cleanup level for soil is based on groundwater protection where groundwater is used for drinking water
- ^g Compound was not detected but the Method Reporting Limit exceeds the MTCA standard
- ^h Gasoline by Method NMTPH_HCID
- ⁱ mg/Kg = Milligrams per Kilogram
- ^j Gasoline by Method NMTPH-GX
- ^k Gasoline by Method NMTPH-GX
- ^l BTEX Volatile Compounds by EPA Method 8021B; all other Volatile Compounds by EPA Method 8260B
- ^m PCE = Tetrachloroethene
- ⁿ MTBE = Methyl tert-butyl ether
- ^o EDB = 1,2-Dibromoethane
- ^p EDC = 1,2-Dichloroethane
- ^q 1,2,4-TMB = 1,2,4-Trimethylbenzene
- ^r 1,3,5-TMB = 1,3,5-Trimethylbenzene
- ^s U = Undetected at method detection limit shown
- = Not analyzed for this parameter
- NA = Not applicable
- ND = Not detected above laboratory reporting limits



Table 2
Groundwater Analytical Results Summary - Gasoline and Related Constituents (ug/L)
Former Plaid Pantry #23
Vancouver, Washington

Location	Date	Gasoline	Diesel	Heavy/Lube Oil	Benzene	Toluene	Ethylbenzene	Xylenes	POE	ED3	EDC	MTBE	1,2,4-TMB	1,3,5-TMB	Naphthalene	Hexane	Total Lead	Dissolved Lead	
Temporary Borings																			
Dames & Moore Offsite Investigation																			
P-1	04/28/1995	ND	ND	ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	-	-	-
P-2	04/28/1995	ND	290 ¹	41 ¹	390 ¹	1,300 ¹	-	-	-	-	-	-	-	-	-	-	-	-	-
P-3	04/28/1995	ND	ND	ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	-	-	-
P-4	04/28/1995	ND	ND	ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	-	-	-
PNG Site Check (1998)																			
B-1	02/19/1998	250 U	-	-	0.5 U	1.0 U	1.0 U	1.0 U	-	-	-	-	-	-	-	-	317	-	-
B-3	02/19/1998	420	630 U*	-	0.5 U	1.0 U	4.0	4.0	-	-	-	-	-	-	-	-	167	-	-
B-5	02/19/1998	26,000	630 U*	-	240	26,000	10,000	63,000	-	-	-	-	-	-	-	-	289	-	-
PNG Site Investigation (2002)																			
B-7	01/21/2002	423	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B-8	01/21/2002	80 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B-9	01/21/2002	112,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B-11	01/21/2002	80 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B-9-12	01/22/2002	107,000	25,100*	1,220*	50 U*	6,240	2,740	20,190	50 U	50 U	50 U	6,500	2,180	722	-	-	-	-	-
PNG Site Investigation (2005)																			
B-13	03/09/2005	510	-	-	2.0	74	12	53	1.0 U	1.0 U	1.0 U	1.0 U	4.0	1.0	3.0*	-	-	-	-
B-14	03/09/2005	35,000	4,300*	250 U	1.0	1,400	1,500	5,400	1.0 U	1.0 U	1.0 U	1.0 U	590	400	150	-	-	-	-
B-15	03/09/2005	19,000	170*	250 U	120	130	62	62	1.0 U	1.0 U	1.0 U	1.0 U	110	84	20*	-	-	-	-
B-16	03/09/2005	540	170*	250 U	5.0	2.0	67	81	1.0 U	1.0 U	1.0 U	1.0 U	32	6.0	5.0	-	-	-	-
B-17	03/09/2005	50 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
B-18	03/09/2005	50 U	-	-	1.0 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
B-20	03/09/2005	50 U	54 U	216 U	1.0 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.1*	-	-	-	-
B-21	03/09/2005	50 U	54 U	216 U	1.0 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
Monitoring Wells																			
MW-1																			
01/29/2002	121	630 U*	630 U*	200 U	0.5 U*	0.63	0.5 U*	1.0 U*	1.8	0.01 U*	1.0 U	1.0 U	2.2	1.0 U	0.02 U*	-	1.0 U	-	1.0 U
03/14/2005	50 U	50 U	50 U	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.1 U*	-	-	-	-
01/30/2007	100 U	-	-	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
04/30/2007	100 U	-	-	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
07/23/2007	100 U	-	-	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
10/29/2007	100 U	-	-	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
01/09/2008	100 U	-	-	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
04/14/2008	100 U	-	-	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
09/05/2008	100 U	-	-	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
12/17/2008	100 U	-	-	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
03/11/2009	100 U	-	-	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
06/09/2009	100 U	-	-	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
09/10/2009	100 U	-	-	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
12/01/2009	100 U	-	-	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
03/01/2010	100 U	-	-	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	1.4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
06/07/2010	100 U	-	-	0.35 U	0.35 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
09/13/2010	100 U	-	-	0.35 U	0.35 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
12/01/2010	100 U	-	-	0.35 U	0.35 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
01/29/2002	80 U	-	-	0.5 U*	0.5 U*	0.5 U*	0.5 U*	1.0 U*	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
03/14/2005	50 U	-	-	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	2.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
01/30/2007	100 U	-	-	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
04/30/2007	100 U	-	-	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
07/23/2007	100 U	-	-	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
10/29/2007	100 U	-	-	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
01/09/2008	100 U	-	-	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
04/14/2008	100 U	-	-	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
09/05/2008	100 U	-	-	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
12/01/2009	100 U	-	-	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
03/01/2010	100 U	-	-	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
06/07/2010	100 U	-	-	0.35 U	0.35 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
09/13/2010	100 U	-	-	0.35 U	0.35 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
12/01/2010	100 U	-	-	0.35 U	0.35 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
01/29/2002	80 U	-	-	0.5 U*	0.5 U*	0.5 U*	0.5 U*	1.0 U*	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
03/14/2005	50 U	-	-	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
01/30/2007	100 U	-	-	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
04/30/2007	100 U	-	-	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
07/23/2007	100 U	-	-	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
10/29/2007	100 U	-	-	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-
01/09/2008	100 U	-	-	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	-	-	-	-

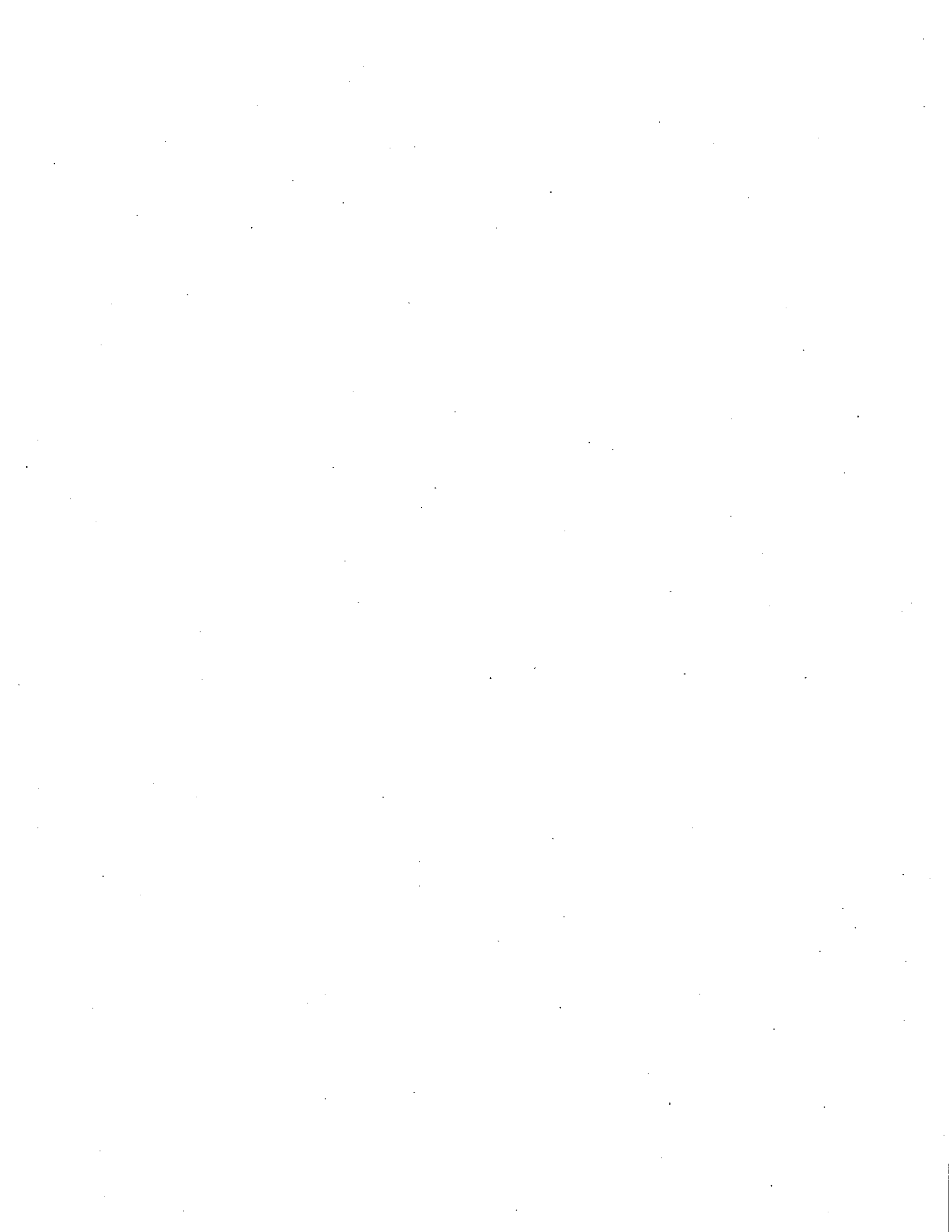


Table 2
Groundwater Analytical Results Summary - Gasoline and Related Constituents (ug/L)
Former Plaid Parity #23
Vancouver, Washington

Location	Date	Gasoline	Diesel	Heavy/Lube Oil	Benzene	Toluene	Ethylbenzene	Xylenes	PCE	EDB	EDC	MTBE	1,2,4-TMB	1,3,5-TMB	Naphthalene	Hexane	Total Lead	Dissolved Lead
MMW-6	04/14/2008	100 U			1.0 U	1.0 U	3.0 U	3.0 U		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			
MMW-5 (cont)	09/05/2008	100 U			1.0 U	1.0 U	3.0 U	3.0 U		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			
	12/17/2008	100 U			1.0 U	1.0 U	3.0 U	3.0 U		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			
	03/11/2009	100 U			1.0 U	1.0 U	3.0 U	3.0 U		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			
	06/09/2009	100 U			1.0 U	1.0 U	3.0 U	3.0 U		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			
	09/10/2009	100 U			1.0 U	1.0 U	3.0 U	3.0 U		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			
	12/01/2009	100 U			1.0 U	1.0 U	3.0 U	3.0 U		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			
	03/01/2010	100 U			1.0 U	1.0 U	3.0 U	3.0 U		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			
	06/07/2010	100 U			0.35 U	1.0 U	3.0 U	3.0 U		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			
	09/13/2010	100 U			0.35 U	1.0 U	3.0 U	3.0 U		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			
	12/01/2010	100 U			0.35 U	1.0 U	3.0 U	3.0 U		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			
	01/29/2002	5,630	630 U*		4.6	558	538	50 U	5.0 U	5.0 U	378	114	43.4 *	1.6	1.0 U			
	03/14/2005	13,000	4,700 *	100 *	880	1,300	2,370	1.0 U	1.0 U	1.0 U	1,200	440	180 *					
	03/14/2005	22,000	4,900		1,200	1,900	3,530	1.0 U	1.0 U	1.0 U	1,500	580	440	35 L				
	01/30/2007	100 U			1.5	1.0 U	3.0 U	3.0 U		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			
	01/30/2007	100 U			1.5	1.0 U	3.0 U	3.0 U		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			
	04/30/2007	100 U			4.4	1.0 U	3.2	3.1		1.0 U	1.0 U	3.7	1.0 U	1.0 U	1.0 U			
	04/30/2007	100 U			4.4	1.0 U	3.2	3.1		1.0 U	1.0 U	3.4	1.0 U	1.0 U	1.0 U			
	04/30/2007	100 U			4.3	1.0 U	3.1	2.9		1.0 U	1.0 U	4.5	1.0 U	1.0 U	1.0 U			
	07/23/2007	1,800			63	1.0 U	17	64		1.0 U	1.0 U	45	33					
	07/23/2007	1,900			68	1.0 U	19	75		1.0 U	1.0 U	52	38					
	10/29/2007	810			40	17	11	43		1.0 U	1.0 U	6.8	1.8					
	10/29/2007	900			32	24	12	58		1.0 U	1.0 U	8.3	2.1					
	01/09/2008	940			58	10 U	72	155		1.0 U	1.0 U	68	16					
	01/09/2008	2,700			100	10 U	220	457		1.0 U	1.0 U	180	34					
	04/14/2008	700			17	150	50	240		1.0 U	1.0 U	33	8.0					
	04/14/2008	1,800			24	270	72	330		1.0 U	1.0 U	46	11					
	09/05/2008	120			3.5	3.8	11	15		1.0 U	1.0 U	2.5	1.4					
	09/05/2008	120			3.2	3.2	10	13		1.0 U	1.0 U	1.8	1.0 U					
	12/17/2008	100 U			1.0 U	1.0	1.2	7.0		1.0 U	1.0 U	1.0 U	1.0 U					
	12/17/2008	100 U			1.0 U	1.0	1.2	7.1		1.0 U	1.0 U	1.0 U	1.0 U					
	03/11/2009	720			18	20	73	110		1.0 U	1.0 U	6.9	1.0 U					
	03/11/2009	450			19	22	80	119		1.0 U	1.0 U	7.9	1.0 U					
	06/09/2009	100 U			1.0 U	1.0 U	1.0 U	3.0 U		1.0 U	1.0 U	1.0 U	1.0 U					
	06/09/2009	100 U			1.0 U	1.0 U	1.0 U	3.0 U		1.0 U	1.0 U	2.8	1.0 U					
	06/10/2009	100 U			1.0 U	1.0 U	1.7	8.4		1.0 U	1.0 U	2.8	1.0 U					
	06/10/2009	100 U			1.0 U	1.1	1.9	10		1.0 U	1.0 U	2.6	1.0 U					
	12/01/2009	160			3.2	1.0 U	19	26		1.0 U	1.0 U	8.0	1.0 U					
	12/01/2009	140			4.0	1.0 U	24	34		1.0 U	1.0 U	8.0	1.0 U					
	03/01/2010	100 U			1.0 U	1.0 U	1.0 U	3.0 U		1.0 U	1.0 U	1.0 U	1.0 U					
	03/01/2010	100 U			1.0 U	1.0 U	1.0 U	3.0 U		1.0 U	1.0 U	1.0 U	1.0 U					
	06/07/2010	100 U			0.35 U	1.0 U	1.0 U	3.0 U		1.0 U	1.0 U	1.0 U	1.0 U					
	06/07/2010	100 U			0.45	1.0 U	2.5	1.5*		1.0 U	1.0 U	1.0 U	1.0 U					
	09/13/2010	110			0.60	1.0 U	3.3	1.8*		1.0 U	1.0 U	5.4	1.1					
	12/01/2010	100 U			0.35 U	1.0 U	3.0 U	3.0 U		1.0 U	1.0 U	1.0 U	1.0 U					
	12/01/2010	100 U			0.35 U	1.0 U	3.0 U	3.0 U		1.0 U	1.0 U	1.0 U	1.0 U					
	01/29/2002	63,000	6,500 *	250 U	16 E	5,900	3,100	16,100	1.0 U	1.0 U	2,400	600	270 *					
	01/30/2007	100 U			1.0 U	3.4	1.5	13		1.0 U	1.0 U	1.9	1.0 U					
	04/30/2007	810			1.0 U	1.3	1.5	6.8		1.0 U	1.0 U	2.8	1.0 U					
	07/23/2007	20,000			4.3	1,600	890	2,860		1.0 U	1.0 U	32	8.3					
	01/09/2008	100 U			1.0 U	3.4	1.7	13		1.0 U	1.0 U	1,000	720					
	04/14/2008	100 U			1.0 U	2.3	1.5	11		1.0 U	1.0 U	1.9	1.0 U					

Table 4
Groundwater Elevation Data
Former Plaid Pantry #23
Vancouver, Washington

Well Identification	TOC Elevation (feet) ^a	Date Measured	Depth to Water (feet below TOC)	Groundwater Elevation ^a (feet)
MW-7	94.17	01/29/2002	NA	NA
		03/10/2005	14.77	79.40
		03/14/2005	↑ 14.81	79.36
		10/10/2006	NA	NA
		01/30/2007	↓ 11.04	83.13
		04/30/2007	↓ 11.66	82.51
		07/23/2007	± 13.23	80.94
		10/29/2007	↑ 14.32	79.85
		01/09/2008	↓ 12.13	82.04
		04/14/2008	↓ 12.00	82.17
		09/05/2008	↑ 13.94	80.23
		12/17/2008	↑ 14.56	79.61
		03/11/2009	↓ 13.73	80.44
		06/09/2009	↓ 13.62	80.55
		09/10/2009	↑ 14.71	79.46
		12/01/2009	↑ 14.51	79.66
		03/01/2010	↓ 12.59	81.58
		06/07/2010	↓ 11.99	82.18
		09/13/2010	↓ 13.42	80.75
		12/01/2010	↓ 12.56	81.61

Notes:

^aArbitrary vertical datum was established (3/10/05) for an elevation of 100 feet and all wells measured relative to that datum. Elevation measurements were not obtained by a licensed land surveyor and are for comparative use only.

TOC = Top of casing

NA = Not applicable

